This Voucher Catalog is a reference for your team. Inside, you’ll find additional items and value available to your team via the Kit of Parts system. Each page represents a specific voucher and its particular instructions and details. Don’t miss out on any of these opportunities.

We are extremely grateful for the generosity and support that our FIRST® Suppliers provide!

Questions about the Kit of Parts can be sent to: frcparts@firstinspires.org

More information about the Kit of Parts can be found at our website: https://www.firstinspires.org/robotics/frc/kit-of-parts
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Altium is excited to support FIRST®, committed to providing every designer and engineer with tools to enable you to turn your ideas into products in the easiest and most productive way.

- Altium Designer consists of all the tools required to produce a PCB from concept to manufacturing.
- A PCB development platform supplying both the electrical and mechanical view.
- Integrated access to over a hundred suppliers makes it easy to select the best parts for your design.

To access one-year student license, fill out the form www.altium.com/frc

Special Instructions: One to five student licenses to be shared per high school team.
• Veteran FIRST® Robotics Competition teams who opt out of the Kit of Parts Chassis can use up to $450 by means of a Product Discount Voucher (PDV) for AndyMark products.

• Products can be redeemed by shopping at www.andymark.com, and using their assigned code.

• Upon checkout at andymark.com, teams enter this code instead of payment.

• Any order value over $450 will be the responsibility of the customer, and will need to be paid to AndyMark through normal order purchasing methods.
AndyMark develops and manufactures parts and products specifically for FIRST® teams.

- Gearboxes & Motors
- Wheels
- Electronics
- Pneumatics
- Hardware and More!

Visit our website to see all of our product offerings. AndyMark.com
1. Go to www.armabot.com
2. Select 1 or more RS7 encoders (first unit free with this voucher)
3. Enter your valid code from the FIRST® Team Registration System
4. Enter shipping and billing information
5. Place order and wait for arrival (3-5 days in continental USA)
6. Installation instructions at www.armabot.com
7. Technology tutorial for encoder implementation at www.armabot.com

Valid for purchase of one RS7 encoder individually or a multiple product order that includes one RS7 encoder. Limit one per FIRST® Robotics Competition Team. Must be registered for the 2020 robotics season. Voucher not transferable to other people or teams.
Technology Tutorial
CAN bus PID tuning via Talon SRX controller.

Quick Integration

Easy Install
Worm-Drive Clamp
Secure and simple attachment.

Cool Running
Vented Design
Doesn’t interfere with motor air flow.

Strain Relief
Secure Wiring
Integrated feature for cable tie.

Custom Designed Mount
775pro Motor Encoder
Successful use at 2016 & 2017 Championships.
www.autodesk.com/first Your destination for robotics CAD datasets, robotics simulation, robotics design tutorials, and access to Autodesk® software.

**Autodesk® Fusion 360®** – This 3D CAD/CAM tool for PC and Mac enables robot designs, assemblies, photorealistic renderings, fabrication, and team collaboration.

**Autodesk® Inventor®** – With this professional software, teams can produce 3D models that help with the design and visualization of the robot.

**Synthesis: An Autodesk® Technology** – Test your CAD designs for driver practice, robot code emulation, strategy, and more with this robotics simulator.

**Autodesk® EAGLE™** – Bring your next spark of an idea to life with powerful PCB design software made for every engineer.

**Autodesk® Tinkercad®** – Use Tinkercad Circuits environment to program and simulate an Arduino board for use on your robot.

**Autodesk® 3ds Max®** – With modeling, rendering, and animation capabilities, 3ds Max is an ideal solution for the VRC Game Design Animation Challenge.

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MAKE
SMARTER DESIGNS

Autodesk is excited to provide open access to our design software, digital fields, and robot part models.

Put your designs to work with our competition simulation software—created specifically for FIRST® teams—and get the robot you want on the field faster.

