# 2023 VIRTUAL KIT CATALOG

Virtual Kit Catalog brought to you by AMD

CHARGED UP℠

PRESENTED BY HAAS Gene Haas Foundation

FIRST ROBOTICS COMPETITION

# WELCOME

## TO THE 2023 *FIRST*® ROBOTICS COMPETITION SEASON

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.

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

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

***More information about the Kit of Parts can be found at our website:***
firstinspires.org/robotics/frc/kit-of-parts

# VOUCHER CHECKLIST

| Supplier | Redeemed |
|---|---|
| Altium | ☐ |
| Armabot | ☐ |
| Autodesk | ☐ |
| Automation Direct | ☐ |
| Clippard | ☐ |
| DevCycle | ☐ |
| Digi-Key Electronics | ☐ |
| DriveWorks Ltd | ☐ |
| Mastercam | ☐ |
| MathWorks | ☐ |
| Next Gen Robots | ☐ |
| NI | ☐ |
| OneIPM | ☐ |

| Supplier | Redeemed |
|---|---|
| OnScale | ☐ |
| Onshape | ☐ |
| Plummer Industries | ☐ |
| PTC | ☐ |
| REV Robotics | ☐ |
| RoboPromo | ☐ |
| Siemens | ☐ |
| SolidProfessor | ☐ |
| SOLIDWORKS | ☐ |
| Tableau | ☐ |
| TE Connectivity | ☐ |
| Upverter | ☐ |
| Vulcan Spring | ☐ |
| Wolfram | ☐ |

Altium®

| | |
|---|---|
| **Organization Name** | **Altium** |
| **Voucher Detail** | **One-year Altium Designer student license** |
| **Expiration Date** | **12/29/2023** |
| **Access Code(s)** | **n/a** |
| **Website** | **www.altium.com/frc** |

FIRST® ROBOTICS COMPETITION

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.

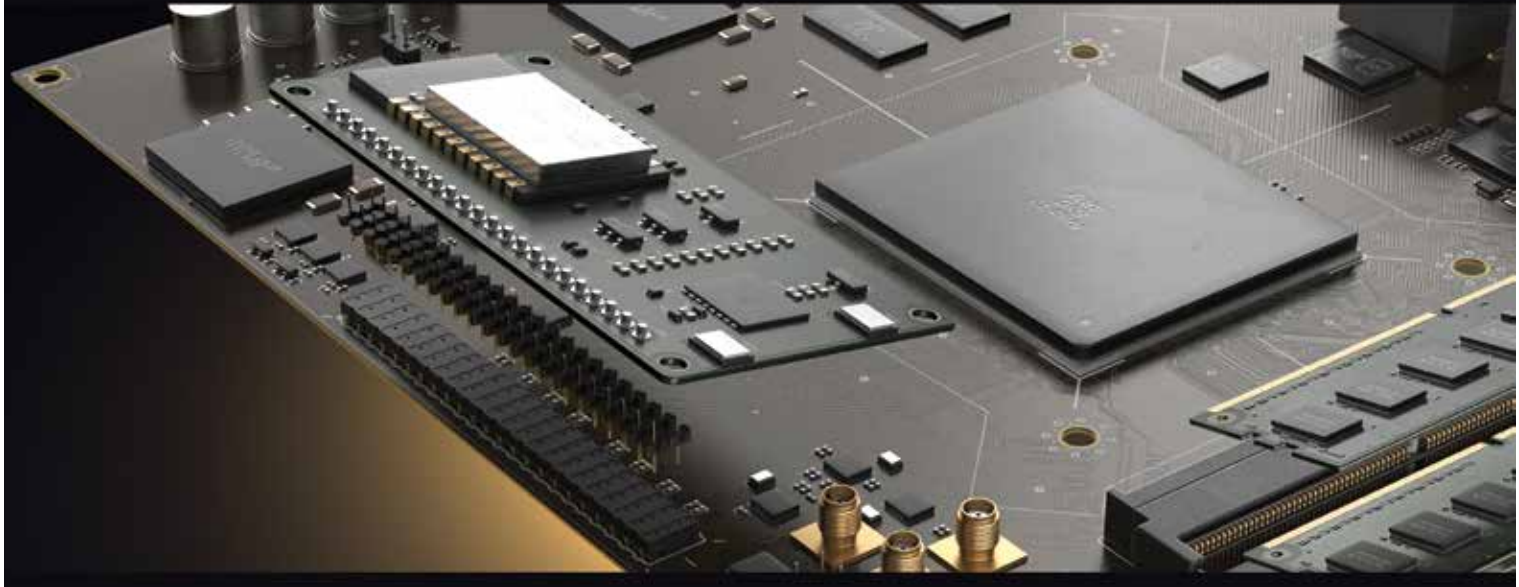
- Altium Designer consists of all the tools required to produce a PCB from concept to manufacturing.
- A PCB development platform supplying both the electrical and mechanical view.
- Integrated access to over a hundred suppliers makes it easy to select the best parts for your design.

**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*

Altium

Proud to support *FIRST*®
POWERFUL TOOLS FOR NEXT GENERATION ELECTRONIC DESIGN



USE ALTIUM DESIGNER FOR FREE NOW!
www.altium.com/frc

ARMABOT

| | |
|---|---|
| **Organization Name** | **Armabot** |
| **Voucher Value** | **One (1) RS7 encoder** |
| **Expiration Date** | **04/28/2023** |
| **Shipping** | **Team Responsibility** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **www.armabot.com** |

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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 indiviually or a multiple product order that includes one RS7 encoder. Limit one per *FIRST*® Robotics Competition Team. Must be registered for the 2023 robotics season. Voucher not transferable to other people or teams.

EASY INSTALL

## Worm-Drive Clamp

Secure and simple attachment.

QUICK INTEGRATION

## Technology Tutorial

CAN bus PID tuning via Talon SRX controller.

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.

AUTODESK

| | |
|---|---|
| **Organization Name** | **Autodesk** |
| **Voucher Detail** | **Autodesk Software Access** |
| **Expiration Date** | **n/a** |
| **Shipping** | **Included** |
| **Website** | **www.autodesk.com/first** |

**www.autodesk.com/first** is a dedicated page for everything *FIRST*® Robotics Competition and Autodesk related, including CAD data sets of the Kit of Parts and playing field, Tutorials, and access to Autodesk software.

**Autodesk® Fusion 360®** – *Software or Browser Access*
Cloud-based CAD, CAM, CAE, and PCB software, enables robot designs, assemblies, photo-realistic renderings, fabrication, and team collaboration. Install Fusion 360 (multiple languages available) or run Fusion 360 from fusion.online.autodesk.com.

