

**FIRST** **ENERGIZE**<sup>SM</sup>

PRESENTED BY **Qualcomm**

**CHARGED UP**<sup>SM</sup>

PRESENTED BY

**HAAS**

Gene Haas Foundation

 **FIRST**  
ROBOTICS  
COMPETITION

**GREATER PITTSBURGH REGIONAL**  
**PRESENTED BY ARGO AI**

# WELCOME

Welcome to the 2023 *FIRST*<sup>®</sup> Robotics Competition season, **CHARGED UP**<sup>SM</sup> presented by Haas! Whether you're joining in person or watching virtually, you'll surely **feel the energy and impact of our electrifying sport.**

CHARGED UP is part of our 2022-2023 cross-program season, *FIRST*<sup>®</sup> **ENERGIZE**<sup>SM</sup> presented by Qualcomm. During our energy-themed season, which is based on United Nations Sustainable Development Goal #7 (ensuring access to affordable, reliable, sustainable, and modern energy for all), *FIRST* teams are getting **energized to innovate and power their ideas forward.**

To our teams competing this year, congratulations for all that you have achieved so far this season. We hope you'll agree that your pride in your work should extend far beyond what you do on the competition field. Your perseverance, innovative spirit, acts of *Gracious Professionalism*<sup>®</sup>, and collective passion for sharing STEM **invigorates your local schools and communities.** Meaningful impact comes from acts as simple as lending an extra pair of safety glasses to a teammate (safety *FIRST!*), giving a few minutes of your time to another team to troubleshoot a robot issue, or reaching out to a peer to invite them to join your team. Don't underestimate the **power you have** to make the world a better place.

STEM – and *FIRST* – is for everyone. We encourage everyone involved in *FIRST* to reflect on the impact *FIRST* has had on you and how to

bring even more members of your community into your *FIRST* family, including your peers, parents, teachers, and local professionals and businesses.

The impact of *FIRST* continues to expand far beyond our robotics season. From building community to discovering career paths, the transformative effect of *FIRST* on our participants is felt long after they graduate high school. Our former participants, *FIRST* alumni, continue to have access to education and career discovery opportunities, connections to exclusive scholarships and employers, and a place in the *FIRST* community for life. Some even make a career out of *FIRST* (See "*FIRST* Alum Becomes Senior Program Director").

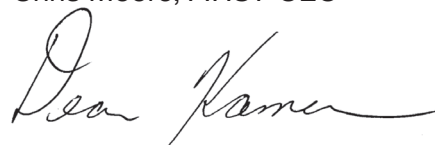
On behalf of everyone here at *FIRST*, we want to send our appreciation to the mentors, parents, volunteers, partners, sponsors, donors, alumni, and other supporters who invest in our youth participants in so many ways. You provide the positive energy that **charges up our future** and inspires our students to make this world a better place. Thank you.

Let's **power forward** and have fun!

Sincerely,



Chris Moore, *FIRST* CEO



Dean Kamen, *FIRST* Founder



Chris Moore



Dean Kamen

## *FIRST*<sup>®</sup> Alum Becomes Senior Program Director

This season, the *FIRST* organization was thrilled to promote *FIRST* alum Collin Fultz to the program leadership role of Senior Director of *FIRST* Robotics Competition. Collin began his *FIRST* journey as a student on *FIRST* Robotics Competition Team 234 and later became a *FIRST* Scholarship Program recipient, event volunteer, mentor, and, beginning in 2010, a *FIRST* employee. "The *FIRST* experience has shaped my life — professionally and personally — for more than 20 years," said Collin. "My goal is to make this life-changing experience more accessible to students around the world."



## Welcome to the **FIRST®** Robotics Competition Greater Pittsburgh Regional presented by Argo AI

We are delighted to have all of you — students, parents, teachers, sponsors, volunteers, and spectators — with us for this special occasion, our twenty-first year of the *FIRST®* Robotics Competition in Western and Central Pennsylvania.

Greetings to our Greater Pittsburgh Regional teams and welcome to those who traveled long distances to be here with us! We look forward to seeing how you solved this year's *FIRST* Robotics Competition challenge, CHARGED UP<sup>SM</sup> presented by Haas. Week 6 will mark the culmination of months of hard work, creative problem solving and incredible teamwork. On the arena floor, you will test your design, strategy, and fabrication skills. You have learned what it means to be part of a team and you have contributed to its success. In the spirit of *Gracious Professionalism®*, your opponents will become your friends and colleagues – for years to come.

To all of our volunteers, mentors, teachers, and parents: Thank you for your year-round support to create this outstanding opportunity for our students. Your investment of time and energy has been significant, and you have served as terrific role models. You have positively impacted this next generation of innovators, educators, engineers and leaders and you should be proud of your accomplishments!

To all our sponsors and partners: you play a critical role thanks to your commitment of funding, volunteers, internships, and leadership. You know the importance of a workforce that is technically astute, innovative, and energized and recognize that *FIRST®* participants are the future workforce that keeps our country competitive in the global economy. And in these times of economic uncertainty, we are even more appreciative of those of you who have stepped up to help us continue this all-important event. This Regional and *FIRST* year-round STEM related activities have been made possible thanks to your support!

We invite everyone to join us to cheer for these students as they put into play lessons and skills learned over the past several months. Watch them compete on the arena floor and visit them in the pits. Talk to them and congratulate them! They are all winners! They are our future.

On behalf of the leadership of *FIRST* Western & Central PA, we wish all participating team members great success, volunteers amazing fun, and spectators super charged excitement! Best of luck to everyone!

The *FIRST®* Greater Pittsburgh Regional Planning Committee

**FIRST®** **ENERGIZE**  
SM

PRESENTED BY **Qualcomm**



In CHARGED UP<sup>SM</sup> presented by Haas, two competing alliances are invited to process game pieces to bring energy to their community. Each alliance brings energy to their community by retrieving their game pieces from substations and scoring it into the grid. Human players provide the game pieces to the robots from the substations. In the final moments of each match, alliance robots race to dock or engage with their charge station!

Each match begins with a 15-second autonomous period, during which time alliance robots operate only on pre-programmed instructions to score points by:

- leaving their community,
- retrieving and scoring game pieces onto the grid,
- docking on or engaging with their charge station.

In the final 2 minutes and 15 seconds of the match, drivers take control of the robots and score points by:

- continuing to retrieve and score their game pieces onto the grid and
- docking on or engaging with their charge station.

The alliance with the highest score at the end of the match wins!



PRESENTED BY **HAAS**  
Gene Haas Foundation



View the 2023 game animation for the 2023 FIRST Robotics Competition game, CHARGED UP presented by Haas.



