

FIRST IN SHOWSM

PRESENTED BY Qualcomm

CRESCENDOSM

PRESENTED BY **HAAS**
Gene Haas Foundation



GREATER PITTSBURGH REGIONAL

WELCOME

Greetings, *FIRST*® Robotics Competition teams and welcome to another year filled with creativity, big ideas and bold action!

We're thrilled to see you take the stage for CRESCENDOSM presented by Haas, part of the 2023-2024 cross-program season, *FIRST*® IN SHOWSM presented by Qualcomm. **This year, we're shining a spotlight on the role STEM plays in the arts and how it empowers young people, like you, to design and build a world of endless possibilities.**

Take a moment to consider just how intertwined STEM and the arts often are. So much of the artistic content we produce and consume has been inspired and brought to life by STEM. It's our STEM skills that help us **design a logo, costume, or movie set from a blank canvas, 3-D print a sketch, light the stage for a photoshoot, or rock an arena with a jaw-dropping performance. Our skills and knowledge empower us to be creative, pursue our big ideas, and build what some may only dream of.**

To our teams competing this year, congratulations. Your creative spirit, acts of *Gracious Professionalism*®, and collective passion for making a positive difference in the world have touched the hearts of your peers, mentors, local communities, and all of us here at *FIRST*.

And to the mentors, parents, volunteers, partners, sponsors, donors, alumni, and many supporters who invest in *FIRST* participants in countless ways: thank you. You empower students to explore their full potential, forge new paths, and find ways to make an impact, do good, and inspire others to do the same.

As you all step onto the competition stage, remember that *FIRST* is *More Than Robots*®. Your journey with *FIRST* will help you design your life's path, from building perseverance as you overcome obstacles to illuminating career paths you might not have considered – including those in the arts. Just ask our esteemed alumni, some of whom became audio engineers, architectural visualization specialists, VFX artists, cinematographers and more, all while remaining an integral part of our STEM community.

By embracing the connections between STEM and the arts, you're not only shaping the future of technology and science but pioneering the frontiers of human creativity. The boundaries of what's possible are stretched and reshaped by your collective imagination and resilience, and we can't wait to see the wonders you'll create.

With that said – Lights, Camera, STEAM!
Sincerely,


Dean Kamen, *FIRST* Founder


Chris Moore, *FIRST* CEO



Dean Kamen



Chris Moore

Welcome to the 2024 *FIRST*® Robotics Competition Greater Pittsburgh Regional

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

To our Greater Pittsburgh Regional teams: Greetings! and welcome to those from just down the road and 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, CRESCENDOSM presented by Haas. Week 1 will mark the culmination of months of hard work, creative problem solving, and incredible teamwork. In this first time in the field of play, 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.

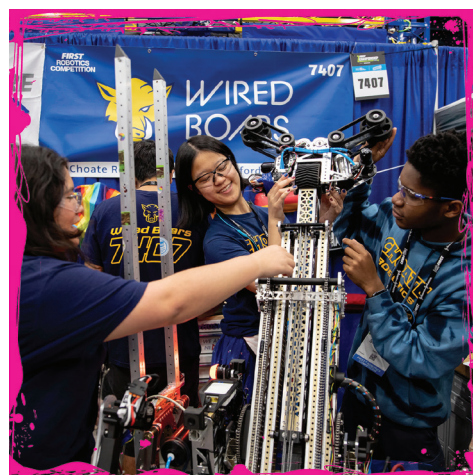
To all our volunteers, mentors, teachers, and parents: Thank you for your significant support in creating this outstanding opportunity for our students. You have been a terrific role model and have positively impacted this next generation of innovators, educators, engineers and leaders. You should be proud of your accomplishments!

To all our sponsors and partners: We recognize that you play a critical role thanks to your commitment of funding, volunteering, 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. 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 the lessons and the skills learned over the past several months. Watch them compete on the arena floor. 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



CRESCENDOSM

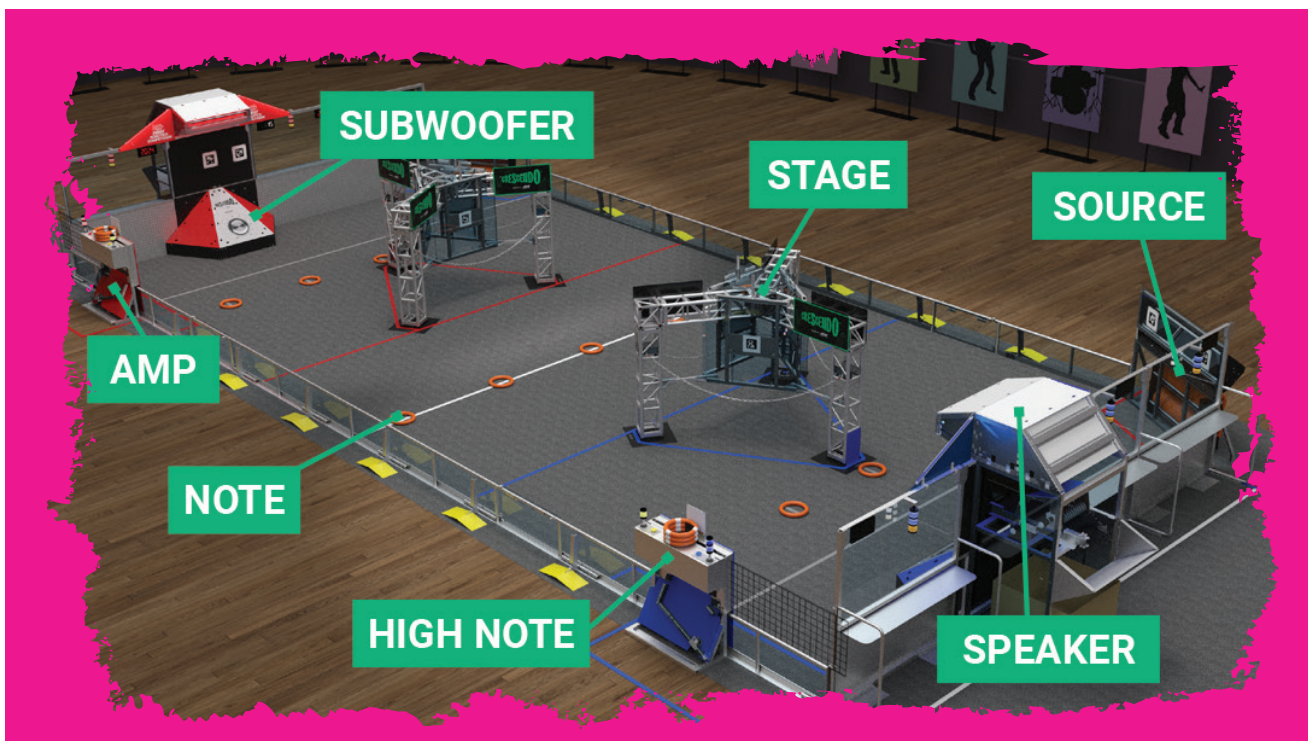
PRESENTED BY **HAAS**
Gene Haas Foundation

Gameplay

Inspired by the art and experiences that entertain us and move us, CRESCENDOSM presented by Haas will shine the spotlight on the impact that engineering and innovation have on art.