**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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FIRST® ROBOTICS COMPETITION

Create winning 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
AUTODESK

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|---|---|
| **Organization Name** | **Automation Direct** |
| **Voucher Description** | **$50.00** |
| **Expiration Date** | **08/31/2023** |
| **Shipping** | **Team Responsibility** (see below for details) |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **More Info** | **www.AutomationDirect.com** |

**Use your $50 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 $50 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 via 2-day service.
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 website 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.*

FIRST® ROBOTICS COMPETITION

# These items are popular with *FIRST*® teams:

Miniature Pneumatic Devices

go2adc.com/fittings

Pneumatic Cylinders

go2adc.com/cylinders

Belts & Pulleys

go2adc.com/tbp

Ferrules, Terminals, and Crimp Tools

go2adc.com/zfwire

Push connect fittings

go2adc.com/ptcfittings

Ethernet Cables (and crossovers!)

go2adc.com/cat5e

Wire Ties

go2adc.com/sapiselco

Sensors and Encoders

go2adc.com/sensenco

AUTOMATIONDIRECT.com

1-800-633-0405 | www.AutomationDirect.com

Clippard

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|---|---|
| Organization Name | Clippard |
| Voucher Value | $20.00 |
| Offer Expires | 12/31/2023 |
| Shipping | Not Included |
| Access code | FIRST2023 |
| Website | clippard.com |

Congratulations on the many successes you have achieved to earn your team a position in the 2023 *FIRST*® Robotics Competition!

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-1ST)** and mounting clip found in your kit of parts.

In addition, we are proud to provide you with an additional **$20.00 of FREE Clippard products** for your design needs. Simply visit clippard.com to select your products, and use the promotional code above at check out.

***Please note that you must create an account AND be logged in for the voucher to be validated.***

***If you need technical assistance, don't hesitate to contact us at 1-877-245-6247.***

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# Clippard

*Pressure Controls • Directional Control Valves • Electronic Valves • Control Valves*
*Isolation Valves • Pinch Valves • Manual Valves • Fittings • Air Preparation Equipment*
*Tubing • Custom Valves & Assemblies*

**PRECISION FLOW CONTROL**
**PRODUCTS & SOLUTIONS**

www.clippard.com

DevCycle

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|---|---|
| **Organization Name** | **DevCycle** |
| **Voucher Value** | **$100 platform credit** |
| **Expiration Date** | **01/01/2024** |
| **Shipping** | **Included** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **https://devcycle.com/frc** |

***Adding an additional 200,000 MAU, or 2,000,000 experimentation events, or 5,000,000 EdgeDB operations in addition to the free tier!***

1. Sign up for an account at https://app.devcycle.com
2. Under Settings (https://app.devcycle.com/r/settings) - Create an organization with the name being your *FIRST*® Robotics Competition Team Number- ie “FRC 9999”
3. Email frc@devcycle.com with your account email address, *FIRST* Robotics Competition Team Number, Lead Mentor Name, and the PDV Code found on the *FIRST* Robotics Competition Team Registration System to activate your credit!
4. Once confirmed, invite the rest of your team to your organization and start pushing code safely!

FIRST® ROBOTICS COMPETITION

DevCycle

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|---|---|
| **Organization Name** | **Digi-Key Electronics** |
| **Voucher Value** | **$50** |
| **Expiration Date** | **09/29/2023** |
| **Shipping** | **Included (excludes Marketplace products)** |
| **Access Code(s)** | **See Team Registration System** |
| **Website** | **www.digikey.com/first** |

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## Digi-Key is proud to provide you with $50 of components.

- Visit www.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

*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.**

***REDEEM YOUR VOUCHER IN 3 EASY STEPS!***

- **Visit digikey.com/first**
- **Enter your team info**
- **Shop at digikey.com**

**VISIT US ONLINE TO ACCESS OVER 2.2 MILLION PRODUCTS IN STOCK, RESOURCES, AND MORE AT:**

# DIGIKEY.COM

Digi-Key® ELECTRONICS

*Free Shipping offer does not apply to Marketplace products.

DriveWorks
Configure & Automate

FIRST®
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|---|---|
| **Organization Name** | **DriveWorks Ltd.** |
| **Voucher Value** | **(1) 1 year license of DriveWorks Solo Design Automation Software** |
| **Expiration Date** | **12/31/2023** |
| **Shipping** | **Included** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **https://www.driveworks.co.uk/education/first/** |

***FIRST® teams can request a license of DriveWorks Solo Design Automation Software for a period of one (1) year.***

DriveWorks Solo allows engineers and students to quickly and easily create and configure variations of your SOLIDWORKS models directly inside of SOLIDWORKS.

DriveWorks Solo is a powerful SOLIDWORKS Automation Tool. It allows teams to automate their SOLIDWORKS parts, assemblies and detailed drawings.

- Control Dimensions, features, custom properties, advanced feature parameters, instances and file formats.
- Dynamically replace components.
- Create a library of components using intelligent file reuse.

***Key benefits of DriveWorks Solo***

- Capture and re-use your design knowledge
- Incorporate design rules to reduce errors and rework, and improve product quality
- Automate repetitive tasks to reduce design time
- Liberate students and mentors to focus on quality variations of robot design.

Valid for one (1) license of DriveWorks Solo requested by the Team Leader. The license includes access to FREE online learning resources, including 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 2023 Robotics Season. License is non-transferable to another team.

**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 completion of this form, we will review for completion, process and once approved you will receive detailed instructions on how to download and install the software.

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

DriveWorks
Configure & Automate

FIRST

# 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.

Find us on LinkedIn
www.linkedin.com/company/driveworks

www.driveworks.co.uk/education/first

Mastercam

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|---|---|
| **Organization Name** | **Mastercam** |
| **Voucher Value** | **Three annual licenses of the Mastercam 2023 Educational Suite** |
| **Expiration Date** | **10/31/2023** |
| **Access Codes** | **Visit Team Registration Account** |
| **Website** | **https://www.mastercam.com/community/competitions/first-robotics/** |

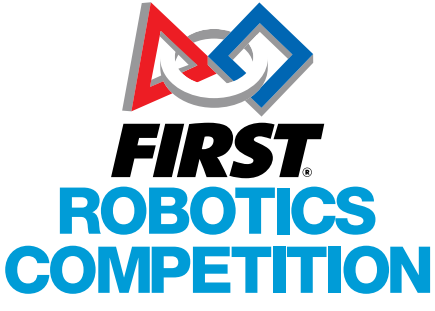
FIRST® ROBOTICS COMPETITION

**Mastercam Educational Suite:** Three free annual licenses of the current version of the Mastercam Educational Suite. The Mastercam Educational Suite includes Mill, Lathe, Wire, Router, Design and Art.

Mastercam®

https://www.mastercam.com/community/competitions/first-robotics/

| | |
|---|---|
| **Organization Name** | **MathWorks** |
| **Voucher Value** | **MathWorks Resources for *FIRST*® Teams** |
| **Expiration Date** | **11/17/2023** |
| **Shipping** | **Included** |
| **Access Code(s)** | **n/a** |
| **Website** | **mathworks.com/first-robotics** |




***MATLAB and Simulink allow students/participants to simulate robots, develop control and navigation algorithms, and optimize their mechanical designs. Please visit our website to request access to MathWorks software as well as find other resources available to FIRST® teams:***

- Software license to over 50 products, including:
  - MATLAB, Simulink, Stateflow, Simscape, MATLAB Coder, Robotics System Toolbox, Navigation Toolbox, Control System Toolbox, Signal Processing Toolbox, Computer Vision Toolbox, Sensor Fusion and Tracking Toolbox and more
- Links to free, 2-hour online courses to get started with MATLAB and Simulink
- Tutorials, videos, and examples for students participating in robotics competitions

MathWorks is a proud supporter of student competitions that inspire learning and advance education in engineering, science, and math

