

FIRST Tech Challenge

FTC is designed for students in grades 7-12 to compete head to head, using a sports model. Teams are responsible for designing, building, and programming their robots to compete in an alliance format against other teams. The robot kit is reusable from year-to-year and is programmed using a variety of languages. Teams, including coaches, mentors and volunteers, are required to develop strategy and build robots based on sound engineering principles. Awards are given for the competition as well as for community outreach, design, and other real-world accomplishments.

Students get to:

- ✔ Design, build, and program robots
- ✔ Apply real-world math and science concepts
- ✔ Develop problem-solving, organizational, and team-building skills
- ✔ Compete and cooperate in alliances and tournaments
- ✔ Compete for a spot in the World Championship
- ✔ Qualify for over \$13.5 million in college scholarships

FIRST LEGO League

Introduces younger students to real-world engineering challenges by building LEGO-based robots to complete tasks on a thematic playing surface. FLL teams, guided by their imaginations and adult coaches, discover exciting career possibilities and, through the process, learn to make positive contributions to society.

Elementary and middle-school students get to:

- ✔ Design, build, test and program robots using LEGO MINDSTORMS® technology
- ✔ Apply real-world math and science concepts
- ✔ Research challenges facing today's scientists
- ✔ Learn critical thinking, team-building and presentation skills
- ✔ Participate in tournaments and celebrations

Junior FIRST LEGO League

For children ages 6-9, Junior **FIRST**® LEGO® League (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® bricks 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 and showcases
- ✔ Engage in team activities guided by Jr.FLL Core Values