Teams will use their STEM skills and creative power to turn up the volume as they design, build, and program their robots for action-packed game play.

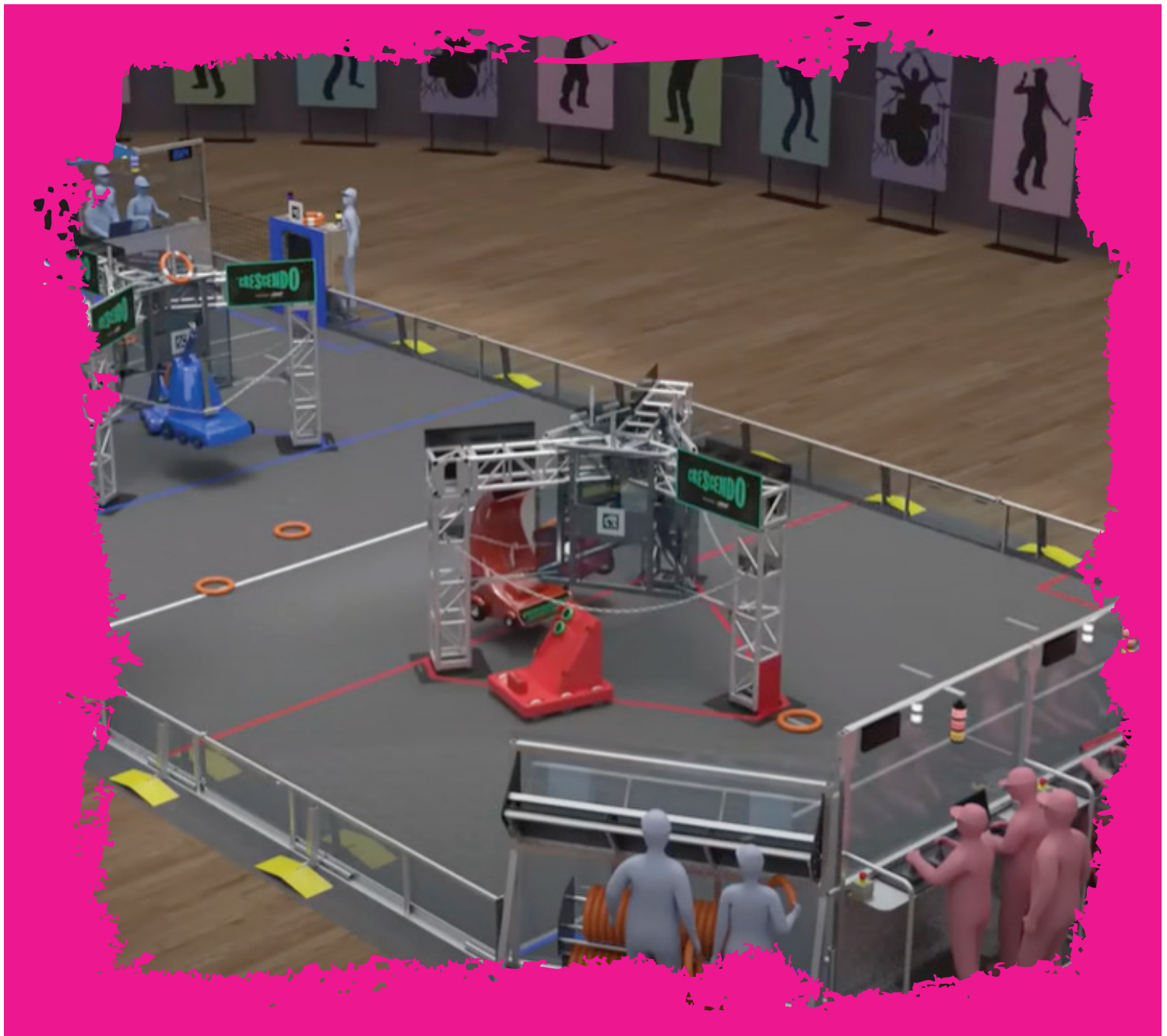
- Each match begins with a 15-second autonomous period, during which robots operate only by pre-programmed instructions to move from their starting positions and score game pieces, called notes, into their two goals: the speaker and the amp. They also use this time to collect additional notes from around the field.
- In the remaining 2 minutes and 15 seconds, drivers control their robots and continue earning points through strategic match play. Once two notes are scored in an alliance's amp, the human player can hit a button to increase the value of notes scored in their speaker for 10 seconds.
- At the end of the match, robots race to climb on chain, score notes in a pocket called a trap, and harmonize by hanging multiple robots on a single chain. Humans throw high notes onto their microphones to boost points associated with robots on the corresponding chains.
- The alliance with the highest score at the end of the match wins!



View the 2024 game animation for the 2024 *FIRST* Robotics Competition game, CRESCENDO.



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 Events, District Championships, Championship) offer a different set of awards. Not every award is presented at every *FIRST* Robotics Competition event.

Autonomous Award

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.

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 *sponsored by Dow*

Celebrates and recognizes a team which has developed sustainable practices to have a positive environmental impact and achieve long-term continuity.

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 Mentor in the robotics competition who best leads, inspires, teaches, and empowers their team using excellent communication skills.