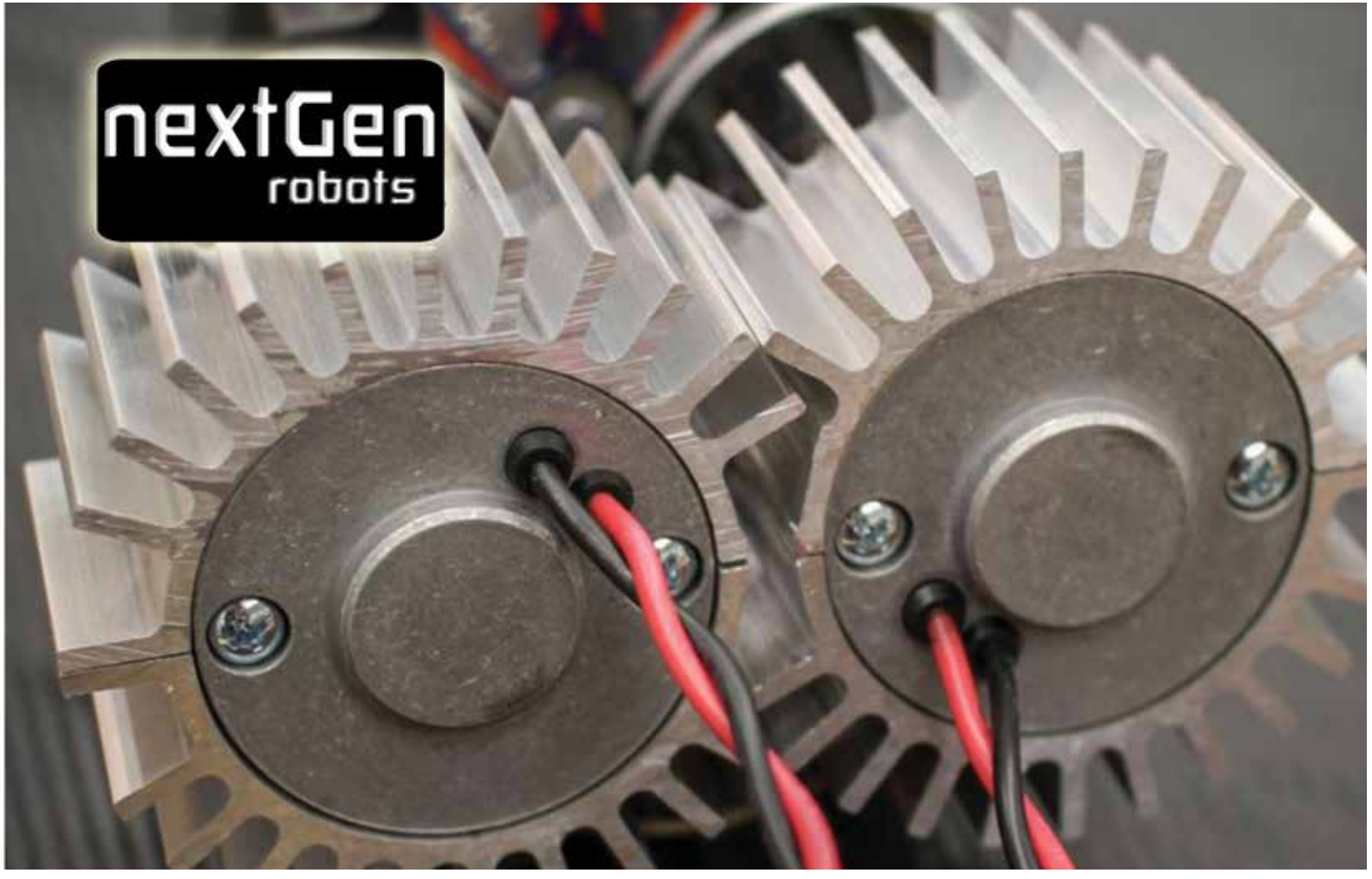
Learn more at
*mathworks.com/academia/student-competitions*

MathWorks®
*Accelerating the pace of engineering and science*

| | |
|---|---|
| **Organization Name** | **Next Gen Robots** |
| **Voucher Detail** | **1 CIM Cooler 180 or 775 Cooler 360** |
| **Expiration Date** | **05/31/2023** |
| **Shipping** | **Team Responsibility** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **www.nextgenrobots.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.


nextGen
robots

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|---|---|
| **Organization Name** | **NI** |
| **Voucher Value** | **NI LabVIEW Software** |
| **Expiration Date** | **01/31/2024** |
| **Shipping** | **Included** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **http://www.ni.com/frc** |

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This license also provides access to more than a dozen LabVIEW add-ons, NI Multisim for SPICE simulations, and NI Ultiboard for PCB design.

**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."

**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.

# National Instruments is now NI.

At NI, we believe in the power and potential of making connections – between people, ideas, and technology – to create a path forward.

It's time. Let's Engineer Ambitiously.

OneIPM
Integrated Project Management

| | |
|---|---|
| **Organization Name** | **OneIPM** |
| **Voucher Detail** | **OneIPM Project/Task Management for Onshape** |
| **Expiration Date** | **11/30/2023** |
| **Shipping** | **Included** |
| **Access Code** | **n/a** |
| **Website** | **www.oneipm.com/first** |

***OneIPM is pleased to provide complimentary use of our cloud-based Project/Task Management and Product Structure Explorer solution for all FIRST® teams.***

OneIPM is an Onshape add-in that provides innovative visuals of your Onshape documents and assemblies, helping teams better understand design intent, while also managing all your project related tasks with complete associativity to your CAD documents.

***To access OneIPM:***

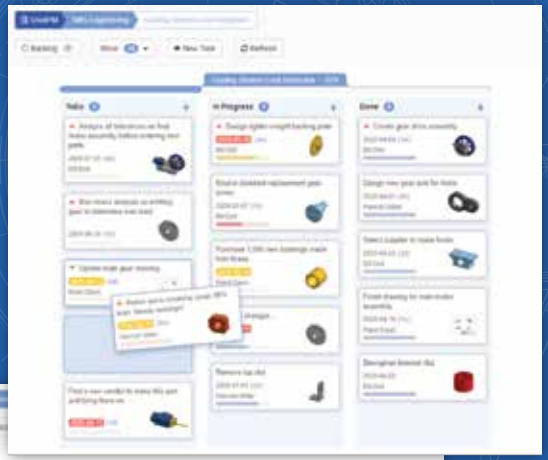
- Create an account in Onshape at onshape.com
- Subscribe to the free trial of OneIPM in the Onshape app store at appstore.onshape.com
- Extend your free trial of OneIPM for the entire season at oneipm.com/first/

***For detailed information and step-by-step instruction, please visit: oneipm.com/first/ Best wishes for a great season!***

FIRST®
ROBOTICS
COMPETITION

# OneIPM

## Integrated Project Management



- Manage all your projects and tasks *within* Onshape
- *Link* tasks directly to documents, parts, assemblies, drawings...
- Visualize product structure with OneIPM's innovative *tree and node views*
- Gain insight into design intent using part *version history* viewer

onscale

/An Ansys Company

| | |
|---|---|
| **Organization Name** | **Ansys OnScale** |
| **Voucher Value** | **Ansys OnScale** |
| **Expiration Date** | **06/30/2023** |
| **Shipping** | **Included** |
| **Access Code(s)** | **n/a** |
| **Website** | **https://solve.prod.portal.onscale.com/register** |

With Ansys OnScale, competitors now have access to the fastest and most powerful cloud-native engineering simulation platform. Ansys OnScale combines powerful multiphysics solver technology with the limitless compute power of cloud supercomputers. With Ansys OnScale, competitors can run massive numbers of full 3D multiphysics (mechanical, thermal, CFD) simulations in parallel to create true Digital Prototypes – digital representations of physical high-tech devices that capture the complete behavior of a device over its operating envelope -- of their robots. By shifting expensive and time-consuming physical prototyping to digital prototyping, Ansys OnScale can massively reduces cost, risk, and production time for teams.