Scan to View Animation



This is a complete list of *FIRST*® Robotics Competition awards. Please note that different event types (e.g. Regional events, District Competitions, Championship) offer a different set of awards. Not every award is presented at every *FIRST* Robotics Competition event.

**Autonomous Award** *sponsored by Ford*

Celebrates the team that has demonstrated consistent, reliable, high-performance robot operation during autonomously managed actions. Evaluation is based on the robot's ability to sense its surroundings, position itself or onboard mechanisms appropriately, and execute tasks.

**Creativity Award** *sponsored by Rockwell Automation*

Celebrates creativity that enhances strategy of play and was intentionally designed and not discovered.

**Digital Animation Award** *sponsored by AutomationDirect.com*

Celebrates the art of the digital animation and its close relationship to STEAM (Science, Technology, Engineering, Art, and Mathematics).

**Engineering Inspiration Award**

Celebrates outstanding success in advancing respect and appreciation for engineering within a team's school and community.

**Excellence in Engineering Award**

Celebrates the team that demonstrates a professional approach to the design process.

**Finalist**

Celebrates the Alliance that makes it to the final match of the competition.

**FIRST® Dean's List Award**

Celebrates outstanding student leaders whose passion for and effectiveness at attaining *FIRST* ideals is exemplary.

**FIRST Impact Award**

The most prestigious award at *FIRST*, it honors the team that best represents a model for other teams to emulate and best embodies the purpose and goals of *FIRST*.

**Founder's Award**

Recognizes the organization or individual that has contributed significantly to the growth of *FIRST*.

**Gracious Professionalism® Award**

Celebrates outstanding demonstration of *FIRST* Core Values such as continuous *Gracious Professionalism* working together both on and off the playing field.

**Highest Rookie Seed Award**

Celebrates the highest-seeded rookie team at the conclusion of the qualifying rounds.

**Imagery Award in honor of Jack Kamen**

In honor of Jack Kamen, Dean's father, for his dedication to art and illustration and his devotion to *FIRST*. This award celebrates attractiveness in engineering and outstanding visual aesthetic integration of machine and team appearance.

**Industrial Design Award** *sponsored by General Motors*

Celebrates the team that demonstrates industrial design principles, striking a balance between form, function, and aesthetics.

**Innovation in Control Award**

Celebrates an innovative control system or application of control components – electrical, mechanical, or software – to provide unique machine functions.

**Judges' Award**

During the course of the competition, the judging panel may decide a team's unique efforts, performance, or dynamics merit recognition.

**Quality Award**

Celebrates machine robustness in concept and fabrication.

**Rookie All-Star Award**

Celebrates the rookie team exemplifying a young but strong partnership effort, as well as implementing the mission of *FIRST* to inspire students to learn more about science and technology.

**Rookie Inspiration Award**

Celebrates a rookie team's outstanding success in advancing respect and appreciation for engineering and engineers, both within their school, as well as in their community.

**Safety Animation Award** *sponsored by UL Solutions*

Recognizes the team that submits a short animated film that best promotes the current season's team safety focus.

**Team Spirit Award**

Celebrates extraordinary enthusiasm and spirit through exceptional partnership and teamwork furthering the objectives of *FIRST*.

**Team Sustainability Award**

Celebrates and recognizes a team which has developed a sustainable program in order to define, manage, and achieve the team's ongoing objectives.

**Volunteer of the Year Award**

Presented to an individual, business, or organization that consistently excels in their efforts, with proven results in the areas of impact, leadership, personal commitment, community, and historical contributions.

**Winner**

Celebrates the Alliance that wins the competition.

**Woodie Flowers Finalist Award**

Presented to an outstanding *FIRST* Robotics Competition mentor who best leads, inspires, teaches, and empowers their team using excellent communication skills.





PRESENTED BY   
Gene Haas Foundation

## STATS (AS OF 01/06/2023)

- 32<sup>nd</sup> Season Game: CHARGED UP<sup>SM</sup> presented by Haas
- 3,304 Teams
  - 3,036 Veteran Teams
  - 268 Rookie Teams
- 82,600+ Youth Team Members
- 26,400+ Mentors/Adult Supporters
- 31 countries:
 

Australia (40 teams)	Israel (58 teams)
Azerbaijan (1 team)	Japan (3 teams)
Barbados (1 team)	Lesotho (1 team)
Belize (1 team)	Mexico (85 teams)
Brazil (41 teams)	Netherlands (4 teams)
Bulgaria (1 team)	Pakistan (1 team)
Canada (190 teams)	Panama (1 team)
China (10 teams)	Poland (2 teams)
Chinese Taipei (25 teams)	Romania (1 team)
Colombia (4 teams)	Singapore (1 team)
Croatia (1 team)	Switzerland (1 team)
Czech Republic (1 team)	Turkey (131 teams)
Dominican Republic (3 teams)	United Kingdom (3 teams)
France (3 teams)	USA (2,685 teams)
India (3 teams)	Vietnam (1 team)
Indonesia (1 team)	

## EVENTS

- 134 Live Kickoff events and streaming on *FIRST*tv (01/07/2023)
- 61 Regional Events
- 94 District Events
- 11 District Championships:
- Chesapeake, Indiana, Israel, Michigan, Mid-Atlantic, New England, North Carolina, Ontario, Pacific Northwest, Peachtree, Texas/New Mexico Districts
- 1 *FIRST* Championship Event: April 19 - 22, 2023

## KIT OF PARTS FACTS

- Items from more than 65 in-kind donors
- Nearly 500 different items distributed via the Kit of Parts system
- More than 72 tons of Kickoff Kit materials shipped all over the world by FedEx (weighs almost as much as the tower of a GE 1.5-megawatt model wind turbine)

## ROBOT FACTS

- Weight: up to approximately 140 lbs. total
- Robots are remotely controlled
- Powered by a 12 volt battery

## FIELD FACTS

- Playing area: 26' W x 54' L
- Robots place cones and cubes onto a grid
- Robots dock or engage on their charge station for bonus points

## ALUMNI

- Participants and alumni of *FIRST* programs gain access to education and career discovery opportunities, connections to exclusive scholarships and employers, and a place in the *FIRST* community for life.
- Visit [firstinspires.org/alumni](http://firstinspires.org/alumni)



**FIRST** **ENERGIZE**<sup>SM</sup>

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For the latest information on these events, visit [frc-events.firstinspires.org/](http://frc-events.firstinspires.org/)

