

# **Inventor: Harsimran Dhaliwal**

## **TITLE**

Multi Display Device Having A Visual Effect

### **Cross Reference and Related applications:**

This application claims the benefit of U.S. Provisional Patent Application No. , filed September 2018, which is incorporated by reference herein in its entirety.

### **Field of Invention**

The present invention relates to electronic devices and in particular to multi-display devices or foldable display devices.

### **Background**

An electronic device is a device with a display or displays and are useful tools for a variety of purposes. These devices may have including but not limited to atleast one camera, atleast one display, atleast one battery, atleast one processor and other components and code that when executed allow the electronic device to be useful tools as a portable smartphone, portable device or a device by a user for various purposes.

### **Abstract:**

An electronic device comprising a first display, a second display, a processor, a memory and atleast one camera whereby instructions stored in the memory that when executed enables the processor to display visual data received from the camera on the first display and also on the second display whereby via an input a picture is recorded and displayed on atleast the second display wherein the picture has a visual effect applied to the picture displayed.

### **Description:**

Just imagine you are the picture taker, you open the camera app and point the camera at a group of people posing for you. You make an input to instruct the processor to display the camera image on the screen that is opposite of you allowing the group of people to see what you see in the camera on the screen that is facing you. You know everyone will be comfortable with the picture and its easier for yourself and the individual or individuals a picture is being taken of in the sense that now the process is more efficient. It is more efficient because the individuals can have pictures taken that they like without having to ask you to see the picture taken in the traditional sense which will make them stop posing and walk over to you or you walk over to them to show the picture because they already saw how they look in the picture when the picture was being taken. The individual or individuals a picture is being taken of can see the picture from where they are standing or can walk closer to the display to see their picture, without anyone pivoting to view a picture taken or turning around the smartphone to show the picture in the traditional way, allowing them to readily get back into a posing position more easily if they want another picture taken. Now imagine you want to take a picture without the display showing an image on the display facing away from you either because it was requested or you want to save battery or you want to take a picture of an object. By an input you can go back to the camera only displaying its visual information on the display facing you. Say if your battery is low but you want both displays to show an image from the camera, imagine having the option to turn down the brightness of each display independently. Imagine it's a sunny day, you can increase the brightness on the sunny side of the display and decrease the brightness on the opposite

side to conserve battery and or making the viewing experience more satisfying. Now imagine that your picture is being taken and you can see yourself in a display that is facing you showing you a live view of yourself as captured by the camera facing you and the picture taker is holding the electronic device and can see a live view of you as well on their own display, when the picture taker takes the picture, a visual change occurs in the display viewable by you such as a brightness change or a border or any other visual change applied to the image displayed by the camera on the display that is viewable by you. By this visual change, you will know your picture has been taken and you will know how you looked when the picture was taken as indicated by the visual change. The experience will allow you to know instantly whether you may be satisfied with the picture taken or not and you don't have to ask the picture taker to show you the picture by walking over and viewing the display the picture taker used to take your picture. You may stand at your pose location and make the decision if you liked the picture taken or if you would like another picture taken. This document discloses further uses that make the above mentioned use cases more efficient to use, improves functionality of the described device above, and or automated implementations of using the use cases above and or making the use of the above use cases more user friendly and or the use cases above are implemented automatically under certain conditions to make the use cases above more convenient to use and or implement which may be via software and or hardware implementations. These statements should not be considered as limiting as one should refer to the description and or embodiments and or specification and or claims to understand the scope of the disclosure.

The order of, or chronological order of, or layout of the embodiments, paragraphs, sections, words, sentence or any other disclosure is not limited by the order of, or chronological order of, or layout of the embodiments, paragraphs, sections, words, sentences or any other disclosure as the the order of, or chronological order of, or layout of the embodiments, paragraphs, sections, words, sentences or any other disclosure of the embodiments, paragraphs, sections, words, sentence or any other disclosure may be rearranged in any way. Any disclosure that comes after a disclosure, the first read disclosure may incorporate the second read disclosure. It is to be understood that any embodiment may be combined with one or more other embodiments. It is also to be understood that a portion of an embodiment may be combined with one or more portions of one or more other embodiments. It is also to be understood that a portion or all of an embodiment may be combined with one or more portions or all of one or more other embodiments in a non limiting way. When the word "fig" is used it refers to a figure in the drawing with the corresponding number. When for example "fig 1-2" is used it means figure 1 and figure 2. This concept shall apply to other mentionings with different numbers.

It is to be understood that every time a component performs an action or event or an input is made or one event causes another event or action or outcome to occur it is to be understood that instructions stored in memory when executed enables the the processor to perform such an action or outcome or event and or every time an input is made or one event causes another event or action or outcome to occur it is to be understood that instructions stored in memory when executed enables the processor to perform such an action or outcome or event based on an input or one event causes another event.

An electronic device, foldable smartphone or dual sided screen smartphone has atleast one camera and atleast two display surfaces, in a non limiting example the two display surfaces may be connected by a flexible screen portion or separate displays. When it is mentioned that a display is facing a user, it may mean it is viewable by the user and does not have to be limited to an angle but may be any angle viewable by the user. The user being either a picture taker or individual or individuals a picture is to be taken of or being taken of. Viewable may mean "can be seen". Every embodiment or description disclosed may be applied to an electronic device, a foldable smartphone and or a dual sided screen smartphone. An electronic device may have the ability to take pictures or record videos. Screen side a or b may be either a first display or a second display.

Here we define modes of "both side mode", "user side mode", or "subject side mode". "Both side mode" is defined as a camera and or image sensor displaying the information the camera and or image sensor receives and displays the information on a display surface screen that faces the picture taker or is visible to the eyes of the picture taker, and a camera and or image sensor displaying the information the camera and or image sensor receives and displays this information on a display surface screen that faces and or visible by the individual or individuals a photograph is being or to be taken of. "User side mode" is defined as a camera and or image sensor displaying the information the camera and or image sensor receives and displays on a display surface screen that faces the picture taker or is visible to the eyes of the picture taker. "subject side mode" is defined as

a camera and or image sensor displaying the information the camera and or image sensor receives and displays on a display surface screen that faces and or visible by the individual or individuals a photograph is being or to be taken of.

In an embodiment, when both side mode is enabled, the electronics device enters a power savings mode to preserve battery.

In an embodiment, when both side mode is enabled, a separate gpu may be used for each display.

In an embodiment, a first processor may be used to perform tasks on a first display and a second processor may be used to perform tasks on a second display and or a third display.

When we refer to, the screen facing individual or individuals a picture is to be taken of, or taken of, subject or subjects a picture is taken of, or to be taken of, or a similar phrase, its meaning should be defined as its literal meaning and or the screen which the picture taker who is holding the smart phone or electronic device to take a picture can not see and or is facing away from the picture taker when the picture taker is in the act of taking a picture or framing the picture. When we refer to the screen facing the picture taker or a similar phrase, it should be understood as its literal meaning, when picture taker is in the act of taking a picture or framing the picture using a screen side that is visible to the picture taker and or facing the picture taker. When we refer to a picture taken of an individual or individuals or to be taken, or the like, or when a picture is being taken or to be taken, it should be defined as in its literal sense as known and or also as a video to be recorded where the individual or individuals who are the subjects in a camera can see a live view from the camera on a display facing them and when a video is being recorded where the individual or individuals are subjects in the camera and the individual or individuals can see an image from the camera on a display viewable by or facing the individual or individuals mentioned. A photo to be taken of or taken means a photo is going to be recorded of an individual or individuals and a live view from a camera is displayed on a screen facing the individual or individuals in the camera image before the photo is recorded, or a photo is recorded of an individual or individuals and they monitor themselves or themselves in a screen facing the individual or individuals with a live view from a camera as the photo is recorded. Each embodiment or disclosure may be for an electronic device, a smartphone, a foldable smart phone or a dual sided smartphone. When the phrase " individual or individuals a photo is to be or being taken of " or "an Individual or individuals to be photographed or being photographed" or similar or worded differently, is used, it refers to the subject or subjects of a photo or subjects in a live camera view, subject meaning person and subjects meaning people.

Whenever a disclosure is made describing an image sensor displaying an image on a first and second screen, or an image sensor displaying a duplicate or similar image on differing displays, or the like or similar or a part of, it may become a meaning of both side mode, thus both side mode may have multiple meanings but all meanings are similar however worded differently and all these meanings may apply when the term both side mode is used to the term both side mode when used.

A processor may also be synonymous with a controller. A controller may also be synonymous with a processor. A processor and cpu may be interchangeable in terms of definition. The word photo or photograph may be interchangeable with picture and retains the meaning of picture. It is to be understood that there may be a component or a number of components between any two disclosed components that a person with ordinary skill in the art shall be aware of. As a non limiting example, a gpu, memory, and storage may be between the processor and the camera.

The camera may be behind the display and able to capture visual data through the display covering the camera module or outside the perimeter of the display on atleast one display of the electronic device. There may be a plurality of cameras on the electronic device and one camera may be used for both side mode or two or more cameras may be used for both side mode. A camera's visual information is the same as an image received by a camera.

In addition, according to various embodiments of the present disclosure, an electronic device may include: A light sensor on a first side of the electronic device and a light sensor on a second side of the electronic device. In addition, according to various embodiments of the present disclosure, an electronic device may include: At least one camera on a first side of the electronic device. In addition, according to various embodiments of the present disclosure, an electronic device may include: At least one camera on a first side of the electronic device and atleast a second camera on a second side of the electronic device.

The input module may include a touch panel, a (digital) pen sensor, a key, or an ultrasonic input unit. The touch panel that recognizes a touch input, for example, may include at least one of a capacitive touch panel, a resistive touch panel, an infrared touch panel, and an acoustic wave touch panel. Also, the touch panel may further include a control circuit. When the touch panel is a capacitive touch panel, it may recognize a physical contact or proximity. The touch panel may also further include a tactile layer. In this case, the touch panel may provide a tactile response to a user. Each of the above described elements of the electronic device according to the present disclosure may be formed by one or more components, and the names of the corresponding elements may vary.

The hinge unit is a structure that enables the electronic device to be folded or unfolded, in the folded state forming a plurality of layers forming or an unfolded state one flat layer.

Terms, such as "first display", "second display", "screen side a", "screen side b", "first screen side", "second screen side" and or the like, as used herein, may refer to various elements of various embodiments of the present disclosure, but do not limit the elements. For example, such terms are used only to distinguish an element from another element and do not limit the order and/or priority of the elements. For example, without departing the scope of the present disclosure, a first element may be referred to as a second element, and similarly, a second element may be referred to as a first element.

When is is mentioned that a controller instructs a component or the controller performs something or the like, it means "instructions stored on memory that when executed enables the processor to perform the following". Every time a process or event or outcome or a performance or an occurrence or an event causes another event or there is a cause and effect, or an event occurs, or an event occurs due to a previous event, or any steps are disclosed, how that may occur is that instructions stored on memory that when executed enables the processor to perform any mentioned process or event or outcome or performance or occurrence or event that causes another event or cause and effect or event occurrence or event occurrence due to a previous event or any steps disclosed.

Normal mode is a rear facing camera displaying the image it receives and displays the image on one display or a plurality of displays facing the picture taker on an electronic device. Selfie mode is a front facing camera displaying the image it receives and displays the image on one display or a plurality of displays facing the picture taker on an electronic device.

When an action or method or function or instruction or activity happens between components, it is understood that a person skilled in the art shall be aware what may happens between components, for example but not limited to, the processor or controller instructing the components mentioned to perform the described action or method or function or instruction or activity between components.

The word "display" and "screen" are interchangeable and may have the meaning of display or screen as known in the art. The words image, visual data, visual information, picture or the like may each be interchangeable with image, visual data, visual information or picture. When the term "or the like" is mentioned, it means "or something similar or synonymous". "Photo taker" is synonymous with "picture taker" and the terms may be interchangeable.

Some disclosure may not be shown in a drawing due to the fact that a drawing isn't needed as disclosure is sufficient and or because a person skilled in the art shall be aware of certain parts of the disclosure as these certain parts were building blocks to the embodiments that are sought for patent protection, such as a smartphone being the building block as a person skilled in the art is aware of the components of a smartphone, however this does not mean that the disclosure does not use the hardware or software of the smartphone, however a person skilled in the art shall know how to apply the embodiments to the smartphone. This is a non limiting example using a smartphone as this explanation may apply to an electronic device.

The drawings are non limiting, if there is question to a component or lack thereof, it should be noted such a component may have been omitted due to the fact that a person skilled in the art shall be aware of such a component or components. Each mentioned embodiment incorporates an electronic device as defined in the disclosure. Each mentioned embodiment details a use, implementation, an application and or method to be applied to an electronic device as defined in the disclosure.

"Same or similar image" as mentioned means the image may be identical or may be similar with differing settings or be from a differing cameras but said cameras are capturing the same or a portion of each camera image contains the same object.

Each of the following descriptions, methods, steps, or content may be applied to and or added to any embodiments disclosed, and or to the embodiments of the electronic device, foldable smart phone, foldable display device, dual sided smart phone, or any other embodiment disclosed. The following descriptions recognizes the scenario presented to the electronic device and the processor carries out one or more of the following descriptions to make the use of the electronic device easier or carries out the correct use for the situation or scenarios. Instead of repeating this over after each description, we shall recognize that these benefits apply to any or all descriptions and or embodiments disclosed.

Camera app may mean an app to display an image from one camera and or an image from one camera on two displays and or an image from two cameras on two displays where one display is viewable by a picture taker and the other display is viewable by an individual or individuals a picture is to be or being taken of.

Rear facing camera is a camera on a side of an electronic device which cannot view the picture taker directly. Front facing camera is a camera on a side of an electronic device which cannot view the individual or individuals a picture is being taken of or to be taken of directly.

The device may exit out of both mode even if not mentioned it exited both side mode, by exiting both side mode it means an event is occurring other than explained as the both side mode definitions but may return to both side mode automatically or via an input.

When we talk about a folded state and taking a picture it is directed to a foldable smartphone type as shown in fig 1 and 2 as a non limiting example. However the electronic device may also take a picture in both side mode which is an individual or individuals a picture is being taken of or to be taken of which displays an image of individual or individuals a picture is being taken of or to be taken of on a display from a camera facing the individual or individuals a picture is being taken of or to be taken of and a display which shows a duplicate or similar image from the camera that views the individual or individuals a picture is being taken of or to be taken displayed on a second display viewable by the picture taker where each display is a different display or different section of a display when in an unfolded state where the electronic device is similar as shown in fig 20-22. It is also to be noted that both side mode may also be used on a electronic device with a display on each side of the electronic device as shown in fig 5 and fig 6 wherein the electronic device is not a foldable device.

The description of an electronic device, a foldable smartphone, or a smart phone is for a general understanding on what the disclosure is applied to as a person with ordinary skill in the art shall know all components that may not be mentioned thus it shall not be read as limiting. Furthermore if these components are not shown in a drawing, it is due to the fact that a person with skill in the art should know the components. The embodiments in this disclosure may be a multi-foldable mobile display device.

When "a picture being taken of or to be taken of", "to be taken of", "being taken of", "being taken of", "individual or individuals" or comprising a combination or, or the like of any mentioned parts is mentioned in the disclosure, it means either the electronic device camera is pointed at or the camera image sensor captures atleast a part or all of a human or humans that are posing or waiting to get a picture taken, a picture is recorded of a part or all of a human or humans by the electronic device, or a picture was recently recorded of a part or all of a human or humans by the electronic device. When "a picture being taken of or to be taken of", "to be taken of", "being taken of", "being taken of" or the like is mentioned, it may also mean either the electronic device camera is pointed at an object or objects, a picture is recorded of an object or objects by the electronic device, or a picture was recently recorded of an object or objects.

Screen side a , screen side b, first display, second display may be terms that are interchangeable. The input module may include a touch panel. The hinge unit is a structure that enables the electronic device to be folded or unfolded.

Embodiments of the present disclosure are described in detail with reference to the accompanying drawings. However if reference is not explicitly made to a drawing or component, a person skilled in the art shall know how to interpret the component. The same or similar components may be designated by the same or similar reference numerals although they are illustrated in different drawings. Detailed descriptions of constructions or processes known the art may be omitted to avoid obscuring the subject matter of the present disclosure.

According to various embodiments, an electronic device may include a memory, a display, a sensor module configured to sense an internal or external state of the electronic device, a camera or cameras including a first image sensor and a second image sensor to be spaced apart from each other by a distance.

As illustrated in Fig 19, 20, 21, 22, in an embodiment the electronic device has 3 display segments that when all unfolded make a large display, each segment means a display surface which can obtain differing angles relative to other display surfaces, as in the case of a foldable smart phone. When one segment is unfolded, there becomes one display for a picture take and another display for individual or individuals a picture is being taken of or to be taken of. One side will have 2 segments and the other side will have one segment. Either side may be displayed to a picture taker or either side may be displayed to a individual or individuals a picture is to be or taken of. The side with two segments may display an image from the camera on one segment, or expand the image across two segments. The side with one segment will display an image from a camera. A segment may be a first display or a second display.

In an embodiment, both side may be applied to a foldable smartphone as illustrated in Fig 20-22 where the smartphone has a 3 or more layers of displays when in a folded state and has a first display and a second display surface where second display surface may be a foldable screen and the second display being larger than the first display, however it can be any size display and this statement is non limiting. Both side mode may still be accomplished on this type of smartphone and should be understood that any other type of smartphone or foldable smartphone may be used and all described types of smart phones are considered electronic devices. Any electronic device where a first display may be seen from one location and a second screen that may be seen from a second location where the electronic device is in the middle of the two locations may use the both side mode and use the visual change or any other embodiments as disclosed for reasons mentioned in this disclosure.

Every statement, sentence, phrase or wording in this disclosure may be considered non limiting.

Some elements, components, programmable tasks, or functions that need programming and or certain interactions with hardware or software, in the disclosure may not be illustrated in a drawing, this is so because a person skilled in the art is deemed to have knowledge of such elements, components, programmable tasks, or functions that need programming and or certain interactions with hardware or software.

In some embodiments, an electronic device, comprises: means for displaying a digital image comprising content from a camera displaying a duplicate image displaying an image each on a plurality of displays.

In some embodiments, a device comprises: one or more processors; a memory; and computer-executable instructions, wherein the computer-executable instructions are stored in the memory and configured to be executed by the one or more processors, the computer-executable instructions including instructions for: display in a first portion of the display an image from a camera module, display in a second portion of the display an image from a camera module, the display may be a plurality of displays or one display that is bendable with the images being separated at the bend line of the screen

A first screen displaying content from a camera, a second screen displaying content from a camera. Executable instructions for performing these functions are, optionally, included in a non-transitory computer-readable storage medium or other computer program product configured for execution by one or more processors. Executable instructions for performing these functions are, optionally, included in a transitory computer-readable storage medium or other computer program product configured for execution by one or more processors. In some embodiments, a non-transitory computer readable storage medium stores computer-executable instructions, the computer-executable instructions comprising instructions, which when executed by a device, cause the device to: display images from a camera facing an Individual or individuals being or to be photographed displayed on the screen facing the Individual or individuals being or to be photographed, display images from a camera facing an individual or individuals being or to be photographed displayed on the screen facing the picture taker.

In an embodiment, the electronic device has a plurality of cameras facing an Individual or individuals being or to be photographed, a first camera arranged on a screen facing an individual or individuals being or to be photographed, the first camera displays its image received or recorded on a screen facing the Individual or individuals being or to be photographed, a

second camera image recorded or received displays images from the second camera facing an individual or individuals being or to be photographed displayed on the screen facing the picture taker.

When the word camera is used, it's meaning includes what is commonly known, and or including but not limited to is interchangeable with the meaning of "image sensor", "camera module", "camera sensor". When the word "electronic device" is used, it's meaning includes what is commonly known, and or including but not limited to is interchangeable with the what is comprising a "foldable smartphone", " dual screen smartphone", "smartphone", "camera device", an " electronic device with a screen", an "electronic device with a plurality of screens and an image sensor", a "multi screen device", a "multi screen display device", an "electronic device with a screen and an image sensor", an "electronic device with a plurality of screens", an "electronic device with a front and rear display". A "screen" may be the same as a "display surface" or "display", these statements are not limiting.

In some embodiments, a transitory computer readable storage medium stores computer-executable instructions, the computer-executable instructions comprising instructions, which when executed by a device, a display unit or display units configured to display two images from a camera or cameras with an image each displayed on each screen in the case of a device with display units, or two images of the same source or objects from a camera or cameras displayed on a display where the display is a bendable display wherein each image is displayed on areas of the display having differing angles relative to each other.