CRESCENDOSM

PRESENTED BY 



STATS (AS OF 01/04/2024)

- 33rd Season Game: CRESCENDOSM presented by Haas
- 3,468 Teams
 - 3,141 Veteran Teams
 - 327 Rookie Teams
- 86,700+ Youth Team Members
- 27,700+ Mentors/Adult Supporters
- 28 countries:

Australia (36 teams)	Israel (62 teams)
Azerbaijan (1 team)	Japan (6 teams)
Belize (1 team)	Mexico (86 teams)
Brazil (57 teams)	Netherlands (3 teams)
Bulgaria (1 team)	Panama (1 team)
Canada (202 teams)	Philippines (1 team)
China (22 teams)	Poland (1 team)
Chinese Taipei (28 teams)	Romania (1 team)
Colombia (1 team)	Singapore (1 team)
Croatia (1 team)	Sweden (1 team)
Czech Republic (2 teams)	Switzerland (1 team)
Dominican Republic (2 teams)	Türkiye (138 teams)
France (3 teams)	United Kingdom (3 teams)
India (6 teams)	USA (2,800 teams)

EVENTS

- 144 Live Kickoff events and streaming on *FIRST*tv (01/06/2024)
- 62 Regional Events
- 98 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 17 - 20, 2024

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 (weighing more than 150 grand pianos)

ROBOT FACTS

- Weight: up to approximately 125 lbs. total
- Robots are remotely controlled
- Powered by a 12-volt battery

FIELD FACTS

- Playing area: 27' W x 54' L
- Teams score game pieces, called Notes, in their Amp and Speaker
- As time runs out, robots race to get onstage and deliver Notes to their Traps

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

FIRST IN SHOWSM

PRESENTED BY 

For the latest information on these events, visit frc-events.firstinspires.org/

Feb 26-27

ISR District Event #1
Hadera, Israel

Feb 28-29

ISR District Event #2
Hadera, Israel

Feb 28-Mar 02

Canadian Pacific Regional
Victoria, BC

Brazil Regional
Brazilia, Brazil

Festival de Robotique Regional
Montreal, QC

Greater Pittsburgh Regional
Pittsburgh, PA

Lake Superior Regional
Duluth, MN

Northern Lights Regional
Duluth, MN

Regional Monterrey
Monterrey, Mexico

South Florida Regional
Fort Lauderdale, FL

Utah Regional
West Valley City, UT

Feb 29-Mar 02

FIT District Katy Event
Katy, TX

FIT District Waco Event
Waco, TX

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

Feb 29-Mar 03

Hueneme Port Regional
Port Hueneme, CA

Silicon Valley Regional
San Jose, CA

Mar 01-03

CHS District Ashland VA Event
Ashland, VA

CHS District Blacksburg VA Event
Blacksburg, VA

FMA District Hatboro-Horsham Event
Horsham, PA

FMA District Mount Olive Event
Flanders, NJ

FIN District Mishawaka Event
Mishawak, IN

FIM District Battle Creek Event
Battle Creek, MI

FIM District Berrien Springs Event
Berrien Springs, MI

FIM District Jackson at Columbia Event
Brooklyn, MI

NE District Hartford Event
Hartford, CT

FNC District Orange County Event
Chapel Hill, NC

PNW District Glacier Peak Event
Snohomish, WA

Mar 03-06

Smoky Mountains Regional
Knoxville, TN

Mar 05-07

Istanbul Regional
Sarıyer, Türkiye

Mar 06-09

Arkansas Regional
Searcy, AR

Central Missouri Regional
Sedalia, MO

Great Northern Regional
Grand Forks, ND

Green Country Regional
Tulsa, OK

Hudson Valley Regional
Suffern, NY

Mar 07-09

FIT District Belton Event
Belton, TX

FIM District Belleville Event
Belleville, MI

FIM District Escanaba Event
Escanaba, MI

FIM District Kettering University Event #2
Flint, MI

FIM District St. Joseph Event
St. Joseph, MI

PNW District Oregon State Fairgrounds Event
Salem, OR

PCH District Anderson Event presented by MAGNA
Anderson, SC

PCH District Dalton Event
Dalton, GA

Mar 07-10

San Francisco Regional
San Francisco, CA

Ventura County Regional
Port Hueneme, CA

Mar 08-10

CHS District Portsmouth VA Event
Portsmouth, VA

FIT District Plano Event
Plano, TX

FIM District Woodhaven Event
Brownstown Charter Twp, MI

FMA District Allentown Event
Allentown, NJ

FMA District Seneca Event
Tabernacle, NJ

FIM District Lake City Event
Lake City, MI

NE District BSU Event
Bridgewater, MA

NE District Waterbury Event
Waterbury, CT

FNC District UNC Pembroke Event
Pembroke, NC

ONT District Centennial College Event
Scarborough, ON

ONT District Newmarket Complex Event
Newmarket, ON

PNW District Auburn Event
Auburn, WA

Bosphorus Regional
Sarıyer, Türkiye

Mar 11-12

ISR District Event #3
Hadera, Israel

Mar 13-14

ISR District Event #4
Hadera, Israel

Mar 13-16

Arizona Valley Regional
Scottsdale, AZ

Central Illinois Regional
Peoria, IL

Finger Lakes Regional
Rochester, NY

Heartland Regional
Shawnee, KS

Magnolia Regional
Laurel, MS

Regional Hermosillo
Hermosillo, Mexico

Sacramento Regional
Elk Grove, CA

Tallahassee Regional
Tallahassee, FL

Mar 14-16

FIT District Fort Worth Event
Fort Worth, TX

FIT District San Antonio Event
San Antonio, TX

FIM District LSSU Event
Sault Ste. Marie, MI

FIM District Muskegon Event
Muskegon, MI

FIM District Traverse City Event
Traverse City, MI

FIM District Wayne State Event
Detroit, MI

NE District URI Event
Kingston, RI

PNW District SunDome Event
Yakima, WA

Mar 14-17

Los Angeles Regional
El Segundo, CA

Wisconsin Regional
Milwaukee, WI

Mar 15-17

CHS District Glen Allen VA Event
Glen Allen, VA

CHS District Severn MD Event
Severn, MD

FMA District Montgomery Event
Skillman, NJ

FMA District Springside Chestnut Hill Event
Philadelphia, PA

FIN District Columbus Event
Columbus, IN

FIM District Ann Arbor Event
Ann Arbor, MI

NE District North Shore Event
Reading, MA

NE District Pine Tree Event
Lewiston, ME

FNC District UNC Asheville Event
Asheville, NC

ONT District Durham College Event
Oshawa, ON

ONT District Georgian Event
Barrie, 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/