**Feb 26-28**

**ISR District Event #1**  
Ra'anana, Israel

**Feb 28-Mar 3**

**Canadian Pacific Regional**  
Victoria, BC

**Mar 01-03**

**ISR District Event #2**  
Ra'anana, Israel

**Mar 01-04**

**Arkansas Regional**  
Searcy, AR

**Lake Superior Regional**  
Duluth, MN

**Northern Lights Regional**  
Duluth, MN

**Regional Monterrey**  
Monterrey, Mexico

**South Florida Regional**  
West Palm Beach, FL

**Utah Regional**  
West Valley City, UT

**Mar 02-04**

**FIT District Waco Event**  
Waco, TX

**FIM District Calvin University Event**  
Grand Rapids, MI

**FIM District Escanaba Event**  
Escanaba, MI

**FIM District Jackson Event**  
Spring Arbor, MI

**FIM District Kettering University Event #1**  
Flint, MI

**FIM District Milford Event**  
Highland, MI

**NE District Granite State Event**  
Salem, NH

**PNW District Clackamas Academy Event**  
Oregon City, OR

**PCH District Albany Event**  
Albany, GA

**Mar 02-05**

**Hueneme Port Regional**  
Port Hueneme, CA

**Mar 03-05**

**CHS District Blacksburg VA Event**  
Blacksburg, VA

**FIT District Dallas Event**  
Allen, TX

**FMA District Hatboro-Horsham Event**  
Horsham, PA

**FIN District Mishawaka Event**  
Mishawaka, IN

**NE District SE Mass Event**  
Bridgewater, MA

**FNC District UNC Asheville Event**  
Asheville, NC

**ONT District Georgian Event**  
Barrie, ON

**ONT District Newmarket Complex Event**  
Newmarket, ON

**PNW District Glacier Peak Event**  
Snohomish, WA

**Mar 08-11**

**Great Northern Regional**  
Grand Forks, ND

**Midwest Regional**  
Chicago, IL

**Oklahoma Regional**  
Shawnee, OK

**St. Louis Regional**  
St. Louis, MO

**Mar 09-11**

**FIT District Belton Event**  
Belton, TX

**FIM District Kettering University Event #2**  
Flint, MI

**FIM District Lansing Event**  
Mason, MI

**FIM District St. Joseph Event**  
St. Joseph, MI

**PNW District Wilsonville Event**  
Wilsonville, OR

**PCH District Dalton Event**  
Dalton, GA

**Mar 09-12**

**Central Valley Regional**  
Fresno, CA

**Orange County Regional**  
Costa Mesa, CA

**Southern Cross Regional**  
Wollongong, Australia

**Ventura County Regional**  
Port Hueneme, CA

**Mar 10-12**

**CHS District Bethesda MD Event**  
Bethesda, MD

**FIT District Channelview Event**  
Channelview, TX

**FMA District Mount Olive Event**  
Flanders, NJ

**FIN District Princeton Event presented by Toyota**  
Princeton, IN

**FIM District Wayne State University Event**  
Detroit, MI

**NE District Rhode Island Event**  
North Scituate, RI

**NE District Waterbury Event**  
Waterbury, CT

**FNC District Johnston County Event**  
Clayton, NC

**PCH District Anderson Event**  
Anderson, SC

**Mar 12-14**

**ISR District Event #3**  
Ra'anana, Israel

**Mar 15-17**

**ISR District Event #4**  
Ra'anana, Israel

**Mar 15-18**

**Arizona East Regional**  
Scottsdale, AZ

**Central Illinois Regional**  
Peoria, IL

**Finger Lakes Regional**  
Rochester, NY

**Heartland Regional**  
Olathe, KS

**Magnolia Regional**  
Laurel, MS

**Miami Valley Regional**  
Cincinnati, OH

**Orlando Regional**  
Orlando, FL

**Regional Puebla**  
Puebla, Mexico

**Mar 16-18**

**FIT District Fort Worth Event**  
Fort Worth, TX

**FIT District San Antonio Event**  
San Antonio, TX

**FIM District Belleville Event**  
Belleville, MI

**FIM District Detroit Event**  
Detroit, MI

**FIM District Muskegon Event**  
Muskegon, MI

**FIM District Standish-Sterling Event**  
Standish, MI

**FIM District Traverse City Event**  
Traverse City, MI

**NE District Western NE Event**  
Springfield, MA

**PNW District SunDome Event**  
Yakima, WA

**Brazil Regional**  
Brazilia, Brazil

**Mar 16-19**

**Los Angeles Regional**  
El Segundo, CA

**San Francisco Regional**  
San Francisco, CA

**Mar 17-19**

**CHS District Alexandria VA Event**  
Alexandria, VA

**CHS District Portsmouth VA Event**  
Portsmouth, VA

**FMA District Robbinsville Event**  
Trenton, NJ

**FMA District Springside Chestnut Hill Academy Event**  
Philadelphia, PA

**NE District North Shore Event**  
Reading, MA

**FNC District Mecklenburg County Event**  
Charlotte, NC

**FNC District Wake County Event**  
Rolesville, NC

**ONT District Humber College Event**  
Toronto, ON

**ONT District Western University Engineering Event**  
London, ON

**PNW District Bonney Lake Event**  
Bonney Lake, WA

**PCH District Gwinnett Event**  
Lawrenceville, GA

For the latest information on these events, visit [frc-events.firstinspires.org/](http://frc-events.firstinspires.org/)

