

The Kit of Parts (KoP) is split into 3 parts, available to teams through a variety of sources: the Kickoff Kit, the Virtual Kit, and *FIRST* Choice.

Kickoff Kit

The Kickoff Kit consists of items distributed at Kickoff.

Checklists for the Kickoff Kit are here:

- [Gray Tote Checklist](#)
- [Yellow Tote Checklist](#)
- [Separate Items Checklist](#)
- [Drive Base Kit](#)

Replacement Part Requests: Teams must have submitted Replacement Parts Requests by Noon Eastern on Friday, January 13, 2017. For questions about Replacement Parts, please send an email from frcparts@firstinspires.org.

2017 Kickoff Kits will consist of the following items for all teams (sizes and weights are approximate).

1. One set of items, collectively, 27 in. x 17 in. x 13 in., 50 lbs.
2. One set of items, collectively, 2 in. x 2 in. x 48 in., 5 lbs.
3. One item, 8 in. x 3 in. x 7 in., 14 lbs.
4. One very small item.

2017 Kickoff Kits will include the following additional items for Rookie Teams only. This is the Yellow Tote.

1. One set of items, collectively, 27 in. x 17 in. x 13 in., 30 lbs.
2. One item, 8 in. x 3 in. x 7 in., 14 lbs.

Teams who did not opt out of the Drive Base Kit will also receive the following item:

1. One set of items, collectively, 7 in. x 7 in. x 34 in., 25 lbs.

Teams outside the USA who opted into receiving an additional Kickoff Kit's worth of game pieces will receive:

- 12 Fuel pieces
- 2 Gear halves (Assembled to create 1 Gear)
- 1 pack of Gear Screws

Virtual Kit

These items are available to Teams directly from the Supplier either via download or custom order.

Product Donation Vouchers

- [AndyMark](#) Voucher, \$450 (USD): Voucher code available in the Team Registration System (only for teams who [opted out of the KOP Drive System](#)). Shipping not included.
- [Armbot](#) Voucher, \$25 (USD) towards one or more RS7 Encoders: [Click here](#) and use your team number (i.e. 0002) for voucher code. Shipping not included. Expiration Date: 4/30/17. [PDF of Voucher](#).
- [AutomationDirect.com](#) Voucher, \$35 (USD): See [detailed instructions here](#). Shipping not included. Expiration Date: 4/30/17.
- [Bimba](#) Voucher, 2 Free Cylinders: [Click here](#) to order. Shipping included. Expiration Date: 4/30/17.
- [BishopWisecarver](#) Voucher, 4 Free MadeWell Wheels for Linear Guides: [Click here](#) to redeem your team's voucher. Shipping is not included. Expiration Date: 4/30/17. [PDF of Voucher](#).
- [Clippard Instrument Laboratory, Inc](#) Voucher, \$20 (USD): Instructions in Voucher Book. Shipping not included. Expiration Date: 4/30/17.
- [Digi-key Electronics](#) Voucher, \$50 (USD): Instructions in Voucher Book. Shipping not included: Expiration Date: 4/30/17.
- [Inventables](#) Voucher, \$40 (USD): Use your Team's code in the Team Registration System. Shipping not included. Expiration Date: 4/30/17
- [Next Gen Robots](#) Voucher, 1 CIM Cooler: Use your team's code in the Team Registration System. Shipping not included. Expiration Date: 4/30/17, but can be extended, if teams need more time.
- [TE Connectivity](#) Voucher, \$25 (USD) for [select products](#): To redeem this voucher, use your team's main contact in the Team Registration System and follow the instructions in the [Quick Reference Guide](#). Shipping is included. Expiration Date: 4/30/17. [PDF of Voucher](#).

Software

- CAD Software: software suites including CAD, simulation, and modeling plus CAD libraries of the *FIRST STEAMWORKS* field (Released January 7, 2017) and 2017 Kickoff Kit items available at Kickoff (Released January 7, 2017):
 - [Autodesk](#)
 - [Onshape](#)
 - [PTC](#)
 - [SolidWorks](#)
- [Altium Limited Software](#) is available to harmonize your engineering potential to create the most advanced and innovative Printed Circuit Board design applications today. [Visit here](#) to download your free software. Expiration Date: 4/30/17.
- [American Button Machines](#)' Build-a-Button (3-month membership): button design software. [Visit here](#) and use your Team's code found in the Team Registration System.
- FRCsim: WPI, with the [Open Source Robotics Foundation](#), has developed a free and open-source 3-D simulation environment available to FRC teams using C++ and Java. The FRCsim package is built on top of the [Gazebo robotics simulator](#) that has matured under DARPA funding. Using FRCsim, teams can develop and deploy C++ or Java WPILib robot programs to a set of provided robot models that run in a virtual environment. To run the simulator, teams must have a machine running Ubuntu Linux. Installation instructions are provided by WPI [here](#). Instructions are also available for importing a 2017 field model and exporting robot models from Solidworks to use with the simulation environment.
- GitHub's Organization Account, which includes unlimited members and repositories: software hosting and collaboration tools. Visit the [GitHub Education](#) page for details.
- [IBM Bluemix Software](#) enables teams to explore ways to develop applications. [Click here](#) to get started!
- [Mastercam CAD/CAM software](#) is available to any FRC team wanting to program their own CNC machines. Create CAD files or import existing CAD files into Mastercam software to program your CNC machine. Just [click the link](#) to access the request form.