Southern Cross Regional
South Windsor, Australia

Mar 18-20

ONT District Humber College Event
Toronto, ON

Mar 19-21

FIRST Israel District Championship
Jerusalem, Israel

Haliç Regional
Sarıyer, Türkiye

Mar 20-23

Arizona East Regional
Tempe, AZ

Buckeye Regional
Cleveland, OH

Colorado Regional
Denver, CO

FIRST Long Island Regional
Hempstead, NY

Idaho Regional
Nampa, ID

Iowa Regional
Cedar Falls, IA

New York Tech Valley Regional
Albany, NY

Orlando Regional
Orlando, FL

Regional Laguna presented by Peñoles
Torreon, Mexico

St. Louis Regional
St. Louis, MO

Mar 21-23

FIT District Dallas Event
Dallas, TX

FIM District Lansing Event
Mason, MI

FIM District Midland Event
Midland, MI

FIM District West Michigan Event
Allendale, MI

ONT District University of Waterloo Event
Waterloo, ON

PNW District Wilsonville Event
Wilsonville, OR

PCH District Carrollton Event
Carrollton, GA

PCH District Charleston Event
N. Charleston, SC

Mar 21-24

Central Valley Regional
Fresno, CA

San Diego Regional presented by Qualcomm
La Jolla, CA

Mar 22-24

CHS District Falls Church VA Event presented by Department of Energy
Falls Church, VA

CHS District Owings Mills MD Event
Owings Mills, MD

FIT District Houston Event
Houston, TX

FMA District Bensalem Event
Bensalem, PA

FMA District Warren Hills Event
Washington, NJ

FIN District Plainfield Event presented by Carrier
Plainfield, IN

FIM District Livonia Event
Livonia, MI

FIM District Troy Event #1
Troy, MI

NE District Greater Boston Event
Revere, MA

NE District Western NE Event
Springfield, MA

FNC District Mecklenburg County Event
Charlotte, NC

FNC District Wake County Event
Wake Forest, NC

ONT District North Bay Event
North Bay, ON

PNW District Sammamish Event
Bellevue, WA

Marmara Regional
Sarıyer, Türkiye

Mar 27-30

Las Vegas Regional
Las Vegas, NV

Midwest Regional
Chicago, IL

Monterey Bay Regional
Seaside, CA

Orange County Regional
Costa Mesa, CA

Mar 28-30

FIT District Amarillo Event
Amarillo, TX

FIT District Space City @ Friendswood Event
Friendswood, TX

FIM District Kentwood Event
Kentwood, MI

FIM District Macomb Community College Event
Sterling Heights, MI

FIM District Central Michigan University Event
Mt. Pleasant, MI

FIM District Renaissance Event
Detroit, MI

FIM District Troy Event #2
Troy, MI

FIN District Washington Event presented by Toyota
Washington, IN

NE District UNH Event
Durham, NH

ONT District McMaster University
Hamilton, ON

ONT District Windsor Essex Great Lakes Event
Windsor, ON

PCH District Albany Event
Albany, GA

Mar 29-31

NE District WPI Event
Worcester, MA

Apr 03-06

FIRST In Texas District Championship
Houston, TX

New England FIRST District Championship
West Springfield, MA

FIRST Ontario Provincial Championship
Mississauga, ON

Pacific Northwest FIRST District Championship
Portland, OR

Aerospace Valley Regional
Lancaster, CA

Bayou Regional
Kenner, LA

Greater Kansas City Regional
Lee's Summit, MO

Hawaii Regional
Honolulu, HI

Miami Valley Regional
Cincinnati, OH

Minnesota 10,000 Lakes Regional
Minneapolis, MN

Oklahoma Regional
Oklahoma City, OK

Rocket City Regional
Huntsville, AL

Seven Rivers Regional
La Crosse, WI

Apr 04-06

FIRST Mid-Atlantic District Championship
Bethlehem, PA

FIRST in Michigan State Championship
University Center, MI

Peachtree District Championship
Macon, GA

Apr 04-07

FIRST Chesapeake District Championship
Petersburg, VA

East Bay Regional
Berkeley, CA

Minnesota Granite City Regional
St. Cloud, MN

New York City Regional
New York, NY

Apr 05-07

FIRST Indiana State Championship
Lafayette, IN

FIRST North Carolina District State Championship
Greenville, NC

April 17-20

2024 FIRST Championship presented by BAE Systems
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
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Canada — Ontario

2013	Family/Community	Cybergnomes	New Lowell	2007
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USA — Illinois

8096	Univ of Chicago Lab School	Cache Money	Chicago	2020
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USA — New York

340	Churchville Chili High School	G.R.R. (Greater Rochester Robotics)	Churchville	2000
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578	Fairport High School	R-cubed - Red Raider Robotics	Fairport	2001
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1126	Schroeder High School, Webster Thomas High School	SPARX 1126	Webster	2003
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1559	Victor High School	Devil Tech	Victor	2005
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2053	Union-Endicott High School, Vestal Senior High School	Southern Tier Robotics	Vestal	2007
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2228	Honeoye Falls Lima High School, Rush Henrietta Senior High Sch	CougarTech	Honeoye Falls	2007
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2638	Great Neck South High School	Rebel Robotics	Great Neck	2008
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3015	Spencerport High School	Ranger Robotics	Spencerport	2009
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3181	Pittsford Mendon High School, Pittsford Sutherland High Sch	Pittsford Panthers	Pittsford	2010
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USA — Ohio