**Mar 20-22**

**FIRST Long Island Regional #1**  
Hempstead, NY

**Mar 20-23**

**FIRST Israel District Championship**  
Jerusalem, Israel

**Mar 22-25**

**Arizona West Regional**  
Glendale, AZ

**Central Missouri Regional**  
Sedalia, MO

**Colorado Regional**  
Denver, CO

**Hawaii Regional**  
Honolulu, HI

**Iowa Regional**  
Cedar Falls, IA

**Regional Laguna**  
Torreon, Mexico

**Wisconsin Regional**  
Milwaukee, WI

**Mar 23-25**

**FIT District Houston Event**  
Houston, TX

**FIM District Lakeview Event #1**  
Battle Creek, MI

**FIM District LSSU Event**  
Sault Ste. Marie, MI

**FIM District Midland Event**  
Midland, MI

**FIM District West Michigan Event**  
Allendale, MI

**ONT District University of Waterloo Event**  
Waterloo, ON

**PNW District Oregon State Fairgrounds Event**  
Salem, OR

**PCH District Carrollton Event**  
Carrollton, GA

**PCH District Hartsville Event**  
Hartsville, SC

**FIRST Long Island Regional #2**  
Hempstead, NY

**Mar 23-26**

**Minnesota North Star Regional at La Crosse**  
La Crosse, WI

**Sacramento Regional**  
Davis, CA

**San Diego Regional presented by Qualcomm**  
La Jolla, CA

**Tallahassee Regional**  
Tallahassee, FL

**Mar 24-26**

**CHS District Glen Allen VA Event**  
Glen Allen, VA

**CHS District Timonium MD Event**  
Timonium, MD

**FMA District Seneca Event**  
Tabernacle, NJ

**FMA District Warren Hills Event**  
Washington, NJ

**FIN District Tippecanoe Event**  
Lafayette, IN

**FIM District Troy Event #1**  
Troy, MI

**NE District Greater Boston Event**  
Revere, MA

**NE District UNH Event**  
Durham, NH

**FNC District UNC Pembroke Event**  
Pembroke, NC

**ONT District North Bay Event**  
North Bay, ON

**PNW District Sammamish Event**  
Bellevue, WA

**Istanbul Regional**  
Sanyer, Turkey

**Mar 25-27**

**FIM District Lakeview Event #2**  
Battle Creek, MI

**Mar 27-29**

**Bosphorus Regional**  
Sanyer, Turkey

**Mar 29- Apr 01**

**Aerospace Valley Regional**  
Lancaster, CA

**Bayou Regional**  
Kenner, LA

**Buckeye Regional**  
Cleveland, OH

**Festival de Robotique Regional**  
Trois-Rivières, QC

**Greater Kansas City Regional**  
Lee's Summit, MO

**Idaho Regional**  
Nampa, ID

**Las Vegas Regional**  
Las Vegas, NV

**Minnesota 10,000 Lakes Regional presented by Medtronic**  
Minneapolis, MN

**Monterey Bay Regional**  
Seaside, CA

**New York Tech Valley Regional**  
Albany, NY

**Seven Rivers Regional**  
La Crosse, WI

**Smoky Mountains Regional**  
Knoxville, TN

**Mar 30-Apr 01**

**FIT District Amarillo Event**  
Amarillo, TX

**FIN District Greenwood Event**  
Greenwood, IN

**FIM District Kentwood Event**  
Kentwood, MI

**FIM District Livonia Event**  
Livonia, MI

**FIM District Macomb Community College Event**  
Warren, MI

**FIM District Saline Event**  
Saline, MI

**FIM District Troy Event #2**  
Troy, MI

**ONT District Windsor Essex Great Lakes Event**  
Windsor, ON

**PCH District Macon Event**  
Macon, GA

**Mar 31- Apr 02**

**Halic Regional**  
Sanyer, Turkey

**FIT District Space City @ Clear Lake Event**  
League City, TX

**FMA District Bensalem Event**  
Bensalem, PA

**FMA District Montgomery Event**  
Skillman, NJ

**NE District Hartford Event**  
Hartford, CT

**NE District WPI Event**  
Worcester, MA

**FIRST North Carolina District State Championship**  
Greenville, NC

**ONT District McMaster University**  
Hamilton, ON

**PNW District Auburn Event**  
Auburn, WA

**Apr 05-08**

**FIRST Chesapeake District Championship**  
Fairfax, VA

**FIRST In Texas District Championship sponsored by Phillips 66**  
Houston, TX

**FIRST Mid-Atlantic District Championship**  
Bethlehem, PA

**New England FIRST District Championship**  
West Springfield, MA

**FIRST Ontario Provincial Championship**  
Hamilton, ON

**Pacific Northwest FIRST District Championship**  
Cheney, WA

**Peachtree District Championship**  
Emerson, GA

**Greater Pittsburgh Regional presented by Argo AI**  
Pittsburgh, PA

**Green Country Regional**  
Tulsa, OK

**New York City Regional**  
New York, NY

**Rocket City Regional**  
Huntsville, AL

**Silicon Valley Regional**  
San Jose, CA

**Apr 06-08**

**FIRST Indiana State Championship**  
Anderson, IN

**FIRST in Michigan State Championship**  
University Center, MI

**Apr 19-22**

**FIRST Championship**  
Houston, TX

**Abbreviation Key**

- CHS – FIRST Chesapeake
- FIM – FIRST in Michigan
- FMA – FIRST Mid-Atlantic
- FNC – FIRST North Carolina
- FTA – FIRST in Texas
- FIN – FIRST in Indiana
- NE – New England FIRST
- ONT – FIRST Ontario
- PCH – Peachtree
- PNW – Pacific Northwest
- ISR – FIRST Israel

Team Number	Team School/Organization	Nickname	City	Rookie Year
<b>Turkey</b>				
8861	Büyükşahin Foundation&Ambassade de France en Turquie- Lycée Français Charles de Gaulle Ankara	06ANGORA	ANKARA	2022
<b>USA – Florida</b>				
59	Miami Coral Park Sr High School	RamTech	Miami	1997
<b>USA – Illinois</b>				
1781	Lindblom Math Science Academy	Lindblom Electric Eagles	Chicago	2006
<b>USA – New York</b>				
378	Newfane High School	The Circuit Stompers	Newfane	2000
1559	Victor High School	Devil Tech	Victor	2005
1591	Athena High School, Olympia High School, Odyssey Academy & Arcadia High School	Greece Gladiators	Rochester	2005
2053	Vestal Senior High School	Southern Tier Robotics	Vestal	2007
2638	Great Neck South High School	Rebel Robotics	Great Neck	2008
3171	Westhampton Beach High School	HURRICANES	Westhampton Beach	2010
3181	Pittsford Mendon High School & Pittsford Sutherland High School	Pittsford Panthers	Pittsford	2010
<b>USA – Ohio</b>				
48	Warren G Harding High School	Team E.L.I.T.E.	Warren	1998
120	Youth Technology Academy	Youth Technology Academy Red Dragons	Cleveland	1995
379	Girard High School	The RoboCats	Girard	2000
677	Columbus School for Girls	Murphy's Outlaws	Columbus	2001
1787	Orange High School	The Flying Circuits	Pepper Pike	2006
2172	St Edward High School	Steel Unit-E	Lakewood	2007
3193	Fitch High School	Falco Tech	Austintown	2010
3484	Marysville High School & Marysville Early College High School	Short Circuit	Marysville	2011
4085	Reynoldsburg Hs-E STEM Academy	Technical Difficulties	Reynoldsburg	2012
4145	Thomas Worthington High School & Worthington Kilbourne High Sch	WorBots 4145	Columbus	2012
6032	West Carrollton High School	Pirate Robotics	Dayton	2016
7165	Family/Community	Perkins Pirates	Sandusky	2018
8140	Mc2 STEM Hs-Grt Lakes Sci Ctr	RoboManiacs	Cleveland	2020
8145	East Technical High School	Tech Warriors	Cleveland	2020
8222	Maritime HS	The Argonauts	Cleveland	2020



