

BE A GAME CHANGER





Kit of Parts

Ted Hood
FRC Kit of Parts Engineer



FRC Kit of Parts 101

- Team
- Overview
- Kickoff Kit
- FIRST Choice
- Virtual Kit
- Feedback
- Resources



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Team

- Kate Pilotte, Senior KOP Manager
 - KOP since 2006
 - Proud of the flexibility, but...
 - Embarrassed by complexity
 - FTA
 - kpilotte@firstinspires.org
- Ted Hood, KOP Engineer
 - KOP since 2018
 - Veteran United States Air Force
 - Former Senior Mentor
 - FTA/Inspector
 - thood@firstinspires.org

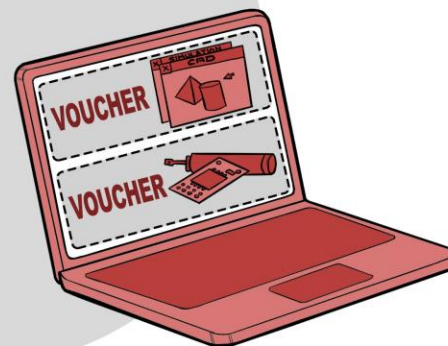
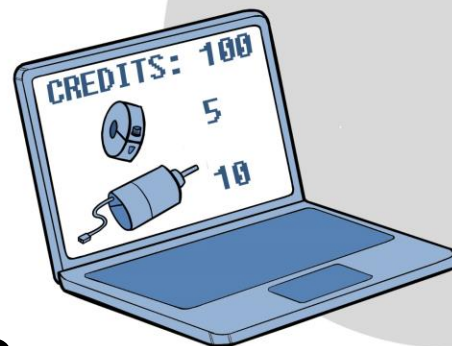
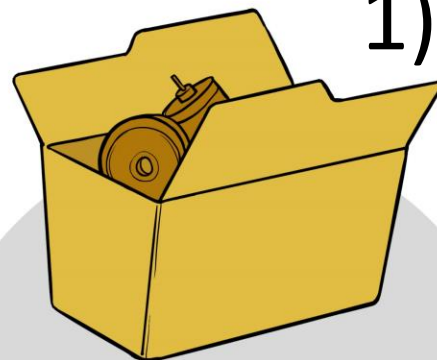


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Overview

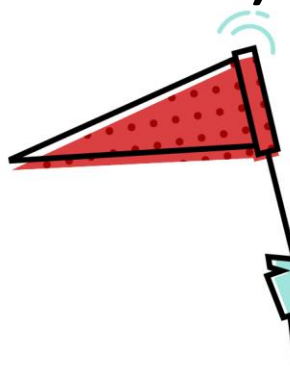
1) Kickoff Kit



2) *FIRST* Choice

3) Virtual Kit

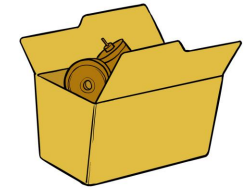
<https://www.firstinspires.org/robotics/frc/kit-of-parts>



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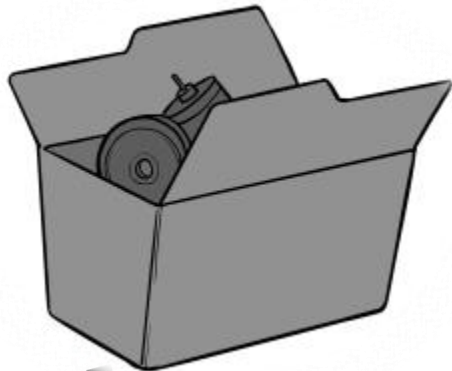
Kickoff Kit



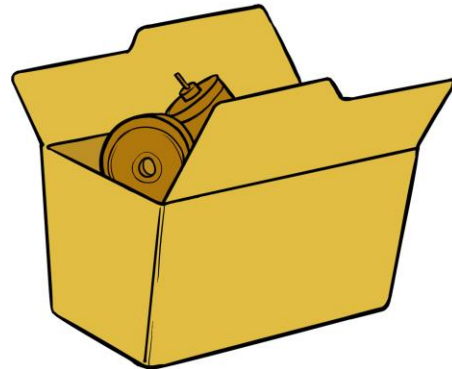
A box of parts delivered to teams at the start of the season...

