FRC
FIRST® Robotics Competition

The *FIRST*® Robotics Competition: OVERVIEW

Since 1989, the *FIRST* Robotics Competition has grown from 28 teams to 3,000 projected for 2015.

Over 90% of the high schools and their company Mentors have stayed involved year after year.

What is it?

- A unique varsity Sport for the Mind™ designed to help high-school-aged young people discover how interesting and rewarding the lives of engineers and scientists can be.

Why is it unique?

- It is a sport where participants play with and learn from the pros
- Designing and building a robot is a fascinating real-world professional experience
- Competing brings participants as much excitement and adrenaline rush as conventional varsity tournaments
- The game rules are a surprise every year

How it works

The *FIRST*® Robotics Competition (FRC®) stages short games played by robots. The robots are designed and built in six weeks (from a common set of parts) by a team of high-school-aged young people and a handful of engineers-Mentors. The students program and remotely control the robots in competition rounds on the field.

Teams are formed in the fall. The annual *FIRST* Robotics Competition Kickoff in early January starts the six-week "build" season. Competitions take place in March and April. The *FIRST* Robotics Competition Regional events are typically held in university arenas. They involve 40 to 70 teams cheered by thousands of fans over three days (two days for District events). A championship event caps the season. Referees oversee the competition. Judges evaluate teams and present awards for design, technology, sportsmanship, and commitment to *FIRST*.® The Chairman's Award is the highest honor at *FIRST* and recognizes a team that exemplifies the values of *FIRST.*

FRC participants, as well as participants in *FIRST* K-12 robotics programs, use LabVIEW® graphical design software from NI, a tool used by professional engineers.

What is needed to start a team:

- Three to six engineers or other professional Volunteers encouraged by their company's management
- 10 or more high-school-aged young people led by a teacher, ideally supported by the school principal and a group of parent Volunteers
- Funding (of $15,000 to $30,000) to participate in 2 to 3 Regional competitions provided by a single, company, a group of companies, and/or through school fund-raising efforts

What is needed to host a *FIRST* Robotics Regional Competition:

- Funding ($150,000 to $200,000) raised from corporations, foundations, individuals, and administrations
- Volunteers to organize, raise funds, recruit new teams and support the competition itself (judges, referees, announcers, security, etc.)

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What has been accomplished to date:

- Since 1989, the *FIRST* Robotics Competition has grown from 28 teams to 3,000 projected for 2015
- More than 91% of the teams stay involved year after year
- A proven positive impact on student interest in engineering
- Participants learn the great values of teamwork, self-starting, character, time management, etc.
- In most schools, participation in the *FIRST* Robotics Competition has had a broad positive impact beyond the team itself. The *FIRST* Robotics Competition is included as a varsity sport in yearbooks
- Volunteers return to participate year after year
- *FIRST* has received major media coverage of events and the impact of the *FIRST* Robotics Competition

Hope for the future

We know the FIRST Robotics Competition will have succeeded when:

- More than half of high schools are funding their *FIRST* teams as varsity activities
- More than 12,000 corporations are volunteering engineers-Mentors for these teams year after year
- *FIRST* Robotics Competition events are as common as any other high-school sports event
- The *FIRST* Robotics Competition season is televised
- The *FIRST* Volunteer organization is recognized and admired worldwide

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

For information about *FIRST*® in your area:

WWW.USFIRST.ORG/CONTACTUS
603-666-3906

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8.2014