Team Number	Team School/Organization	Nickname	City	Rookie Year
<b>USA – Ohio continued</b>				
8243	John Marshall-Info Tech	AstroCircuits	Cleveland	2020
9139	Western Reserve Academy	Reserve Robotics	Hudson	2023
<b>USA – Pennsylvania</b>				
117	Pittsburgh Allderdice High School	Steel Dragons Robotics	Pittsburgh	1998
1708	Mckeesport Area High School	AMP'D Robotics	Mckeesport	2005
2051	a W Beattie Career Center	The Beattie Bulldogs	Allison Park	2007
2656	Gateway High School	Quasics	Monroeville	2008
3260	Sarah Heinz House Boys and Girls Club	SHARP	Pittsburgh	2010
3504	Shady Side Academy, Baldwin Senior HS, Canon-Mcmillan HS, Mt Lebanon HS, North Hills Senior HS, Pittsburgh Allderdice HS, South Fayette Twp HS, North Allegheny Sr HS, Ellis School, North Allegheny Intermediate HS, Kiski Area HS, North Catholic HS, Seneca Valley HS, North Allegheny Cyber Academy, Fox Chapel Area HS, Oakland Catholic HS, Pittsburgh Science & Tech Acad, Avonworth HS, Plum Senior HS, Winchester Thurston School, Pine Richland HS, Upper St Clair HS, Penn Hills Senior HS & Home School	Girls of Steel	Pittsburgh	2011
3954	4-H	4-H Electrotechs	Emlenton	2012
4027	4-H	Centre Punch	State College	2012
4050	Family/Community	Biohazard	Mercersburg	2012
4150	Franklin Reg Sr High School	FRobotics	Export	2012
4467	Family/Community	Titanium Titans	Washington	2013
4991	Chartiers Valley High School	Horsepower	Bridgeville	2014
7274	Pittsburgh Brashear High School	Brashear Bulls Robotics	Pittsburgh	2018
8393	Family/Community	The Giant Diencephalic BrainSTEM Robotics Team	Baden	2020
8705	Pittsburgh Science & Tech Acad	Sci Tech FRC	Pittsburgh	2022
9004	Barack Obama Acad Int Studies	Obama Academy Eagles Robotics	Pittsburgh	2023
9022	Marion Center High School	Marion Center Robotics	Marion Center	2023
<b>USA – Wisconsin</b>				
930	Mukwonago High School	Mukwonago BEARs	Mukwonago	2002
<b>USA – West Virginia</b>				
337	Family/Community	Hard Working Hard Hats	Whitman	2000
7515	Family/Community	Dark Side Robotics	Williamstown	2019

## Regional Judges

### Judge Advisor

**Fred Discenzo**

*Rockwell Automation, Inc., Retired*

### Judge Advisor

**Sarah Douglas**

*Technical Trainer, Curtiss-Wright,  
Retired*

We thank our Judges, some of whom have been judging the Greater Pittsburgh Regional Competition since it began over twenty years ago. Our judges are among the best of the best in local and regional industry and technology. In the past and today, they are a part of the many organizations that generously mentor, guide, and support our students including:

**Amazon**

**Aurora Innovations**

**Bechtel Plant Machinery**

**BWX Technologies, Inc.**

**California University of Pennsylvania**

**Carnegie Mellon University –  
National Robotics Engineering Center**

**Chem Image**

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**Google, Inc.**

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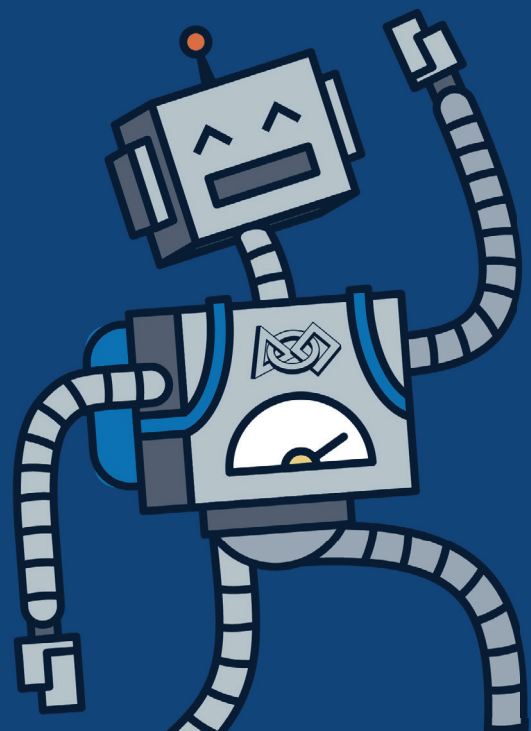
# The 2023 **FIRST**® Championship starts April 19

## *Pack your bolts, bots, and bags!*

**FIRST**® has put together exclusive **FIRST** Championship housing discounts so you and your team can have the time of your lives when you get there. When you book with **FIRST**, you will:

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[www.firstchampionship.org](http://www.firstchampionship.org)



# 2023 Greater Pittsburgh Regional presented by Argo AI Schedule

## Wednesday, April 5

6:00PM-8:00PM 5 Team Reps to Load In and Set Up Pits

## Thursday, April 6

7:45AM 5 Team Reps to Load In

8:30AM Pits, Machine Shop, Registration and Inspection Open

8:30AM-4:00PM Homework Study, Room 332

9:00AM Load-in Ends

9:00AM-11:00AM Driver's Meeting, Field Open for Measurement and Calibration

11:00AM-12:00PM Lunch

11:00AM-12:00PM *FIRST* Ladies Meet-Up, Room 331

12:00PM-6:30PM Practice Matches

4:00PM-8:00PM VIP Open House

8:00PM Pits and Machine Shop Close  
Teams exit the building

## Friday, April 7

8:00AM Pits and Machine Shop Open

8:30AM-9:00AM Opening Ceremonies

9:00AM-12:00PM Qualification Matches

11:00AM-3:00PM Scholarship Row, Lobby

12:00PM-1:00PM Lunch

12:15PM-1:00PM Mentor's Meeting, Mentor's Lounge, Room 338, Bring your Lunch

1:00PM-5:45PM Qualification Matches

5:40PM Mentor Parade, Playing Field

5:45PM-6:15PM Awards Ceremony

~6:30PM\*\* Pits and Machine Shop Close immediately following Awards Ceremony. Teams exit the building

## Saturday, April 8

8:00AM Pits and Machine Shop Open

8:30AM-9:00AM Opening Ceremonies

9:00AM-12:15PM Qualification Matches

10:00AM-12:00PM *FIRST*® LEGO® League Explore, *FIRST*® LEGO® League Challenge, and *FIRST*® Tech Challenge Demonstration, Lobby

10:00AM-1:00PM Scholarship Row, Lobby

12:10PM-12:15PM Mascot Parade, Playing Field

12:15PM-12:30PM Alliance Selections

12:30PM Senior Photo, Playing Field

12:30PM-1:30PM Lunch

1:30PM-4:30PM Playoff Matches & Awards Ceremony

~5:00PM\*\* Pits close 30 minutes following the close of the Award Ceremony. Teams exit the building .