144	Butler Tech Career Center	Operation Orange	Hamilton	1994
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325	Butler Tech	Respawn Robotics	Hamilton	1998
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379	Girard High School	The RoboCats	Girard	2000
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677	Columbus School for Girls	Murphy's Outlaws	Columbus	2001
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695	Beachwood High School	Bison Robotics	Beachwood	2001
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1787	Orange High School	The Flying Circuits	Pepper Pike	2006
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2172	St Edward High School	Steel Unit-E	Lakewood	2007
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2252	Ehove Career Center	The Mavericks	Milan	2007
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2399	Hathaway Brown School	The Fighting Unicorns	Shaker Heights	2008
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3201	Ross High School	Ross Rambotics	Hamilton	2010
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3484	Marysville High School, Marysville Early College High School	Short Circuit	Marysville	2011
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4121	Hoover High School	Viking Robotics	North Canton	2012
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4145	Thomas Worthington High School, Worthington Kilbourne High Sch	WorBots 4145	Powell	2012
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4611	Olentangy HS, Liberty HS, Orange HS, Berlin HS	OZone Robotics	Delaware	2013
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5413	Family/Community	Stellar Robotics	Shelby	2015
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6834	Watkins Memorial High School	Bionic Warriors	Pataskala	2018
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9139	Western Reserve Academy	Reserve Robotics	Hudson	2023
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Team Number	Team School/Organization	Nickname	City	Rookie Year
USA — Pennsylvania				
117	Pittsburgh Alderdice High Sch	Steel Dragons Robotics	Pittsburgh	1998
1708	Mckeesport Area High School	AMP'D Robotics	McKeesport	2005
2641	Central Catholic High School	Pittsburgh Central Catholic Robotics	Pittsburgh	2008
2656	Gateway High School	Quasics	Monroeville	2008
3260	Sarah Heinz House Boys and Girls Club	SHARP	Pittsburgh	2010
3504	Winchester Thurston School, Shady Side Academy, Oakland Catholic HS, Avonworth HS, Pine Richland HS, Baldwin Senior HS, Fox Chapel Area HS, Mt Lebanon HS, North Hills Senior HS, Pittsburgh Science & Tech Acad, Plum Senior HS, Pittsburgh Alderdice HS, South Fayette	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	Chambersburg	2012
4150	Franklin Reg Sr High School	FRobotics	Murrysville	2012
4991	Chartiers Valley High School	Horsepower	Bridgeville	2014
5740	North Catholic High School	Trojanators	Cranberry Township	2015
7274	Pittsburgh Brashear High Sch	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	Pittsburgh Millions 6-12 Sch	Millions Mega Mechatronic Wildcats	Pittsburgh	2023
9022	Marion Center High School	MC Robotics	Marion Center	2023
9415	Pittsburgh Westinghouse Acad	The Westinghouse Bot-Dogs	Pittsburgh	2024
9475	Family/Community	Mon Valley Mammoths 4	Monessen	2024
USA — West Virginia				
2614	NASA, MARS	Mountaineer Area RoboticS (MARS)	Morgantown	2008
3492	Buffalo High School, Hurricane High School, Winfield High School	Putnam Area Robotics Team (P.A.R.T.s)	Winfield	2011
7515	Family/Community	Dark Side Robotics	Williamstown	2019

Judges

Judge Advisor

Allen Bancroft
Titan Robotics

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

All-Tronics Medical Systems

Bechtel Plant Machinery

BWX Technologies, Inc.

California University of Pennsylvania

Carnegie Mellon University - National Robotics Engineering Center

Dow Chemical

FedEx

Lakeland Community College

Google, Inc.

Microsoft Corp.

Naval Nuclear Laboratory

ONExia, Inc.

Penn State Public Broadcasting

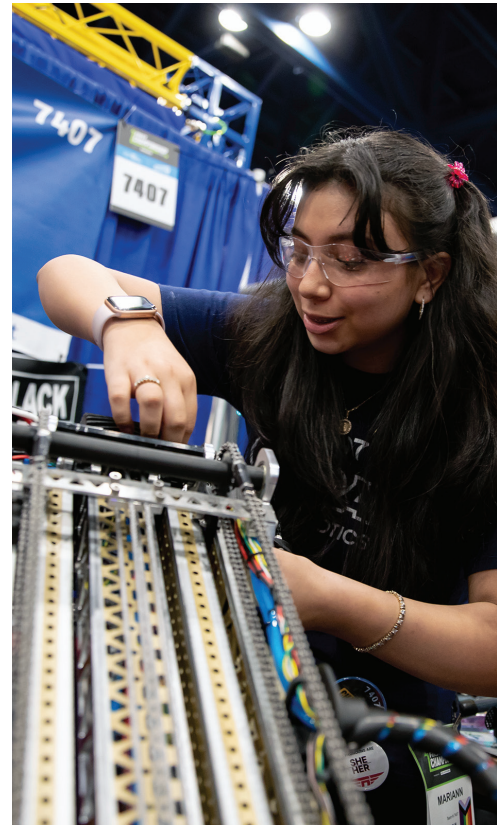
Society of Women Engineers

Society of Broadcast Engineers

Titan Robotics

Rockwell Automation, Inc.

Wabtec Corporation



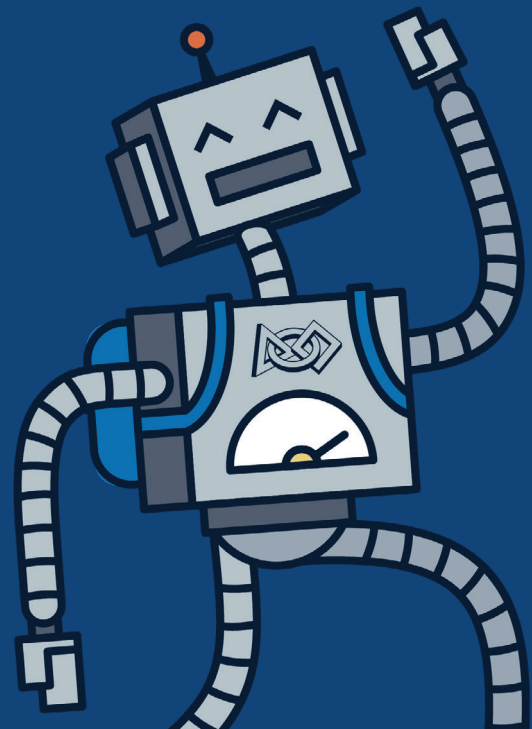
The 2024 **FIRST**® Championship starts April 17

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:

- Stay close to the venue and other teams
- Receive guaranteed low rates at **FIRST**-reviewed hotels
- Enjoy convenient, **FIRST**-only contracted amenities at most hotels including complimentary Wi-Fi, breakfast, and parking
- Gain flexibility to make booking adjustments and pay later
- Get reservation protection and assistance before, during, and after your stay if any unexpected challenges occur

Book your hotel reservations today!
www.firstchampionship.org



2024 Greater Pittsburgh Regional Schedule

Wednesday, February 28

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

Thursday, February 29

7:45 – 9:00AM 5 Team Reps to Load In
 8:30AM Pits, Machine Shop, Registration, and Inspection Open
 8:30AM – 8:00PM Quiet Room 337 Open
 8:30AM – 8:00PM Mentor's Lounge Room 338 Open
 9:00AM – 11:00AM Driver's Meeting, Field Open for Measurement and Calibration
 ~11:00AM Safety Captain's Meeting Immediately Following Driver's Meeting, At NASA Machine Shop
 11:00AM – 12:00PM *FIRST* Ladies Meet-Up, Room 334
 11:00AM – 12:00PM Lunch
 12:00PM – 6:30PM Practice Matches
 8:00PM Pits and Machine Shop Close