- National Instruments' Multisim, Ultiboard, and Statechart Module: integrated circuit simulation, printed circuit board (PCB) prototyping, and a LabVIEW add-on for designing applications using states, transitions, and events. Details are posted [here](#).
- [RoboRealm](#): software for use in computer vision, image analysis, and robotic vision systems. Use your Team's code found in the Team Registration System to register [here](#).
- [SolidProfessor](#): Library of training and resources for SolidWorks, Autodesk, and Onshape. [Register on their website](#).
- [Tableau's](#) Desktop Professional: data analysis and visualization software. Use the code in the Team Registration System for five copies per team. Don't forget to check out Tableau's [free online resources](#) created specifically for *FIRST* Robotics Competition students.
- [Wolfram Research](#): Mathematica, Wolfram SystemModeler, and Wolfram|Alpha Pro. Use the code in the Voucher Book for access. Expiration Date: 6/1/2017

FIRST Choice

The timeline for *FIRST* Choice is as follows (all events happen at noon, Eastern):

ROUND 1

11/21/16	Round 1 begins, <i>FIRST</i> Choice login information in the Team's registration account (for registered teams) and at FIRSTChoiceByAndyMark.com/everything
12/06/16	Round 1 Team Priority Lists due (with any unsecured teams' list discarded)
12/08/16	
12/9/16	AndyMark notifies each Team of the Round 1 draft results

Traditional Ordering

12/12/16	
12/13/16	<i>FIRST</i> Choice opens for traditional live orders
01/06/17	<i>FIRST</i> Choice closes

ROUND 2

1/07/17	Round 2 begins, additional credits issued (unused credits do carry over)
01/13/17	Round 2 Team Priority Lists due
01/17/17	AndyMark notifies each Team of their Round 2 draft results

Traditional Ordering

01/20/17	<i>FIRST</i> Choice opens for traditional live orders
04/7/17	<i>FIRST</i> Choice closes for the 2017 season

Priority Lists are back, and we'll do two rounds (one before Kickoff and one after Kickoff). The Priority List process remains unchanged, and it's illustrated in more detail [here](#). Based on our experience from the previous two seasons, we believe that what it lacks in simplicity, it makes up for in user experience and satisfaction. The Priority List is optional, and the deadline for Round 1 Priority Lists is noon (Eastern Time) on Tuesday, December 6, 2016.

Each Priority List created by the deadline (one per Team), will be assigned a random rank. The order in which individual teams complete their Priority Lists before the deadline does not affect their rank. All teams that add at least one item to their Priority List by the deadline are put in a common pool and then randomly sequenced. This is what we mean by 'random rank.'

Then, in rank order, AndyMark's auto draft system will query the Team's highest priority item and, provided the Team has the credits and *FIRST* Choice has the inventory, issue the item to the Team. This applies to each Priority List line item as ranked. If the team doesn't have enough Credits to cover the entire amount (but at least one) or *FIRST* Choice inventory doesn't have the entire quantity (but at least one), the team will get as many as their credits/*FIRST* Choice inventory allow. If credits or inventory can't cover one, it will move on to the next ranked item so the team is not skipped for that round.

Once it gets to the last ranked Priority List, the draft system will query that last Priority List's next item and work its way back up the ranks (for Teams that know how we've done Alliance Selection in the past, this serpentine process probably seems familiar). This draft continues until inventory's gone or Priority Lists have been exhausted. Inventory will be updated for when *FIRST* Choice opens for traditional "first come, first served" live orders.

A few other notes about the process:

Login information will be posted in each Team's registration account (all Coaches/Mentors will see a button labeled "Access Passwords/Voucher Codes"). Only registered *FIRST* Robotics Competition Teams will have access to their login information, and thus only registered Teams will be able to create and submit a Priority List.

Priority Lists will be created using (and only accepted via) the Priority List feature on AndyMark's *FIRST* Choice site.

Shipping charges will apply (details to be posted on FIRSTChoiceByAndyMark.com/everything before Priority Lists are due), and just like last year, a billing address, shipping address, and credit card information must be provided before creating your Priority List. For international Teams, additional charges may apply, for which the Team is responsible and AndyMark will address on a case by case basis.

Priority Lists are saved each time the user clicks "Update," letting teams add, subtract, and reprioritize items until the deadline.

Upon the deadline, any existing Priority Lists will be locked, processed, and no additional changes may be made (we strongly encourage you complete your list at least a day before the due date to avoid unexpected delays or surprises).

We will not publicly publish Teams' Priority Lists, the assigned rankings, or final order contents.

Any priority list submitted by a Team that has not secured first event registration payment with *FIRST* by noon, 12/6/16 will be discarded before lists are ported in to the auto draft system (please anticipate at least one business day for registration payment to be processed and the updated status to be relayed to AndyMark).