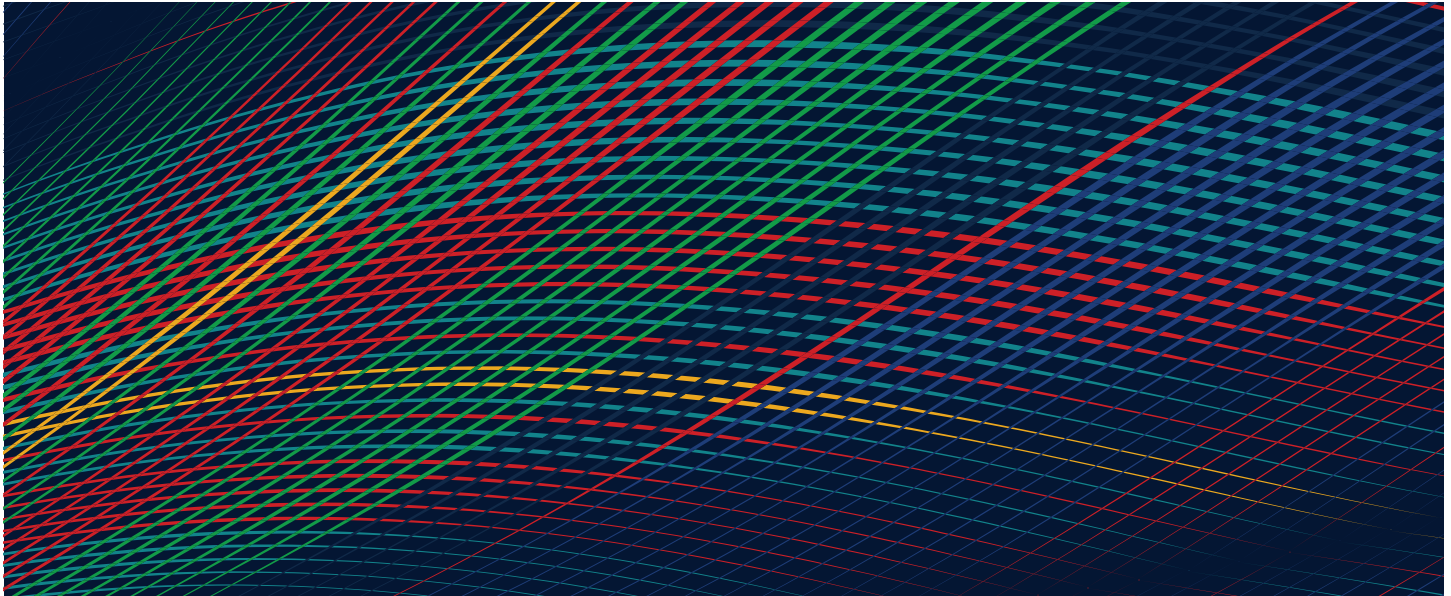


\*\*Schedule subject to change. All times are estimated based on flow of rounds. See Pit Administration table for updated times.









Carnegie Mellon University is proud to support *FIRST*®. Their work to transform culture and celebrate young people's dreams of becoming STEM leaders is inspiring.

**Carnegie  
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[cmu.edu](http://cmu.edu)

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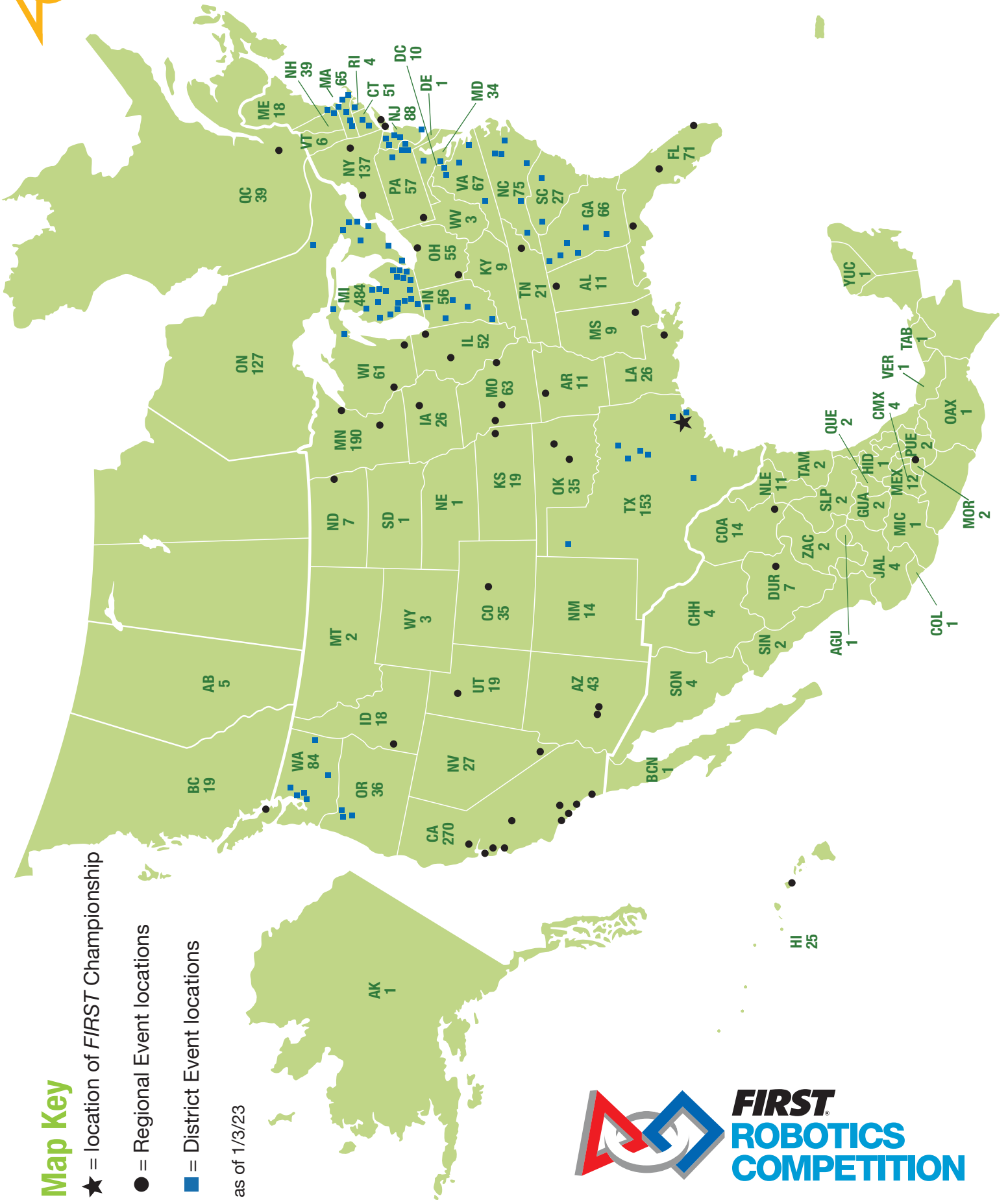
### Map Key