Friday, March 1

8:00AM Pits and Machine Shop Open
 8:00AM – 6:00PM Quiet Room 337 Open
 8:00AM – 6:00PM Mentor's Lounge Room 338 Open
 8:00AM – 6:30PM T-Shirt Memories, Near Pit Admin
 8:30AM – 8:50AM Opening Ceremonies
 8:55AM – 12:00PM Qualification Matches
 10:00AM – 4:00PM Scholarship Row, Exhibit Hall A
 12:00PM – 1:00PM Lunch

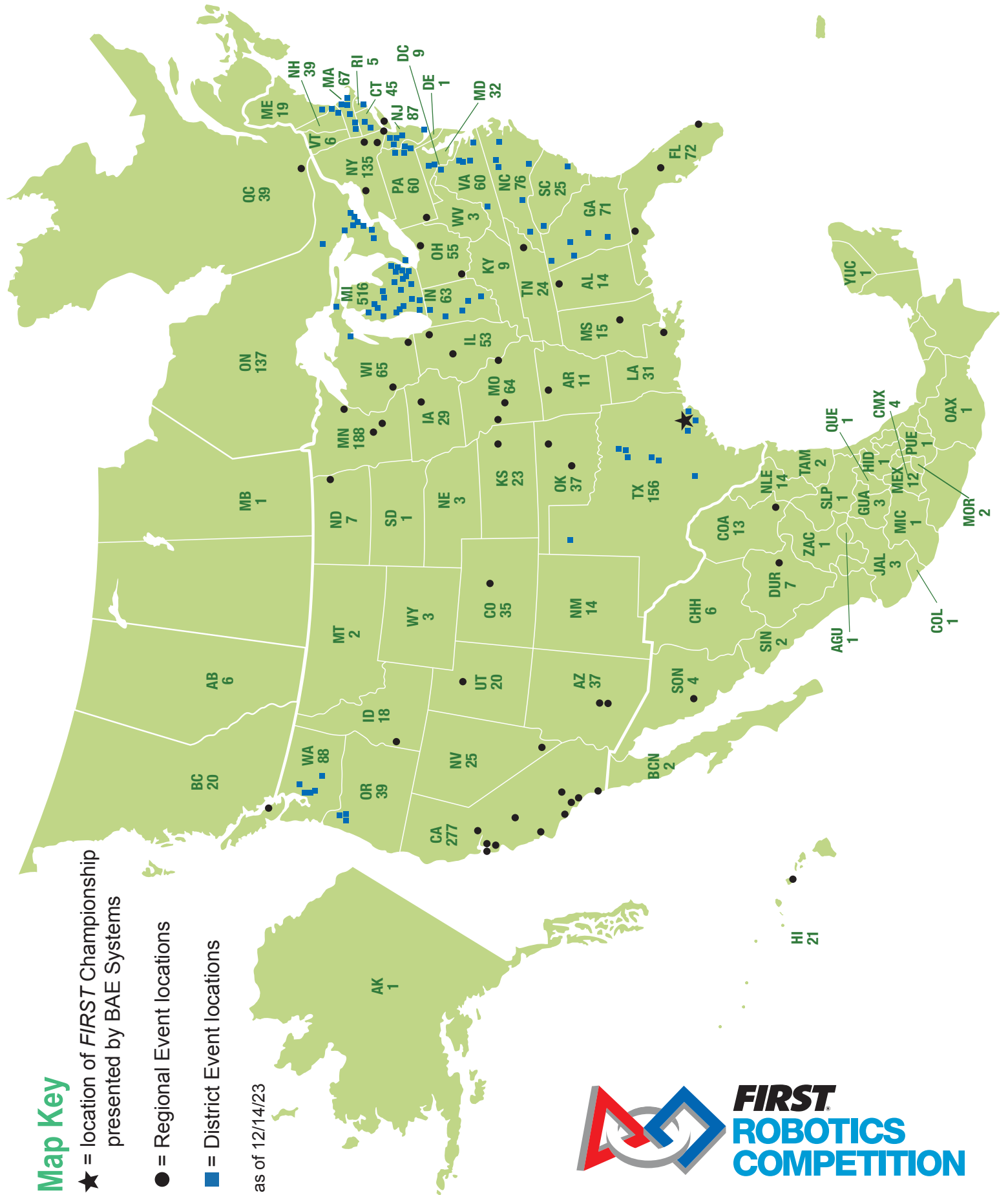
Friday, March 1 continued

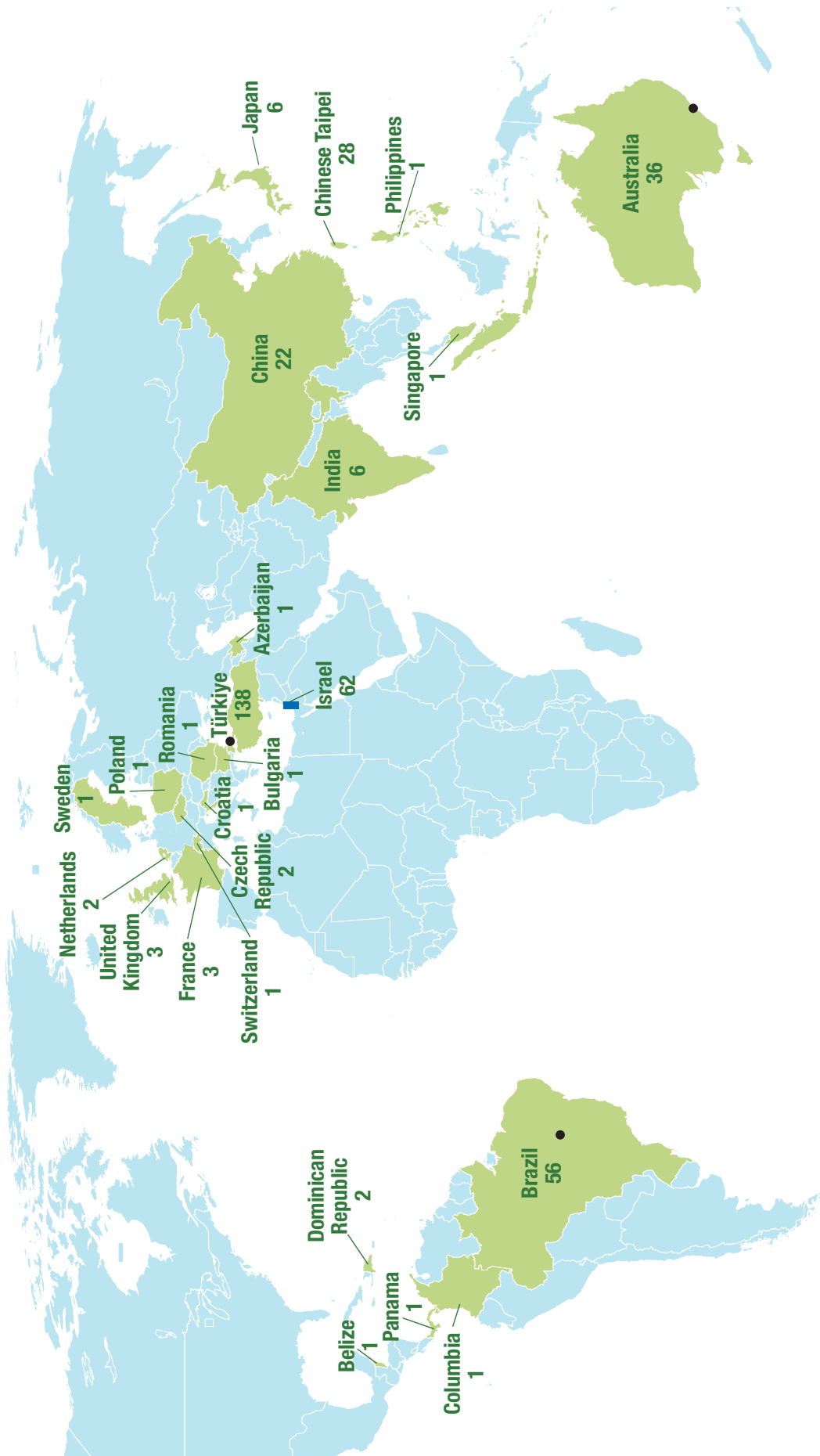
12:15PM – 1:00PM Mentor's Meeting, Mentor's Lounge, Room 338, Bring Your Lunch
 1:00PM – 5:45PM Qualification Matches
 5:40PM Mentor's Parade, Playing Field
 5:45PM – 6:15PM Awards Ceremony
 ~6:30PM** Pits and Machine Shop Close immediately following Awards Ceremony