In an embodiment, the electronic device is a handheld camera such as a dslr, mirrorless camera or any other camera. The camera may have an interchangeable lense system. The camera has a first display and a second display. One display is to display an image from the camera sensor onto a first display where said first display is viewable by an Individual or individuals a picture is to be or being taken of and the second display faces the picture taker when in both side mode. The first and second display may be joined back to back and arranged on an articulating system attached to the body of the camera. When both side mode is needed the first and second display may be swiveled out as illustrated in fig 23 and 24. When both side mode is not need the first and second display may be closed to the camera body and only one display is visible which would be the display viewable by the picture taker as illustrated in fig 25. In another embodiment, the first display may be placed over a second display, when both side mode is needed, the first display may swivel out via an articulation point and the second display is revealed to the picture taker. The first display faces the individual or individuals a picture is being or to be taken of. the second display is used as a view finder for the picture taker. When both side mode is not needed, the first display swivels back over the second display and the first display is used as a view finder for the picture taker. In another embodiment, the first display is separate from the second display and the first display is arranged on the front of the camera body and the second display is arranged on the rear of the camera body. In another embodiment, the first and second display may slide out. In another embodiment, the first display may be an add on item that may be connected to the camera to allow both side mode to occur. These embodiments may also be applied to a video camera As illustrated in fig 37-38.

Although the following description uses terms "first," "second,," "front", "back", "rear", "screen side A", "screen side B" etc. to describe various elements, these elements should not be limited by the terms. These terms are only used to distinguish one element from another. For example, a first screen or the like could be termed a second screen or the like, and, similarly, a second screen or the like could be termed a first screen or the like if the outcome of the meaning is non limiting, and should be considered non limiting, without departing from the scope of the various described embodiments.

In an embodiment, the individual or individuals are being photographed have the ability to control where the focus point is via gestures made. The controller instructs the camera to focus at a point where an individual in the camera live view image shown on the screen that is facing the individual or individuals a photo is being taken of makes a gesture including but not limited to a circle made by the hand over an area which is sought to be a focus point. The controller places the focus point on the area directly behind the hand circle gesture after the hand is moved away.

An input may be a touch, voice, physical gesture captured by an image sensor and the processor analyzing the image and determining what input to apply or any other gesture.

Drawings:

Fig 1: Is a perspective view of a foldable screen smart phone.

Fig 2: Is a perspective view of a foldable screen smart phone.

Fig 3: Is a photographer **9** taking a photograph of three subjects **6,7,8** using an electronic device **1** with a live camera view on screen side B **3** which is displayed from a camera **4** which is viewable by the subjects **6,7,8**. The electronic device may be a foldable smartphone, or a dual sided screen smartphone.

Fig 4: Is the view the photographer **9** sees on screen side A **2** which displayed an image from the camera **4**. The electronic device may be a foldable smartphone, or a dual sided screen smartphone.

Fig 5 and 6 is a view of a dual sided screen smartphone which may use both side mode.

Fig 7 is a non limiting diagram of an electronic device.

Fig 8 is a non limiting diagram of an electronic device.

Fig 10 is a non limiting diagram of an electronic device.

Fig 18 is an exploded side view of an electronic device which may use both side mode.

Fig 19 is a foldable smartphone with three displays which may use both side mode.

Fig 20-22 illustrated a foldable smartphone with a first display, and a second display is viewable when smartphone is unfolded wherein the second display may be two display surfaces separated by a fold point of a flexible display portion between the two display surfaces which may use both side mode.

Fig 23-24 illustrates a handheld camera with a first display and a second display which may use both side mode.

Fig 26-28 illustrates a countdown on an electronic device when in both side mode.

Fig 29-31 illustrates a countdown on an electronic device when in both side mode wherein a picture is recorded when countdown ends.

Fig 32-33 shows a visual change in the image when an input is made to take a picture when in both side mode.

Fig 35 shows a type of countdown that may be used when in both side mode.

Fig 37-38 illustrates a video camera that may be used in both side mode.

Fig 39-44 illustrates a countdown on a display facing the individual or individuals a picture is to be taken of or being taken of when in both side mode.

Fig 45-48 illustrates a countdown on a display facing the individual or individuals a picture is to be taken of or being taken of when in both side mode.

Fig 49 shows a visual change in the image when an input is made to take a picture when in both side mode.

Fig 50 shows a first display with a brightness slider and button which adjusts brightness on a second display on an electronic device.

components list:

1 electronic device

2 screen side a or first display, or screen side b or second display

3 screen side b or second display if fig 2 is screen side a or first display / or screen side a or first display if fig 2 is screen side b or second display

4 camera, image sensor

6-8 individuals or individuals a picture is being taken of or to be taken of, subjects

9 picture taker or photographer

10 is a visual countdown.

11 visual change or visual notification via an input.

Fig 1: Is a perspective view of a foldable screen smart phone.

Fig 2: Is a perspective view of a foldable screen smart phone.

Fig 5 and 6 is a view of a dual sided screen smartphone which may use both side mode.

Fig 19 is a foldable smartphone with three displays which may use both side mode.

Fig 20-22 illustrated a foldable smartphone with a first display, and a second display is viewable when smartphone is unfolded wherein the second display may be two display surfaces separated by a fold point of a flexible display portion between the two display surfaces which may use both side mode.

Fig 23-24 illustrates a handheld camera with a first display and a second display which may use both side mode.

Fig 26-28 illustrates a countdown on an electronic device when in both side mode.

Fig 29-31 illustrates a countdown on an electronic device when in both side mode wherein a picture is recorded when countdown ends.

Fig 32-33 shows a visual change in the image when an input is made to take a picture when in both side mode.

Fig 35-36 shows a live view on the second display Fig 35 to a visual change 11 applied to a picture or the live view on the second display Fig 36 when an input to take a picture occurs.

Fig 37-38 illustrates a video camera that may be used in both side mode.



Fig 39-44 illustrates a countdown on a display facing the individual or individuals a picture is to be taken of or being taken of when in both side mode.

Fig 45-48 illustrates a countdown on a display facing the individual or individuals a picture is to be taken of or being taken of when in both side mode.

Fig 49 shows a visual change 11 in the image when an input is made to take a picture when in both side mode.

Fig 50 shows a first display with a brightness slider and button which adjusts brightness on a second display on an electronic device.

Components list:

1 electronic device

2 screen side a or first display, or screen side b or second display

3 screen side b or second display if fig 2 is screen side a or first display / or screen side a or first display if fig 2 is screen side b or second display

4 camera, image sensor or light sensor

10 is a visual countdown.

11 visual change or visual notification via an input.

When a certain action or function is described, as a non limiting example such as a camera displaying its signal on a screen, a person having ordinary skill in programming shall be and is aware of creating such functionality and the disclosure shall be read with this interpretation.

A foldable smart phone comprises a screen that bends at a point to create a phone with a front and back screen in a folded state and a enlarged screen on one side in an unfolded state, or a smart phone with two screens where the two screens can articulate relative to one another, or any smart phone with articulation points with one or more modes of the smart phone having a screen area facing one way and another screen area facing the other way where two people facing each other can view a screen area of the smart phone if the smart phone is at any location in between the two people.

When facial, body and or posing software or programming is mentioned, one who is skilled in the art shall and will know how to implement such functions described herein after being read and shall be interpreted as such.

With an electronic device, both the picture taker and the subjects whose pictures are being taken can view the live camera view of the picture to be taken and or taken by viewing their own screen side which displays a duplicate image from the camera on each screen side of the electronic device when the electronic device is in a folded state in the case of a foldable smart phone with two displays, however this is not a limiting statement and the electronic device can be in an unfolded state for example when taking a picture with the phone on a table and or when the phone is partially unfolded or unfolded. In a non limiting example, When the phone is in a folded state, being two screen sides are facing away from each other and parralel or almost parralel to each other, via an input either by the picture taker or individual or individuals a picture is to be taken of will open a camera app, and the camera's signal which may be modified or unmodified will display an image from the camera on the screen side facing the picture taker (screen side A) **2** and the same camera signal or a modified camera signal will display on the screen side facing away **3** from the picture taker (screen side B) which is the screen side facing the individual or individuals a photo is being taken of. A person with ordinary skill in the art will know how to program the software to allow such an event to occur. Furthermore, every other function mentioned will be read keeping in mind the person with ordinary skill in the field to program and to carry out such functions. The picture taker will point the camera located on screen side B **3** at the subject individual or individuals to take a picture of the subject individual or individuals with said subject individual or individuals using screen side B **3** as their live view which is the image signal from the camera **4**, the picture taker will be using screen side A **2** as the picture taker's camera live view screen for purposes of framing the picture and or recieving feedback from the individual or individuals who's picture is being taken of. The individual or individuals whos picture is to be taken of use the image displayed on screen side b to frame themselves or adjust their pose in real time. The camera **4** that takes a picture of the subject or subjects is located on the screen side B **3**. The subjects can see the live camera view signal from the camera on the screen **3** that is facing towards them (screen side B). The screen **2** that is facing the picture taker (screen side A) displays the same camera signal that the subject or subjects see in screen side B **3** from the camera on screen side B **3**. The subject or subjects of the picture can move, position themselves, adjust their expressions, advise the picture taker to move or adjust the camera angle, frame themselves in a certain background, using the live camera view signal being displayed to them on screen side B **3** as a guide. The subjects can advise the

picture taker to adjust the camera setting from screen A 2 by viewing their own screen side B 3. the subject or subjects can adjust the camera settings themselves also by using the options on the screen that's facing them, screen side B 3, from touch controls on screen side B 3.

In an embodiment The electronic device may have more than two displays and when in a folded state may have more than two layers as the device in fig 19 and fig 20.

In an embodiment, the screen facing the individual or individuals a photo is or to be taken of may face more than one angle so the Individuals or individuals a photo to be or taken of may see the screen facing them head on or at an angle, furthermore the electronic device may be in a fully folded state or a partially folded state.

Screen side B 3 may also mean a first screen side or first display and Screen side A 2 may also mean a second screen side or second display.

In an additional embodiment, the subject or subjects can adjust the camera settings themselves by using options programmed to display on the screen that's facing them, screen side B 3, said options for use in manipulating an image, and a person having ordinary skill is aware of, such as aperture control, iso control, zoom control, photo filters control and any other image processing feature, from touch controls on screen side B 3 that control such features

In an additional embodiment , screen side A and screen side B are separate screens.

In an additional embodiment, screen side A and screen side B are connected at an edge of the phone by a bendable screen section.

In an embodiment, when both side mode is enabled, unneeded or unused applications are paused or stopped to preserve the battery of the electronic device.

In an embodiment, both side mode may be enabled to remain on by an input and or setting on the electronic device. When the camera app is opened, both side mode will be enacted and if both side mode is off then normal mode or selfie mode will be used. Normal mode is when rear facing camera which is the camera not facing the picture taker displays an image on a display facing the picture taker. Selfie mode is when front facing camera or camera facing the picture taker displays an image of display facing picture taker.

In an additional embodiment, the electronic device has a feature which on recognition of a face or faces from a signal received by the camera and analyzed by image analyzing software present on the storage of the smart phone and processed by the cpu, which determines if a face or faces is present, activates screen side B 3 to display a live camera view to an individual or individuals who's picture is being taken of.

In an additional embodiment, the electronic device has a feature which on recognition of no face or no faces detected, from a signal received by the camera and analyzed by image analyzing software present on the storage of the electronic device and processed by the cpu which determines no faces are present, deactivates a camera live view from screen side B 3.

In an additional embodiment , when the image analyzing software analyzed for faces, it does so to detect faces that are posed to have a picture taken of them, for example if the face is prominent and or if the eyes are facing the general direction of the camera. Background faces are disregarded by the image analyzing software.

In an additional embodiment, after a picture is taken, it is displayed on the screen side B 3 for viewing for a predetermined duration.

In an additional embodiment, screen side B 3 image is horizontally inverted from the screen side A 2 image via instructions performed by a processor from an image processing software.

In an additional embodiment, screen side B 3 image is horizontally inverted from the screen side A 2 image, so the screen side B 3 mirrors the subject individual or individuals from their perspective via an image processing software stored on the storage of the smart phone.

In an additional embodiment, the image recorded by the image sensor of screen side B is stored as data as video format on the electronic device data storage.

In an additional embodiment, the image recorded by the image sensor of screen B is stored as data as a photograph on the electronic device data storage.

In an additional embodiment, the live camera view captured by the camera on screen side B and displayed on screen side B displays animations which are interacting with, attached to the head, face, body or surroundings of the individual or individuals being photographed using image processing software which creates animations which interact with or follow a body part of the individual or individuals a photograph is being taken of using facial recognition software or body recognition software and or image analyzing software.

In an embodiment, the electronic device may have two screens facing a picture taker and one screen facing an Individual or individuals to be photographed or being photographed and the processor may expand the image from the camera on the side with two screens and display the same or similar image from the camera on the screen facing the picture taker.

in an embodiment, the electronic device may have two screens facing an Individual or individuals to be photographed or being photographed and one screen facing a picture taker and the processor may expand the image from the camera on the side with two screens and display the same or similar image from the camera on the screen facing the Individual or individuals to be photographed or being photographed.

in an embodiment the electronic devices angle between the two displays at the hinge or pivot or bend point may be 0-179 degrees allowing the picture taker to take a picture from an elevated angle and or from a low angle in relation to the individual or individuals a picture is being taken of or to be taken of.

In an embodiment the time delay is none up to no more than 5 seconds between the image displayed from the camera on the first display and second display.

In an embodiment the time delay is none up to no more than 1 second between the image displayed from the camera on the first display and second display.

In an embodiment, dual lense camera on a smart phone displays an image from one camera on a first display and the second camera on a second display.

In an embodiment, a triple lense camera on a smart phone displays an image from one camera on a first display and another camera on a second display

In an embodiment, a plurality of cameras on a smart phone displays an image from one camera on a first display and another camera displays an image on a second display.

Camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture or d) dual screen camera app. The controller instructs a display to display a icon indicator that this mode is active. Via a second input, the processor displays the image from the rear facing camera on a first display and turns off the second display and or does not display the image from the camera on a second display. The controller instructs a display to display a icon that this mode "normal mode" is active. Via a third input, the processor displays the image from the front facing camera on a first display and turns off the second display and or does not display the image from the camera on a second display. The controller instructs a display to display an icon that this mode "selfie mode" is active.

Camera app is opened. The processor displays the image from either rear or front facing camera on a first display and turns off the second display and or does not display the image from the camera on a second display. The controller instructs a display to display an icon that the mode of "normal mode" or "selfie mode" is active based on which camera is used. Image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a

first display and the same or similar image on a second display which occurs by a) an input or b) by auto recognition of a human posing for a picture if enabled. The controller instructs a display to display an icon that this mode "both side mode" is active.

Camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture or d) dual screen camera app. Via a second input, the processor displays the image from the rear facing camera on a first display and turns off the second display and or does not display the image from the camera on a second display. Via a third input, the processor displays the image from the front facing camera on a first display and turns off the second display and or does not display the image from the camera on a second display.

Camera app is opened. The processor displays the image from either rear or front facing camera on a first display and turns off the second display and or does not display the image from the camera on a second display. Image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input or b) by auto recognition of a human posing for a picture if enabled.

Camera app is opened, image data is captured from a camera, the image data is displayed on a first display, if human subject recognition is enabled, the processor senses humans posing for a picture which is "auto recognition of a human posing for a picture" from camera visual data which instructs the processor to display the image from the camera on a first display and the same or similar image on a second display. If disabled, image from camera is displayed on a first screen.

In an embodiment, visual notification mode is when a visual image is displayed when a picture is taken. this mode may be pre enabled meaning that if it is, the user will open the camera app, take a picture, and a visual image such as a increase in brightness or a border appears around the image or any other visual data displayed on the display to notify a picture taker and or individual or individuals a picture is being taken of is taken while both side mode is active.

Camera app is opened, image data is captured from a camera, the image data is displayed on a first display, a user instructs the processor to display the image from the camera on a first display and the same or similar image is displayed on a second display by an input or auto recognition of a human posing for a picture or if both side mode is already enabled, a gesture instructs the processor to capture the image from the camera, if visual notification mode enabled, a visual notification is displayed on one or both screens the moment a picture is taken.

In an embodiment, a countdown mode is described. when an input is made to take a picture in both side mode, a timer and or a bar that minimizes to a point appears on the first or second or first and second display to notify picture taker and individual or individuals a picture is to be taken of. this is a non limiting example as any form of visual timing data may be used. this mode may be pre enabled to always occur on both side mode, or may be enabled in the camera app. This is known as the countdown mode. An input to take a picture occurs, the controller instructs the first or second or first and second display to display a timer that counts down visually and or numerically. this is known as the countdown mode.

in an embodiment, a physical gesture input recieved by the camera and wherien such a gesture is programmed to take a picture, a picture is taken right away or after a predetermined duration with said such predetermined duration may be custom set by a user. this mode may be pre enabled or enabled in the camera app. in an embodiment, a voice input recieved by the microphone and wherien such a gesture is programmed to take a picture, a picture is taken right away or after a predetermined duration with said such predetermined duration may be custom set by a user. this mode may be pre enabled or enabled in the camera app. This is known as voice picture mode.

camera app is opened, image data is captured from a camera, the image data is displayed on a first display, a user instructs the processor to display the image from the camera on a first display and the same or similar image is displayed on a second display by an input or auto recognition of a human posing for a picture or if both side mode was already enabled , a gesture instructs the processor to capture the image from the camera, if countdown mode enabled, a countdown timer or a countdown bar or a countdown visual sequence is displayed on one or both displays, a picture is stored at the end of the countdown from camera to the storage.

camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs based on a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture. if physical gesture mode is enabled, a physical gesture such as a wink instructs the processor to capture the image from the camera after a predetermined duration after the physical gesture, a picture is stored from camera to the storage.

in an embodiment, the individual or individuals a picture is to be taken of or being taken of makes a physical gesture to indicate a point where the camera should focus. for example the individual or individuals a picture is to be taken of looks in the display that is facing them which has a live camera view of them and they point to an area using the live camera view as a guide where they want the camera to focus for the image from the camera displaying the individual or individuals a picture is to be taken of, the camera focuses on the area where they pointed to. pointing to an area to focus on is a non limiting example as any gesture may be made, for example an area between a hand making a round shape with the axis of the round shape pointing to the camera. The controller instructs the camera to focus on the point the the individual or individuals a picture is to be taken of points to when the electronic device is in both side mode. this shall be known as the focus point mode

Camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture, if focus point mode is enabled, a physical gesture sensed by the camera instructs the processor to focus the camera image at the chosen location by the physical gesture, a command to take a picture is performed, a picture is stored from camera to the storage.

in an embodiment, when both side mode is enabled, when the individual or individuals a picture is to be taken of is posing and holds the pose for a predetermined period of time, the camera records an image to the data storage of the electronic device, this is known as the sustained pose recognition mode.

camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture. if sustained pose recognition is enabled, a sustained pose is sensed by the camera which instructs the processor take a picture which is stored from camera to the storage.

Dual screen camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, a gesture instructs the processor to capture the image from the camera, if visual notification mode enabled, a visual notification is displayed on one or both screens the moment a picture is taken.

Dual screen camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, a gesture instructs the processor to capture the image from the camera, if countdown mode enabled, a countdown timer or a countdown bar or a countdown visual sequence is displayed on one or both displays, a picture is stored at the end of the countdown from camera to the storage.

Dual screen camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display , if physical gesture mode is enabled, a physical gesture such as a wink instructs the processor to capture the image from the camera after a predetermined duration after the physical gesture, a picture is stored from camera to the storage.

dual screen camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, if voice picture mode is enabled, a voice command gesture instructs the processor to capture the image from the camera after a predetermined duration after the voice command, a picture is stored from camera to the storage.

dual screen camera app or camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, if focus point mode is enabled, a physical gesture sensed by the camera instructs the processor to focus the camera image at the chosen location by the physical gesture, a command to take a picture is performed, a picture is stored from camera to the storage.

dual screen camera app or camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, if sustained pose recognition is enabled, a sustained pose is sensed by the camera which instructs the processor take a picture which is stored from camera to the storage.

