Welcome SPECTATORS!

FIRST® Progression of Programs _FIRST_® is the world's leading child-serving nonprofit advancing science, technology, engineering, and math (STEM). For 30 years, _FIRST_ has evolved into a global movement by engaging millions of people with a proven game-changer for preparing kids to solve the world's greatest problems. _FIRST_ programs inspire innovation and leadership through engaging, hands-on robotics challenges developed to ignite curiosity and passion in students in grades K-12. _FIRST_ builds powerful mentorship relationships between young people and STEM professionals, helping kids gain confidence to explore the innovation process while they learn valuable science, engineering, technology, teamwork, and problem-solving skills. _FIRST_ creates the people who will change the world – today and tomorrow.

FIRST® LEGO® LEAGUE JR.

FIRST® LEGO® League Jr. teams build and program a model that moves using LEGO® Education WeDo 2.0 and present their research journey on a _Show Me_ poster.

Children, Ages 6-10 (Grades K-4), get to:

- Learn about a real-world theme
- Explore challenges facing today's scientists
- Discover real-world math and science
- Begin developing teamwork skills
- Practice presentation skills
- Celebrate at noncompetitive events
- Engage in team activities guided by FIRST® Core Values

FIRST® LEGO® LEAGUE

FIRST® LEGO® League teams build robots using LEGO® MINDSTORMS® technology and develop research projects based on a real-world Challenge that changes annually.

Students, Ages 9-16* (Grades 4-8), get to:

- Create innovative solutions to challenges facing today's scientists
- Strategize, design, build, program, and test an autonomous robot
- Apply real-world math and science concepts
- Develop career and life skills, including critical thinking, time management, collaboration, confidence, and communication
- Participate in official tournaments and local events
- Engage in team activities guided by FIRST Core Values

*Ages vary by country

FIRST® TECH CHALLENGE

FIRST® Tech Challenge students learn to think like engineers. Teams build robots from a reusable kit of parts, develop strategies, document their progress, and compete head to head.

Students, Ages 12-18 (Grades 7-12), 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 FIRST Championship
- Compete and cooperate in Alliances at tournaments
- Access exclusive scholarships from hundreds of colleges/universities

FIRST® ROBOTICS COMPETITION

FIRST® Robotics Competition teams compete with 120-pound robots of their own design, combining the excitement of sport with the rigors of science and technology.

Students, Ages 14-18 (Grades 9-12), 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 FIRST Championship
- Access exclusive scholarships from hundreds of colleges/universities

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.* ***Coopertition***® *– Competing hard, but also helping the other teams.*

FIRST® For Inspiration & Recognition of Science & Technology

For information about FIRST® in your area: **www.firstinspires.org/contactus**

FIRST® LEGO® League Jr. Challenge

Each year, *FIRST*® LEGO® League Jr. presents a new and exciting Challenge to ignite the creativity of children age 6 to 10 and introduce them to the excitement of STEM. In the 2018-19 MISSION MOON℠ Challenge, teams around the globe were asked to:

EXPLORE

- Teams explored what they would need to live on the Moon.

CREATE AND TEST

- Teams designed, built, programmed, tested, and improved a Team Model of a Moon Base.
- Teams used the MISSION MOON Inspire Model (a LEGO® rocket) in their design. They also used LEGO® Education WeDo 2.0 to build and program at least one motorized part of their Team Model.

SHARE

- Teams documented their journey in an Engineering Notebook and shared what they learned in a *Show Me* poster.