***Register for Ansys OnScale via the link, and when prompted to select an "Interest," select FIRST® robotics. Alternatively, signup with a FIRST robotics email, and you will be enrolled automatically.***

If you experience difficulties, share your account information with, contact us (https://onscale.com/contact-us/) and we'll get back to you promptly!

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onscale
/An Ansys Company

onshape

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|---|---|
| Organization Name | Onshape, A PTC Business |
| Voucher Detail | Onshape CAD Software |
| Expiration Date | n/a |
| Shipping | Included |
| Access Code | n/a |
| Website | https://www.onshape.com/edu/frc |

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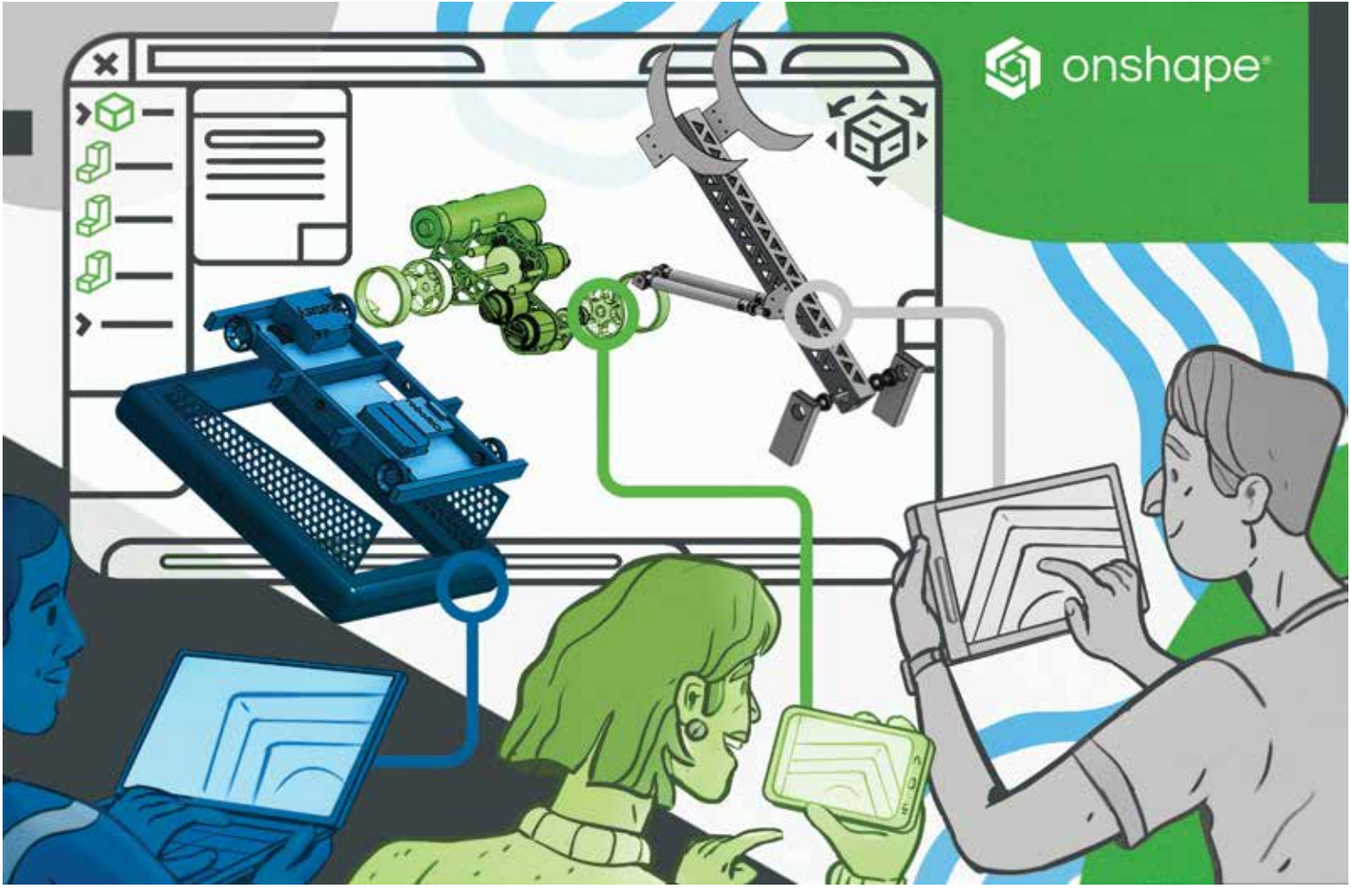
*Free access to the Onshape Education Plan and full access to the Learning Center.*

***Visit the FIRST Onshape webpage for information and resources: https://www.onshape.com/edu/frc***

*Email comments or questions: FIRST@ptc.com*


onshape

Plummer Industries
Driving Innovation.

| | |
|---|---|
| **Organization Name** | **Plummer Industries** |
| **Voucher Detail** | **$25.00** |
| **Expiration Date** | **09/30/2023** |
| **Shipping** | **Team Responsibility** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **https://plummerindustries.com/robotics/shop** |