In an embodiment, sustained flash mode may be pre enabled by an input or enabled in camera or dual screen camera app. this mode provides a flash from a display by illuminating the pixels to provide sufficient photographic lighting. the controller illuminates a display as a picture is being taken.

dual screen camera app or camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, if sustained screen flash mode is enabled, a display emits a flash to illuminate individual or individuals a picture is being taken of to provide a picture with sufficient and or preferred lighting.

dual screen camera app or camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, from the first or second or both displays, by an input the brightness of each display may be adjusted independently. The input may be a slider for adjusting brightness for a first display and a slider for adjusting brightness for a second display. this will allow the battery to be saved in certain circumstances by lowering the brightness on one or both displays and or allow easier visibility for an individual or individuals a picture is being taken of or to be taken of by making the display seen by them brighter for example in the day time outside.

dual screen camera app or camera app is opened from app icon on screen or a button command or any other input, image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display, a light sensor detects light intensity and adjusts the brightness on the display facing a subject or subjects a picture is or to be taken of based on predetermined criteria with a brightness level to be used per each level of brightness intensity detected by the light sensor. The light sensor may be separate from the camera and or the camera itself may determine the intensity of light. this will allow the battery to be saved in certain circumstances by lowering the brightness on one or both displays and or allow easier visibility for an individual or individuals a picture is being taken of or to be taken of by making the display seen by them brighter for example in the day time outside.

the both side mode is already enabled in an electronic device with a camera or cameras on one side of the electronic device. The processor detects the user or person holding the electronic device that their image is captured by the camera, the processor determines if the user is posing via image analyzing software that detects poses of the body and or face comparing it to predetermined criteria . The processor instructs a notification to appear on the screen facing the picture taker to either cancel both side mode, if the image analyzing software does not detect the user in a posing state, the processor instructs the display to visually notify the user to flip the camera so the camera points at individual or individuals a picture is to be or taken of in the case of a camera on one side of the electronic device. if the electronic device has cameras on each side of the electronic device in this scenario, processor instructs the display to visually notify the user to turn off both side mode if user is determined as posing by the image analyzing software which turns off the display not facing the user, if the user is determined as not posing and the processor detects an individual or individuals a picture is to be taken of are posing via determination of image analyzing software, the camera facing the individual or individuals a picture to be taken of or being taken of is used to display the visual information it receives in both side mode.

the both side mode is already enabled in an electronic device with a camera or cameras on both sides of the electronic device. The processor detects the picture taker's image is captured by the camera. The processor switches cameras and displays an image from this camera (camera facing the subjects) on a first and second display.

The processor detects the picture taker's image is captured by the camera and displayed on a screen facing the picture taker. the picture taker makes an input to display the camera (camera facing the subjects) image on a first screen and a second screen. if the electronic device has one camera, processor instructs a notification to appear on the screen facing the picture taker to flip the camera so the camera points at individual or individuals a picture is to be or taken of, once electronic device is flipped, the camera displays its image on a first and second screen.

The processor detects the picture taker's image is captured by the camera and displayed on a screen facing the picture taker. the picture taker makes an input to display the camera (camera facing the subjects) image on a first screen and a second screen. if the electronic device has dual side cameras, processor instructs the camera to use the camera that is not facing the picture taker, this camera will display visual content it receives on a first display and a second display.

both side mode is already enabled in an electronic device. The processor detects the picture taker image is captured by the camera and the picture taker is posing for a selfie based on physical and facial recognition. The processor instructs the display that the picture taker cannot see to turn off (second screen).

dual screen camera app or camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture. an animation is attached to and tracks a body part of the individual or individuals a picture is to be or being taken of which is displayed on a first display and a second display. when picture is taken the animation is also recorded.

In an embodiment, the controllers instructs the camera facing the individual or individuals a picture is going to be taken of is taken when the individual or individuals are still for a predetermined duration of time.

In an embodiment, the controllers instructs the camera facing the individual or individuals a picture is going to be taken of is taken when the individual or individuals are still for a first predetermined duration of time, and a second predetermined duration of time for additional pictures taken when the Individual or individuals poses still for a second picture, and so on until the last picture.

in an embodiment, the camera app is opened, the picture taker and or user can see the camera image on the screen facing them from the camera. the screen facing away or not in the line of sight or in sight of the picture taker is turned off and no image is displayed on the display/screen. if the camera detects an individual or individuals posing for a picture from the visual information recieved by the camera, the controller instructs the camera to also display the image on the screen that is facing or viewable by the individual or individuals a picture is being taken of or to be taken of. thus the camera outputs the same or similar image on atleast two displays.

camera captures an image and or visual information and the processor detects if a human is posing in the image via image analyzing software for the face and or body, if so the processor displays the image from the camera on a first and second screen wherein the first screen is viewable by a picture taker and second screen is viewable by an individual or individuals a picture is to be taken of or taken of. if not the processor does not display the camera image on the second screen. this process is "auto recognition of a human posing for a picture". this feature may also be pre enabled by an input so when the camera app is opened, this process automatically occurs.

camera app is opened, image data is captured from a camera, the image data is displayed on a first display, the processor displays the image from the camera on a first display and the same or similar image on a second display which occurs by a) an input, or b) if both side mode is already enabled or c) by auto recognition of a human posing for a picture. A gesture instructs the processor to capture the image from the camera.

In an embodiment, the processor instructs a camera to record video, the video information is displayed on a first display surface facing a user who is holding the electronic device which may be a smartphone or a foldable smartphone, the information from the camera is also displayed on a second display surface which is viewable or facing an Individual or individuals a video is being recorded to monitor themselves or themselves. Pose recognition saves battery.

In an embodiment a microphone receives an uttered voice signal from a user. The microphone may convert the received voice into an electrical signal, and output the voice to the controller. The voice signal of the user may include, for example, a voice signal that corresponds to a function of the foldable device wherein the function is to take a picture immediately or after a predetermined duration.

In an embodiment, a visual countdown is displayed on the screen facing the Individual or individuals a picture is being taken of, for example a bar decreases in length and when the bar shrinks to a minimum or disappears, picture is taken. Then bar may also increase in size and a picture may be taken when the bar reaches its maximum size.

In an embodiment, a user interface is provided where upon activation turns on the screen facing an Individual or individuals a picture is to be taken of and having control over a picture being taken via physical commands processed by the camera signal or verbal commands processed by the audio signal of the foldable smart phone.

it is to be understood that any embodiment may be combined with one or more other embodiments, it is also to be understood that a portion of an embodiment may be combined with one or more portions of one or more other embodiments, it is also to be understood that a portion or all of an embodiment may be combined with one or more portions or all of one or more other embodiments and only in a non limiting way and only for purposes of preventing repetitiveness.

in an embodiment, the screen side facing the individual or individuals to be or are being photographed is a screen that has a articulation point and or is foldable at a point inside the perimeter of the screen side facing the individual or individuals to be or are being photographed.

in an embodiment, the screen side facing the picture taker is a screen that has a articulation point and or is foldable at a point inside the perimeter of the screen side facing the picture taker.

In an embodiment both side mode can be activated when the phone is on a locked state by a gesture or button, or button pressed a number of times.

In an embodiment, the user side mode can be activated when the phone is on a locked state by a gesture or button, or button pressed a number of times.

In an embodiment, the subject side mode can be activated when the phone is on a locked state by a gesture or button, or button pressed a number of times.

In an embodiment, in the both side mode, the foldable smart phone has a dual camera or dual image sensor on a side which faces the individual or individuals a picture is or to be taken of, the information from a first camera is displayed on a screen facing the individual or individuals a picture is or to be taken of, and a second image sensor is displayed on a display surface facing the picture taker.

In an embodiment, in the both side mode, the foldable smart phone has atleast two cameras or two image sensors on a side which faces the individual or individuals a picture is or to be taken of, the information from a first camera is displayed on a screen facing the individual or individuals a picture is or to be taken of, and a second image sensor is displayed on a display surface facing the picture taker.

in an embodiment, the camera app is opened, the picture taker and or user can see the camera image on the screen facing them from the camera. the screen facing away or not in the line of sight or in sight of the picture taker is turned off and no image is displayed on the display/screen. if the camera detects an individual or individuals posing for a picture from the visual information recieved by the camera, the controller instructs the camera to also display the image on the screen that is facing or



viewable by the individual or individuals a picture is being taken of or to be taken of. thus the camera outputs the same or similar image on atleast two displays.

camera captures an image and or visual information and the processor detects if a human is posing in the image via image analyzing software for the face and or body, if so the processor displays the image from the camera on a first and second screen wherein the first screen is viewable by a picture taker and second screen is viewable by an individual or individuals a picture is to be taken of or taken of. if not the processor does not display the camera image on the second screen. this process is "auto recognition of a human posing for a picture". this feature may also be pre enabled by an input so when the camera app is opened, this process automatically occurs.

In an embodiment, the processor instructs a camera to record video, the video information is displayed on a first display surface facing a user who is holding the electronic device which may be a smartphone or a foldable smartphone, the information from the camera is also displayed on a second display surface which is viewable or facing an Individual or individuals a video is being recorded to monitor themself or themselves.

image data is captured from a camera, the image data is displayed on a display that is viewable by an individual who's picture is being or to be taken, the processor displays the image from the camera on a first display viewable by an individual who's picture is being or to be taken of, the processor displays the image from the camera on a second display viewable by the picture taker. the processor instructs the display facing the subjects to be horizontally inverted relative to the orientation of the image on the second display viewable by the picture taker.

image data is captured from a camera, the image data is displayed on a display that is viewable by an individual who's picture is being or to be taken, the processor displays the image from the camera on a first display viewable by an individual who's picture is being or to be taken of, the processor displays the image from the camera on a second display viewable by the picture taker. the individual who's picture is being or to be taken may make an input on the first display surface said input instructing the processor to modify the iso, brightness, aperture, filter, shutter speed, flash, brightness, zoom or any other customizable feature of a picture and displaying the changes of the processor displaying selected input on the applied to the image shown on the first display.

image data is captured from a camera, the image data is displayed on a display that is viewable by an individual who's picture is being or to be taken, the processor displays the image from the camera on a first display viewable by an individual who's picture is being or to be taken of, the processor displays the image from the camera on a second display viewable by the picture taker. the processor instructs the display facing the picture taker to be horizontally inverted .

image data is captured from a camera, the image data is displayed on a display that is viewable by an individual who's picture is being or to be taken, the processor displays the image from the camera on a first display viewable only by an individual who's picture is being or to be taken of, the processor displays the image from the camera on a second display viewable only by the picture taker when a picture is being taken, the picture is being composed in the live view, and or the moment after the picture is taken, assuming everyone stayed in the same general location.

in an embodiment, a camera application is opened by an input such as a touch, voice, motion or any other input, if touch method is used, the user touches an app icon or button on a display that is facing the user. the user is also the picture taker. the picture taker makes an input in the camera app while it is open such as touching a button which will start "both side mode". this mode means an image captured by the camera displays the same or similar image on two or more display surfaces so that the picture taker and the individual or individuals a picture is being taken of can both see the image on their separate screens.

camera application is opened by an input from a picture taker on a first display, image data is captured from a camera, the image data is displayed on a first display, user makes an input to switch to both side mode, the processor displays the image from the camera on a first display and the same or similar image on a second display.

the camera app is opened on an electronic device. a user makes a touch input on the screen facing the individual or individuals a picture is to be taken. the processor detects the touch input and instructs the camera to display its visual content on said display. this will allow easier launch of both side mode.

image data is captured from a first camera, image data is captured from a second camera, both cameras face the same general direction, both displays face differing directions, the processor displays the image from the first camera on a first display, the processor displays the image from the second camera on a second display.

If a method or action or process is only applied to one display in a disclosure, the same may be applied to the other display in a same or similar manner as disclosed of the display where a method is applied to.

The term "camera" may also be interchangeable with "image capture device", "image sensor" or any other term or word known to a person skilled in the art relating to previous terms.

Any of these methods or disclosures may be used on an electronic device including but not limited to a foldable smart phone as shown in fig 1, 2, 20, 21 and 22 or any other style of foldable smartphone known to a person skilled in the art or any other foldable smartphone that may utilize both side mode. The disclosure may also be applied to a smart phone with a display on a front and rear of the smartphone as shown in fig 5 and fig 6.

Any of the methods or disclosures may be turned on or off, activated or pre enabled or deactivated via a user interface to automatically make the method or disclosure or steps occur when on or activated or pre enabled, or may be turned off or deactivated via a user interface, which may be including but not limited to a button, toggle, slider or any other input and implemented as a person skilled in the art would know.

Just because an illustration is not referenced does not mean the disclosure does not incorporate an illustration, a person skilled in the art shall be aware of referencing drawings to a disclosure even if disclosure does not explicitly refer to an illustration. Illustration meaning drawing.

Any disclosure shall be considered non limiting and if a person skilled in the art can perform the disclosure any other way, such other way may also form as part of this disclosure.

when it is mentioned that a certain term or word may be interchangeable with another term and or synonymous with another term or word it is defining in nature and a certain term or word may be described in multiple ways while retaining the mentioned term or word when used to describe definitions as each term or word having their literal meaning in the art as known unless defined otherwise by giving a meaning to a term rather than just describing a term or word, than the term or word shall be understood as described.

"Taken" or "taken of" may mean "captured" or "captured of", and refers to an image.

Each embodiment in the disclosure may be comprising such disclosure in each embodiment.

When the term "individual or individuals a picture is being taken of or to be taken of" or the like is used, it may mean as defined and or it may also mean "Individual or individuals a video is being recorded of".

All descriptions when read should be understood by a person skilled in the art without undue effort so it can be applied or created in a device by reading such disclosure and if drawings are not provided it is due to the fact that drawings are not needed to gain a better understanding of the written disclosure. This paragraph's purpose is to make aware that the building blocks of this disclosure, such as smartphones and foldable smartphones and how they work in general shall be understood by a person skilled in the art and therefore in depth discussion of such devices is not needed.

There may be components in the drawing which may not be mentioned in the description and if such a component is shown, it is to be understood that a person skilled in the art shall know what such a component is and does and such a situation is non limiting.

the term controller may be interchangeable with processor, display controller or bus or software or a component known to a person skilled in the art which will be able to perform what is described.

When it is mentioned the controller instructs the camera to do a certain task or the controller instructs a component to do something, it may mean "instructions stored in memory that when executed enables the processor to".

the controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the first display and the second display to display the picture recorded, via another input the picture stops being displayed and the device returns to both side mode.

As illustrated in fig 32-33 and fig 35-36 and fig 49 The following disclosure will allow an individual or individuals a picture is being taken of to know that a picture has been taken of them by overlaying and or incorporating a visual change in the live camera view of the individual or individuals a picture is being taken of shown on a display facing the individual or individuals a picture is being taken of where even when the picture taken is not in the live camera view of the individual or individuals a picture is being taken of but the picture is taken via an input made to the electronic device.

The terms "visual affect", "visual effect", "visual change", "visual indicator" or "visual notification" or the like may be interchangeable.

In an embodiment, when in both side mode, overlaying and or incorporating a visual change in the live camera view displayed on a display facing or seen by an individual or individuals a picture is being taken of occurring when or after an input is made to take a picture by a picture taker to notify the individual or individuals a picture is being taken of that a picture has been taken.

When a picture is taken of the individuals or individuals a picture is taken of, a visual or audio indicator will occur to let the individual or individuals a picture is taken of that when the picture was taken, the simultaneous visual indicator or audio indicator, that certain image displayed on the screen that is facing the individuals or individuals a picture is taken of when the visual indicator occurred is the picture that has been captured by the camera and stored in the electronic device. This way the individual or individuals a picture was taken of may be satisfied with the picture if they like when it was taken and or may have another picture taken of them if they did not like the picture taken at the time of the visual or audio indicator. The visual indicator may be a border that flashes around the image displayed on a first and or second display, a border that flashes on the image displayed on a first and or second display, or in regards to an image displayed on a first and or second display, a momentary increase in brightness, a darkening of the screen, or any other visual graphic displayed on the screen when the picture was taken. The audio indicator may be a shutter sound, or any other audio signal from the speaker to alert the individual or individuals a picture that is taken was taken at the moment of the sound being played.

When a picture is taken of the individuals or individuals a picture is taken of, a visual or audio indicator will occur to let the individual or individuals a picture is taken of that when the picture was taken, the simultaneous visual indicator or audio indicator, that certain image displayed on the screen that is facing the individuals or individuals a picture is taken of when the visual indicator occurred is the picture that has been captured by the camera and stored in the electronic device. This way the individual or individuals a picture was taken of may be satisfied with the picture if they like when it was taken and or may have another picture taken of them if they did not like the picture taken at the time of the visual or audio indicator. The visual indicator may be a border that flashes around the picture, a momentary increase in brightness, a darkening of the screen, or any other visual graphic displayed on the screen when the picture was taken. The audio indicator may be a shutter sound, or any other audio signal from the speaker to alert the individual or individuals a picture that is taken was taken at the moment of the sound being played.

In an embodiment, the visual indicator may be an animation on the image displayed to the individuals or individuals a picture is taken of. This may also be displayed on the display facing the picture taker.

In an embodiment, with both side mode active, when the picture taker makes an input to take a picture on the electronic device, the controller instructs the display facing the individual or individuals a picture is taken of to display a visual change on the display at the moment the input is made to take the picture.

In an embodiment, the visual change may be any manipulation of the image displayed from the camera when in both side mode on a first or second display and or both displays. The visual indicator is a change applied to the visual information from the camera plus any customization applied to the visual information which is displayed as disclosed in both side mode.

Visual notification, visual indicator and visual overlay are interchangeable terms.

In an embodiment , a visual overlay upon the visual information displayed by the visual information received from the camera occurs when an input is made to take a picture such as a touch input, if a countdown occurs , the visual overlay will occur when the picture is taken, also a visual overlay of the countdown may also appear counting down to a point in time. The input may be touch, voice activated, pressing a physical button or any other input which instructs the controller to take a picture and or which takes a picture. The visual overlay may be on a portion of the display or displays when both side mode is active.

The visual indicator may be on the entirety of the display or displays when both side mode is active making the visual information of the camera on the display momentarily disappear.

The visual indicator may be on the entirety of the display or displays when both side mode is active as a semi transparent layer making.

The visual indicator may be on a portion of the display or displays.

The visual indicator may be on the entirety of the display or displays when both side mode is active as change in the color of the visual information displayed by the camera on a display or displays when both side mode is active.

The visual change may also occur outside the border of the image displayed by the camera on a first and or second display and this visual change will change the visual characteristics of the visual data outside the border of the image displayed from the camera on a first and or a second display.

The visual notification helps the individual or individuals a picture is being taken or to be taken of to become aware of when the picture was taken and or how the picture looked in the display when the picture was taken which will give them almost instant knowledge if the picture taken is one which they are happy with and how they looked and or were posing when the visual notification occurred.

The visual change is a shutter animation which may take the form of any graphic data mixing with the image displayed from the camera on the displays when in both side mode.

In an embodiment, the visual indicator may be in the form of a portion of the image displayed by the camera when in both side mode on either a display or both displays to decrease or increase in brightness.

In an embodiment, the visual indicator may be in the form of a portion of the image displayed by the camera when in both side mode on either a display or both displays to become lighter.

In an embodiment, the visual indicator may be in the form of a portion of the image displayed by the camera when in both side mode on either a display or both displays to become darker.

In an embodiment, the visual indicator may occur on a first display and or a second display when an electronic device is in both side mode.

In an embodiment the visual indicator may occur during the input which takes a picture simultaneously, or simultaneously and momentarily after the input which takes a picture , or occur momentarily after an input which takes a picture.

A visual change, visual indicator or any synonymous mention of the meaning of such a term are interchangeable and non limiting.

A visual change may be unrelated to the visual data of the image displayed by the camera, for example, a white or black or any color border as a non limiting example.

A visual change visually notifies a viewer of a display that a picture has been taken.

In an embodiment, a visual change occurs and or notification appears on the display facing an Individual or individuals a video is being recorded of including but not limited to an icon and or overlay on the image displayed on the display facing the individual or individuals a video is being recorded of to notify the Individual or individuals a video is being recorded of that a video is being recorded of them during the recording of the video.

In an embodiment, the visual change may be comprising an increase in brightness, contrast or saturation in an area of the visual data from the camera displayed on a display when in both side mode and a decrease in brightness, contrast or saturation in another area of the visual data from the camera displayed on a display when in both side mode.

In an embodiment, a visual effect is applied, superimposed, overlaid or added to at least one display of the electronic device when an input is made to take a picture.

In an embodiment, the visual change is applied, superimposed, overlaid or added to the image from the camera that obtains visual information of an individual or individuals a photo is being taken of on the display viewable by the individual or individuals a photo is being taken of where said display is not viewable by the picture taker at the moment the picture is being taken, while the picture taker takes a picture and makes an input to take a picture using another display which is viewable only by the picture taker at the moment the picture is being taken where the display viewable by the picture taker may also have a visual change applied, superimposed, overlaid or added to the image from the camera that obtains visual information of an individual or individuals a photo is being taken of on the display viewable by the picture taker.

In an embodiment, both side mode and a visual indicator as described are used together by an electronic device.