Saturday, March 2

8:00AM Pits and Machine Shop Open
 8:00AM – 12:00PM VIP Open House
 8:00AM – 4:00PM Quiet Room 337 Open
 8:00AM – 5:00PM Mentor's Lounge Room 338 Open
 8:00AM – 6:30PM T-Shirt Memories, Near Pit Admin
 8:30AM – 8:50AM Opening Ceremonies
 8:55AM – 12:15PM Qualification Matches
 9:00AM – 4:00PM *FIRST*® LEGO® League Explore, *FIRST*® LEGO® League Challenge, and *FIRST*® Tech Challenge Demonstration, Exhibit Hall A
 10:00AM – 1:00PM Scholarship Row, Exhibit Hall A
 12:10PM – 12:15PM Mascot Parade, Playing Field
 12:15PM – 12:30PM Alliance Selections
 12:30PM – 1:30PM Lunch
 1:30PM – 5:00PM Playoff Matches & Awards Ceremony
 ~5:30PM** Pits close 30 minutes following the close of the Closing Ceremony

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









Sports & Exhibition Authority
of Pittsburgh and Allegheny County

SPORTS EVENT FUNDING PROGRAM

Welcome *FIRST*® teams! The Sports Event Funding (SEF) Program provides financial assistance to support major sporting events that provide significant economic impact to Allegheny County.

Funding may be up to **\$75,000**, in the form of a grant or loan.

Qualifying events include athletic or Esports events, whether professional or amateur, that are regulated and sanctioned by a regional, national, or international organization or association.

HOW TO APPLY



Applications are accepted twice a year, approximately **December 15 through January 15** and **June 15 through July 15** via an online grant portal.

Funding for the program is provided from the Pennsylvania Gaming Economic Development and Tourism Fund.



412-393-0200



sef@pgh-sea.com



www.pgh-sea.com

When you have the time, Pittsburgh has the place.

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*®, 610-401-4310, dfrownfelter@firstinspires.org

Be a Volunteer...

- Become a mentor.
- 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*®, 610-401-4310, dfrownfelter@firstinspires.org

Become a Team or Regional Sponsor...

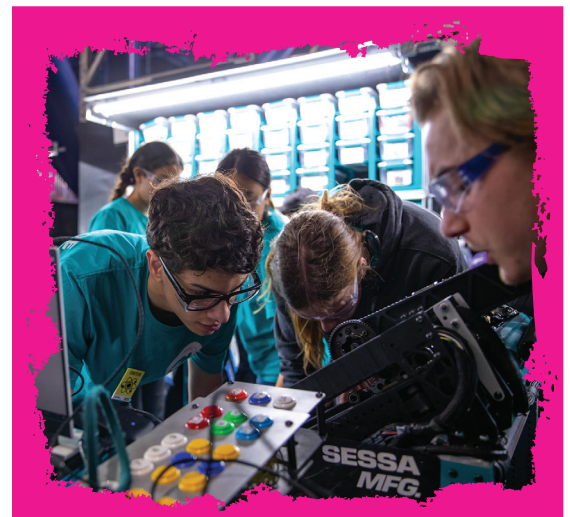
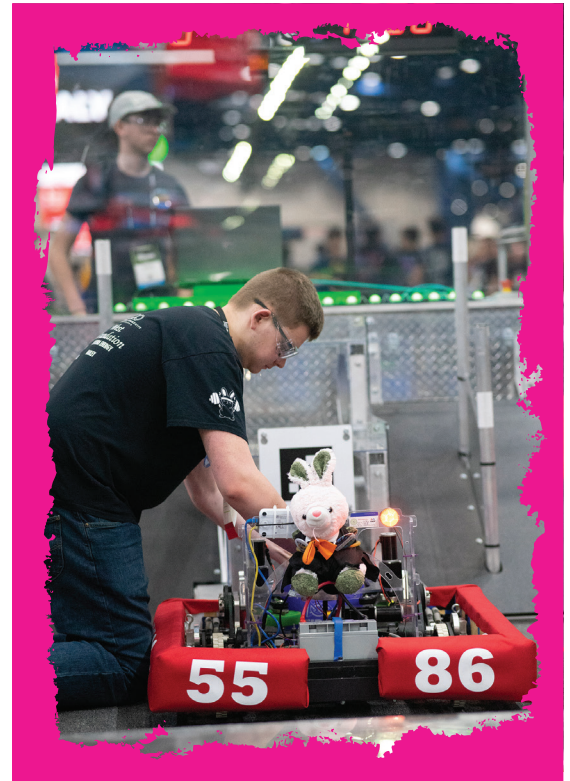
- Provide financial support, equipment, parts, facilities, internships, or other services.
- Offer scholarships.
- Encourage employees to mentor or volunteer.
- Host an event.
- Build community goodwill.
- Inspire employees.
- Help build a technical workforce.