Get started at www.autodesk.com/first

Free Autodesk software and/or cloud-based services are subject to acceptance of and compliance with the terms of use or other applicable terms that accompany such software or cloud-based services. Software and cloud-based services subject to an Educational license may be used solely for Educational Purposes and shall not be used for commercial, professional or any other for-profit purposes.
Use your $35 voucher toward any items available at www.AutomationDirect.com

IMPORTANT INSTRUCTIONS - We cannot apply the discount AFTER you place an order!

1. Obtain your voucher code at the Mentor Dashboard at www.firstinspires.org
2. Login, OR create a New Account here: www.automationdirect.com/new-user
3. Then visit www.automationdirect.com/Voucher to enter the voucher code. This will enable a one-time $35 credit for your account.

Some Restrictions Apply:
1. Orders must be placed online. No ‘call-in’ orders. Stock items ordered by 6:00pm EST will ship the same day.
2. Orders must ship to a US or Canadian address. Credit card billing address must also be US or Canadian.
3. The voucher cannot be used towards shipping fees. Orders under $49 are shipped via 2-day service to US addresses for a flat rate of $10 (a credit card will be required to pay for shipping). Orders to Canada will incur brokerage fees. Larger orders may qualify for FREE two-day shipping see web site for details: https://www.automationdirect.com/static/specs/adpolicy.pdf

This voucher cannot be used to pay sales tax. A credit card (or PayPal) will be required to pay any applicable taxes. If your team/organization is tax exempt, you can submit appropriate documentation online during checkout.
These items are popular with FIRST teams:

- Miniature Pneumatic Devices
  - go2adc.com/fittings
- Push connect fittings
  - go2adc.com/ptcfittings
- Pneumatic Cylinders
  - go2adc.com/cylinders
- Ethernet Cables (and crossovers!)
  - go2adc.com/cat5e
- Belts & Pulleys
  - go2adc.com/tbp
- Wire Ties
  - go2adc.com/sapiselco
- Ferrules, Terminals, and Crimp Tools
  - go2adc.com/zfwire
- Sensors and Encoders
  - go2adc.com/sensenco

New Colors!

Automation Direct
1-800-633-0405 | www.AutomationDirect.com
As long-time supporters of the FIRST® organization, and the new generation of pneumatic enthusiasts, Clippard is happy to provide you with a complimentary AIR VOLUME TANK (#AVT-PP-35) found in your kit of parts.

In addition, we are proud to provide you with an additional $20 of FREE Clippard products for your design needs. 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.
Digi-Key is proud to provide you with $50 of components.

- Visit DIGIKEY.COM/FIRST to redeem your team’s voucher.
- The $50 voucher will not display on the total of your order, but will be subtracted from your order during processing.
- This Product Donation Voucher valued at $50 is good for the purchase of components only at www.digikey.com/first.

Taxes not included. This voucher is good for a one time use. Any amount not utilized in your initial transaction will be forfeited.
$50 VOUCHER & FREE SHIPPING!

Digi-Key has the product portfolio, service, tools, resources, and know-how to support students, coaches, and mentors on FIRST® teams.

See products popular with FIRST® teams, access resources such as TechForum, and redeem your product voucher at:

DIGIKEY.COM/FIRST

REDEEM YOUR VOUCHER IN 3 EASY STEPS!
- Visit digikey.com/first
- Enter your team information
- Shop at digikey.com
How does our FIRST® Robotics Competition Team request a license of DriveWorks Solo?

Please visit https://www.driveworks.co.uk/education/first/ to submit your request for a license of DriveWorks Solo.

Once on the website, you will be asked to complete and submit a “Request a License” form. Upon submittal of this form, we will review and process accordingly. Once approved, you will receive detailed instructions on how to download and install the software.

Valid for one (1) license of DriveWorks Solo requested by the Team Leader. License includes access to FREE online learning resources which include DriveWorks Solo Online Training webinars, How to Videos, Help Files and other learning resources. Product support and assistance provided to Team Leader by DriveWorks Ltd. via email to first@driveworks.co.uk. Must be registered for the 2020 Robotics Season. License is non-transferable to another team.