In an embodiment the visual change is momentary and does not stop the live view of the image from the camera on a display or both displays. the visual change may be overlaid on the live view of the camera displayed on a display or displays.

the controller instructs a first display to display visual information recieved by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the display to display a visual change on a display or both displays or one display that displays the image displayed from the camera or to modify the image displayed from the camera when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store.

the controller instructs a first display to display visual information recieved by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the first display and the second display to display a visual change on a display that displays the image displayed from the camera or to modify the image displayed from the camera on the first and second display when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store.

the controller instructs a first display to display visual information recieved by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the first display and or the second display to display a visual change on the display or displays that displays the image from the camera or to modify the image displayed from the camera on the first and second display when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store. The change may be a momentary disappearance of the visual information displayed from the camera. The change may be a momentary appearance of a see through layer or filter. The change may be a momentary blackening of the display or displays. The change may be a momentary color change of the visual information recieved by the camera. The change may be a momentary animation overlaying the visual information displayed by the camera on a display or displays. The change may be a momentary brightening of the visual information displayed by the camera on a display or displays. The change may be a momentary border

outlining the visual information displayed by the camera on a display or displays. The change may be a momentary border outside and around the visual information displayed by the camera on a display or displays.

the controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the first display and or the second display to display a visual change on the display or displays that displays the image from the camera or to modify the image displayed from the camera on the first and second display momentarily after an input is made to take a picture. The change may be a momentary disappearance of the visual information displayed from the camera. The change may be a momentary appearance of a see through layer or filter. The change may be a momentary blackening of the display or displays. The change may be a momentary color change of the visual information received by the camera. The change may be a momentary animation overlaying the visual information displayed by the camera on a display or displays. The change may be a momentary brightening of the visual information displayed by the camera on a display or displays. The change may be a momentary border outlining the visual information displayed by the camera on a display or displays. The change may be a momentary border outside and around the visual information displayed by the camera on a display or displays.

the controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the first display and or the second display to display a visual change on the display or displays that displays the image from the camera or to modify the image displayed from the camera on the first and second display when an input is made to take a picture. The change may be a momentary disappearance of the visual information displayed from the camera. The change may be a momentary appearance of a see through layer or filter. The change may be a momentary blackening of the display or displays. The change may be a momentary color change of the visual information received by the camera. The change may be a momentary animation overlaying the visual information displayed by the camera on a display or displays. The change may be a momentary brightening of the visual information displayed by the camera on a display or displays. The change may be a momentary border outlining the visual information displayed by the camera on a display or displays. The change may be a momentary border outside and around the visual information displayed by the camera on a display or displays.

the controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the first display and or the second display to display a visual change on the display or displays that displays the image from the camera or to modify the image displayed from the camera on the first and second display during and momentarily after an input is made to take a picture. The change may be a momentary disappearance of the visual information displayed from the camera. The change may be a momentary appearance of a see through layer or filter. The change may be a momentary blackening of the display or displays. The change may be a momentary color change of the visual information received by the camera. The change may be a momentary animation overlaying the visual information displayed by the camera on a display or displays. The change may be a momentary brightening of the visual information displayed by the camera on a display or displays. The change may be a momentary border outlining the visual information displayed by the camera on a display or displays. The change may be a momentary border outside and around the visual information displayed by the camera on a display or displays.

the controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the display to display a visual change on a display or both displays or one display that displays the image displayed from the camera or to modify the image displayed from the camera when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store. the controller instructs the speaker to play a sound when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store.

The controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera. An input is made to take a picture, the controller instructs the speaker to play a sound when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store.

In an embodiment, in both side mode, when a picture is taken, the controller instructs either first or second display or both to display the picture recorded.

In an embodiment, in both side mode, when a picture is taken, the controller instructs either first or second display or both to display the picture recorded. When the picture is no longer needed to be displayed, by an input, the controller enables both side mode on the electronic device.

In an embodiment, in both side mode, when a picture is taken, the controller instructs either first or second display or both to display the picture recorded for a predetermined duration.

In an embodiment, a user may also scroll through picture such as making a touch input such as a swipe for example to display previous pictures on the first and second display. The user can make a touch input such as a single touch to go back into both side mode.

is both side mode active? if yes, when a picture is taken, the controller instructs either first or second display or both to display the picture recorded. When the picture is no longer needed to be displayed, by an input, the controller enables both side mode on the electronic device.

is both side mode active? if yes, when a picture is taken, the controller instructs either first or second display or both to display the picture recorded. by an input, the controller instructs the first and second display to display a previous picture that was taken. From here the user may make an input to view a previous picture from the most recent one displayed or the next picture which is more recently taken than the current picture displayed to allow the user to scroll through the pictures with each picture displayed on a first and second display. When the picture is no longer needed to be displayed, by an input, the controller enables both side mode on the electronic device.

When In both side mode, when a picture is taken by an input, the captured picture is displayed on the display facing the individual or individuals a picture has been taken of for a predetermined amount of time to allow the individual or individuals in the picture to see the picture. This picture of the individual or individuals a picture has been taken of may also appear on a second display facing the picture taker. This allows for the picture to be judged by the individual or individuals in the picture to see if it is a picture they like. The amount of time the picture remains on the display is customizable by a user through a menu on the user interface of the electronic device.

In an embodiment, the visual change occurs on the picture that was recorded or image taken and displayed and a visual change may be any visual effect, brightness change, color change, addition of a border, change in pixel characteristics or any other change made to the visual data of the picture taken and then displayed or any other change made to the visual data a person skilled in the art is aware of.

when both side mode is active, the user may control the brightness of display facing the individual or individuals a picture is to be or being taken of by an input. furthermore the brightness of the first and second display may be changed independently by a user input. furthermore the brightness of the first and second display may also be changed simultaneously by a user input. This is to allow the individual or individuals a photo is being taken of or to be taken of to view the display facing them easier by adjusting the brightness of the display facing them. For example, if the weather is sunny, an increase in brightness may be needed for the display facing the individual or individuals a photo is being taken of or to be taken of by an input by the picture taker using the screen facing the picture taker while in communication with the individual or individuals a photo is being taken of or to be taken of. Or the brightness may be changed by individual or individuals a photo is being taken of or to be taken of by Making an input on the screen facing them.

By an input, the controller instructs the display facing the individual or individuals a photo is being taken of or to be taken of to change in brightness. By an input, the controller instructs the display facing the picture taker to change in brightness. Allowing for independent control of brightness of each display.

By an input, the controller instructs the display facing the individual or individuals a photo is being taken of or to be taken of and the display facing the picture taker to change in brightness simultaneously.

in an embodiment, the user may turn on an off both side mode by pressing a button or making a touch input on a display. The display may be the display facing the individual or individuals a picture is to be or being taken of. For example, the picture taker may make a swipe gesture on the display facing the individual or individuals a picture is to be or being taken of without looking at this display. The input may be a swipe, a touch, a series of touches or any other input on the electronic device. When both side mode is enabled, both side mode may also be cancelled, for example, the picture taker may make another swipe gesture on the display facing the individual or individuals a picture is to be or being taken of without looking at this display. The input may be a swipe, a touch, a series of touches or any other input on the electronic device. The swipe to enable both side mode may be in one direction and to turn both side mode off the swipe may be in the other direction. This makes it easier to switch to the desired mode.

Normal mode or selfie mode is active or camera app is opened, the user makes an input, the input may be a touch based input on the display facing the individual or individuals a picture is to be or being taken of or a physical button input, the input activates both side mode.

When both side mode is active and when a picture is taken by an input, the picture stays displayed on a display or both displays for a predetermined period of time to allow individual or individuals a photo is being taken of or to be taken of to view the picture. This allows individual or individuals a photo is being taken of or to be taken of to view the picture. The picture taker may re enter both side mode by making an input to allow another picture to be taken if the predetermined time to display the picture taken is longer than needed.

The term "predetermined period of time" and "predetermined period of time" or the like may be interchangeable terms.

As illustrated in fig 39-41 and fig 42-44 and fig 45-48 and fig 26-28 and fig 29-31 when in both side mode, when an input is made, a countdown of a predetermined duration starts and or a countdown timer, a shrinking bar, an expanding bar, or any other visual indicator representing counting down to a point is displayed on the display facing the individuals or individuals a picture is taken of, and or on the display facing the picture taker. When the countdown ends and or reaches zero or a predetermined number or amount, a picture is taken and stored. A visual indicator may also display on the display or an audio sound may play on the speaker to notify a picture has been taken when the picture was taken. This allows the individual or individuals a picture is being taken of or to be taken of to adjust there poses and let's them know when to expect the picture is to be taken.

As illustrated in fig 23-25 In an embodiment, both side mode may be applied to a handheld camera including but not limited to a dslr, a mirrorless camera, or any other camera device.

In an embodiment, a visual change as disclosed may be applied to a handheld camera including but not limited to a dslr, a mirrorless camera, or any other camera device.

When In both side mode, when a picture is taken by an input, the captured picture is displayed on the display facing the individual or individuals a picture has been taken of for a predetermined amount of time to allow the individual or individuals in the picture to see the picture. This picture of the individual or individuals a picture has been taken of may also appear on a second display facing the picture taker. This allows for the picture to be judged by the individual or individuals in the picture to see if it is a picture they like. The amount of time the picture remains on the display is customizable by a user through a menu on the user interface of the electronic device.

When In both side mode, when a picture is taken by an input, the captured picture is displayed on the display facing the individual or individuals a picture has been taken of for a predetermined amount of time to allow the individual or individuals in the picture to see the picture. This picture of the individual or individuals a picture has been taken of may also appear on a second display facing the picture taker. This allows for the picture to be judged by the individual or individuals in the picture to see if it is a picture they like. The amount of time the picture remains on the display is customizable by a user through a menu on the user interface of the electronic device. The picture displayed has a countdown timer or countdown bar, or a visual countdown that minimizes to a point, or a visual countdown that maximizes to a point or completes a shape or fills a shape. This allows the individual or individuals a picture that was taken of to let them know how long the picture will remain displayed



so they are not waiting around not knowing how long it will remain displayed. At the end of the countdown the electronic device enters into both side mode for further picture taking.

When In both side mode, when a picture is taken by an input, the captured picture is displayed on the display facing the individual or individuals a picture has been taken of for a predetermined amount of time to allow the individual or individuals in the picture to see the picture. This picture of the individual or individuals a picture has been taken of may also appear on a second display facing the picture taker. This allows for the picture to be judged by the individual or individuals in the picture to see if it is a picture they like. Via an input, the electronic device may return to both side mode to continue picture taking.

When In both side mode, when a picture is taken by an input, the captured picture is displayed on the display facing the individual or individuals a picture has been taken of for a predetermined amount of time to allow the individual or individuals in the picture to see the picture. This picture of the individual or individuals a picture has been taken of may also appear on a second display facing the picture taker. This allows for the picture to be judged by the individual or individuals in the picture to see if it is a picture they like. The amount of time the picture remains on the display is customizable by a user through a menu on the user interface of the electronic device. The picture displayed has a countdown timer or countdown bar, or a visual countdown that minimizes to a point, or a visual countdown that maximizes to a point or completes a shape or fills a shape. This allows the individual or individuals a picture that was taken of to let them know how long the picture will remain displayed. At the end of the countdown the electronic device enters into both side mode for further picture taking. If the picture taker of individual or individuals who's picture has been taken want to continue on with taking more photos and don't want to wait until the end of the countdown, an input made during the countdown will put the electronic device back into both side mode.

An input is made to choose the duration a picture is displayed to a user after a picture has been taken using both side mode. When In both side mode, an input is made to take a picture, the controller displays the picture that was taken on the display facing the individual or individuals a picture was taken of and may also be displayed on a display viewable by the picture taker. the picture displays for a predetermined amount of time. After a predetermined amount of time or via an input made, the electronic device re enters into both side mode.

An input is made to choose the duration a picture is displayed to a user after a picture has been taken using both side mode. When In both side mode, an input is made to take a picture, the controller displays the picture that was taken on the display facing the individual or individuals a picture was taken of and may also be displayed on a display viewable by the picture taker. a countdown displays on a display facing the individual or individuals a picture has been taken of, the picture displays for a predetermined amount of time and the countdown counts down to this predetermined time or in other words duration. After a predetermined amount of time or via an input made before the predetermined amount of time is reached, the electronic device re enters into both side mode.

A visual change in this embodiment may also mean a visual change to the picture captured such as an overlay or brightness change or any other change. It may also mean a visual change that is image data or lack of image data or a black screen between the live feed when in both side mode and the picture captured such as a black screen between the two event to notify the user a picture has been taken. In this embodiment When In both side mode, and when a picture is taken, via an input to take a picture, a visual indicator occurs to let the users know a picture has been taken, such as a black screen or any other change between the live view and the picture taken or any other color or visual indicator between the live view and the display of the picture taken or a visual change in the picture that was taken at the beginning of when the picture is displayed or a continuous visual indicator such as a brighter image or borders on the image or and other visual change to the picture that was captured to let the users know a picture has been captured and the picture that was captured is displayed on a first or second display or both displays for a predetermined amount of time or when an input is made to make the electronic device to re enter into both side mode to take further pictures using both side mode. Additionally As illustrated in fig 39-41 and fig 42-44 and fig 45-48 and fig 26-28 and fig 29-31 a countdown may be added to the picture displayed to let the users know how long the image will be displayed for. Additionally via an input made before the countdown ends, the picture taken may not be shown anymore and the electronic device re enters both side mode to take further pictures.

the controller instructs the camera which may be the rear facing camera to display its visual information on a first display which is a display only viewable by a picture taker when picture taker is taking a picture with an electronic device, the controller

instructs the camera to also display its visual information on a second display wherein second display is facing or only viewable by individual or individuals a picture is being taken of or to be taken of, when a picture is taken by an input, the captured picture is displayed on the display facing the individual or individuals a picture has been taken of for a predetermined amount of time to allow the individual or individuals in the picture to see the picture. This picture of the individual or individuals a picture has been taken of may also appear on a second display facing the picture taker. This allows for the picture to be judged by the individual or individuals in the picture to see if it is a picture they like. The amount of time the picture remains on the display is customizable by a user through a menu on the user interface of the electronic device. This allows the individual or individuals a picture that was taken of to let them know how long the picture will remain displayed. Via a second input made before the end of the predetermined time and after the input made to take the picture, the picture stops being displayed as disclosed and returns to both side mode and or the controller instructs the camera which may be the rear facing camera to display its visual information on a first display which is a display only viewable by a picture taker when picture taker is taking a picture with an electronic device, the controller instructs the camera to also display its visual information on a second display wherein second display is facing or only viewable by individual or individuals a picture is being taken of or to be taken of.

When In both side mode, an input is made to take a picture, the picture taken is displayed on a first display or second display or both for a predetermined period of time, a countdown displays on a on a first display or second display or both for the predetermined period, at the end of the countdown, or via an input before the countdown ends, the device re enters both side mode.

Any of these methods or disclosures may be used on an electronic device including but not limited to a foldable smart phone as shown in fig 1, 2 , 20, 21 and 22 or any other style of foldable smartphone known to a person skilled in the art or any other foldable smartphone that may utilize both side mode. The disclosure may also be applied to a smart phone with a display on a front and rear of the smartphone as shown in fig 5 and fig 6.

Any disclosure shall be considered non limiting and if a person skilled in the art can perform the disclosure any other way, such other way may also form as part of this disclosure.

When the term "individual or individuals a picture is being taken of or to be taken of" or the like is used, it may mean as defined and or it may also mean "Individual or individuals a video is being recorded of".

in an embodiment, the picture taker may easily switch between normal mode, selfie mode and both side mode by making an input on the display facing the picture taker to make use of the best mode for the situation. The input may be a touch input to enable any mode, witch each mode having there own input button, including but not limited to user interface touch button for each mode when in the camera app to switch between the mentioned modes. In another embodiment the switching between modes may occur by pressing a user interface button in a fixed location on the display and with each press the mode changes to from normal mode, selfie mode, both side mode , or in any other possible order of these modes. in another embodiment, the display facing the picture taker will display a portion on the display a visual icon of which mode is currently active including but not limited to by either highlighting, changing the visual appearance of, or creating graphic of the mode that is active. This way if both side mode is active or not, the user will not have to turn around the electronic device to check if both side mode is on or off as a visual icon will let the user know if both side mode is on or off or if any other mode is on or off. This makes it easier to switch to the desired mode.

both side mode is active. An input is made, the controller instructs a first display, a second display, or both first and second displays to display a countdown timer or countdown animation

When the countdown timer or countdown animation finishes or counts down to a point in time, the controller instructs the camera to store the image data it receives in storage. a visual indication or graphic or animation is displayed on the first display, second display, or both first and second display.

In an embodiment, the visual indicator or visual notification may be in the form of a portion of the image displayed by the camera when in both side mode on either a display or both displays to decrease or increase in brightness.

In an embodiment, the visual indicator or visual notification may be in the form of a portion of the image displayed by the camera when in both side mode on either a display or both displays to become lighter.

In an embodiment, the visual indicator or visual notification may be in the form of a portion of the image displayed by the camera when in both side mode on either a display or both displays to become darker.

in an embodiment, the picture taker may easily switch between normal mode, selfie mode and both side mode by making an input on the display facing the picture taker to make use of the best mode for the situation. The input may be a touch input to enable any mode, with each mode having their own input button, including but not limited to user interface touch button for each mode when in the camera app to switch between the mentioned modes. In another embodiment the switching between modes may occur by pressing a user interface button in a fixed location on the display and with each press the mode changes to from normal mode, selfie mode, both side mode , or in any other possible order of these modes. in another embodiment, the display facing the picture taker will display a portion on the display a visual indicator of which mode is currently active including but not limited to by either highlighting, changing the visual appearance of, or creating graphic of the mode that is active. This way if both side mode is active or not, the user will not have to turn around the electronic device to check if both side mode is on or off as a visual indicator will let the user know if both side mode is on or off or if any other mode is on or off. This makes it easier to switch to the desired mode.

both side mode is active. An input is made, the controller instructs a first display, a second display, or both first and second displays to display a countdown timer or countdown animation. When the countdown timer or countdown animation finishes or counts down to a point in time, the controller instructs the camera to store the image data it receives in storage. a visual indication or graphic or animation is displayed on the first display, second display, or both first and second display.

In an embodiment to make it easier to switch between modes of a camera displays an image on a first display viewable by a picture taker and second display viewable by an individual or

individuals a picture is being taken of or to be taken of, a camera displays an image on a first display using a rear facing camera, a camera displays an image on a first display using a rear facing camera on an electronic device. Or to make it easier to switch between both side mode, selfie mode and normal mode. Via an input, a user can activate the mentioned modes. The input may be any input including but not limited to touch, button press, voice activated, or any other input method. An input may switch from one mode to another. A second input mode switch to another mode and so on until the user is satisfied with the mode chosen. A graphic may be displayed which mode is active. A graphic may be displayed which mode is next. A graphic for each mode may be displayed and a touch input or pen input on a graphic relating to a certain mode may activate the mode. The modes being as either a) a camera displays an image on a first display viewable by a picture taker and second display viewable by an individual or individuals a picture is being taken of or to be taken of b) a camera displays an image on a first display using a rear facing camera c) a camera displays an image on a first display using a rear facing camera on an electronic device. An input may also be made where the input is not made by a touch input of the icon or graphic displaying graphic information about a mode. For example an input may be made including but not limited to a touch input on a second display by said picture taker or an individual or individuals a picture is being taken of or to be taken of and a visual graphic is displayed on a portion of the first display to notify the picture taker which mode is active and said visual graphic has visual information relating to the active mode or alternatively two or visual informations each being a mode may be displayed on a first display and the mode that is active visually differs from visual information of other modes to let the picture taker know which mode is active.

In an embodiment, to save battery, when in both side mode, the display usually used to display an image from the camera to a individual or individuals a picture is to be taken of is turned off or brightness is decreased to save battery when there are no individual or individuals a picture is to be taken of present in the camera image or view of the camera. Image analyzing software may be used to determine if individual or individuals a picture is to be taken of are present in the camera image or orientation sensors may be used such that if the electronic device is not orientated in a way to take pictures, the mentioned display turns off. Any other method to detect if individual or individuals a picture is to be taken of are present in the camera image may be used as known to a person skilled in the art. The mentioned display may also turn off if the touch sensors in the mentioned display detect a hand cupping or holding or touching the mentioned display which indicates the picture taker may not be taking a picture at the moment.

In an embodiment when in both side mode or a mode where a camera displays an image on a first display viewable by a picture taker and second display viewable by an individual or individuals a picture is being taken of or to be taken of, the touch input on the second display is turned off or ignored to make the picture taking experience easier for the picture taker. the

picture taker may accidentally touch the second display wherein the second display is a touch screen which may make unintended inputs, such an embodiment solves this problem.

The controller detects the electronic device is in both side mode or the mode of where a camera displays an image on a first display viewable by a picture taker and second display viewable by an individual or individuals a picture is being taken of. The controller ignores any touch inputs made on the second display or the touch input of the second display or touch input on the second display is inactive.

A method to turn off touch input on a display comprising a) An electronic device b) a camera displays an image on a first display viewable by a picture taker and second display viewable by an individual or individuals a picture is being taken of or to be taken of on an electronic device, whereby touch input or inputs on said second display is ignored or touch input on said second display is inactive.

