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

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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® Robotics Competition Game

In **DESTINATION: DEEP SPACE, Presented by The Boeing Company,** we join two competing alliances collecting samples on planet Primus. Unpredictable terrain and weather patterns make remote robot operation essential to their mission on the planet. With only 2:30 until liftoff, the alliances must gather as many cargo pods as possible and prepare their spaceships before the next sandstorm arrives.

2:30: A sandstorm limits driver visibility so robots independently follow pre-programmed instructions or are operated by human drivers via video from their habitat. Alliances score points by:
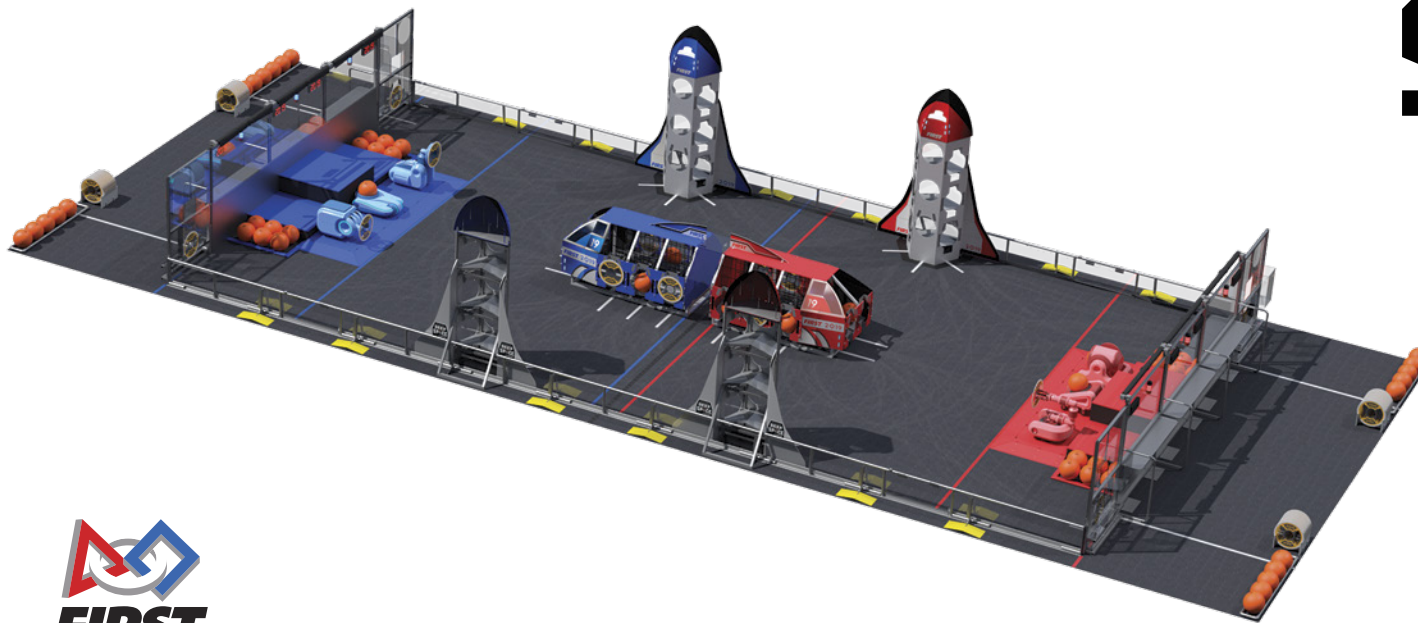
1. Deploying robots from habitat
2. Preparing rockets and cargo ship with hatch panels
3. Loading cargo pods into their rockets and cargo ship

2:15: The sandstorm clears and human operators take control of their robots. Alliances continue to score points by:

1. Preparing rockets and cargo ship with hatch panels
2. Loading more cargo pods
3. Returning the robot safely to the alliance's habitat

0:00: Rocket liftoff

The alliance with the highest score at the end of the match wins.

DESTINATION:

DEEP SPACE

Presented By *BOEING*