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

These items are delivered to Teams at their Local Kickoff site or delivered after Kickoff to teams that need to have their Kickoff Kit shipped directly to them (at the team's expense).

2015 Kickoff Kits will consist of the following items for all teams (sizes and weights are approximate):

### **Yellow Tote and Separate Items**

- A) One set of items, collectively, 27 in. x 17 in. x 17 in., 60 lbs.
- B) One item, 8 in. x 3 in. x 7 in., 14 lbs.
- C) One set of items, collectively, 29 in. x 22 in. x 22 in., 9 lbs.
- D) One set of items, collectively 3 in. x 3 in. x 60 in., 6 lbs.

2015 Kickoff Kits will include the following additional items for Rookie teams only:

### **Gray Tote Checklist**

- E) One item, 27 in. x 17 in. x 13 in., 26 lbs.
- F) 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:

#### **AM14U2 Checklist**

G) One item, 34 in. x 6 in. x 7 in., 24 lbs.

Other Information

As stated in this **September FRC blog post**, all teams will be receiving core control system components. Information about the 2015 Control System can be found **here**.

To see the differences between the Kickoff Kits received by Rookie and Veteran Teams, please refer to the **2015 Rookie / Veteran KOP Variation Table**.

If you find that parts in your Kickoff Kit are missing or damaged, please tell us using our **Replacement Parts Process** by January 9, 2015.

# **Product Donation Vouchers**

16 Hertz: See the flyer in your Yellow Tote for more information

American Button Machines: <u>American Button Machines</u> has donated their button design software, Build-A-Button. Visit <u>www.AmericanButtonMachines.com/first-robot/</u> and use your Team's code found in TIMS to get started!

AndyMark: This voucher is only for teams who <u>opted out of the KOP Drive System.</u> Voucher code is available in TIMS.

AutomationDirect.com: See the flyer in your Yellow Tote for \$30 in free parts!

Bimba: Starting January 9, visit <u>bimba.com</u> to receive free cylinders! (expires at the end of the 2015 season)

<u>DigiKey</u>: See the flyer in your Yellow Tote for \$50 in free parts!

<u>Inventables</u>: Use your Team's code in TIMS to get \$30 of free Inventables parts! (expires at the end of the 2015 season)

NextGen Robots: Use your team's code in TIMS to get a CIM Cooler! (vouchers expire 5/1/15, but NextGen Robotics open to requests until 5/31/15)

### Software Downloads

For help designing circuit boards, Altium has donated their Designer Software

GitHub is offering free software hosting and collaboration tools for FRC Teams. Teams can request a free Silver Organization account from the <u>GitHub Education</u> page.

CAD Software (open the PDF for instructions):

PTC - Kit of Parts and Field

Autodesk - Kit of Parts and Field

SolidWorks - Kit of Parts and Field

Analyze data with Tableau Professional. Use the code in TIMS for five copies per team.

<u>GrabCAD Workbench</u> is an easy web-based tool for managing and sharing CAD files of all types. Workbench is available to all *FIRST* teams at no charge. Sign up for a <u>free trial</u> then email <u>sales@grabcad.com</u>. Tell them the email address you registered with and how many seats you need.

Mathematica and SystemModeler are excellent tools to model and analyze physical systems. Opportunities are available to obtain complimentary licenses for *FIRST* teams. Contact Carol Cronin at carol\_cronin@wolfram.com to learn more about *FIRST* programs from Wolfram Research.

Use your Team's code found in TIMS to get access to the vision tool RoboRealm!

WPI, in conjunction with the Open Source Robotics Foundation, has developed a free and open-source 3-D simulation environment available to all 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 with the click of one button. FRCsim can be used for testing code and gameplay. The simulated robots have a variety of actuators and sensors (including virtual cameras and most of the existing KOP sensors). The 2015 playing field and game pieces will be available soon, as well as additional sample robots based on the 2015 competition. To run the simulator, teams must have a machine running Ubuntu Linux. One-line installation instructions are provided by WPI here. We are working towards offering a Windows version of the simulation and the ability to import and program your own robot models for next year.

### FIRST Choice

*FIRST* Choice is a menu of items available to registered 2015 FRC teams, for free, as part of their Kit of Parts. Starting November 25, 2014, Teams will be able to view items that will be available and create Priority Lists. Priority Lists will process on 12/4/2014 and Teams will be notified of their draft results on 12/5/2014. Starting December 6, 2014, Teams will be able to make traditional live orders.

Round 2 of FIRST Choice was described here.

The FIRST Choice program will close on April 17, 2015.

Access the FIRST Choice site.

A detailed explanation of the FIRST Choice process is available in this blog post.