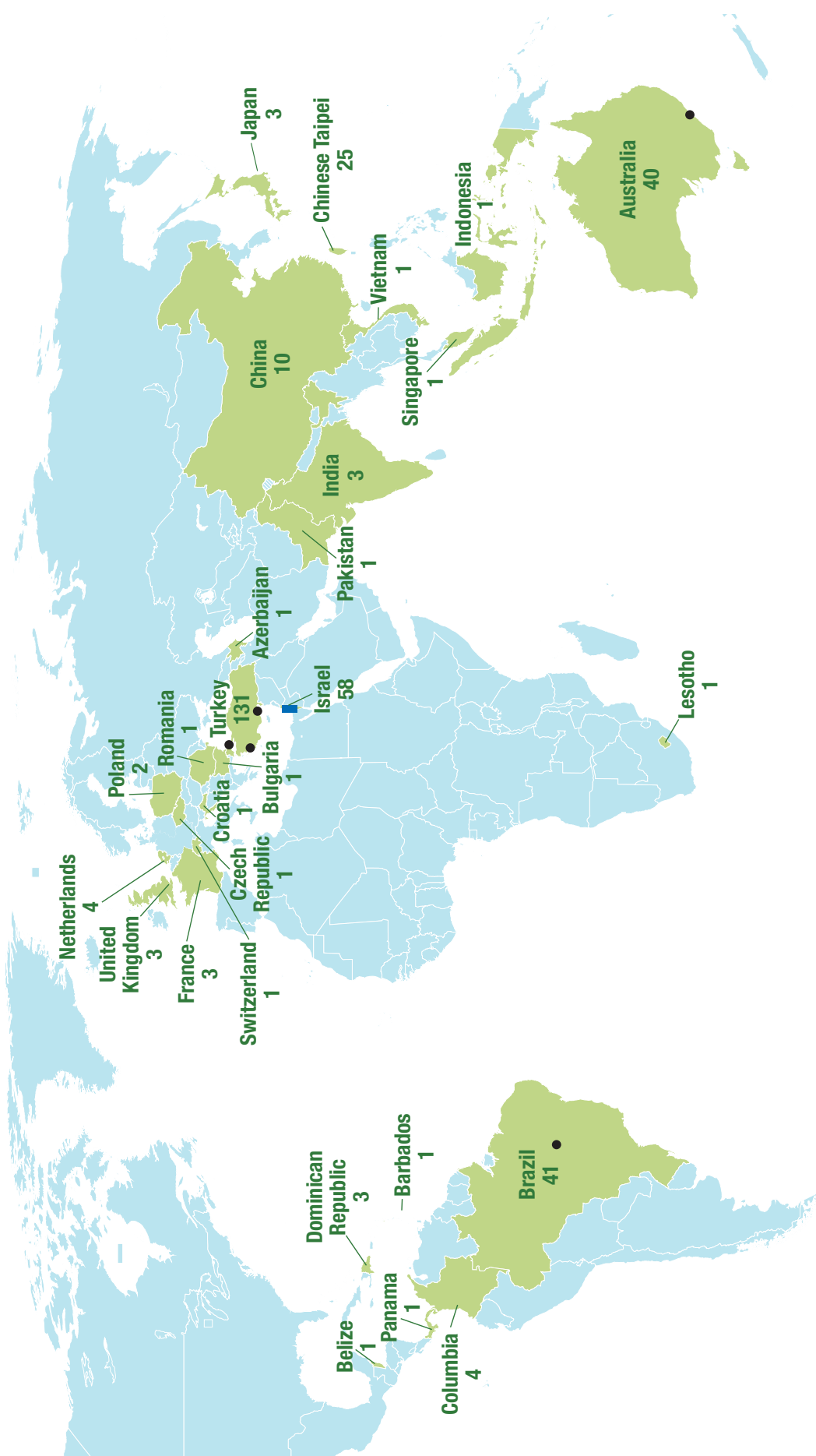
★ = location of FIRST Championship

● = Regional Event locations

■ = District Event locations

as of 1/3/23





# Get Involved!

## Form a Team...

- Learn from engineering pros.
- Apply math and science concepts to design and build robots.
- Gain hands-on experience solving real-world problems.
- Learn about exciting science and technology careers.
- Make new friends.

Contact: Daphne Frownfelter, Regional Director, Pennsylvania, Chief State Advocate, *FIRST*<sup>®</sup>, 610-401-4310, [dfrownfelter@firstinspires.org](mailto:dfrownfelter@firstinspires.org)

## Be a Volunteer...

- Become a mentor or coach.
- Organize an event or program.
- Assist at a competition.
- Make a difference in young lives.

Contact: Daphne Frownfelter, Regional Director, Pennsylvania, Chief State Advocate, *FIRST*<sup>®</sup>, 610-401-4310, [dfrownfelter@firstinspires.org](mailto:dfrownfelter@firstinspires.org)

## Become a Team or Regional Sponsor...

- Provide financial support, equipment, parts, facilities, internships, or other services.
- Offer scholarships.
- Encourage employees to mentor or volunteer.
- Host an event.
- Build community goodwill.
- Inspire employees.
- Help build a technical workforce.

Contact: Daphne Frownfelter, Regional Director, Pennsylvania, Chief State Advocate, *FIRST*<sup>®</sup>, 610-401-4310, [dfrownfelter@firstinspires.org](mailto:dfrownfelter@firstinspires.org)

## Donate!

- Help ensure thousands of students have access to unique learning experiences.
- Support the next generation of technological innovators and problem solvers.
- Launch our secure [online donation page](#) on your browser.