Questions? Contact us at first@driveworks.co.uk

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<th>Organization Name</th>
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<td>Visit Team Registration Account (Lead Mentor 1 or 2)</td>
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<tr>
<td>Website</td>
<td><a href="https://www.driveworks.co.uk/education/first/">https://www.driveworks.co.uk/education/first/</a></td>
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Powerful Design Automation for SOLIDWORKS®

FIRST® Robotics Competition Teams can get a free 12 month license of DriveWorks Solo

Automate repetitive SOLIDWORKS tasks & free up students & mentors to focus on quality robot design.

www.driveworks.co.uk/education/first
The Inventables PDV is usable as a gift code on the Inventables website for $100 towards any item in the store.

1. Retrieve your team’s voucher code from the FIRST® system.
2. Add the desired items from our store to your cart.
3. Use the voucher code in the “Enter Promotion” field on the shopping cart page.
4. Check out as normal.
The Mastercam voucher represents one free license of the Mastercam 2020 Educational Suite. The Mastercam 2020 Educational Suite includes your choice of Mastercam or Mastercam for SOLIDWORKS. Mastercam is a CAD/CAM software that can be used to both design products and program the processes to manufacture parts, specifically on CNC machines. Mastercam generates toolpaths that drive machine tools to turn designs into physical parts.

Please go to www.mastercam.com/community/competitions/first-robotics/
Please fill out the required information on the registration page. Once we receive your request, an email will be sent with your activation code and instructions on downloading Mastercam.
1. Access Your Team’s Serial Number

Have your Lead Mentor 1 or 2 log in to your team’s account at www.firstinspires.org to access your serial number by clicking on “Passwords/Voucher Codes.” This license also provides access to more than a dozen LabVIEW add-ons, NI Multisim for SPICE simulations, and NI Ultiboard for PCB design.

2. Download Software

Get NI LabVIEW for FIRST Robotics Competition via the FIRST Robotics Competition Resource Hub at www.ni.com/frc

3. Learn and Earn

Learn LabVIEW with free online training and earn skills badges at www.ni.com/frc

Organization Name | National Instruments
Voucher Value | NI LabVIEW Software
Expiration Date | 01/15/2021
Shipping | Included
Access Code(s) | Visit Team Registration Account (Lead Mentor 1 or 2)
NI equips engineers and scientists with systems that accelerate productivity, innovation, and discovery.

A Global Leader in Test, Measurement, and Control Solutions

The NI Platform
NI accelerates engineering success by providing you with an open, software-centric platform that takes advantage of modular hardware and an expansive ecosystem.

The NI Ecosystem
The NI ecosystem helps you build innovative systems more efficiently by providing services and support, software add-ons, and solution partners around the globe.

NI Products
NI offers a combination of productive software, high-quality drivers, and modular hardware that helps you build user-defined solutions.

NI is a proud supporter and Strategic Partner of FIRST. www.ni.com
Attention FIRST® Robotics Competition Teams:

1. Be sure to email sales@nextgenrobots.com with your Lead Mentor Name, FIRST Robotics Competition Team Number, and PDV Code found on the FIRST Robotics Competition Team Registration System so that we can make sure that your code is active!

2. Once confirmed, enter the team’s assigned code from step 1 into “Coupon code” on your order and the discount will appear during checkout. Do not “Checkout as guest”.

3. This coupon can be redeemed for one CIM Cooler 180 (an $8.00 value) or one 775 Cooler 360 (an $8.00 value) but products can be purchased in any combination and multiple amounts of the CIM Cooler or the 775 Cooler. After applying the coupon code during checkout, the total will be less $8.00. Before submitting the order make sure the discount has been applied to the total. If the discount is not showing, try clicking “view cart” and reapply the code.
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<th>Organization Name</th>
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<td>Voucher Detail</td>
<td>PTC resources for FIRST® teams</td>
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**PTC software and other resources available to FIRST teams:**

- **PTC Creo** – Industry standard 3D CAD software.
- **Vuforia** – Program your robot to identify images and objects in the 3D environment.
- **Creo 3D models for kit of parts and playing field**
- **AR playing field with Vuforia View**
- **PTC FIRST team grants**

Visit the FIRST | PTC webpage for more information: https://www.ptc.com/en/academic-program/student/first

Send comments or questions to FIRST@ptc.com
PTC is proud to join forces with FIRST® to help you be the engineers and innovators of tomorrow.
**Receive $50 towards most products on** [www.revrobotics.com](http://www.revrobotics.com)

Enter the code you receive as a “gift card” at checkout.