As illustrated in fig 50 In an embodiment, when in both side mode, the brightness of the display viewable by the individual or individuals a picture is being taken of or to be taken of is adjustable via a user input or automatically based on inputs received by a sensor including but not limited to a light sensor. Additionally the brightness of the display viewable by the picture taker is adjustable via a user input or automatically based on inputs received by a sensor including but not limited to a light sensor. This will allow the individual or individuals a picture is being taken of or to be taken of to be able to view the display viewable by them at a level which is optimal and will allow the picture taker to be able to view the display viewable by them at a level which is optimal.

The input may be a slider with a button that increases or decreases brightness of the display facing individual or individuals a picture is being taken of or when button is moved across the slider to be taken of to be able to view the display viewable by them at a level which is optimal. The slider with the button may be placed on the display facing or viewable by the picture taker.

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera. Via an input the controller instructs the second display to change its brightness. Via an input the controller instructs the first display to change its brightness.

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera. Via an input the controller instructs the second display to change its brightness.

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera. the controller instructs the second display to change its brightness based on measurement from a light sensor. the controller instructs the first display to change its brightness based on measurement from a light sensor.

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera. the controller instructs the second display to change its brightness based on distance of the individual or individuals a picture is being taken of or to be taken of from the electronic device or a component of the electronic device such as a sensor and a software to analyze distance of individual or individuals a picture is being taken of or to be taken of from the electronic device or a component of the electronic device such as a sensor . the controller instructs the first display to change its brightness. instructs the first display to change its brightness based on measurement from a light sensor in conjunction with the controller instructs the second display to change its brightness based on measurement from a light sensor. the controller instructs the first display to change its brightness based on measurement from a light sensor.

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera. the controller instructs the second display to change its brightness based on distance of the individual or individuals a picture is being taken of or to be taken of from the electronic device or a component of the electronic device such as a sensor and a software to analyze distance of individual or individuals a picture is being taken of or to be taken of from the electronic device or a component of the electronic device such as a sensor . the controller instructs the first display to change its brightness. instructs the first display to change its brightness based on measurement from a light sensor

In an embodiment, the distance of the individual or individuals a picture is being taken of or to be taken of is computed by the controller and the brightness on the display facing the individual or individuals a picture is being taken of or to be taken of is adjusted accordingly to values assigned to each distance of the individual or individuals a picture is being taken of or to be taken of from the electronic device. Additionally the automatic adjusting of brightness of the display facing the individual or individuals a picture is being taken of or to be taken of via the light sensor detecting light levels may be used in conjunction with adjustment of the brightness of the display viewable by the individual or individuals a picture is being taken of or to be taken of automatically. The controller may instruct the image sensor to determine the distance of the

individuals a picture is being taken of or to be taken of via methods known to a person skilled in the art.

In an additional embodiment, the information recorded by the camera shown on screen side B is processed by the cpu and or ram in the smart phone using programming that converts the camera signal into digital data which outputs to screen side B and to screen side A simultaneously from the cpu and or ram and processed by image recording and or viewing software loaded on the smartphone from a person having ordinary skill in the art who programs a camera image to show on one screen, and furthermore onto another screen.

Screen side A is interchangeable with front screen. Screen side B is interchangeable with back screen.

In an embodiment, the dual sided screen smartphone **Fig 5 and 6** has a feature which on activation from screen side A **2**, to display a camera live view on screen side B **3** from camera on screen side B **3**.

In an embodiment, the dual sided screen smartphone **Fig 5 and 6** has a feature which on deactivation from an interface on screen side A **2**, to not display a camera live view on screen side B **3** from camera on screen side B **3**.

In an embodiment, after a picture is taken, it is displayed on the screen side B **3** for viewing.

In an embodiment, after a picture is taken, it is displayed on the screen side B **3** for viewing for a predetermined duration.

In an embodiment, the live camera view captured by the camera **4** on screen side B **3** and displayed on screen side B **3** displays animations which are interacting with, attached to the head, face, body or surroundings of the individual or individuals being photographed using image processing software which creates animations which interact with the individual or individuals a photograph is being taken of using facial recognition software or body recognition software.

In an embodiment, a dual sided screen smartphone **Fig 5 and 6** with a front and back screen, a camera **4** on the screen side B **3**, a live camera feed view from the camera **4** on the screen side B **3** that is displayed on screen side B **3** so an individual or individuals whos photo is being taken can view how they look or are positioned in the live camera view. The photo taker takes a picture by viewing the front screen side A **2**

that is facing the picture taker. The screen side B 3 faces the individual or individuals who are being photographed.

In an embodiment, screen side B 3 and screen side A 2 of the dual sided screen smartphone **Fig 5 and 6** is connected by a curved screen on one edge side of the smart phone.

In an embodiment, screen side A and screen side A of the smart phone is connected by a curved screen on two edge sides of the dual sided screen smartphone becoming a wrap around screen.

In an embodiment, screen side A and screen side B of the dual sided screen smartphone is connected by a curved screen on the phones sides and top and bottom edges becoming a full wrap around screen.

an individual or individuals who's picture to be taken or taken or is being taken or the like means a person who is posing for a picture.

when we say camera receives an image, camera displays an image on a display, the image from the camera is displayed on a display, the visual information from the camera is displayed on a display, or the like or similar function, it also means the camera image received by a camera is output to a display, with the display being either a first display and or a second display.

As illustrated in fig 23-25 In an embodiment, when both side mode is used for a handheld camera including but not limited to a dslr or mirrorless camera or video camera, the two displays are arranged parallel to each other on a display holding assembly. This assembly may articulate as well.

A method to display a visual indicator to let an individual or individuals a photo is being taken of that a photo has been taken as seen on a live view of the image from a camera receiving visual information of the individual or individuals a photo is being taken of which is viewable by the individual or individuals a photo is being taken of on a first display facing the individual or individuals a photo is being taken of while the visual information of an individual or individuals a photo is being take of is also displayed on a second display to a picture taker comprising a) an input to take a picture is made b) a visual change in said first display occurs whereby said visual change visually notifies a viewer of a display that a picture has been taken. Additionally further comprising said visual change in said second display occurs. Additionally wherein said visual change occurs when said input to take a picture is made. Additionally wherein said visual change occurs momentarily after said input to take a picture is made.



A use to display a visual indicator to notify an individual or individuals a photo is being taken of that a photo has been taken wherein the picture taker is not in the camera image displayed on a display and the visual information received by a camera and displayed on a display include the individual or individuals a picture is being taken of comprising a) an electronic device is in both side mode b) an input to take a picture is made by a picture taker c) a visual change in said a display displayed to an individual or individuals a picture is being taken of occurs whereby said visual change visually notifies a viewer of a display that a picture has been taken. Additionally wherein said visual change occurs when said input to take a picture is made. Additionally wherein said visual change occurs momentarily after said input to take a picture is made. Additionally wherein said visual change occurs when and momentarily after said input to take a picture is made.

A method for controlling a display that is facing an individual or individuals a picture is to be taken of or is being taken of comprising a) An electronic device b) a controller c) a first display surface and a second display surface wherein said first display is facing a picture taker and said second display is facing an individual or individuals a picture is being taken of or to be taken of d) a camera e) said camera obtaining an image and displaying it on said first display f) an input which displays an image from said camera on a second display. Additionally wherein the controller adds visual information to said second display based on a predetermined function or functions of said input.

A method to control display brightness of an electronic device comprising: a) An electronic device b) a first display and a second display c) a camera d) whereby an image from said camera is displayed on said first display which is viewable by a picture taker and said second display which is viewable by an individual or individuals a picture is being taken of or to be taken of e) whereby via user input the brightness of said second display is adjustable. Additionally via an input the brightness of said first display is adjustable.

A method to adjust display brightness of an electronic device comprising a) An electronic device b) a first display and a second display c) a camera d) whereby an image from said camera is displayed on said first display which is viewable by a picture taker and said second display which is viewable by an individual or individuals a picture is being taken of or to be taken of e) whereby via the brightness of said second display is automatically adjusted based on information received by a sensor. Additionally based on information received by a sensor the brightness of said first display is automatically adjusted.

A method to adjust display brightness of an electronic device comprising a) An electronic device b) a first display and a second display c) a camera d) whereby an image from said camera is displayed on said first display which is viewable by a picture taker and said second display which is viewable by an individual or individuals a picture is being taken of or to be taken of e)

whereby via the brightness of said second display is automatically adjusted based on information received by a sensor determining distance of the individuals a picture is being taken of or to be taken of. Additionally the brightness of said second display is automatically adjusts based on information received by a sensor. Additionally wherein the brightness of said second display is automatically adjusted based on information received by a light sensor.

A use for applying a visual change on visual information displayed from a camera on a display on an electronic device to notify individual or individuals a picture is being taken or to be taken of comprising a) a controller b) a first display, said first display viewable by a picture taker c) a second display, said second display viewable by an individual or individuals a picture is being taken of d) a camera, said camera viewing individual or individuals a picture is being taken of or to be taken of, the controller instructs said camera to display visual information received by said camera to be displayed on said first display and the same or similar image to be displayed on said second display e) a storage medium e) whereby via a user input which instructs the controller make a visual change to the said visual information displayed on said second display whereby said input also takes a picture and said controller instructs to store the visual information on said storage medium whereby said visual change notifies individual or individuals a picture is being taken of or to be taken of that a picture has been taken as seen on said second display when said visual change occurred on said second display. Additionally the controller make a visual change to the said visual information displayed on said first display to notify the picture taker that a picture has been taken as seen on said first display when said visual change occurred on said first display.

A method to display a visual indicator to let an individual or individuals a photo is being taken of that a photo has been taken as seen on a live view of the image from a camera receiving visual information of the individual or individuals a photo is being taken of which is viewable by the individual or individuals a photo is being taken of on a first display facing the individual or individuals a photo is being taken of while the visual information of an individual or individuals a photo is being take of is also displayed on a second display to a picture taker on a electronic device comprising a) an input to take a picture is made b) a visual change in said first display occurs whereby said visual change visually notifies said individual or individuals a photo is being taken of that a picture has been taken. Additionally comprising a visual change in said second display occurs whereby said visual change visually notifies said picture taker a photo has been taken. Additionally wherein said visual change occurs when said input to take a picture is made. Additionally wherein said visual change occurs momentarily after said input to take a picture is made. Additionally wherein the electronic device is a foldable smartphone.

A use to display a visual indicator to notify an individual or individuals a photo is being taken of that a photo has been taken wherein the picture taker is not in the camera image displayed on

a display and the visual information received by a camera and displayed on a display include the individual or individuals a picture is being taken of comprising a) an electronic device is in both side mode b) an input to take a picture is made by a picture taker c) a visual change in said a display displayed to an individual or individuals a picture is being taken of occurs whereby said visual change visually notifies a viewer of a display that a picture has been taken. Additionally wherein said visual change occurs when said input to take a picture is made. Additionally wherein said visual change occurs momentarily after said input to take a picture is made. Additionally wherein said visual change occurs when and momentarily after said input to take a picture is made.

A use for applying a visual change on visual information displayed from a camera on a display on an electronic device to notify individual or individuals a picture is being taken or to be taken of comprising a) a controller b) a first display, said first display viewable by a picture taker c) a second display, said second display viewable by an individual or individuals a picture is being taken of d) a camera, said camera viewing individual or individuals a picture is being taken of or to be taken of, the controller instructs said camera to display visual information received by said camera to be displayed on said first display and the same or similar image to be displayed on said second display e) a storage medium f) whereby via a user input which instructs the controller make a visual change to the said visual information displayed on said second display whereby said input also takes a picture and said controller instructs to store the visual information on said storage medium whereby said visual change notifies individual or individuals a picture is being taken of or to be taken of that a picture has been taken as seen on said second display when said visual change occurred on said second display. Additionally further comprising the controller make a visual change to the said visual information displayed on said first display to notify the picture taker that a picture has been taken as seen on said first display when said visual change occurred on said first display.

A method to display a picture taken to an individual or individuals whose photo has been taken on an electronic device that had a live view of the image from a camera receiving visual information of the individual or individuals a photo is being taken of which is viewable by the individual or individuals a photo is being taken of on a first display facing the individual or individuals a photo is being taken of while the visual information of an individual or individuals a photo is being taken of is also displayed on a second display to a picture taker on an electronic device comprising a) an input to take a picture is made b) the picture is displayed on a first display and the picture is displayed on a second display. Additionally said picture is displayed for a predetermined period of time. Additionally via an input made before said predetermined period of time, said picture stops being displayed and the electronic device returns to a live view of the image from a camera receiving visual information of the individual or individuals a photo is being taken of which is viewable by the individual or individuals a photo is being taken

of on a first display facing the individual or individuals a photo is being taken of while the visual information of an individual or individuals a photo is being take of is also displayed on a second display to a picture taker. Additionally wherein the electronic device is a foldable smartphone. Additionally wherein via said input to take a picture a visual change occurs on the picture displayed. Additionally wherein via said input to take a picture between both side mode and said picture being displayed a visual notification to notify users a picture has been taken occurs on said first display and said second display.

A use for applying a visual change on visual information displayed from a camera on a display on an electronic device to notify individual or individuals a picture is being taken or to be taken of comprising a) a controller b) a first display, said first display viewable by a picture taker c) a second display, said second display viewable by an individual or individuals a picture is being taken of d) a camera, said camera viewing individual or individuals a picture is being taken of or to be taken of, the controller instructs said camera to display visual information received by said camera to be displayed on said first display and the same or similar image to be displayed on said second display e) a storage medium e) whereby via a user input which instructs the controller make a visual change to the said visual information displayed on said second display whereby said input also takes a picture and said controller instructs to store the visual information on said storage medium whereby said visual change notifies individual or individuals a picture is being taken of or to be taken of that a picture has been taken as seen on said second display when said visual change occurred on said second display. Additionally the controller makes a visual change to the said visual information displayed on said first display to notify the picture taker that a picture has been taken as seen on said first display when said visual change occurred on said first display.

A method to display a visual indicator to let an individual or individuals a photo is being taken of that a photo has been taken as seen on a live view of the image from a camera receiving visual information of the individual or individuals a photo is being taken of which is viewable by the individual or individuals a photo is being taken of on a first display facing the individual or individuals a photo is being taken of while the visual information of an individual or individuals a photo is being take of is also displayed on a second display to a picture taker comprising a) an input to take a picture is made b) a visual change in said first display occurs whereby said visual change visually notifies a viewer of a display that a picture has been taken. A method to display a visual indicator to let an individual or individuals a photo is being taken of that a photo has been taken as seen on a live view of the image from a camera receiving visual information of the individual or individuals a photo is being taken of which is viewable by the individual or individuals a photo is being taken of on a first display facing the individual or individuals a photo is being taken of while the visual information of an individual or individuals a photo is being take of is also displayed on a second display to a picture taker of claim 1 further comprising said

visual change in said second display occurs. Additionally wherein said visual change occurs when said input to take a picture is made. Additionally wherein said visual change occurs momentarily after said input to take a picture is made.

**Description of Visual effect and Brightness adjustment:**

Just imagine, a picture is being taken of you using an electronic device with a first display and a second display wherein the first display displays a live view from a camera and the same or similar live view is displayed on a second display and you can see a live view of you on the second display while the photographer uses the first display as their live view. The background behind you is static and you are in a static pose. When the picture is taken and displayed to you it is similar to the live view and you cannot tell the picture taken is being displayed or has been displayed momentarily. You ask, did you take a picture yet? Now imagine when a picture is taken of you it is displayed to you on the second display and a visual effect or a visual change is applied to the picture displayed. You instantly know a picture taken is being displayed to you due to the visual effect.

For any embodiments disclosed a first display may mean a first display area viewable by a photographer and a second display may mean a second display area viewable by a subject or subjects of photography.

For any embodiments disclosed in this document, when we refer to a display is viewable by the subjects or the like and when we refer to the display is viewable the photographer or the like, for purposes of understanding the scope of the claims or embodiments, it means the electronic device having the displays is at any point between the photographer and subjects. Furthermore the photographer is a different person than the subject or subjects. Viewable may also mean facing. These statements may apply to any disclosure in the document for any embodiment even if the disclosure has separate unrelated or related or closely related disclosures.

In any embodiment, the displays may be touchscreen displays.

Any of the processes mentioned in any embodiment in this document may use a memory and a processor wherein code on the memory instructs the processor to perform the mentioned function. Any of the processes mentioned in any embodiment in this document may use a processor wherein the processor instructs the mentioned component to perform the mentioned function. These statements may apply to any disclosure in the document for any embodiment even if the disclosure has separate unrelated or related or closely related disclosures.

Any of the embodiments or portions of the embodiments may be interpreted as a method or any embodiment may also be a description for a means plus function.

It is to be understood that every time a component performs an action or event or an input is made or one event causes another event or action or outcome to occur it is to be understood that the processor is enabled via executing instructions stored on said memory to perform such an action or outcome or event and or every time an input is made or one event causes another event or action or outcome to occur it is to be understood that the processor is enabled via executing instructions stored on said

memory to perform such an action or outcome or event based on an input or one event causes another event.

"Whereby code on said memory instructs the processor to" or the like may mean "The processor is enabled via executing instructions stored on memory to".

A first display may mean any display area or combined areas that display a live view from the camera. A second display may mean any display area or combined display areas that display a live view from the camera.

Atleast one benefit of the following embodiments is allowing a subject of photography to easily recognize a picture that is taken of them is being displayed to them.

When a picture is taken and displayed to subjects using a foldable phone or multi screen device or dual screen device, the subjects may not be aware that a picture taken is being displayed to them and may mistake the picture being displayed to them as a live view.

Anytime an event is performed or something is applied or a component performs something or something is performed from a component or an event occurs using a component or an effect is applied or an image is displayed from the camera or an input is made or an event occurs for a predetermined period of time or an input is made on a button or the camera displays information on a display or an input is made or a picture is displayed or a display turns off or a display turns on or a sensor senses information or a display brightness is adjusted or a component is mentioned performing a task or an event occurs on a component or an event occurs or two components perform a task or any outcome or process is mentioned it is to be understood that instructions stored in memory when executed enables the processor to perform such tasks or outcomes or events or steps or the processor may perform such tasks or outcomes or events or steps or the processor and code may perform such tasks or outcomes or events or steps using components mentioned or there are instructions that perform such tasks or outcomes or events or steps or the processor may instruct a component to perform such tasks or outcomes or events or steps or the tasks or outcomes or events or steps are performed in such a way a person having skill in the art ought to be aware of. If a claim mentions the use of instructions stored in memory when executed enables the processor to perform a task or outcomes or events or steps or the like, this may mean this understanding is applied to all other parts of the claims where a task or outcome or events or steps or components are disclosed. If a claim mentions instructions stored in memory when executed enables the processor to perform tasks or outcomes or events or steps, it may mean any meaning described in this paragraph. If a claim does not mention "instructions stored in memory when executed enables the processor to" or the like, it is to be understood that any event of outcome or step or process may have the term " instructions stored in memory when executed enables the processor to perform such tasks or outcomes or events or steps" applied to it. "Instructions stored in memory when executed enables the processor to perform such tasks or outcomes or events or steps" or the like may mean its literal meaning or something similar to it when interpreting this paragraph.

When it is stated that a certain term will now be referred to as or, shall be referred to as, or the like, it is a non limiting statement and shall be understood as stated or shall be understood as it may be referred to as a certain term but a synonymous term may also suffice if previously mentioned.

The term an individual or individuals a picture is to be or being taken of or the like may be interchangeable with subject or subjects or person or persons.

There may be several devices the disclosure may be implemented on therefore here we shall describe some devices that may make use of any of the embodiments described in this disclosure. For use on a foldable phone having a first screen side and second screen side when folded wherein both these screen sides are connected by a foldable or bendable display portion and a first screen side is viewable by a photographer or videographer and the second screen side is viewable by an individual or individuals a picture is to be or being taken of, the first screen side may be referred to as a first display and the second screen side may be referred to as a second display. In another device, a foldable phone having at least 3 layers of displays when in a folded state, the foldable phone having a first display surface on atleast one side of said foldable phone when in a particular fold state on atleast one exterior side of said foldable phone, a second display surface with a fold point arranged in said second display when folded when said foldable phone is in a folded state arranged on the interior of said foldable phone. When said foldable phone is unfolded at the second display fold point, the surface of the second display may be larger than the first display, for this case a first display surface may be referred to as a first display and the second display surface may be referred to as a second display. The device may also be a dual screen phone that has a hinge wherein the displays are separate from each other meaning being displays of their own in one device. The dual screen phone having two displays, one display may be referred to as a first display and the other display may be referred to as a second display. A foldable device with a first display with a bendable portion and a second display with a bendable portion may be used. In another use case, a phone with a display on one side of the phone and a display on the other side of the phone where there displays are set meaning the device is a non folding device, or has a wrap around display on atleast one side, or each of the displays are separate, and one side may be referred to as a first display and the other side may be referred to as a second display. Other devices may also be used where a first display area is viewable by a photographer and a second display area is viewable by subjects wherein the device is at any point between the photographer and the subjects and held by the photographer.