- *Used to be...* everyone got the exact same set of stuff
- *Now...* categories based on team status, selection

Everyone Tote



Rookie Tote



Drive Base Kit/Voucher



OR

US\$450


Other...

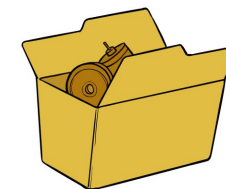


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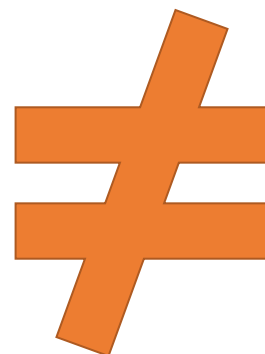
Kickoff Kit

- A couple takeaways...

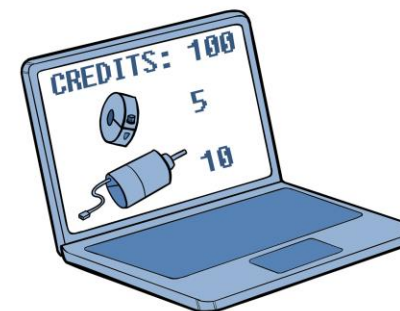


AndyMark Voucher

US\$450



FIRST Choice



US\$450



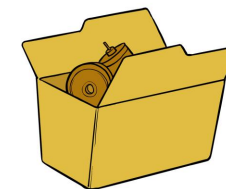
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Kickoff Kit







Helpful Information

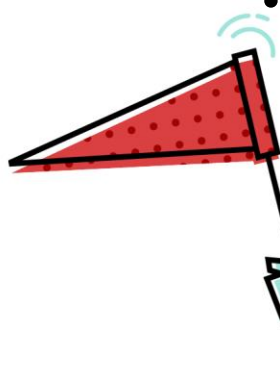
- Information on how to use items can be found on our [Screensteps repository](#)
- Some items in Kickoff kit are tied to vouchers (See Catalog)
- Teams are provided with estimated sizing and weight prior to Kickoff
- Checklists are available on the Kit of Parts Website
 - Checklists are broken down by tote
 - Item Description, Supplier Name, Part Number, Qty, Where to get more, and Picture



2020 Kickoff Kit Checklist

BLACK TOTE

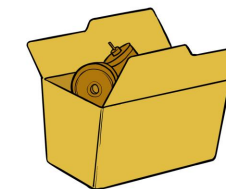
<input checked="" type="checkbox"/>	Item Description	Supplier	Part Number	Qty	Where to get more?	Photo
	Foam Gripper	John Deere	M156751	2	Not Available	
	Travel Waist Pack	Kettering University	TravelPack	1	Bob Nichols bnichols@kettering.edu	
	BB8 Banner	The Walt Disney Company	BB8BANNER	1	Not Available	
	Battery Sealed Lead Acid, 12V, 18Ah, Bolt Fastened, Rechargeable	MK Battery	ES17-12	1	www.mkbattery.com	
	Robot Signal Light (i.e. Panel Signal Device)	Rockwell Automation	855PB-B12ME522	1	No Specific Source	
	Cardboard VR Viewer (colors vary)	Siemens	cardboardvr	1	Not Available	