More instructions will be posted to [http://www.revrobotics.com/frc-voucher/](http://www.revrobotics.com/frc-voucher/)

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<td>Website</td>
<td>revrobotics.com</td>
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Proud supporters of FIRST® Robotics Competition

Custom robot parts-designed for FIRST® students, by FIRST® mentors.

Motors, Structure, Electronics, and more: www.revrobotics.com
Organization Name: RoboPromo
Voucher Detail: FIRST® Iron-On Bumper Logos (set of 8)
Expiration Date: 05/01/20
Shipping: Team Responsibility
Access Code: logo20
Website: www.robopromo.com

Instructions:
- Go to www.robopromo.com and enter access code logo20 at checkout (include team number) to receive (1) pack of (8) iron-on logos: 3.75” x 5”
- Available to FIRST® Robotics Competition Teams only.
- Available 01/04/20 (one order per team)
Siemens is pleased to offer Solid Edge 3D CAD Software to each and every member of your FIRST® Robotics Competition team a free academic license of Solid Edge for use in designing, editing and building your winning robot. You can download the software at your convenience at www.siemens.com/FIRSTRobotics.

To redeem your voucher for a free student license of Solid Edge, simply visit the landing page above.

And when you’ve become proficient in Solid Edge we invite you to take the Solid Edge certification exam. For FIRST Team members, Siemens will waive the usual $25.00 fee.


Good luck this season!
Looking for a competitive advantage this season?
Try designing your robot in 3D CAD!

Download Siemens Solid Edge® Software for students today! Solid Edge is powerful, easy-to-learn, fun to use and free of charge.

Quickly learn how to design in Solid Edge with our self-paced online tutorials. And once you become proficient, be sure to take advantage of Solid Edge certification using your FIRST discount code. Visit www.siemens.com/plm/solidedgecertification to register for Associate I certification and use promo code FIRST2020.

Download your license of Solid Edge today: www.siemens.com/plm/solid-edge-student
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<td>Voucher Detail</td>
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<td><a href="https://go.solidprofessor.com/first-robotics-competition-sponsorship">https://go.solidprofessor.com/first-robotics-competition-sponsorship</a></td>
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With this voucher, your team will receive one free individual annual membership to SolidProfessor, giving you access to SolidProfessor’s online CAD and CAM training to help your team become more efficient designers. The training is organized into short, bite-sized videos that make learning CAD and CAM easier than ever. You can follow the full courses or search through the SolidProfessor Library of videos to find the help you need. You also can access SolidProfessor’s cert prep training so you can ace your next certification exam.

To redeem your voucher, visit the SolidProfessor FIRST Robotics Competition web page and fill out the short form. Within a week, a SolidProfessor team member will set up your free membership and reach out to you at the email address provided with information about how to access your account. It’s that easy!
1-Year SolidProfessor Membership

Voucher available for FIRST® teams in the 2020 Virtual Kit of Parts. Access online CAD training today!
SOLIDWORKS wants to help develop the engineers and innovators of tomorrow. We are pleased to sponsor your FIRST team and support them with SOLIDWORKS software.