Any portion or portions of the disclosure may be added to any other portion or portions of the disclosure or be a definition of or is incorporated into any other portion or portions of the disclosure anywhere else in the disclosure in a non limiting way. For example the meaning of an electronic device as follows may be added to or incorporated with or understood as meaning such a definition of an electronic device when an electronic device or embodiment is mentioned anywhere in the disclosure as a non limiting example. This avoids repetitiveness and makes the disclosure easier to read. As a non limiting example, the following description of an electronic device may be placed anywhere in any other part of the disclosure.

An electronic device or foldable device or the like may mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface

and a fourth surface opposite the third surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge. A first display may be arranged on the first and third surface that may be a bendable display. A second display may be arranged on the fourth surface or the second surface or both surfaces. This device may be in a unfolded or flat state. Alternatively when describing a camera receiving visual data of a person that is not described as the person holding the electronic device (photographer or videographer) it may be a camera on a side of the display that is viewable or facing the subject or subjects.

An electronic device or foldable device or the like may also mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface and a fourth surface opposite the third surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge. A first display may be arranged on the second and or fourth surface. A second display may be arranged on the first surface and third surface and may be a bendable display. This device may be in a unfolded or flat state. Alternatively when describing a camera receiving visual data of a person that is not described as the person holding the electronic device (photographer or videographer) it may be a camera on a side of the display that is viewable or facing the subject or subjects. The first display may be a foldable display or may be a non foldable display.

An electronic device or foldable device or the like may also mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface and a fourth surface opposite the third surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge. A first display may be arranged on the first surface. A second display may be arranged on the fourth surface and the second surface which is a bendable display. An example of this type of device is the galaxy fold. This device may be in a unfolded or flat state or any other fold state.

An electronic device or foldable device or the like may also mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface and a fourth surface opposite the third surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge. A first display may be arranged on the first surface and a second display may be arranged on the third surface. This device may be in a folded state or any other fold state. An example of this type of device may be the Mate x or the Flex pai.

An electronic device or foldable device or the like may also mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface and a fourth surface opposite the third surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge. A third body or more may be connected to an edge of a body also to create a more than two layer device when folded. In one fold configuration a first display is arranged on a surface and a second display is arranged on another surface whereby the displays are facing in opposite directions from each other when in one fold state. A camera may be located on a side of the first display and or a camera may be



placed on the side of the second display and they may be referred to as a first camera and second camera respectively or vice versa or may be referred to as a camera wherein one camera receives visual data of one person and another camera receives visual data of another person or the like. Alternatively when describing a camera receiving visual data of a person that is not described as the person holding the electronic device (photographer or videographer) it may be a camera on a side of the display that is viewable or facing the subject or subjects.

An electronic device or foldable device or the like may also mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface and a fourth surface opposite the third surface, and a third body with a fifth surface and a sixth surface opposite the fifth surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge and the other edge of the second body may be connected via a hinge to the edge of the third body. The first, third and fifth surface may have a display arranged on the surfaces. The display on the second body may be a first display. The displays on the first and third body may be a second display. A camera may be located on a side of the first display and another camera may be placed on the side of the second display and they may be referred to as a first camera and second camera respectively or vice versa or may be referred to as a camera wherein one camera receives visual data of one person and another camera receives visual data of another person or the like. Alternatively when describing a camera receiving visual data of a person that is not described as the person holding the electronic device (photographer or videographer) it may be a camera on a side of the display that is viewable or facing the subject or subjects.

An electronic device or foldable device or the like may also mean and or comprise a device with a first body with a first surface and a second surface opposite the first surface, a second body with a third surface and a fourth surface opposite the third surface, and a third body with a fifth surface and a sixth surface opposite the fifth surface. Each body may have at least one edge. An edge of the first body may be connected to an edge of the second body via a bendable or rotatable hinge and the other edge of the second body may be connected via a hinge to the edge of the third body. The first, third and fifth surface may have a display arranged on the surfaces. The display on the second body may be a second display. The displays on the first and third body may be a first display. A camera may be located on a side of the first display and another camera may be placed on the side of the second display and they may be referred to as a first camera and second camera respectively or vice versa or may be referred to as a camera wherein one camera is off or on or used or receives visual data of one person or subject and another camera is off or on or used or receives visual data of a person or a subject and the use of each camera will be described wherein one camera is on a first display side and the other is on a second display. Alternatively when describing a camera receiving visual data of a person that is not described as the person holding the electronic device (photographer or videographer) it may be a camera on a side of the display that is viewable or facing the subject or subjects.

Any of the electronic devices may have at least one camera on at least one surface of a body. A camera which receives visual data of a person or subject shall be understood as being placed on a surface which faces the subject of person or on a display that is viewable or facing the person mentioned.

A camera may be located on any surface of a body of the electronic device, an additional camera may be located on any surface of a body of the electronic device, and further additional cameras may be located on any surface of a body of the electronic device.

The meaning of electronic device is not restricted or limited to the above meanings as any device with two displays or display areas may be used wherein the first display is viewable by one person and the second display is viewable by another person and each person is not able to view the other persons display as the device may be at a point in between the two people when the device is in a certain fold state to accommodate such a state. A person in this example may mean a photographer or subjects.

The embodiments may also be applied to a device with at least one rollable display where the rollable display has a first display surface and is viewed by one person and has a second display surface and is viewable by another person and the device is at any point in between the first and second person. A person in this example may mean a photographer or subjects.

Any embodiment may use a device as mentioned in the embodiment or instead use an electronic device as described above and the embodiment may be applied to it.

First screen side, first display, screen side A, first display area or the like may all be interchangeable terms. Second screen side, screen side B, second display, second display area or the like may all be interchangeable terms. The first display may be viewable by the photographer and the second display may be viewable by the subjects or vice versa as in the first display may be viewable by subjects and the second display may be viewable by the photographer also. Subjects may mean a person or persons who's picture is or are being taken of or to be taken of or a person or persons posing for a picture. When the term subject or subjects is used, it refers to a human or humans posing for a picture or pictures and or having their picture recorded by any electronic device disclosed.

The meaning of a first display may mean areas of a display surface viewable by a photographer or videographer only and a second display may mean areas of a display surface viewable by an individual or individuals a photo is to be taken of or being taken of only, as in the subjects of photography however this is a non limiting statement as it may also be the other way around. Furthermore the terms used of first display and second display may or may not be switched, for example a first display may mean the definition of a second display or a first display, or a second display may mean the definition of a second display or a first display. When mentioning a specific device in an embodiment, it is not limited to the mentioned device and may be any electronic device with at least one display or having a first display and a second display.

The embodiments described may also be applied to tablets or laptops having the same physical configurations described.

In the event any like terms are mentioned, they are to be considered interchangeable with any other like terms.

A first display may be a first display area or a display area. A second display may be a second display area or a display area. Each display area may be a display of their own on one device or each display area may be a display area of a display having a bendable or foldable portion separating the displays wherein the display has atleast two display areas.

A visual feedback will be known as displaying a picture wherein said picture is transformed, manipulated, transitioned into view, at least a portion of the picture expands or compresses or shrinks or enlarges, slides into view, is manipulated visually for atleast a portion of a duration the picture is displayed or appears on a display for purposes of making a viewer aware a picture has been taken or a picture taken is being displayed or a live view having a visual effect applied to the live view when an input is made to take a picture and the purpose of the visual effect is to make aware to a subject or subjects that a picture has been recorded. A visual feedback may also be referred to and is synonymous or interchangeable with visual effect or visual change or the like. The visual feedback may also be known as a visual change, visual indicator, visual notification, visual effect, or the like.

The visual feedback may be momentary and lets the subjects know a picture has been taken.

A first display may mean a display area viewable by one party and a second display may mean a display area viewable by the other party wherein the party is from the group of a photographer and a subject or subjects of a picture. The first display and second display may also be a bendable display or have a bendable display between the first display and second display.

A party may mean a photographer and a subsequent party mentioned may mean the subject or subjects, or vice versa.

Subject or subjects may mean subject or subjects of a photo, individual or individuals a picture is to be or being taken of, or the like.

The data displayed by the camera on atleast one display may be also known as visual data or visual information or the like.

Visual effect, visual change, visual feedback, visual notification, visual affect, or the like may all be terms that are interchangeable.

When mentioning, "one term may also be known as another" or the like, or, "one term is similar or same as another" or something of this nature, this may also mean any one of the mentioned terms may be used and may take on its meaning or any terms explained as being similar may be used and may take on their meaning or meanings of similar terms as described. "Or the like" may mean a term or statement that is similar or synonymous with atleast one mentioned term or statement.

A photographer may also mean a picture taker.

Any term that may be similar or synonymous to another term may be interchangeable. For example, a second display and a second display area may be interchangeable.

The meaning of "term" or "terms" may also mean descriptor word or words, or word or words that describe an object or process.

The electronic device or foldable phone has at least a processor, a camera, a first display, a second display and a memory. The memory stores instructions that when executed enables the processor to perform any or all of the specifics of any embodiments described as a person skilled in the art ought to be aware of. Alternatively the processor may instruct components to perform any mentioned task or tasks in any or all embodiments. Alternatively the processor may receive instructions from code stored on the memory of the device and uses mentioned components to carry out mentioned tasks.

As an option, first display may take on what is described for second display and second display may take on what is described for first display. These terms may be switched while still retaining what was described or may remain how they are as described. First display may be interchangeable with first screen side, screen side A, second display, second screen side, or screen side B. Second display may be interchangeable with first screen side, screen side A, first display, second screen side, or screen side B.

Display may also be synonymous with screen or display area.

The term viewable may also mean or be interchangeable with facing.

The term picture may also be known as image, photo or photograph.

The term interchangeable may also mean synonymous and vice versa.

First display or second display or display may mean a display or a portion of a display.

In an embodiment, an electronic device, a foldable phone, a dual sided display device, a dual sided screen smartphone, or a smartphone, any of such devices having a first display and a second display, whether in a folded state or unfolded state, has the capability of having a particular fold configuration allowing a first display viewable by a photographer only and a second display viewable by an individual or individuals whose picture is being taken of or to be taken of only (subject or subjects) with the device at any point in between the subject or subjects and the photographer. At least one camera is arranged on any device mentioned and instructions stored on memory when executed enables the processor to display visual data from the camera of an individual or individuals a picture is to be taken or being taken of (subject or subjects) and displaying the visual data on a second display viewable by subjects as a live view and the same or similar visual data is displayed on a first display viewable by a user who is a picture taker (This description may be referred to as "both side mode" or "dual screen camera app") whereby when the picture taker makes an input, a picture is recorded and the picture taken will be displayed on both or at least one display of the first display and second display wherein the picture will shrink in size, expand in size, scroll up or down on the display, expand from a point, slide into view, be larger than the display than reveal itself inwardly via shrinking, or have any transition effect, or any visual effect or effect or at least one effect applied to the displayed picture to visually notify subjects a picture has been taken and what the picture looks like, which we may now refer to as "visual feedback" or "visual effect".

In an embodiment, an electronic device, a foldable phone, a dual sided display device, a dual sided screen smartphone, or a smartphone having a first display and a second display, whether in a folded state or unfolded state, has the capability of at least a first display viewable by a photographer and a second display viewable by an individual or individuals whose picture is being taken of or to be taken of wherein the displays may be connected by a bendable display portion or the displays may be separate displays in one electronic device product. At least one camera on a device mentioned, the camera receiving visual data of an individual or individuals whose picture is to be taken or being taken of, (such individual or individuals may be referred to as subjects) and displaying the visual data on a second display viewable by subjects as a live view. The same or similar visual data is displayed on a first display viewable by a user who is a picture taker (This description may be referred to as "both side mode" or "dual screen camera app"). When the picture taker makes an input, a picture is recorded and displayed on both or at least one display of the first display and the second display wherein the picture will shrink in size, expand in size, scroll up or down on the display, expand from a point, slide into view, encompass the display from the edges and then reveal itself inwardly, or have any transition effect or visual effect or effect applied to it to visually notify subjects or a subject a picture has been taken and what the picture looks like which may be referred to as a visual effect. We may expand on the term visual feedback or visual effect in other embodiments thus these terms may take on more meanings under the label of visual feedback or visual effect.

The visual feedback allows the subjects or subject to view the picture taken and also makes aware to the subjects or subject a picture has been taken due to the fact that the picture will shrink in size, expand in size, scroll up or down on the display, expand from a point, slide into view, encompass the display from the edges and then inward, or have any transition effect or visual effect applied to the picture taken and displayed as described.

In an embodiment, the visual feedback as seen on the second display may also occur on the first display.

When referring to a picture, it's a description of the picture displayed with a visual effect applied to the picture on at least the second display and may also be displayed on both the first and second display alternatively. When referring to the picture and a visual effect applied to it, it may also be describing the live view on at least one display and via an input to take a picture a visual effect is applied to the live view.

In an embodiment, the live view size may be less than the second display screen size to accommodate a picture expanding in size as a non limiting possibility.

When we refer to shrink in size, or shrink, it may mean the size of the picture displayed or visual data displayed to become smaller or zoomed out.

When we refer to expand in size, or expand, it may mean the size of the picture displayed or visual data displayed to become larger or zoomed in.

In an embodiment, the picture will shrink in size then retain a size for a predetermined duration and then expand in size.

an electronic device with a first display and a second display with a visual effect applied to the picture displayed. In this non limiting example the picture shrinks than expands when the picture is displayed, however any other visual effect disclosed may be applied.

In an embodiment, the picture will expand in size then retain a size for a predetermined duration and then shrink in size.

In an embodiment, the picture will scroll up the display and then become stationary, then scroll down the display.

In an embodiment, the picture will expand from a point until the picture is almost displayed or is fully displayed.

In an embodiment, the picture will slide into view from any side of the display or any corner of the display and then become stationary.

In an embodiment, the picture will be larger than the display and than shrink.

These above examples may be referred to as visual feedback as well. Any other visual feedback or visual effect may also be used.

In an embodiment, the visual feedback may end opposite to how it was introduced, for example slide up the display, remain stationary, and then slide back down. Or the visual feedback may expand then shrink or vice versa.

The visual feedback or stationary image may be for a predetermined duration. As a non limiting statement and just for example purposes the duration may range from fractions of a second to several seconds. The visual feedback may also pause or remain displayed up until an input is made to return to the state of displaying visual data from the camera as a live view.

In an embodiment, the picture may remain stationary for a predetermined period of time.

In an embodiment after the visual feedback occurs, the first and or second display returns to displaying a live view from the camera.

In an embodiment the visual feedback may be any transition or visual manipulation or transformation of the picture. The visual feedback will notify subjects a picture has been taken and is being displayed.

In an embodiment, the picture may expand as if it's zooming in gradually or expand as if it's instantaneous from one size to another.

In an embodiment, the picture may shrink as if it's zooming out gradually or shrink as if it's instantaneous from one size to another.

In an embodiment, the visual feedback may be as if the picture is flying in or rotating into view.

in an embodiment, the picture may appear via a transformation or transition from one size to another size or appear into view and become stationary for a moment.

in an embodiment, the picture may appear via a transformation or transition from one size to another size or appear into view and return to a live view. Before returning to the live view the picture may go out of view transitioning into the live view.

In an embodiment, a first visual effect occurs on the picture displayed and then a second visual effect occurs on the picture displayed. As a non limiting example, the first visual effect may be the picture displayed is shrinking, and the second visual effect may be a brightening of the picture displayed. Additionally a third visual effect may be applied to the picture displayed. Furthermore a fourth and fifth visual effect may be applied to the picture displayed.

in an embodiment, a blackout does not occur before the visual feedback and when a picture is taken. A blackout means the display going black when a picture is taken.

in an embodiment, a blackout may or may not occur before the visual feedback.

In an embodiment, the live view may remain in the background of the visual feedback.

In an embodiment, the live view may not remain in the background of the visual feedback and the background may be black or any other visual data other than the live view.

When we talk about a background it may mean the visual data outside the perimeter of the picture displayed.

in an embodiment , if the visual feedback expands or shrinks, the live view may not fill the entire display on both or atleast one first and second display and the picture displayed at the start of the visual feedback may not fill the entire display on both or atleast one first and second display.

in an embodiment , if the visual feedback shrinks, the live view may fill the entire display on the first display and or second display and the picture shrinks from the live view size.

in an embodiment , if the visual feedback expands, the live view may not fill the entire display on the first display and or second display and the picture expands from the live view size.

in an embodiment , if the visual feedback expands or shrinks, the live view may fill the entire display on the first display and or second display and the picture displayed at the start of the visual feedback may fill the entire display on the first display and or second display.

In an embodiment in regards to the stationary picture displayed, the picture displayed is not horizontally flipped when displayed thus preventing confusion to the subject or subjects that have been photographed allowing a similar view between live view and the picture taken. In a further embodiment the picture is stored as being flipped on its horizontal or vertical axis relative to how it was displayed.

When the term stationary is used it may mean the picture is still and not moving or being transformed visually during the duration the picture is displayed.

The first display and second display may be connected by a bendable or foldable display portion. A first display may also mean a separate display or a section of a display or a display with a bendable portion. A second display may mean a separate display or a section of a display or a display with a bendable portion. Section of a display may occur when you have a foldable or bendable display and the bend or fold creates two display sections.

In an embodiment another use case for the visual feedback, comprising a smart phone, atleast one display, a camera which is either a front or rear camera displaying visual data recieved by the camera on the atleast one display, via an input made to take a picture, the picture taken is displayed on the display and a visual feedback occurs on the picture to allow a photographer to see the picture taken. This picture may be a selfie or a picture of an object, landscape or subjects.

In an embodiment another use case for the visual feedback, comprises a hand held camera comprising one display, a camera either a front or rear camera displaying visual data recieved by the camera on the one display, via an input made to take a picture, the picture taken is displayed on one display and a visual feedback occurs on the picture to allow a photographer to see the picture taken. This picture may be a selfie or a picture of an object, landscape or subjects. The camera may be a dslr, mirrorless camera or any other type of camera.

In an embodiment, a camera such as a dslr or mirrorless camera or any other hand held camera having a first display and a second display implements a visual feedback as disclosed on such a device.

Any of the mentioned embodiments may also be applied to tablets or laptops therefore any mention of a phone or smart phone may be interchanged with a tablet or laptop also. The tablet or laptop may have any type of display configuration disclosed.

In an embodiment, a smartphone with a display area viewable by a photographer and another display area viewable by subjects, the display areas also having touchscreens, when an input to take a picture is made for example via a touch input or any other input, the picture taken is displayed on atleast one mentioned display area or both display areas and the picture displayed has any visual effect applied to the picture displayed on atleast one mentioned display area or both display areas. The picture may be displayed for any predetermined period of time that is perceptible to a viewer and may be from less than a second up to a few minutes and anywhere inbetween, or the picture may remain displayed until an input is made.

In an embodiment, a live photo is taken and displayed in a repeating fashion on a display viewable by a subject and or a photographer. The amount of times the live photo repeats may be a predetermined amount of time or until an input is made. A visual feedback may also be applied to the live photo.

In an embodiment, the visual effect may be a closing aperture effect applied to a live view or a picture displayed after an input to take a picture and is displayed on atleast a display viewable by subjects and additionally may be displayed on a display viewable by the photographer.



In an embodiment, a visual feedback or visual effect of any kind may be applied to the live view which is visual data received by the camera and displayed on a display viewable by at least the subject or subjects when an input to take a picture occurs. Additionally a visual feedback or visual effect of any kind may also be applied to the live view which is visual data received by the camera and displayed on a display viewable by a photographer.

Any mention of any manipulation of or change of visual data prompted by an input to take a picture to a live view or a picture displayed that was taken may be referred to as a visual effect or visual feedback. A visual feedback or visual effect may be any manipulation of or change of visual data prompted by an input to take a picture to a live view or a picture displayed that was taken on at least a display viewable by a subject on an electronic device, wherein the electronic device also has a display viewable by a photographer or videographer.

The display viewable by a photographer and the display viewable by subjects are either two different displays or two different display areas.

In an embodiment, the visual feedback may be any visual effect or any zoom effect or any more than one zoom or visual effect that may be available from a video editing software and applied to the picture being displayed or a live view when an input is made to take a picture.

In an embodiment, the visual feedback or visual effect differs from the live view in order to allow a differentiation between the live view and a picture taken or when a picture is taken or a picture displayed.