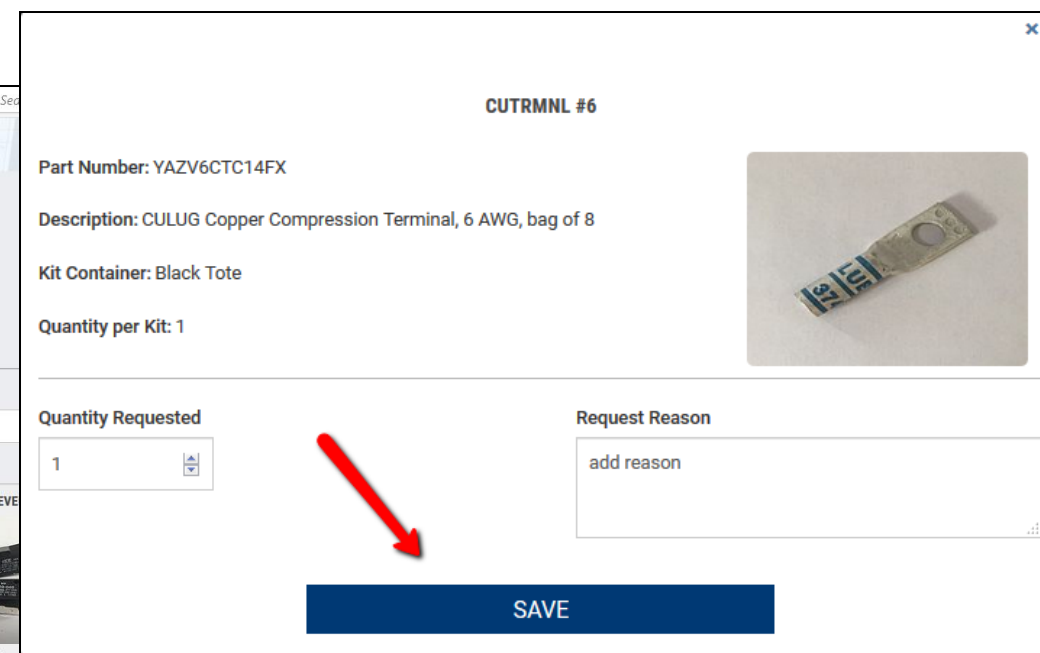
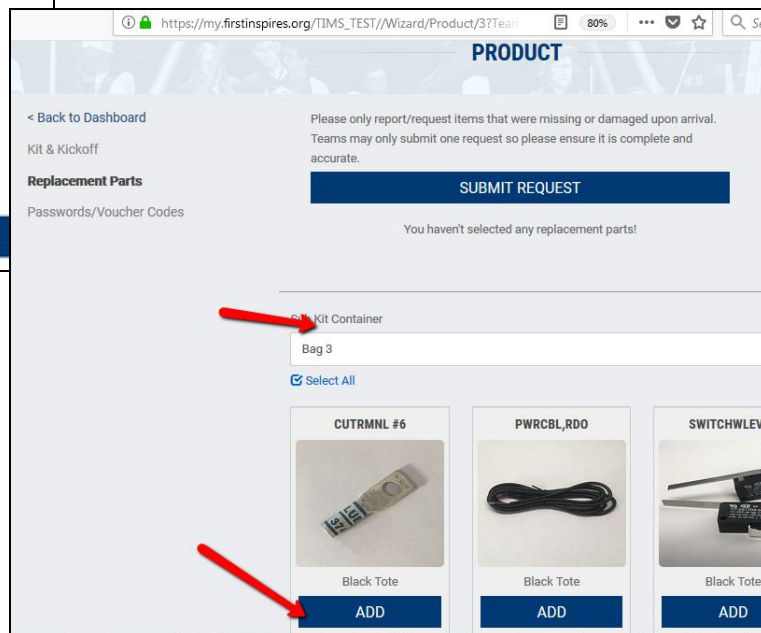
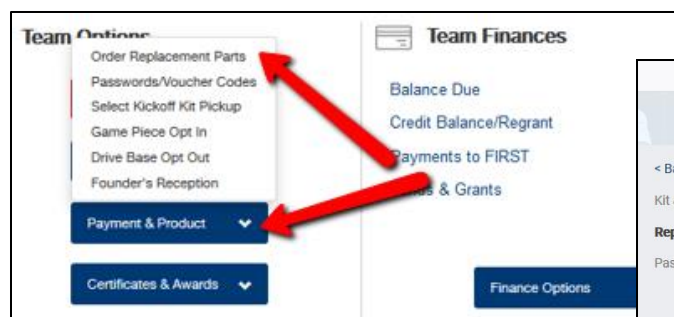
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Kickoff Kit – Uh Oh...



- We want to know if something's missing/damaged!
- Done in the team's registration account by Lead Coach/Mentor 1 or 2.



*screenshots from 2018 season



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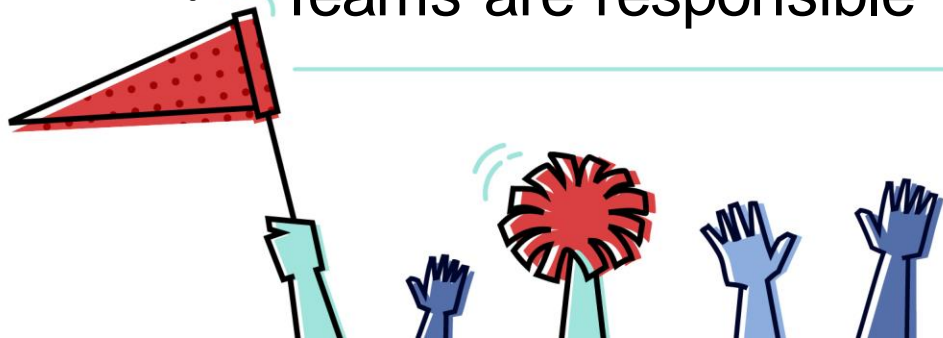


FIRST Choice



Items available via an online menu in exchange for credits issued to all teams...