With FREE Student Sponsorship, students get access to:

- SOLIDWORKS Premium
- SOLIDWORKS Simulation Premium
- SOLIDWORKS Flow Simulation
- SOLIDWORKS Motion
- SOLIDWORKS Plastics
- SOLIDWORKS Sustainability
- SOLIDWORKS Electrical Professional
- SOLIDWORKS PCB
- SOLIDWORKS CAM Professional
- SOLIDWORKS MBD
- SOLIDWORKS Visualize
- MySolidWorks for Students

Organization Name: 3DS SOLIDWORKS
Voucher Detail: SOLIDWORKS 3D Design Software Suite
Expiration Date: 06/01/20
Shipping: Included
Access Code: n/a
Website: WWW.SOLIDWORKS.COM/FIRST
Instructions:
2. Enter your valid code from the FIRST® Team Registration System
3. Enter shipping and billing information
4. Place the order and wait for the arrival

Restrictions:
1. The order must be shipped to a US address.
2. The credit card must be issued by a US or Canadian bank.
3. The Voucher does not include shipping; the team will be responsible for shipping cost.

Valid for 10 pc ½ in Hex Bearings (SKU: BRG-0001). Limit one per FIRST® Robotics Competition Team. Must be registered for the 2020 robotics season. Voucher not transferable to other people or teams.

Organization Name | Swyft Robotics
Voucher Detail | 10 pc ½ in Hex Bearings (SKU: BRG-0001)
Expiration Date | 4/30/2020
Shipping | Team Responsibility
Access Code(s) | Visit Team Registration Account (Lead Mentor 1 or 2)
Website | www.SwyftRobotics.com
Complimentary access to Tableau Desktop data analysis and visualization, and Tableau Prep for data preparation.

Visualize your data. Quickly answer questions. Play better defense, pick alliance partners, analyze robot performance, target your fundraising, and reduce inventory waste.

- Use the product code found in your Lead Mentors' 1 and 2 FIRST® registration accounts for five activations per team.
- Don’t forget to check out Tableau’s free online resources (https://www.tableau.com/first-robotics) created specifically for FIRST® Robotics Competition students.

These access codes are for educational use only. Please do not share your key with anyone outside your team.
Tableau Desktop is free for FIRST® Robotics Competition students.
$25.00 for FIRST® Robotics Competition Teams to receive TE Connectivity products

To redeem: Check the FIRST® Kit of Parts website for details.
$25 for FIRST® Robotics Competition Teams to receive TE Connectivity products

TO REDEEM:
Check the FIRST® Kit of Parts website for details.

Creating a safer, sustainable, productive and connected future

TE Connectivity’s products are a crucial part of an increasingly connected world. We can sense and connect data, power or signals moving through just about anything.

To view more products visit te.com
We are offering six constant force springs to each team participating in the competition. Mix and Match any springs from our constant force stock offering. The offer also includes free shipping within the USA and Canada! Orders are limited to 1 per team per year.

Vulcan Spring & Manufacturing Co.

Organization Name
Voucher Value
Expiration Date
Shipping
Access Code(s)
Website

6 Free Springs from Select List
12/31/20
Included (U.S. and Canada)
Provided in packets
http://www.vulcancares.com
Sharing Spring Solutions with FIRST® Robotics Competition Since 2007

Phone: 215-721-1721 | 501 Schoolhouse Road, Telford, PA 18969
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<tr>
<td>Website</td>
<td><a href="http://www.wolfram.com/firstrobotics/">www.wolfram.com/firstrobotics/</a></td>
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To claim your software, visit www.wolfram.com/firstrobotics

**Students:** Please use the screencast code “FRCSTU53SYSW1PR2020” and complete the team name and coach name fields in the form.

**Coaches:** Please use “FRCOACH54SYSW1PR2020” as the screencast code in the form.

Wolfram resources for FIRST® Robotics Competition are non-transferable and may only be used by registered participants of FIRST® Robotics Competition. This offer expires on June 1, 2020.
Our Future – Built Better Together.

www.firstinspires.org

FIRST LEGO LEAGUE JR.
Grades K-4; ages 6-10

FIRST LEGO LEAGUE
Grades 4-8; ages 9-16*
*ages vary by country

FIRST TECH CHALLENGE
Grades 7-12; ages 12-18

FIRST ROBOTICS COMPETITION
Grades 9-12; ages 14-18