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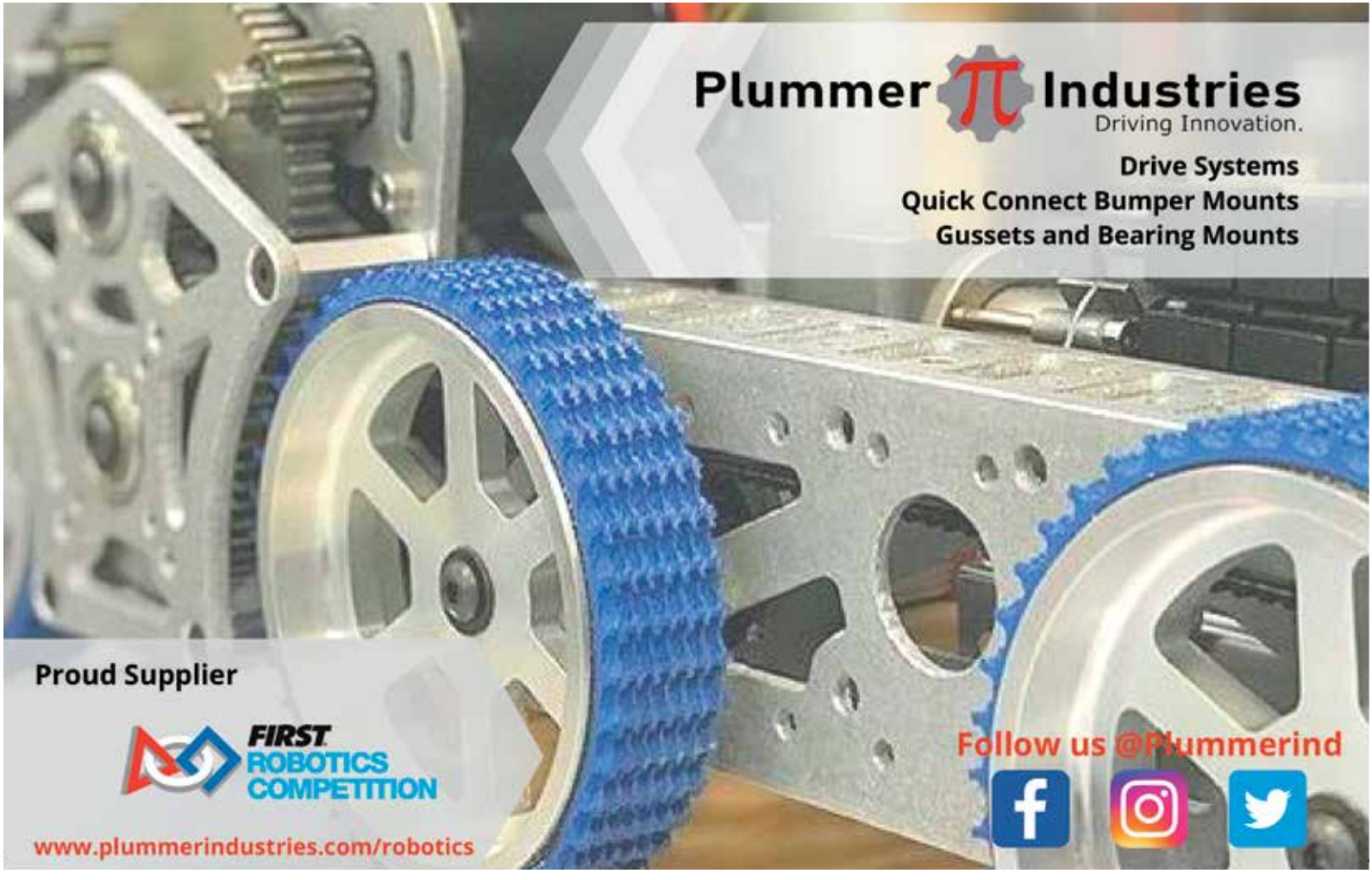
***$25.00 for FIRST® Robotics Competition Teams to receive Plummer Industries products***

**To redeem:** *During checkout teams can apply the Voucher code in the discount coupon box.*


Plummer Industries
Driving Innovation.
Drive Systems
Quick Connect Bumper Mounts
Gussets and Bearing Mounts
Proud Supplier
FIRST ROBOTICS COMPETITION
Follow us @Plummerind
www.plummerindustries.com/robotics

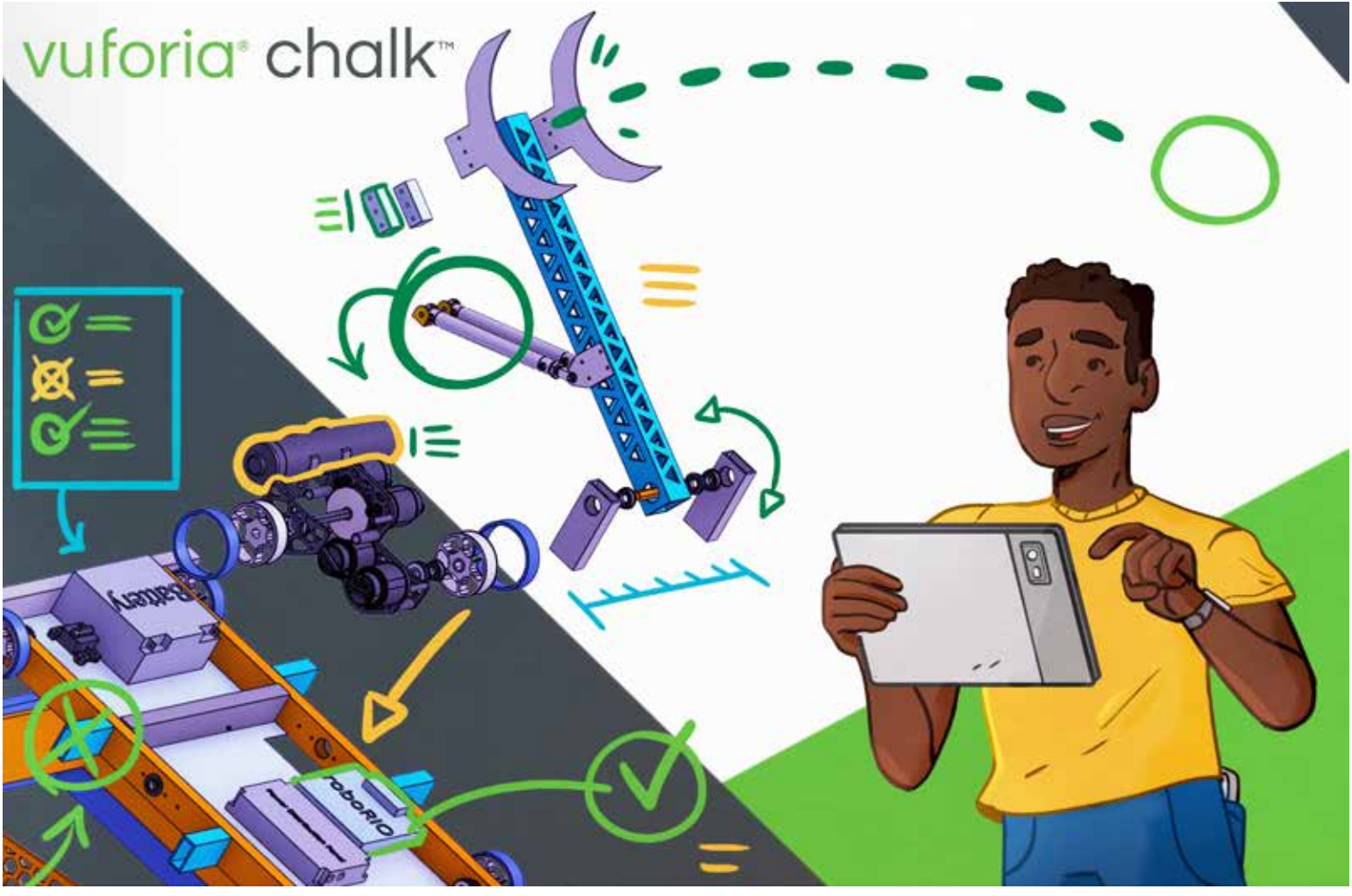
| | |
|---|---|
| **Organization Name** | **PTC** |
| **Voucher Detail** | **PTC CAD and Collaboration Software** |
| **Expiration Date** | **n/a** |
| **Shipping** | **Included** |
| **Access Code** | **n/a** |
| **Website** | **ptc.com/en/academic-program/student/first** |