In an embodiment, which may be applied to all embodiments, an electronic device comprising a camera or image sensor, a controller or processor, a memory, a first display, a second display, and instructions stored in the memory when executed enables the processor to display visual data received by the sensor on the first display and also on the second display, and instructions stored in the memory when executed enables the processor to via an input to take a picture which may be from a touch input upon a touch screen of the first display as a non limiting example that applies a visual effect to at least the visual data on the second display or the picture taken is displayed on the first display and or the second display and a visual effect is applied to the picture and the picture along with the visual effect is displayed for a predetermined period of time or until an input is made which returns the device back into both side mode. The hardware may be a smartphone, tablet or foldable phone with a first display viewable by a photographer or videographer and the second display may be a display viewable by subjects or a subject. The hardware if a foldable phone may be in any fold state that allows a first display to be viewable by photographer or videographer only and second display viewable by a subject or subjects. Optionally, the hardware mentioned may interact with each other and or different components may be added or subtracted in order to have an outcome of any of the embodiments that a person having skill in the art ought to be or shall be aware of. The visual effect may also be applied to at least the first display upon a picture displayed or the live view when an input is made to take a picture. Code stored in the memory may enable the processor to achieve any or all mentioned tasks in this embodiment or any other embodiments.

In an embodiment, the visual effect makes it clear that a picture was taken and is able to be viewed from a distance by the subject or subjects from a display of the foldable phone.

In an embodiment, the visual feedback may be an overlay of text on the picture displayed.

In an embodiment, the visual feedback may be an overlay of text asking a question, with at least one input to accept or reject the picture displayed.

In an embodiment, no blackout occurs to the live view on at least one display or on the first display and the second display when an input is made to take a picture and a picture is taken. The camera sensor may be a sensor able to provide no blackout when a picture is taken.

In an embodiment, a blackout may occur between the input to take a picture and the visual feedback.

In an embodiment, any electronic device may have any embodiment mentioned applied to it.

In an embodiment, any foldable phone such as a phone with two screen layers when folded, three screen layers when folded, four screen layers when folded, or more screen layers when folded, may have the embodiments mentioned applied to it in at least one fold state of the foldable phone wherein the first display is viewable by the photographer and the second display is viewable by the subject or subjects.

In an embodiment, the visual effect or visual feedback may be a plurality of effects. As a non limiting example, the visual feedback comprises of shrinking then expanding, or expanding then shrinking.

In an embodiment a border is applied to the perimeter of the picture which may change in order to accommodate or follow the visual feedback.

In an embodiment, the shrink in size effect may be in a smooth continuous shrinking or may be instant from one size to a smaller size.

In an embodiment, the expand in size effect may be in a smooth continuous expansion or may be instant from one size to a larger size.

In an embodiment, the visual feedback consists of a picture shrinking to a point or shape or expanding from a point or shape.

In an embodiment, via a user interface, the duration of the visual feedback may be set for a desired period of time via an input.

In an embodiment, the visual feedback may fade into the live view.

In an embodiment, the visual effect may fade in from the live view.

In an embodiment, via an input a visual or numeric countdown is displayed either superimposed on the live view or outside the perimeter of the live view and at the end of the countdown a visual feedback or visual effect as described occurs to a picture that is taken and displayed or to the live view.

In an embodiment, via an input a visual or numeric countdown is displayed either superimposed on the picture displayed or outside the perimeter of the picture displayed to indicate how long the picture displayed will remain displayed.

In an embodiment, the electronic device may be a laptop with a first display area and a second display area.

In an embodiment, shrinking or shrink may mean or is, the picture displayed shrinks from a first size to a second size, or the picture displayed is a picture which has a display size smaller than the live view which also may be a visual effect.

In an embodiment, expanding or expand may mean or is the picture displayed expands from a first size to a second size, or the picture displayed is a picture which has a display size larger than the live view which also may be a visual effect.

In an embodiment, the visual effect may be a picture fading in from black.

In an embodiment, the visual effect may be a picture fading out to black.

In an embodiment, the visual effect may be a picture fading in from black and fading out to black. However the color may be any color.

In an embodiment the picture displayed may be or may not be flipped on a vertical or horizontal axis.

In an embodiment the visual effect may be a visual effect or color change to the area outside the perimeter of the picture displayed for a predetermined period of time.

In an embodiment, via an input, the picture displayed may be selected to be displayed on at least one display, or may be for both displays, for a predetermined period of time. For example, in one mode, the picture displayed is less than a second, in an alternative mode, the picture displayed may be for several seconds, which is a non limiting statement as the time may be of any length.

In an embodiment there may be a lined border around the visual effect.

In an embodiment, the background to the the visual effect outside the border of the visual effect may be a live view from the camera, any color background, or may even be a picture.

In an embodiment the visual effect may be a scanning line effect across the picture, a shimmering effect, or a flipping effect.

In an embodiment, via an input, a countdown may appear around or outside the perimeter of the live view, and at the end of the countdown, a visual effect occurs on the picture recorded and is displayed as such.

In an embodiment, the visual effect occurs on the picture, the picture displayed pauses after the visual effect or with the visual effect and remains displayed until an input is made which results in the live view

replacing the picture displayed, however the live view may also return after a predetermined period of time.

In an embodiment, no blackout occurs before the visual effect.

In an embodiment, the live view is smaller than the display and the visual effect may be zooming in on the picture displayed until the picture is larger than the live view but less than the size of the display, or the visual effect may be zooming in on the picture displayed until the picture is as large as the size of the display, or the visual effect may be zooming in on the picture displayed until the picture is larger than the size of the display meaning at least one border of the picture may leave the display edge.

In an embodiment, the visual effect may be selected from a plurality of visual effects via a user interface.

In an embodiment, a brightening of the picture displayed or a brightening of a live view when or after an input is made to take a picture occurs on the picture displayed which may occur on the second display and or the first display.

In an embodiment, the first display and or the second display turns black for a predetermined period of time after an input is made to take a picture.

Blackout may be synonymous with blacken, blackening, turns black or darkening.

Any of the embodiments may constitute a means for a visual feedback or visual effect except for the blackout or blackening or darkening or brightening effect when interpreting a claim using a means plus function. Any of the visual effects described may constitute a means for a visual effect or the like except for the blackening or darkening or brightening effect. The blackening or darkening effect or the like may be described in a claim without a means plus function being used and may not be a visual effect for definition purposes.

In an embodiment, the foldable phone may be any foldable phone model having a fold state that allows one display or display area to be viewable by one party and another display or display area viewable by another party wherein each party is separated by distance and the foldable phone is at any location between the two parties.

In an embodiment the visual effect may be instant or one second or less in duration.

In an embodiment the visual effect may be instant or one second or more in duration.

In an embodiment the visual effect may be instant or a few second or less in duration.

In an embodiment, the live view is zoomed in or the edges of the live view are off the screen and when the visual effect occurs, the picture shrinks to the size of the display or less than the size of the display.

In an embodiment, the visual effect is a picture displayed as a first size and transforms to a second size.

In an embodiment, the visual effect is a picture displayed as a first size and transforms to a second size, then transforms to a third size.

In an embodiment, the visual effect is a picture displayed as a first size and transforms to a second size, then transforms to a third size, then transforms to a fourth size.

In an embodiment, the visual effect is a picture displayed as a first size and transforms to a second size, then transforms back to the first size.

In an embodiment, the visual effect is a picture displayed as a first size which is the same size as the live view was, the picture transforms to a second size, then transforms to the first size.

In an embodiment, the visual effect may be a border around the picture or on the perimeter of the picture or on the edges of the picture which may be any color or sequence of colors or different colors.

In an embodiment, an audio sound is produced with the visual effect.

In an embodiment the visual effect ends with said picture being static for a predetermined period of time. For example the picture may expand or shrink then become static.

A method to notify subjects a photo is being displayed comprising an electronic device, a first display viewable by a photographer, a second display viewable by a subject or subjects, a camera, a processor and a memory, whereby instructions stored in memory when executed enables the processor to display visual data from the camera on the first display and also the second display whereby via an input a picture from the camera is recorded and displayed with a visual effect applied to the picture on at least a second display and additionally may be displayed on the first display.

An electronic device comprising a first display, a second display, a processor, a memory, a camera and instructions stored in memory when executed enables the processor to display visual data received from the camera on the first display and the second display whereby via an input a picture is recorded and displayed on the second display and or the first display wherein the picture has a visual effect applied to it.

In an embodiment an electronic device comprising a first display viewable by a photographer and a second display viewable by a subject, a camera, a memory and instructions stored in memory that when executed enables the processor to, display visual data from a camera located on the side of the second display on the first display and second display and when a picture is taken, the live view displayed on a display viewable by subjects (second display) and or a live view on a display viewable by the photographer (first display) brightens or a visual effect is applied to the live view for a predetermined period of time when an input to take a picture is made on the electronic device.

In an embodiment an electronic device comprising a first display viewable by a photographer and a second display viewable by a subject, a camera, memory, and instructions stored in memory when executed enables the processor to display visual data from the camera which is located on a side of the second display on the first display and second display and when a picture is taken, the picture recorded is displayed on a display viewable by subjects (second display) and or on a display viewable by the photographer (first display) and the picture is displayed for a predetermined period of time or until an

input is made and the picture displayed on one or more displays as mentioned brightens relative to the live view previous.

The visual effect may be applied to the picture displayed or the live view wherein the live view is the visual data received from the camera and displayed on the first display and the second display.

In an embodiment the visual effect comprises the picture displayed or the live view having a first shape and then a second shape.

In an embodiment the visual effect comprises the picture displayed or the live view having a first magnification or zoom setting and then a second magnification or zoom setting.

In an embodiment the visual effect comprises or is the picture displayed or the live view displaying a portion of the picture taken or the live view and then displaying a first portion and a second portion of the picture taken or the live view.

In an embodiment the visual effect comprises the picture displayed or the live view displaying a full or near full image from visual data received from the camera and then displaying a portion of the picture taken or the live view.

The visual effect may occur due to an input to take a picture.

In an embodiment the visual effect is any type of visual effect that may be performed by a video editing software and applied to said picture.

In an embodiment, the visual effect comprises a first magnification or zoom setting and then a second magnification or zoom setting wherein the first magnification or zoom setting is larger than the second magnification or zoom setting.

In an embodiment, the visual effect comprises a first magnification or zoom setting and then a second magnification or zoom setting wherein the first magnification or zoom setting is smaller than the second magnification or zoom setting.

In an embodiment, the visual effect comprises displaying a portion of the picture taken or the live view and then displaying a first portion and a second portion of the picture taken or the live view wherein the picture taken or the live view slides into view as a transition from a side of the second display.

In an embodiment, the visual effect displayed on the first display and the second display occur at the same time or almost the same time.

When using an electronic device such as a foldable phone or multi display device having a first display viewable by a photographer and a second display viewable by subject or subjects and a live camera view is displayed on each display from visual data of subject or subjects received by the camera wherein the camera is on the second display side, the second display and or first display may have inadequate brightness levels.

An electronic device comprising a first display viewable by a photographer, a second display viewable by a subject or subjects of photography, a camera on the side of the second display receiving visual data of subject or subjects, memory and at least one light sensor that measures light intensity of the environment wherein via an input or via brightness levels associated with the light intensity of the environment detected by the light sensor, the display brightness of at least the second display may be adjusted accordingly. Alternatively the first display and the second display may have their brightness levels adjusted via an input for each display or via brightness levels associated with the light intensity of the environment detected by the light sensor or sensors which adjusts the brightness levels of both displays. Alternatively via brightness levels associated with the light intensity of the environment detected by a light sensor the brightness of both displays are adjusted or via brightness levels associated with the light intensity of the environment sensed by at least two light sensors a first display is adjusted using light data from a first light sensor and a second display brightness is adjusted based on light data from a second light sensor. The brightness of the second display may be changed in order to be easily visible wherein the second display is used as a live view or preview by a subject or subjects of photography. Furthermore the brightness of the first display which is a display used as a live view or preview for a photographer may also be changed in order to accommodate the photographer. Furthermore the brightness of the second display may be further adjusted manually after a light sensor adjusts the brightness of the second display. Additionally the brightness of the first display may be further adjusted manually after a light sensor adjusts the brightness of the first display. A first light sensor may be located on a first display side and a second light sensor may be located on the second display side or a first light sensor may be located on a second display side and a second light sensor may be located on the first display side. The sensor located on a side may adjust the brightness of the display side it's on or the opposite side.

When it is stated that a light sensor adjusts the brightness of a display or the like it may mean the light sensor measures light intensity of the environment wherein brightness levels associated with the light intensity of the environment detected by the light sensor adjust the display brightness accordingly with a predetermined display brightness for each light intensity of the environment detected.

Just imagine it's a sunny day and you are taking a picture of someone using a foldable phone with a first display as your viewfinder and the second display is facing subjects you are taking a picture of but the subjects can barely see the image data on the second display because the brightness is too low. A need exists to adjust the brightness of the second display in such a scenario. Additionally a need may exist to adjust the brightness of the first display also to accommodate the photographer in the event the brightness of the first display is not optimal. The mentioned problem is a non limiting example as the environment may be dark also and the brightness of the second display and or the first display may be too bright thus a need for lowering the brightness of the second and or first display also exists.

When we refer to a light sensor on a first display or first display side it may mean the light sensor is on the side of a body of an electronic device where the first display is. When we refer to a light sensor on a second display or second display side it may mean the light sensor is on the side of a body of an electronic device where the second display is. This light sensor may be a part of or outside the perimeter of their respective displays. The light sensor may also be the camera wherein the camera has a purpose

of obtaining visual data for photography purposes and visual data relating to the light intensity of the environment. The light sensor may also be a module separate from the camera.

In an embodiment an electronic device comprising a first display, a second display, a camera, at least one light sensor, a memory and a processor whereby instructions stored in the memory that when executed enables the processor to display visual data from the camera on the first display and the second display, whereby the light sensor adjusts the display brightness of the second display with a predetermined display brightness for each brightness level detected by the light sensor. The same light sensor or a different light sensor may also adjust the brightness of the first display with a predetermined display brightness for each brightness level detected by the light sensor. The light sensor may be placed on the side of the second display. The light sensor may also be placed on the side of the second display and the side of the first display. The light sensor may also be placed on the side of the first display. The light sensor on a second display may adjust the brightness of the second display. The light sensor on the second display may adjust the brightness of the second display and the first display. The light sensor on a second display may adjust the brightness of the first display. The light sensor on a first display may adjust the brightness of the first display. The light sensor on the first display may adjust the brightness of the second display and the first display. The light sensor on a first display may adjust the brightness of the second display. Any of these mentioned configurations may be separate or combined with any other configurations, wherein configuration means where a light sensor is placed and what display it adjusts and the same may apply to the following also.

A light sensor on a second display may adjust the brightness of the second display and a light sensor on a first display may adjust the brightness of the first display. A light sensor on the second display may adjust the brightness of the first display and a light sensor on the first display may adjust the brightness of the second display. A light sensor on the second display may adjust the brightness of the first display and the second display. A light sensor on the first display may adjust the brightness of the first display and the second display. Any of these mentioned configurations may be separate or combined with any other configurations, where configuration means where a light sensor is placed and what display it adjusts.

The embodiments will allow the subject or subjects of photography to view a live view of themselves or themselves in differing lighting conditions easily. For example if it is sunny outside, the brightness of the live view on the second display will increase to an optimal level if an optimal brightness level was not used on the second display, and if the environment is dark the brightness of the live view on the second display will decrease to an optimal level if an optimal brightness level was not used on the second display. Additionally, the first display may also adjust its brightness, for example if it is sunny outside, the brightness of the live view on the first display will increase to an optimal level if an optimal brightness level was not used on the first display, and if the environment is dark the brightness of the live view on the first display will decrease to an optimal level if an optimal brightness level was not used on the first display. These adjustments are based on light detected from at least one light sensor. For example a light sensor on the second display side will detect light and adjust the brightness of the second display accordingly as a non limiting example. Additionally a light sensor on the first display side will detect light and adjust the brightness of the first display accordingly as a non limiting example.



Without these embodiments a subject may not be able to view the live view comfortably or the live view may be barely visible for example on a sunny day outdoors.

In an embodiment, the brightness of the second display may be further adjusted via an input after the brightness is adjusted by measurements from the light sensor.

In an embodiment, the brightness of the second display and the first display may be further adjusted via an input after the brightness is adjusted by measurements from the light sensor either separately or together via an input or inputs.

In an embodiment, the brightness of the first display may be further adjusted via an input after the brightness is adjusted by measurements from the light sensor.

In an embodiment an electronic device comprising a first display, a second display, a camera, memory and instructions stored in the memory when executed enable the processor to display visual data from the camera on a first display and second display, via an input on the first display, the brightness of the second display is adjusted.

In an embodiment, via an input on the second display, the brightness of the second display is adjusted.

In an embodiment, via an input on the first display, the brightness of the second display and first display is adjusted.

In an embodiment, via an input on the first display, the brightness of the second display is adjusted. Additionally, via another input on the first display, the brightness of the first display is adjusted. This allows the brightness of each display to be adjusted independently.

The second display is the display viewable by the subject or subjects. The first display is the display viewable by the photographer.

In an embodiment the input is made upon a button arranged on a slider on either a first or second display.

In an embodiment the input is made upon a button on either a first or second display.

In an embodiment the input is made on a graphical user interface.

The first and or second display may be touch displays.

The electronic device may be any foldable phone type device or multi display device known.

These embodiments allow the photographer or the subject or subjects to adjust the brightness of the display viewable by the subject or subjects which is the second display allowing the subject or subjects to view the second display at an optimal brightness level. For example the subject or subjects may change the brightness of the second display via an input on the second display or the photographer may adjust the brightness level of the second display from an input on the first display while receiving opinions on the brightness level of the second display from the subject or subjects and the brightness of

the second display may be adjusted until the optimal brightness level is reached on the second display suitable for the subject or subjects. Additionally the photographer may also adjust the brightness of the first display to an optimal level.

In an embodiment, the brightness adjustment for the first display is via a first input.

In an embodiment, the brightness adjustment for the first display is via a second input.

In an embodiment, the brightness adjustment via an input may be for only the second display via a input.

In an embodiment via a first input or using a first slider or gui the brightness of the first display is adjusted and via a second input or second slider or second gui the brightness of the second display is adjusted.

In an embodiment the first slider and second slider may be displayed and manipulated on the first display.

A slider may be similar to the input used to adjust the brightness of a display in modern smartphones. The disclosure teaches two sliders on a display when the device is in a mode to display camera data on a first display and second display wherein the display brightness of both displays may be adjusted from one display. Additionally these brightness adjustments from the first slider and second slider may be made after the light sensors adjust the brightness of each display as disclosed for further adjusting each display brightness if further adjustment is required.

In an embodiment via an input or a slider or gui the brightness of the first display and the second display is adjusted in unison.

The first or second input or slider or gui may be on the first display or the second display or both the first and second display.

When we refer to an input it may mean a touch input on a display or may mean an instruction to adjust the brightness of a display or displays based on measurements obtained by atleast one light sensor with a display brightness associated with a brightness level of the environment detected by the atleast one light sensor or any other input.

“In an embodiment” may mean its literal meaning or may mean “According to an additional embodiment” or “According to an alternate embodiment” or “According to an alternative embodiment”.

Claims:

1. An electronic device comprising a first display, a second display, a camera, a memory, and instructions stored in memory that when executed enables the processor to display visual data recieved from said camera on said first display and said second display wherein via an input made on the electronic device instructions stored in memory that when executed enables the processor to store and display a picture or a live view on said second display with a visual effect applied to said picture or said live view.

2. The electronic device of claim 1 wherein the visual effect comprises the picture displayed or the live view having a first magnification or zoom setting and than a second magnification or zoom setting.

3. The electronic device of claim 1 wherein the visual effect comprises the picture displayed or the live view having a first view setting and than a second view setting.

4. The electronic device of claim 1 wherein the visual effect comprises the picture displayed or the live view displaying a portion of the picture taken or the live view and than displaying a first portion and a second portion of the picture taken or the live view.

In an embodiment, the visual effect has a first view setting and than a second view setting. A first view setting may mean a first shape or first size, and a second view setting may mean a second shape or second size.

5. The electronic device of claim 1 wherein said visual effect comprises the picture displayed or the live view displaying a full or near full image from visual data recieved from the camera and than displaying a portion of the picture taken or the live view from visual data recieved from said camera.

6. The electronic device of claim 2 further comprising said picture or said live view is displayed on said first display with a visual effect applied to said picture or said live view displayed on said first display.

7. The electronic device of claim 3 further comprising said picture or said live view is displayed on said first display with a visual effect applied to said picture or said live view displayed on said first display.

8. The electronic device of claim 4 further comprising said picture or said live view is displayed on said first display with a visual effect applied to said picture or said live view displayed on said first display.

9. The electronic device of claim 5 further comprising said picture or said live view is displayed on said first display with a visual effect applied to said picture or said live view displayed on said first display.

