



VOLUNTEERS & PARTICIPANTS

Judges (Blue Shirts)

There are a lot of them; 20-30 in Regionals and over 100 at the Championship. They determine which teams earn which awards. A group of role model leaders spend time listening and talking to the student participants—a great motivator. Kids get a lot of recognition from people they don't expect. Many kids already know which teams deserve awards. The Judges spend a lot of time learning, explaining and deciding... a humbling experience for them.

Mentors

Perhaps the most valuable element of the *FIRST* experience. Engineering mentors come from sponsor companies. They bring a real-world perspective to problem solving and become coach and friend. Their motivation, support and assistance are powerful. Mentors can also be college engineering students.

Ambassadors (Red Shirts)

Sometimes they are former Judges (you never leave *FIRST*); sometimes they are just friends; but they are story tellers who help kids, supporters and guests understand what *FIRST* is all about.

Volunteers

There are over 85,000. From driving duties, catering, planning, and fund raising to mentoring—a truly committed community.



PHOTO BY MARCO CIAVOLINO

“FIRST gives kids the opportunity to develop the muscle between their ears; to gain experience that will directly affect their future and our future as well.”—Dean Kamen, *FIRST* Founder

“In today’s social environment, FIRST has a chance to re-define the larger economic and moral playing field. Our students can be their own economic stimulus packages by leveraging their skills into self-sustaining careers and help with the issues we face in the 21st century.”

—Dr. Woodie Flowers, *FIRST* National Advisor and Pappalardo Professor Emeritus of Mechanical Engineering, Massachusetts Institute of Technology



The Psychology of the *FIRST*™ Experience

John E. Abele—*FIRST* Chairman



It's a **competitive sport**. It's a **life experience**.
It's an **opportunity**. It's a **community**. It's **amazing**.



FOR INSPIRATION AND RECOGNITION OF SCIENCE AND TECHNOLOGY

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It's all about, "you are what you celebrate." That's another way of saying "aligning incentives."

Think of the elements...

ATMOSPHERE

Part Rock Concert	Audio visual screens. Music. Dancing. Outrageous costumes.
Part Basketball Championship	"Final four" of smarts. Cheerleading teams. Mascots. Cheers. Dances. Referees. Team logos and colors. Television coverage. Announcing.
Part NASCAR	The "pits". The machines. Sponsor names on robots. A procession of robots enters the field with logos and lights.
Part Broadway	Lights, set, orchestration and choreography combine to produce a well-rehearsed show. Rehearsal (practice), scripts that determine the sequence of events, an overture of guidance, the main act with many subplots, and a finale of awards/celebration.
Unique FIRST™ Traditions	Gracious Professionalism. Button trading. Wild costumes. Announcers asking for help for teams that need it. Worldwide on-line collaboration. Dr. Woodie Flower's shirt with a "gazillion" signatures. Dean Kamen's "homework."
It's More Than Robots	It's about completing a very challenging project with limits on your budget and a firm deadline. It's about working on teams, help from caring and knowledgeable mentors, Gracious Professionalism, helping an opponent.
Look and Feel	The same look and feel at every competition venue. No matter where a <i>FIRST</i> regional is held, the show and experience are the same. Careful oversight and a tight schedule preserve the culture.

DESIGN CO-OPETITION

Alliances	Teams compete in alliances. There are many short 2 minute games (8 to 12, depending on the number of teams and fields) with different alliance partners. The teams are motivated to know their competitors, make friends with them and help them out. That's co-opetition.
Short and Intense	The games are short to suit the attention-deficit nature of most kids. The "pits" become the venue for getting to know each other. Successful teams have market research and sales teams that get to know the strengths and weaknesses of each group and earn trust to form alliances.
The Design and Build Experience	Six weeks of high intensity work with a hard stop. Planning and thinking. Assigning tasks. Applying formulas and knowledge. Arguing and collaborating. Trusting and challenging your colleagues. Trial and error. Success and failure. Experiential learning.
Learning To Innovate	Learning from teammates. Teaching teammates. Learning from mentors. Often the students' first experience in managing and being managed by their peers in a "mini corporation." (Co-opetition).
Gracious Professionalism	Gracious Professionalism is part of the ethos of <i>FIRST</i> . It's a way of doing things that encourages high-quality work, emphasizes the value of others, and respects individuals and the community. With Gracious Professionalism, fierce competition and mutual gain are not separate notions. Gracious professionals learn and compete like crazy, but treat one another with respect and kindness in the process.
Scholarships	Close to \$10 million in scholarships from over 100 colleges and universities throughout North America.
Awards	Over 20 sponsored awards that recognize everything from entrepreneurship to Web site design. "You are what you celebrate."

MORE KEY ELEMENTS

Chairman's Award	The most prestigious award in <i>FIRST</i> . It's not about robots or winning the game. It's about impacting a school and community. It's about maximizing the number of people involved. It's about recruiting and mentoring new teams. Teams are recognized for their exemplary efforts in spreading the <i>FIRST</i> message.
Diversity of Participants	Not a science fair, driven by a teacher-selected list of the best and the brightest. Not about individuals so much as it is about teams. It is truly diverse. Minority and female participation is the norm. Many kids who aren't necessarily doing well academically... yet. They aren't just geeks. They are athletes, musicians, former dropouts and they demonstrate talent they didn't know they had. It's an experience that removes the reasons for not doing well.
Diversity of Support	<i>FIRST</i> is apolitical. Support comes from large and small industries (over 3,500 companies), including competitors. It is also colleges, universities, teachers, principals, professionals, artists, farmers, engineers, bankers... All the people that care about kids having an experience that will change them for life.
Progression of Learning	Four programs (Jr. FLL, FLL, FTC and FRC) provide students grades K-12 with the same set of values and prepare them to participate in the "major league" of Championship games.
Longevity Fuels FIRST	Participants have fulfilled a dream—attended college, become professionals—and then mentor <i>FIRST</i> teams. <i>FIRST</i> begets future scientists, engineers, and teachers who in turn come back to the programs as mentors, coaches, advisors, and volunteers... as the cycle continues.