***Access to the following PTC Software:***

- ***Vuforia Chalk*** – Application to facilitate AR remote assistance between team members
- ***Onshape*** – Cloud-based 3D CAD software
- ***Creo*** – 3D CAD software
- ***Mathcad*** – Software for engineering calculations

***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***


vuforia® chalk™

REV ROBOTICS

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|---|---|
| **Organization Name** | **REV Robotics** |
| **Voucher Value** | **$50.00** |
| **Offer Expires** | **05/31/2023** |
| **Shipping** | **Team Responsibility** |
| **Access code** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **www.revrobotics.com** |

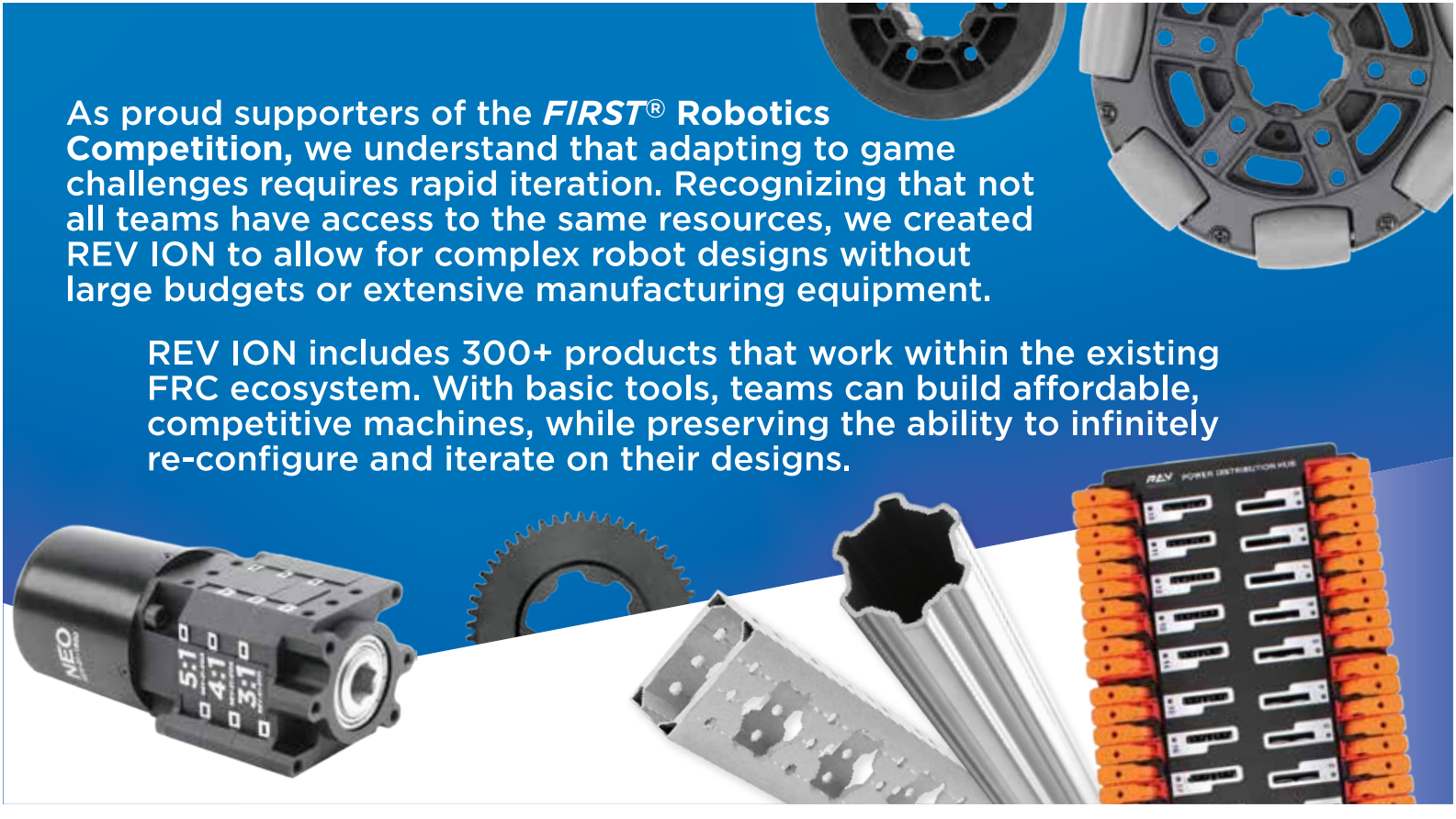
FIRST® ROBOTICS COMPETITION

***Receive $50 towards any product on www.revrobotics.com***

Enter the code you receive as “Coupon Code or Promo” at checkout.
More instructions will be posted to **http://www.revrobotics.com/frc-voucher/**

As proud supporters of the ***FIRST*®** **Robotics Competition,** we understand that adapting to game challenges requires rapid iteration. Recognizing that not all teams have access to the same resources, we created REV ION to allow for complex robot designs without large budgets or extensive manufacturing equipment.

REV ION includes 300+ products that work within the existing FRC ecosystem. With basic tools, teams can build affordable, competitive machines, while preserving the ability to infinitely re-configure and iterate on their designs.




**Motors, Electronics, Structure, and the entire REV ION Build System available at: www.revrobotics.com/ION**

REV ION

| | |
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| **Organization Name** | **RoboPromo** |
| **Voucher Detail** | ***FIRST*® Iron-On Bumper Logos** (set of 8) |
| **Expiration Date** | **05/01/23** |
| **Shipping** | **Team Responsibility** |
| **Access Code** | **LOGO23** |
| **Website** | **www.robopromo.com** |

**Instructions:**

- Go to **www.robopromo.com** and enter access code **LOGO23** 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 01/08/23 (one order per team)*

ROBOPROMO
PROMOTING SUCCESS

SIEMENS

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| **Organization Name** | **Siemens** |
| **Voucher Detail** | **Siemens software, training, tutorials, and certification exam for Solid Edge and NX applications** |
| **Expiration Date** | **09/30/23** |
| **Shipping** | **Included** |
| **Website** | **www.siemens.com/FIRSTRobotics** |

FIRST® ROBOTICS COMPETITION

Use professional-level tools to design, test, and iterate your entire robotic system using the Siemens software suite of offerings!

Access your free license of Solid Edge 3D CAD, Solid Edge Simulation, and PADS Professional software. To find out more and download your software visit **www.siemens.com/firstrobotics**.

Siemens also invites all *FIRST*® teams who are using SIEMENS software to apply for funding. Criteria for funding is detailed on our *FIRST* resource page, and made available on a first-come, first served basis. **www.siemens.com/firstrobotics**.

**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.

SIEMENS

**Download your license of Solid Edge today: www.siemens.com/firstrobotics**

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|---|---|
| **Organization Name** | **SolidProfessor** |
| **Voucher Detail** | **One Free Individual Annual Membership** |
| **Expiration Date** | **11/30/2023** |
| **Shipping** | **n/a** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **https://www.solidprofessor.com/first-robotics-competition-sponsorship/** |

***With this voucher, your team will receive one free individual annual membership to SolidProfessor ($490 value).***

This membership will give you access to online CAD and CAM courses that will help your team become more effective design engineers. Each course includes bite-sized video lessons, practice exercises, and short quizzes that will make learning CAD and CAM easier than ever! Plus, when students successfully complete a course, they can show off their new skills by earning a Technical Certificate.