10. An electronic device comprising a first display, a second display, a camera, a memory, and instructions stored in memory that when executed enables the processor to display visual data recieved from said camera on said first display and said second display.

11. The electronic device of claim 10 wherein via an input made on the electronic device instructions stored in memory that when executed enables the processor to store and display a picture on said first display and said second display and a visual effect is applied to said picture displayed on said second display wherein the electronic device is a multi display device or a foldable electronic device.

12. The electronic device of claim 11 wherein said visual effect is any type of visual effect that may be performed by a video editing software and applied to said picture.

13. The electronic device of claim 11 further comprising a brightness adjustment slider on said first display and via an input on said slider instructions stored in memory when executed enables the processor to adjust the brightness of said second display.

14. The electronic device of claim 10 further comprising instructions stored in said memory that when executed that enables the processor to via an input to store a picture and said first display and said second display has a blackening effect occur.

15. The electronic device of claim 10 further comprising instructions stored in said memory that when executed that enables the processor to via an input to store a picture and said first display and said second display display said picture with a brightening effect applied to said picture.

16. The electronic device of claim 10 further comprising instructions stored in said memory that when executed that enables the processor to via an input made on said electronic device to store a picture and display said picture on said second display with a means for a visual effect applied to said picture displayed on said second display.

17. The electronic device of claim 16 further comprising instructions stored in said memory that when executed that enables the processor to via said input made on said electronic device to display said picture on said first display with a means for a visual effect applied to said picture displayed on said first display.

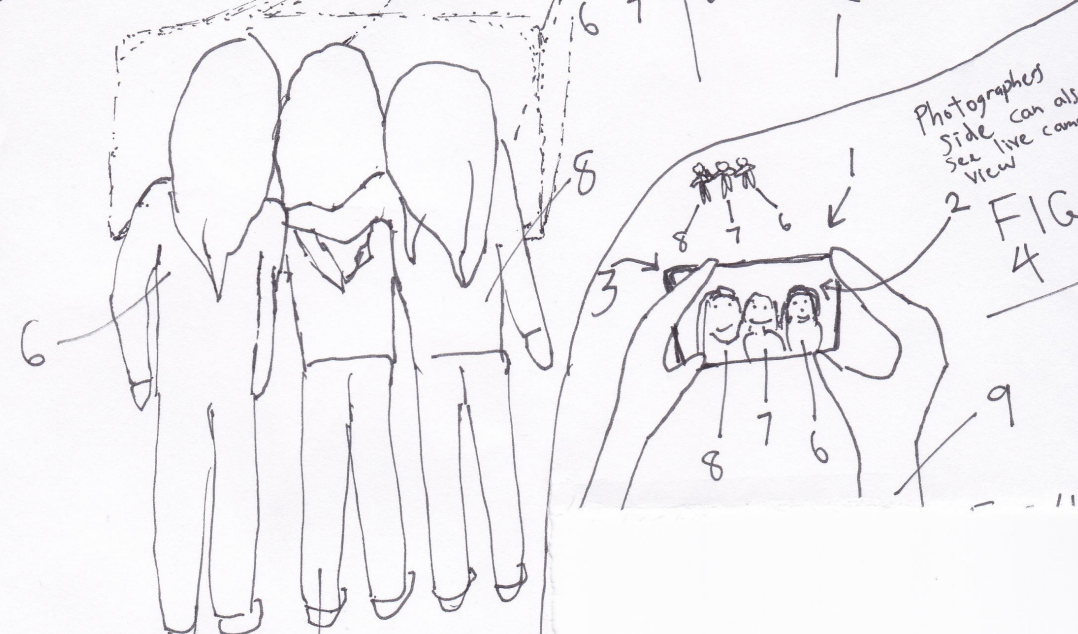
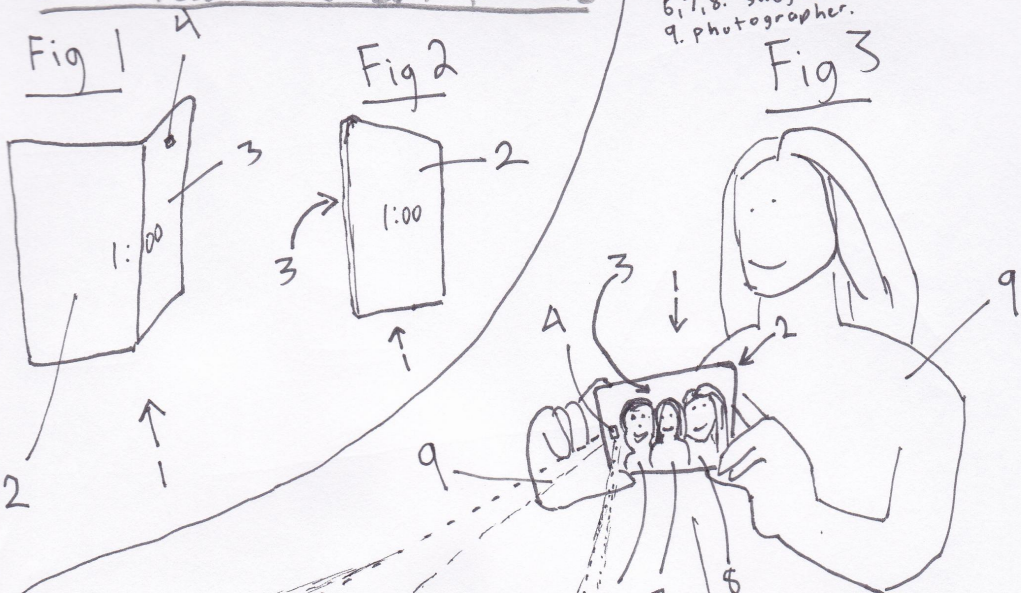
18. The electronic device of claim 10 further comprising a first light sensor located on a first display side of said electronic device and a second light sensor located on a second display side of said electronic device wherein said first display brightness is adjusted via instructions stored on memory that when executed enables the processor to measure light intensity of the environment from said first light sensor wherein brightness levels associated with the light intensity of the environment detected by said first light sensor adjust the first display brightness accordingly with a predetermined display brightness for each light intensity of the environment detected by said first light sensor and to measure light intensity of the environment from said second light sensor wherein brightness levels associated with the light intensity of the environment detected by said second light sensor adjust the second display brightness accordingly with a predetermined display brightness for each light intensity of the environment detected by said second light sensor.

19. The electronic device of claim 18 further comprising a first brightness adjustment slider and a second brightness adjustment slider displayed on said first display and instructions stored on memory that when executed enables the processor to adjust said first display brightness via a user adjusting said first slider and adjusting said second display brightness via a user adjusting said second slider.

20. The electronic device of claim 10 further comprising a first brightness adjustment slider and a second brightness adjustment slider displayed on said first display and instructions stored on memory that when executed enables the processor to adjust said first display brightness via a user adjusting said first slider and adjusting said second display brightness via a user adjusting said second slider.

Live camera view for individuals having their picture taken on a foldable smart phone.

1. Foldable screen smart phone
2. screen side A
3. screen side B
4. camera
- 6,7,8. Subjects
9. Photographer.



Subjects can see their live camera view. So they can pose as they wish and not rely wholly on the photographers skills. So they can get the perfect picture.

Photographers Side can also see live camera view

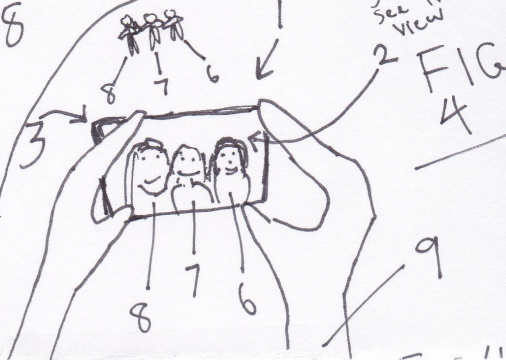
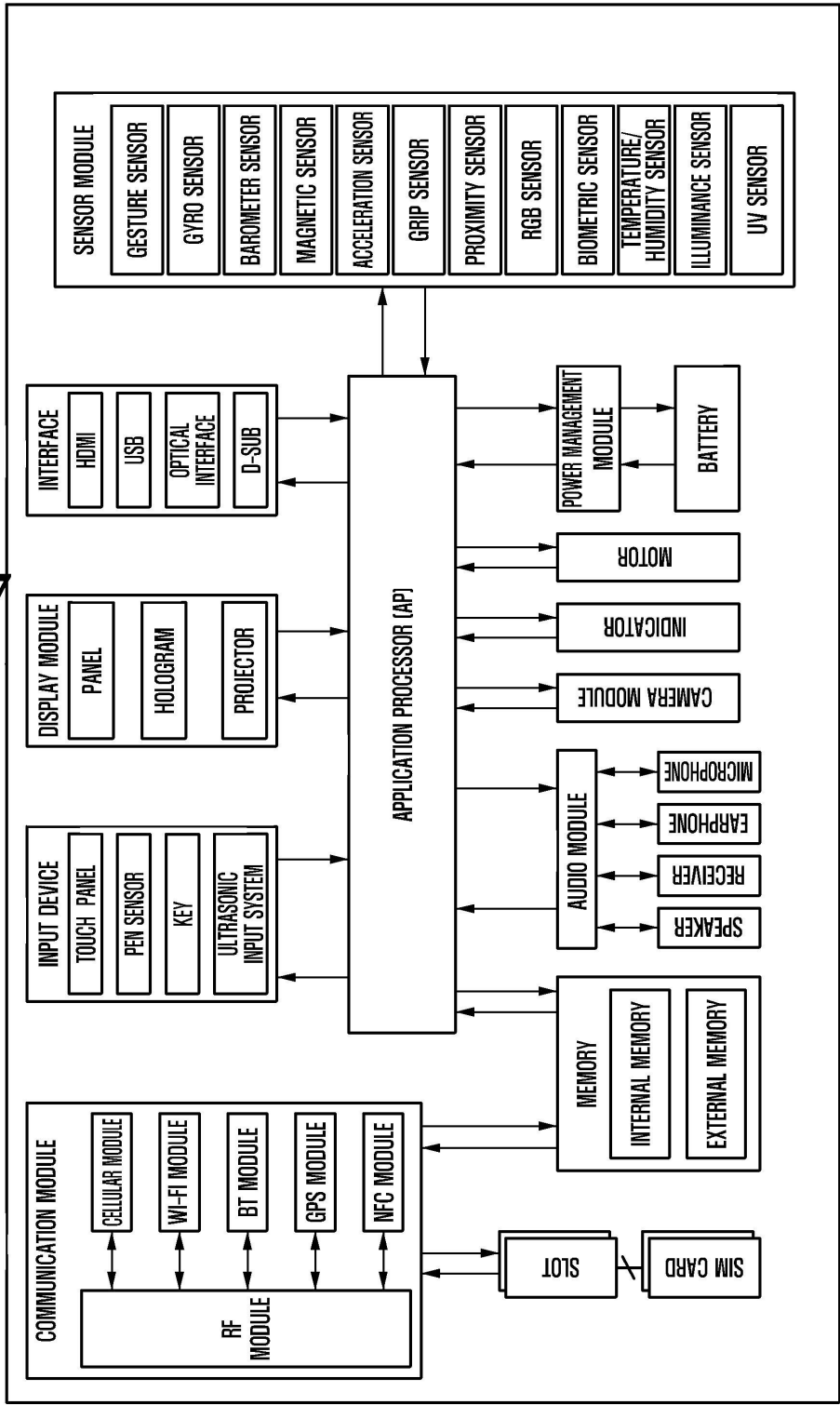


fig 7



**fig. 8**

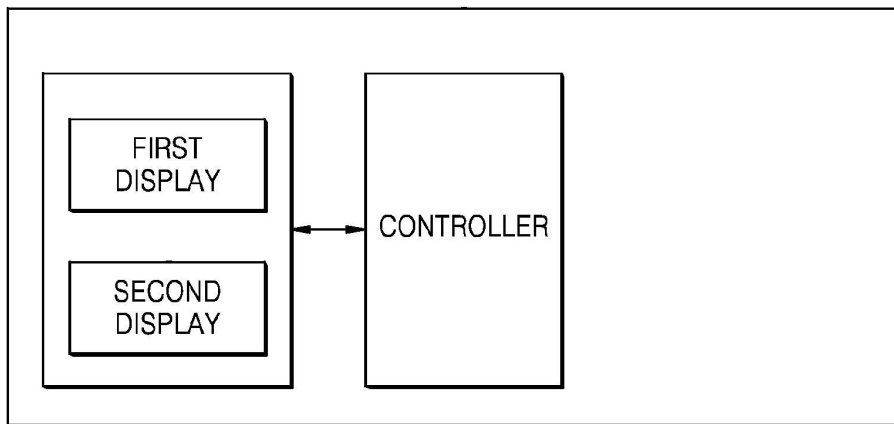
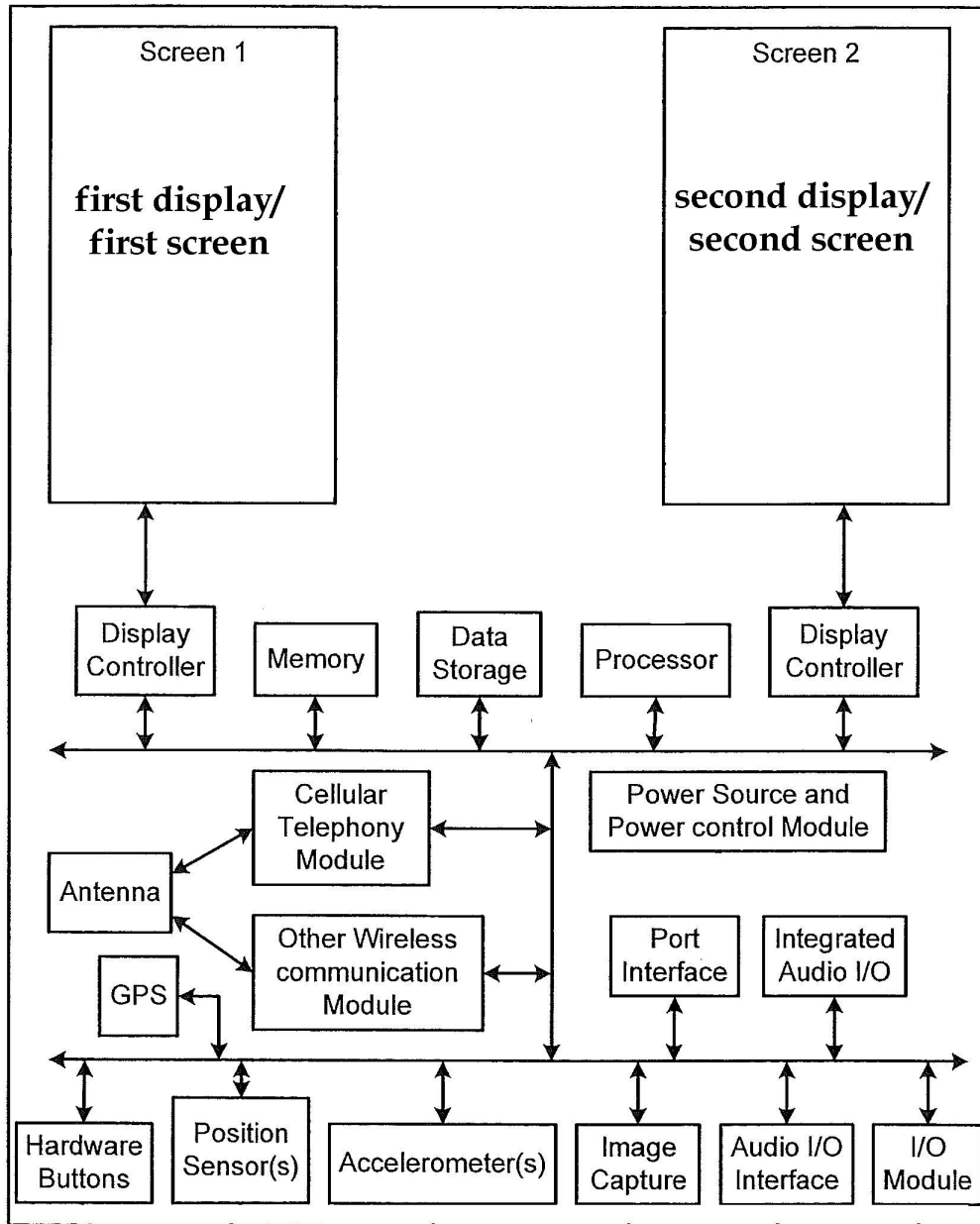


fig 10





Live camera view for individuals having their picture taken on smart phone with front and rear screens.

fig 5

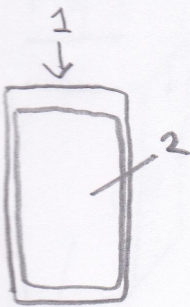


fig 6

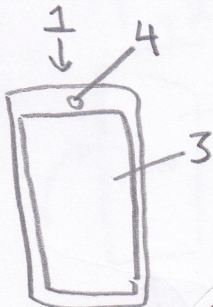
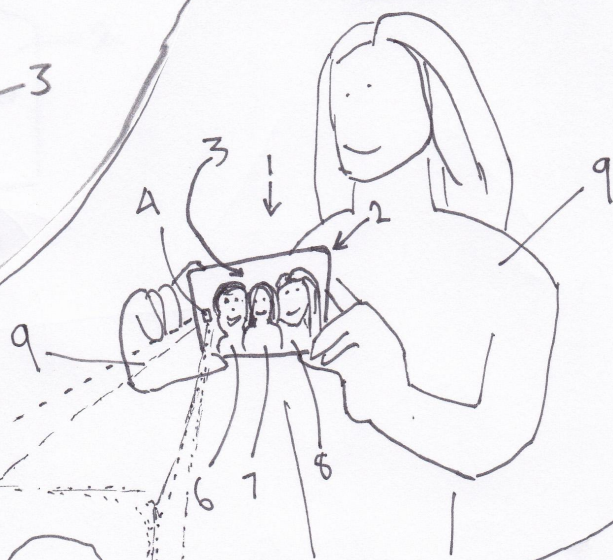
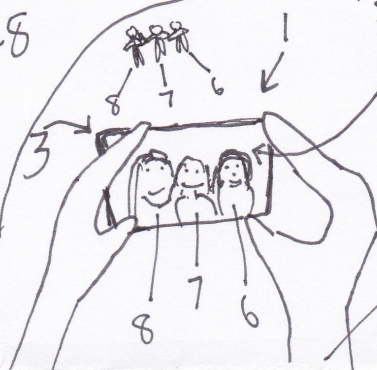


Fig 3



Photographers side can also see live camera view

FIG 4



Subjects can see their live camera view. So they can pose as they wish and not rely wholly on the photographers skills. So they can get the perfect picture.

Fig 50

Start

the controller instructs a first display to display visual information received by a camera

The controller instructs a second display to display same or similar image from said camera.



An input is made, the controller instructs a first display, a second display, or both first and second displays to display a countdown timer or countdown animation.



When the countdown timer or countdown animation finishes or counts down to a point in time, the controller instructs the camera to store the image data it receives in storage.

End

Fig 51

Start

the controller instructs a first display to display visual information received by a camera.

The controller instructs a second display to display same or similar image from said camera.



An input is made to take a picture, the controller instructs the display to display a visual change on a display or both displays or one display that displays the image displayed from the camera or to modify the image displayed from the camera when the picture is taken by the input at the moment the picture was taken which is also the picture which the controller will instruct the storage to store.

End

Fig 52

start

the controller instructs a first display to display visual information received by a camera. The controller instructs a second display to display same or similar image from said camera.



An input is made to take a picture, the controller instructs the first display and the second display to display the picture recorded for a predetermined period of time,



via another input the picture stops being displayed and the device returns to both side mode.

end

Fig 53

start

Image data is captured from a camera, the image data is displayed on a first display and the same or similar image is displayed on a second display.

End

Fig 54

Start

the controller instructs a first display to display visual information recieved by a camera.

The controller instructs a second display to display same or similar image from said camera,



an input is made to take a picture, the picture taken is displayed on a first display or second display or both for a predetermined period of time, a countdown displays on a on a first display or second display or both for the predetermined period,



at the end of the countdown, or via an input before the countdown ends, the device re enters both side mode.

End

Fig 55

Start

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera.



Via an input the controller instructs the second display to change its brightness.

Fig 56

Start

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera.



Via an input the controller instructs the second display to change its brightness.



Via an input the controller instructs the first display to change its brightness.

Fig 57

Start

The controller instructs a first display which is viewable by a picture taker and a second display which is viewable by an individual or individuals a picture is being taken of or to be taken of to display an image from the camera.



Via an input the controller instructs the second display to change its brightness.

Via an input the controller instructs the first display to change its brightness.