**Thank you for your generosity!**





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Greater Pittsburgh Regional presented by Argo AI

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Participants and alumni of *FIRST* programs gain access to education and career discovery opportunities, connections to exclusive scholarships and employers, and a place in the *FIRST* community for life.

[www.firstinspires.org/alumni](http://www.firstinspires.org/alumni)



When you become a *FIRST* alum, you understand just how wide the *FIRST* network reaches and just how willing and excited that network is to help you achieve your goals. I got involved with *FIRST* years ago, and it's been amazing to see the ways in which *FIRST* and the connections I formed through it have shaped my journey ever since. I graduated from a *FIRST* partner school, Yale University, and now work as a mechanical engineer for Dean Kamen's R&D company, DEKA, where I get to work every day on really cool, life-changing medical technology. ”



**NAOKA GUNAWARDENA**  
*FIRST alum + mechanical engineer*



## FIRST® Volunteers Energizing the Future Since 1992

From the expertise of veterans who return year after year, to the enthusiasm of first-timers, volunteers are the critical component that make our events successful. Thank you to each and every volunteer — we could not do this without you.

All of the inspiration that happens through FIRST®, happens because VOLUNTEERS were there.

Want to join us? We have opportunities for both technical and non-technical volunteers and committee positions. Please contact us at [FIRSTWCPAvolunteers@gmail.com](mailto:FIRSTWCPAvolunteers@gmail.com) for more information.





## FIRST® Alliances

FIRST® shares a fundamental vision with professional organizations, national non-profits, college/university alumni groups and others committed to sustaining key programs that 'ignite young minds'. These national relationships help increase the visibility of FIRST programs and provide valuable resources from state/local chapters. FIRST is pleased to acknowledge the current Alliances who play a key role in our success.

### Alpha Omega Epsilon

*International Engineering/Technical Science Sorority*

[www.alphaomegaepsilon.org](http://www.alphaomegaepsilon.org)

### American Society for Engineering Education (ASEE)

[www.asee.org](http://www.asee.org)

### Automation Federation / International Society for Automation (ISA)

[www.automationfederation.org](http://www.automationfederation.org) · [www.isa.org](http://www.isa.org)

### Boys and Girls Clubs of America

[www.bgca.org](http://www.bgca.org)

### Electronic Components Industry Association (ECIA Foundation)

<https://www.ecianow.org/foundation>

### Girl Scouts of the USA

[www.girlscouts.org](http://www.girlscouts.org)

### MIT Alumni Association

<https://alum.mit.edu/>

### National 4-H Council

[www.4-H.org](http://www.4-H.org)

### National Center for Women & Information Technology (NCWIT)

[www.ncwit.org](http://www.ncwit.org)

### National Fluid Power Association (NFPA)

[www.nfpa.com](http://www.nfpa.com)

### National Parent Teacher Association (PTA®)

[www.pta.org](http://www.pta.org)

### National Robotics Week

[www.nationalroboticsweek.org](http://www.nationalroboticsweek.org)

### Sigma Phi Delta

*The Premier International Fraternity of Engineers*

<https://sigmaphidelta.2stayconnected.com>

### SIM Foundation

<https://foundation.simnet.org/>

### Society of Hispanic Professional Engineers (SHPE)

<https://shpe.org>

### Society of Women Engineers (SWE)

[www.swe.org](http://www.swe.org)

### Triangle Fraternity

[www.triangle.org](http://www.triangle.org)

### Yale Science & Engineering Association

[www.ysea.org](http://www.ysea.org)

FIRST is always seeking collaborative relationships with organizations that promote career opportunities in science, technology, engineering and math (STEM) and are looking for significant mentor, coach, and volunteer opportunities for their members. For more information, contact: [alliances@firstinspires.org](mailto:alliances@firstinspires.org)



We are not using  
kids to build robots.  
We are using robots  
to build kids.

— Dean Kamen, Founder, FIRST®

Help FIRST® provide unique, hands-on STEM learning experiences to millions of students!



[www.firstinspires.org/donate](http://www.firstinspires.org/donate)



Your contribution is valuable. Thank you for joining FIRST as we work together to create a culture where science and technology are celebrated!



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## FIRST®— A Suite of Hands-On, STEM Learning Programs

FIRST® is the world's leading youth-serving nonprofit advancing STEM (science, technology, engineering, and math) education. For over 30 years, students from all walks of life have developed self-confidence in STEM and valuable, real-world skills through FIRST that open pathways to a better future.

Through a suite of team-based robotics challenges and backed by a global network of mentors, coaches, volunteers, alumni, and sponsors, FIRST helps young people discover a passion for STEM and become leaders and innovators in any industry.

Children can start their journey with FIRST® LEGO® League and progress through FIRST® Tech Challenge and FIRST® Robotics Competition, or join any of our three programs based on age or grade level.

GRADES PREK-8 · AGES 4-16\*



**Young Innovators Use Skills and Imagination to Solve Problems as a Team**

FIRST LEGO League introduces STEM to children through fun, exciting hands-on learning. Participants gain real-world problem-solving experiences through a guided, global robotics program, helping today's students and teachers build a better future together. FIRST LEGO League's three age-appropriate divisions inspire youth to experiment and grow their critical thinking, coding, and design skills through hands-on STEM learning and robotics.

\*Ages vary by country

GRADES 7-12 · AGES 12-18



**It's Way More Than Building Robots**

FIRST Tech Challenge students learn to think like engineers. Teams design, build, and program robots to compete in an alliance format against other teams. Robots are built from a reusable platform, powered by Android technology, and can be coded using a variety of levels of Java-based programming.

Participants and alumni have access to career discovery opportunities, networking, and the FIRST Scholarship Program.

GRADES 9-12 · AGES 14-18



**An Exciting Sport Built Around the World of STEM**

FIRST Robotics Competition teams design, program, and build a robot starting with a standard kit of parts and common set of rules to play in a themed head-to-head challenge. Teams also build a brand, develop community partnerships for support, and work to promote STEM in their local community.

Participants and alumni have access to career discovery opportunities, networking, and the FIRST Scholarship Program.

At the heart of FIRST are its Core Values, which emphasize the contributions of others, friendly sportsmanship, teamwork, learning, and community involvement. These include *Gracious Professionalism*® (respect for others, being a good sport, and sharing what you learn) and *Coopertition*® (competing hard but also helping the other teams).

Learn more about FIRST and our suite of hands-on programs at [firstinspires.org](http://firstinspires.org)



We'd like to thank our current Strategic Partners who continue to help *FIRST*® grow.



And we'd like to thank our Founding Sponsors for their commitment to the vision of *FIRST*.



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