**To access your free membership:**

1. Visit the SolidProfessor *FIRST*® Robotics web page and complete the short form.
2. 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.

# 1-Year SolidProfessor Membership

**Voucher available for *FIRST*® teams in the 2023 Virtual Kit of Parts. Access online CAD training today!**

SOLID Professor

SOLIDWORKS

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| **Organization Name** | **3DS SOLIDWORKS** |
| **Voucher Detail** | **– SOLIDWORKS Desktop**<br>**– SOLIDWORKS Cloud CAD Apps** |
| **Expiration Date** | **07/31/2023** |
| **Shipping** | **Included** |
| **Access Code** | **Visit Team Registration Account**<br>**(Lead Mentor 1 or 2)** |
| **Website** | **WWW.SOLIDWORKS.COM/FIRST** |

FIRST® ROBOTICS COMPETITION

***Dassault Systèmes SolidWorks Corporation wants to help you develop the engineers and innovators of tomorrow. That is why we are pleased to sponsor your FIRST® team.***

Student teams that need design tools can use the SOLIDWORKS desktop, which includes over twelve powerful design and engineering products. Also included are six SOLIDWORKS Cloud CAD Apps. for browser-based design and collaboration. Teams can apply for both offers.

DASSAULT SYSTEMES

3DEXPERIENCE

SOLIDWORKS

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| **Organization Name** | **Tableau** |
| **Voucher Detail** | **One copy of Tableau Desktop** |
| **Expiration Date** | **08/31/23** |
| **Shipping** | **Included** |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **www.tableau.com/first-robotics** |

***Complimentary access to the full professional version of Tableau Desktop for data analysis and visualization, and Tableau Prep for data preparation.***

*Get ahead with Tableau. 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.
- Make the most of it with 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.*

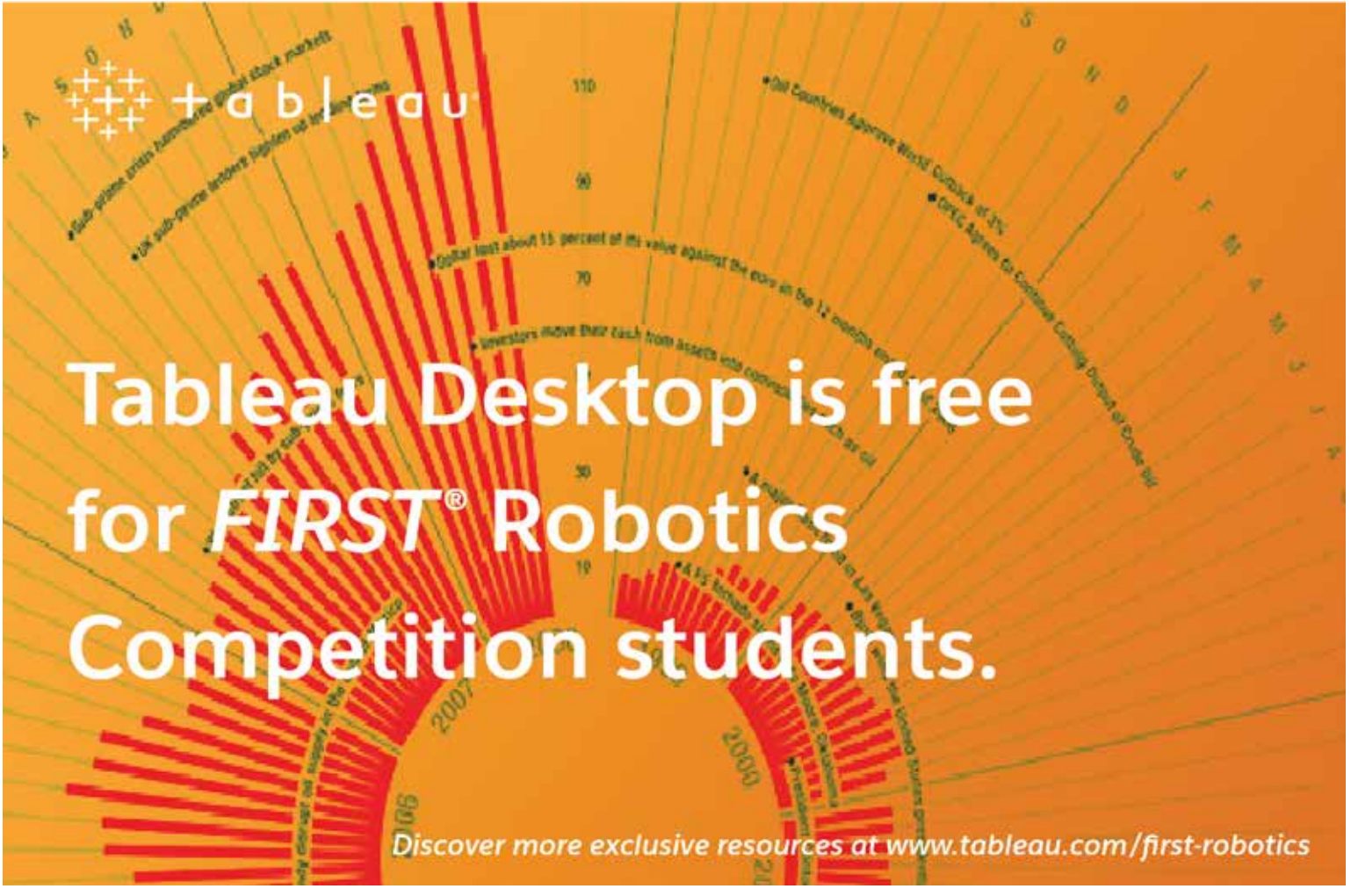
tableau
Tableau Desktop is free
for FIRST® Robotics
Competition students.
Discover more exclusive resources at www.tableau.com/first-robotics

| | |
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| **Organization Name** | **TE Connectivity** |
| **Voucher Detail** | **$25.00** |
| **Expiration Date** | **n/a** |
| **Shipping** | **Included** |
| **Access Code** | **n/a** |
| **Website** | **www.te.com/first** |

FIRST® ROBOTICS COMPETITION

***$25.00 for FIRST® Robotics Competition Teams to receive TE Connectivity products***

**To redeem:** All instructions are available on the on the website and *FIRST*® catalog. *FIRST* teams will use the TE Connectivity sample program to acquire parts. Explore our *FIRST* catalog for suggested and popular pieces!

