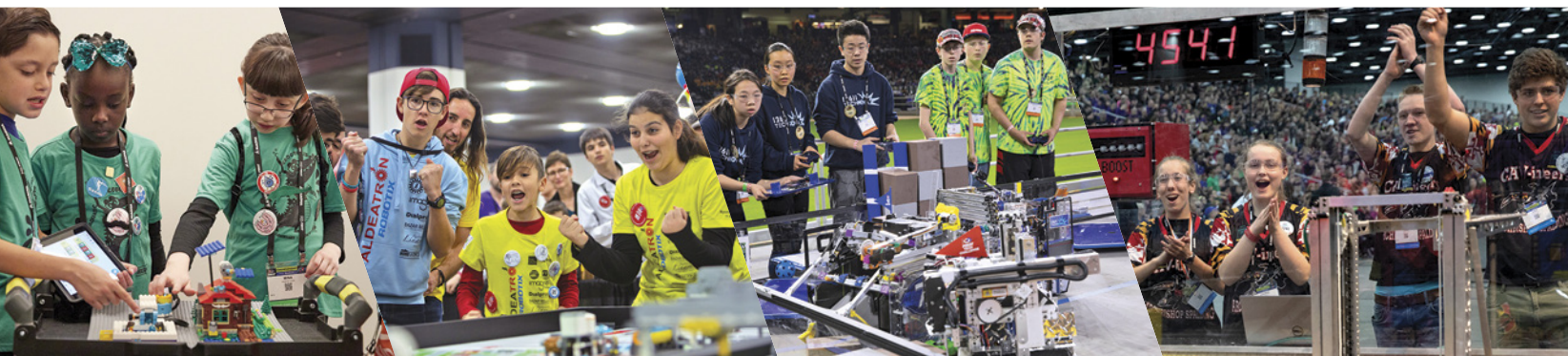


# **FIRST** Where **kids** walk in and **innovators** walk out



## **FIRST LEGO LEAGUE JR.**

Ages 6-10 (Grades K-4)

Introduces young children to science and coding concepts through hands-on, playful building challenges.

## **FIRST LEGO LEAGUE**

Ages 9-16\* (Grades 4-8)

Students program autonomous robots and design an innovative solution related to the annual theme.

\*Ages vary by country

## **FIRST TECH CHALLENGE**

Ages 12-18 (Grades 7-12)

Teams design, build, and program robots, develop strategy, and engage in thrilling, head-to-head competition.

## **FIRST ROBOTICS COMPETITION**

Ages 14-18 (Grades 9-12)

Teams compete with 120-pound robots, combining the excitement of sport with the rigors of science and technology.

### What is **FIRST**®?

**FIRST**® is the world's leading child-serving nonprofit advancing science, technology, engineering, and math (STEM). For 30 years, **FIRST** has been inspiring innovation and leadership by teaching STEM, teamwork, and problem-solving skills through engaging, hands-on robotics challenges developed to ignite curiosity and passion in students in grades K-12.



FOR INSPIRATION & RECOGNITION OF SCIENCE & TECHNOLOGY

200 Bedford Street ■ Manchester, NH 03101 ■ USA

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

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Ages 12-18 (Grades 7-12)

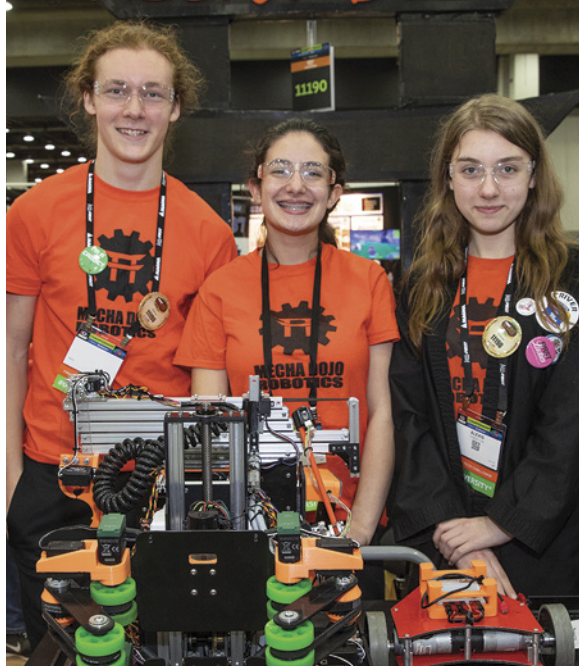


## What is *FIRST*® Tech Challenge?

*FIRST*® Tech Challenge is designed for students who want to compete head to head using a sports model. Teams design, build, and program their robots to compete on a 12' X 12' field, in an alliance format, against other teams. Robots are built from a reusable platform, powered by Android technology, and programmed using Java or Blockly. Teams, including coaches, mentors, and students, are required to develop strategy and build robots based on sound engineering principles, such as rapid prototyping. Awards are given for the competition, as well as community outreach, design, and other real-world accomplishments.

— JOHN CHAPPELL, *FIRST* TECH CHALLENGE TEAM 4147

"*FIRST* Tech Challenge has allowed me to experience things I wouldn't have been able to elsewhere. Thank you so much for this program. It has rocked my world!"



*FIRST* Tech Challenge brings science, technology, engineering, and math (STEM) topics alive through a dynamic, hands-on approach to robotics. The program challenges students to apply STEM concepts in real-world situations, and inspires tomorrow's innovators and entrepreneurs.

"Everybody has to be able to participate in a future that they want to live for. That's what technology can do."

— DEAN KAMEN, FOUNDER, *FIRST*

### Students get to:

- Design, build, and program robots.
- Model a real-world engineering process.
- Apply math and science concepts.
- Develop strategic problem-solving, organizational, and team-building skills.
- Build life skills while building robots and work towards participating in tournaments and World Championship.
- Compete and cooperate in alliances at tournaments.
- Access exclusive scholarships from hundreds of colleges/universities.

## How to start a team

- 1. Build Your Team** – We recommend a team size of about 10 students from your school and/or community.
- 2. Register Your Team** – Once you have gathered your team, visit our website to view cost, budgeting, and instructions on how to register your team.  
[www.firstinspires.org/robotics/ftc](http://www.firstinspires.org/robotics/ftc)
- 3. Enlist Additional Coaches and Mentors** – Every *FIRST* team is required to have two adult mentors/coaches who have passed the *FIRST* background screening process.  
[www.firstinspires.org/youth-protection](http://www.firstinspires.org/youth-protection)
- 4. Get Started** – Review the materials on our website and, if possible, attend events like a kick-off, workshops, and scrimmages.  
[www.firstinspires.org/ftc-start-a-team](http://www.firstinspires.org/ftc-start-a-team)



## Get Involved!

There are many ways you can get involved and volunteer to support a *FIRST* Tech Challenge team. Here are some examples of volunteer roles:

- |                        |               |
|------------------------|---------------|
| ■ Coach                | ■ Referee     |
| ■ Mentor               | ■ Judge       |
| ■ Event host/organizer | ■ Inspector   |
| ■ Field Manager        | ■ Scorekeeper |

[www.firstinspires.org/robotics/ftc](http://www.firstinspires.org/robotics/ftc)