- Online at: www.firstchoicebyandymark.com
- AndyMark creates an account for each team
- Passwords in the team's registration account
 - Registered teams can create priority lists
 - Processed/orders only ship to secured teams
- Every team is issued the same number of credits
- Non-transferable, worth no actual dollars.
- Teams are responsible for shipping, duties, taxes



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FIRST Choice

www.firstchoicebyandymark.com



FIRST Choice
Powered by **AndyMark**

Search store

LOGIN PRODUCTS SEARCH MY ACCOUNT MY CREDITS

SUPPLIERS FC RULES CONTACT US NEWS

CATEGORIES

HOME > EVERYTHING

- Everything
- In Stock
- 3D Printing
- Bearing
- Controls
- Coupler
- Electronics
- Misc
- Motors
- Pneumatics
- Sensors
- Shaft Collar
- Tools
- Default Priority Lists

Order By: Name: A to Z

Information can be found in the [FIRST Choice section of the Kit of parts page](#)
"Normal" ordering starts on 7/18 at 12pm ET



[Energy chain cable mounting brackets \(fc-050-20-12\)](#)
5 FIRST Credits



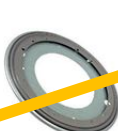
[Energy chain cable carrier \(fc-05-4-038\)](#)
20 FIRST Credits



[Denso window motor connector 2 housings & 4 terminals \(fc-12110845\)](#)
5 FIRST Credits



[Cargo \(fc-12936\)](#)
20 FIRST Credits



[12" Lazy Susan \(fc-12C9045G\)](#)
10 FIRST Credits

SUPPLIERS

- 3M
- Analog Devices
- AndyMark, Inc.
- Armabot
- Automation Direct
- Belden
- Clippard
- Colonial Instruments
- Cooler Master
- Cross The Road Electronics
- CUI Inc.
- Cypress
- Denso



[Loctite 401 instant adhesive 20g \(fc-135429\)](#)
10 FIRST Credits



[Pressure Gauge \(fc-15-102D-1B-160\)](#)
10 FIRST Credits



[EGO Technic Builders Guide \(fc-160000043\)](#)
5 FIRST Credits



[Pressure Relief Valve \(fc-16-004-011\)](#)
50 FIRST Credits



[Pressure Gauge \(fc-18-013-212\)](#)
10 FIRST Credits

FIRST Choice
Powered by **AndyMark**

Search store

Login

LOGIN PRODUCTS SEARCH MY ACCOUNT MY CREDITS

SUPPLIERS FC RULES CONTACT US NEWS

CATEGORIES

HOME / EVERYTHING / PRESSURE GAUGE (FC-15-102D-1B-160)

- Everything
- In Stock
- 3D Printing
- Bearing
- Controls
- Coupler
- Electronics
- Misc
- Motors
- Pneumatics
- Sensors
- Shaft Collar
- Tools
- Default Priority Lists

SUPPLIERS

- 3M
- Analog Devices
- AndyMark, Inc.
- Armabot
- Automation Direct



Product Overview

1 1/2" Utility Pressure Gauge, Black Painted Steel Dry Case, Chrome Plated Steel Ring, Plastic Window, 1/8" NPT Male Brass Connection, Copper Alloy Bourdon Tube, Center Back Mount, ASME B40.1 Grade B ±3-2-3% Accuracy, 0 to 160 PSI/Barr/100=kPa

Pressure Gauge (fc-15-102D-1B-160)
Supplier(s): [Colonial Instruments](#)

Supplier Part Number:
15-102D-1B-160

FIRST Choice #: fc-15-102D-1B-160

Qty in stock: 62
Qty on hold: 0
Qty Available: 62

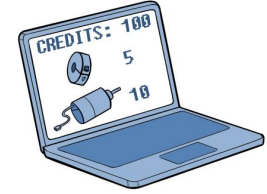
10 FIRST Credits
excluding shipping



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FIRST Choice



- Priority Lists

- At their leisure, but within a window, team populates their list
 - Option to use a default list and build from there.
- Recommended that teams put items more on their list than credits they have
- At a specific date/time, lists are locked and auto submitted
- AndyMark uses an algorithm to process lists, assigning items to teams
- Unused credits rollover between states, but not between seasons
- Team receives an email with their loot and AndyMark starts shipping.