TOGETHER,
LET'S ENGINEER
THE FUTURE.
TE Connectivity has been a proud sponsor of *FIRST*® for over 20 years.
At TE, we believe that every connection has the power to engineer something bigger, and technology brings humanity together.
Learn how TE is engineering a safer, sustainable, productive, and more connected future.
TE.com/ecc
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TE connectivity

UPVERTER EDUCATION

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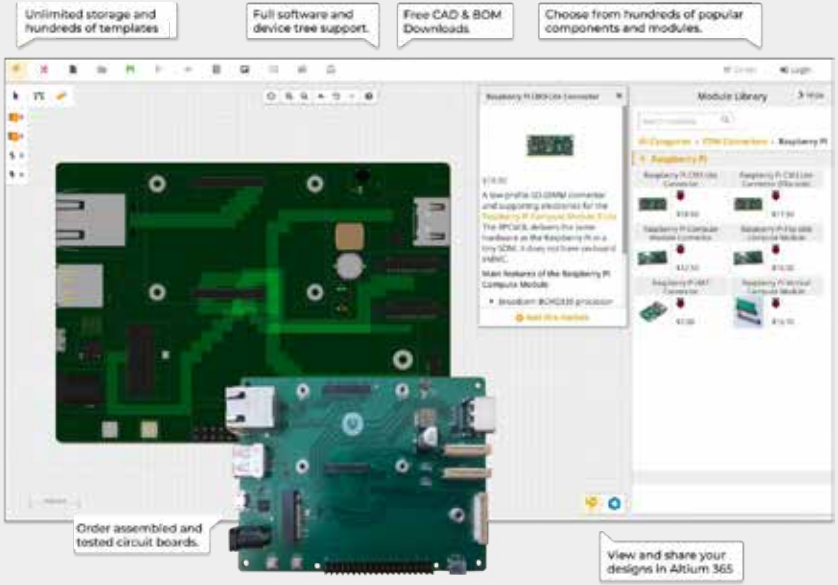
| **Organization Name** | **Upverter Education** |
| **Voucher Value** | **A collaborative browser-based PCB design tool and PCB curriculum** |
| **Expiration Date** | **12/31/2023** |
| **Shipping** | **Included** |
| **Access Code** | **n/a** |
| **Website** | **education.upverter.com** |

FIRST® ROBOTICS COMPETITION

1. Visit upverter.com/first
2. Sign up for your free account
3. Invite collaborators
4. Start building

# Simplify Electronics Design With Upverter




Electronics are complicated —

Upverter makes it easy.

Learn PCB design - free curriculum and EDA tools at http://www.education.upverter.com

UPVERTER

Proud to support *FIRST*®

VULCAN SPRING

| | |
|---|---|
| **Organization Name** | **Vulcan Spring & Manufacturing Co.** |
| **Voucher Value** | **Six Free Springs** |
| **Expiration Date** | **12/31/23** |
| **Shipping** | **Included** (U.S. and Canada) |
| **Access Code(s)** | **Visit Team Registration Account** (Lead Mentor 1 or 2) |
| **Website** | **https://www.vulcancares.com** |

FIRST® ROBOTICS COMPETITION

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

Beyond the Spring™

Phone: 215-721-1721 | 501 Schoolhouse Road, Telford, PA 18969

WOLFRAM
COMPUTATION MEETS KNOWLEDGE

| | |
|---|---|
| **Organization Name** | **Wolfram Research** |
| **Voucher Detail** | **A year of complimentary access to Wolfram\|One, Wolfram SystemModeler, and Wolfram\|Alpha Pro** |
| **Expiration Date** | **06/01/2023** |
| **Shipping** | **Included** |
| **Access Code(s)** | **See below for details** |
| **Website** | **www.wolfram.com/firstrobotics/** |

FIRST®
ROBOTICS
COMPETITION

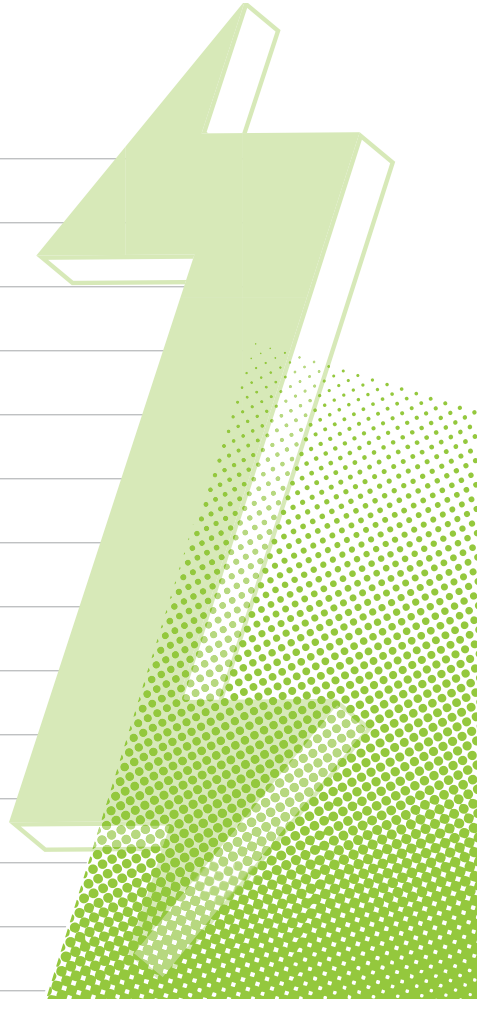
**To claim your software, visit www.wolfram.com/firstrobotics**

**Students:** Please use the program code "**FRCSTU82SYSW1PR2023**" and complete the team name and coach name fields in the form.

**Coaches:** Please use "**FRCOACH83SYSW1PR2023**" as the program code in the form.

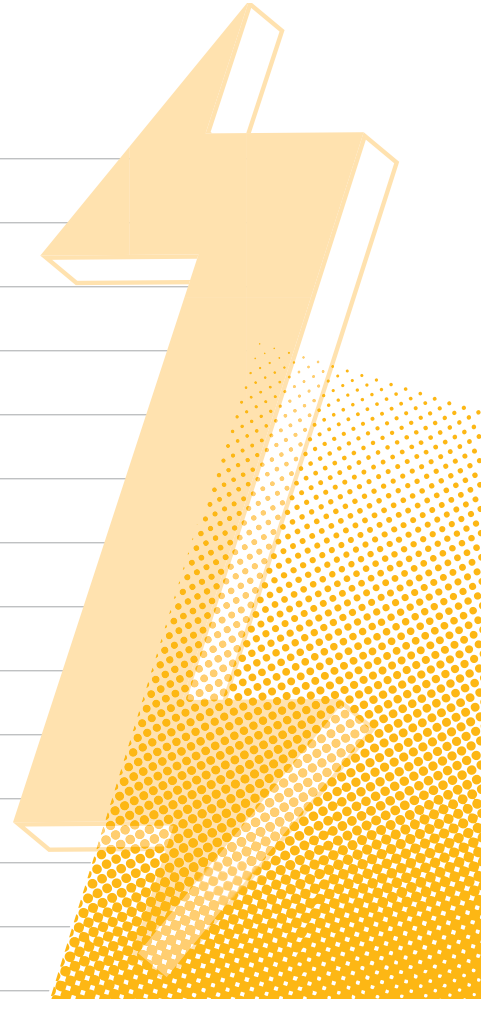
Wolfram resources for *FIRST*® Robotics Competition are non-transferable and may only be used by registered participants of *FIRST*® Robotics Competition. This offer expires on June 1, 2023.

# NOTES



# NOTES

# NOTES



**_FIRST_® is a global robotics community that prepares young people for the future.**

**firstinspires.org**

FIRST®

FIRST

# ENERGIZE

SM

PRESENTED BY Qualcomm

FIRST ROBOTICS COMPETITION

200 Bedford Street | Manchester, NH 03101 USA | (800) 871-8326 | **firstinspires.org**

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