



## Get Involved!

- Join or start a team in your area
- Sponsor a team, event, or local *FIRST* program
- Become a team Mentor or Coach
- Volunteer to fill over 100 roles

# What's *FIRST*?

- Igniting young minds.
- Nurturing passions.
- Practicing Gracious Professionalism.®

It's a competitive *sport*.  
 It's more than *robots*.  
 It's a life *experience*.  
 It's *opportunity*.  
 It's *community*.  
 It's *amazing*.

*FIRST* participants are much more likely to

- Attend college
- Major and pursue careers in science or engineering
- Volunteer in their communities
- Secure internships
- Mentor students
- Become outstanding citizens

For information about *FIRST*® in your area:  
[WWW.USFIRST.ORG/CONTACTUS](http://WWW.USFIRST.ORG/CONTACTUS)  
 603-666-3906



For students aged 6-18, it's the hardest fun you'll ever have. For team Mentors, Coaches, and Volunteers, it's the most rewarding adventure you'll ever undertake. For Sponsors, it's the most enlightened investment you could ever make.

*FIRST* is a 501(c)(3) not-for-profit organization devoted to helping young people discover and develop a passion for science, technology, engineering, and math (STEM). Founded 25 years ago by inventor Dean Kamen, the 2013-2014 *FIRST* season brought together more than 367,000 youth, and Volunteers filling over 150,000 roles, in more than 80 countries. The annual programs culminate in an international robotics competition and celebration where teams win recognition, gain self-confidence, develop people and life skills, make new friends, and perhaps discover an unforeseen career path.



**FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY**  
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[WWW.USFIRST.ORG](http://WWW.USFIRST.ORG)

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**FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY**



# More Than Robots...


FIRST® learning never stops building upon itself, starting at age 6 and continuing through middle and high-school levels up to age 18. Young people can join the international, K-12, after-school STEM programs at any level. FIRST inspires STEM innovation excellence by teaching participants a multi-disciplinary set of 21st century skills and immersing them in project-based learning and robotics competitions made possible by public and private partnerships. Working with volunteer adult Mentors/Coaches, FIRST youth receive the benefit of real workforce training.





**Jr.FLL**  
Junior FIRST® LEGO® League  
Grades K-3  
(ages 6-9)




**FLL**  
FIRST® LEGO® League  
Grades 4-8  
(ages 9-14\*)  
\*9-16 outside North America

**FTC**  
FIRST® Tech Challenge  
Grades 7-12  
(ages 12-18)

**FRC**  
FIRST® Robotics Competition  
Grades 9-12  
(ages 14-18)

**Jr.FLL** captures young children's curiosity and directs it toward discovering the wonders of science and technology. This program features a real-world scientific concept to be explored through research, teamwork, construction, and imagination. Guided by adult Coaches, teams use LEGO® elements to build a model that moves and develop a *Show Me Poster* to illustrate their journey.

*Children get to*

- Design and build a challenge-related model using LEGO components
- Create a *Show Me Poster* and practice presentation skills
- Explore challenges facing today's scientists
- Discover real-world math and science
- Begin developing teamwork skills
- Choose to participate in expos
- Share what they learn through a virtual expo on the Online Showcase
- Engage in team activities guided by Jr.FLL Core Values

In **FLL**, children are immersed in real-world science and technology challenges. Teams design their own solution to a current scientific question or problem and build autonomous LEGO® robots that perform a series of missions based on an annual theme. Through their participation, children develop valuable life skills and discover exciting career possibilities while learning that they can make a positive contribution to society.

*Children get to*

- Create innovative solutions to challenges facing today's scientists
- Strategize, design, build, program, and test an autonomous robot using LEGO MINDSTORMS® technology
- Apply real-world math and science concepts
- Develop career and life skills including critical thinking, time management, collaboration, and communication while becoming more self-confident
- Become involved in their local and global community
- Choose to participate in official tournaments and local events
- Qualify for an invitation to World Festival
- Engage in team activities guided by FLL Core Values

**FTC** 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 and teams can choose from two programming languages. Teams, including Coaches, Mentors, and Volunteers, 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.

*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
- Qualify for scholarships at over 130 colleges/universities

FIRST® Tech Challenge is sponsored by Rockwell Collins

Dubbed a varsity Sport for the Mind™, **FRC** combines the excitement of sport with the rigors of science and technology. Teams of 10 students or more are challenged to raise funds, design a team "brand," hone teamwork skills, and build and program a robot to perform prescribed tasks against a field of competitors. It's as close to "real world" engineering as a student can get. Professional Mentors volunteer their time and talents to guide each team.

FRC participants, as well as participants in other FIRST robotics programs, use LabVIEW® graphical design software from NI, a tool used by professional engineers.

*Students get to*

- Work alongside professional engineers
- Build and compete with a robot of their own design
- Learn and use sophisticated hardware and software
- Develop design, project management, programming, teamwork, strategic thinking, and Coopertition® skills
- Earn a place in the Championship
- Qualify for scholarships at over 180 colleges/universities