Contact: Daphne Frownfelter, Regional Director, Pennsylvania, Chief State Advocate, *FIRST*®, 610-401-4310, 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.
- Scan this code with your smartphone to launch our secure [online donation page](#) on your browser.

Thank you for your generosity!



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Greater Pittsburgh Regional

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Sports & Exhibition Authority
When you have the time, Pittsburgh has the place.

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CAPTAINS OF INNOVATION





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



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 Inspiring 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 every volunteer - we could not do this without you.

All 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 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

Automation Federation / International Society for Automation (ISA)

www.automationfederation.org · www.isa.org

Boys and Girls Clubs of America

www.bgca.org

Girl Scouts of the USA

www.girlscouts.org

National 4-H Council

www.4-H.org

National Center for Women & Information Technology (NCWIT)

www.ncwit.org

National Society of Black Engineers (NSBE)

<https://www.nsbe.org>

Sigma Phi Delta

The Premier International Fraternity of Engineers <https://sigmaphidelta.org>

Society for Information Management (SIM) Foundation

<https://foundation.simnet.org>

Society of Hispanic Professional Engineers (SHPE) Foundation

<https://shpe.org>

Society of Women Engineers

www.swe.org

Triangle Fraternity

www.triangle.org

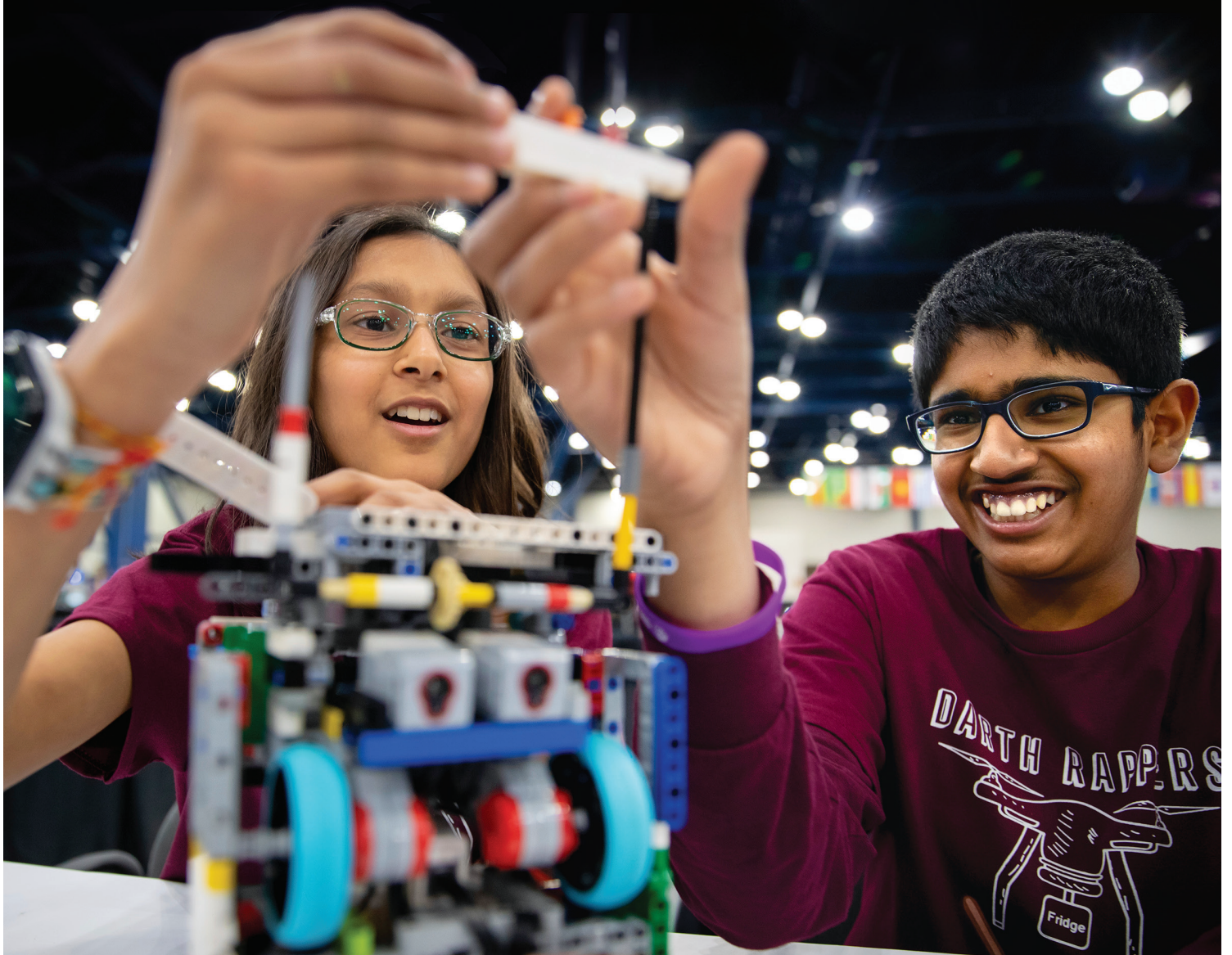
FIRST is always seeking collaborative relationships with organizations that promote career opportunities in science, technology, engineering and math (STEM) and are looking for significant mentor, coach, and volunteer opportunities for their members. For more information, contact: alliances@firstinspires.org





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



Your contribution is appreciated. Thanks for joining *FIRST* as we create a culture that celebrates science and technology!

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Rockwell Automation
Vivid Hosting
Vulcan
Worcester Polytechnic Institute (WPI)

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SolidProfessor
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Triangle Manufacturing Company
Wolfram Research

Contributor

ECIA - Electronic Components Industry Assn.
GreenGate3D
HPE Automation
OnScale
ScreenSteps



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 join any of these three programs based on age or grade level. Ages may vary by region.

Grades PreK-8 · Ages 4-16



Young Innovators Using 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.

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

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*.



FOR INSPIRATION & RECOGNITION OF SCIENCE & TECHNOLOGY

200 Bedford Street ■ Manchester, NH 03101 ■ 800.871.8326 ■ www.firstinspires.org

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