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FIRST Choice



- There are 3 states of *FIRST* Choice
 - Open for Priority Lists (Two Rounds)
 - Round 1 is before Kickoff
 - Round 2 opens at Kickoff
 - Credits are added to every team between rounds
 - Open for Normal Ordering (After Round Two)
 - First come, first serve
 - Like a normal website, but with credits instead of dollars
 - Add what you want to your cart, check out when done (there is a 10 min timeout feature)
 - Closed
 - Before the season
 - Between states
 - After the season



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Virtual Kit



Products available directly from the Supplier either via download or direct order...

2 Flavors

- Vouchers
 - Variety of ways (\$\$, parts, set menu of items, etc.)
 - Expiration dates vary!
- Software
- Any codes, license keys needed are available to Lead Mentor/Coach 1 or 2 in their team's registration account.



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Virtual Kit

- What's public...

Consider using for...									
Thank you...	for...	which expires on...	Drive Train	Control System	Electrical Supplies	Pneumatics	Sensors	Shop Materials/Tools	Other
AndyMark	\$450.00	4/15/20	✦	✦	✦	✦	✦	✦	✦
Armbot	RS7 encoder	4/26/20					✦		
AutomationDirect	\$35.00	10/31/20	✦	✦	✦	✦	✦	✦	✦
Clippard	\$20.00	4/30/20							

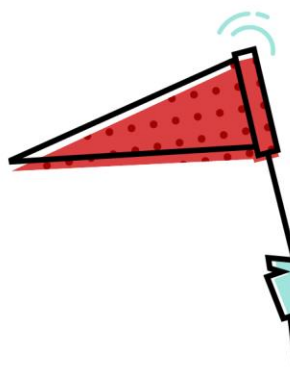
Clippard
 What: \$20.00 at Clippard.com
 Expires: 4/30/20
 Access Codes: Available to Lead Mentors 1 & 2 in the team's registration account and the 2020 Virtual Kit Catalog in your Kickoff Kit
 To Access:

- Simply visit Clippard.com to select your products.
- PLEASE NOTE: You must create an account AND be logged in for the voucher to be validated.



- What's private...

PRODUCT	
< Back to Dashboard	
Kit & Kickoff	Team #: 5242
Replacement Parts	Team Name: RoboCats
Passwords/Voucher Codes	Program: FIRST Robotics Competition
▼ Altium	Altium Designer: 1-5 student licenses/team Expiration Date: 12/...
Username: N/A	Passwords/Voucher Codes: N/A
▶ American Button Machines	Built-a-Button software (license thru 4/2018) Expiration Date: 4/...
▼ AnchorLabs	custom machined part, \$75 Expiration Date: 12/...
Username: 5242	Passwords/Voucher Codes: 9FF9-7FB3-C2C0-971C
▶ Armbot	RS7 encoder, \$25 (or order w/ an RS7) Expiration Date: 4/...
▶ Autodesk	Assorted Autodesk software Expiration D...
▶ Automation Direct	\$35 (shipping xtra, please see instructions) Expiration Date: 4/...
▶ Bimba	2 cylinders (free shipping) Expiration Date: 4/...



Digi-Key Electronics

- What: \$50.00 of components from Digi-Key's webpage
- Good for a one time use. Any amount not utilized in your initial transaction will be forfeited.
- Taxes not included.



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Feedback

- From teams
 - At events
 - Survey
 - 688 Responses
- From Community
 - Strategy Session
- From you... Email: frcparts@firstinspires.org



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Resources

- KOP Webpage:
 - *Programs > FIRST Robotics Competition > Game & Season > Kit of Parts*
 - <https://www.firstinspires.org/robotics/frc/kit-of-parts>
- Screensteps:
<https://wpilib.screenstepslive.com/s/currentCS/m/kop>
- FIRST Choice
- <https://firstchoicebyandymark.com>



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Thank you and have great

