



BEST Robotics

Why it Matters

A Societal Problem



“Although the United States is increasingly defined by and dependent on technology...**its citizens are not equipped to make well-considered decisions or think critically about technology.**”

~ *Technically Speaking: Why All Americans
Need to Know More About Technology*
(National Academy Press, 2002)

An Education Problem



“Nationwide, most students are graduating *with only a minimal understanding* of one of the most powerful forces shaping society today.”

~ International Technology and
Engineering Education Association
(ITEEA)

We Must Build *Capacity*



If our organizations, companies, and communities are going to *survive, adapt, and thrive* in this fast-changing world, they have to *build capacity*—develop and strengthen their skills, instincts, abilities, processes, and resources.

Developing Self Efficacy



- One way we build capacity is by helping our citizens develop self-efficacy—***belief in their capabilities***.
- The future welfare (economic and social) of our communities ***depends upon a citizenry that possesses these capabilities and competencies:***
 - Leadership skills
 - Communication skills
 - Technical skills
 - Organizational skills
 - Problem solving abilities
 - Career awareness and attainment

Where BEST Comes In



- BEST is a non-profit, **volunteer-based** organization.
- Our mission: engage, excite, and inspire middle and high school students **to pursue careers** in Science, Technology, Engineering, and Mathematics (STEM)-related careers.
- We accomplish this by providing students with a **six-week long**, fall robotics competition experience.
- We enlist local industries and organizations to provide **mentors**—technical professionals and engineers—to help guide the students.

Our Core Objectives



- ***Provide students*** with a real-world engineering experience that incorporates the practical application of math and science
- ***Prepare students*** to be technologically literate and thus better prepared to enter the workforce
- ***Help students*** develop leadership, project management, teamwork, and organizational skills
- ***Develop students'*** confidence and competence through self-directed learning, decision-making, abstract thinking, and problem-solving

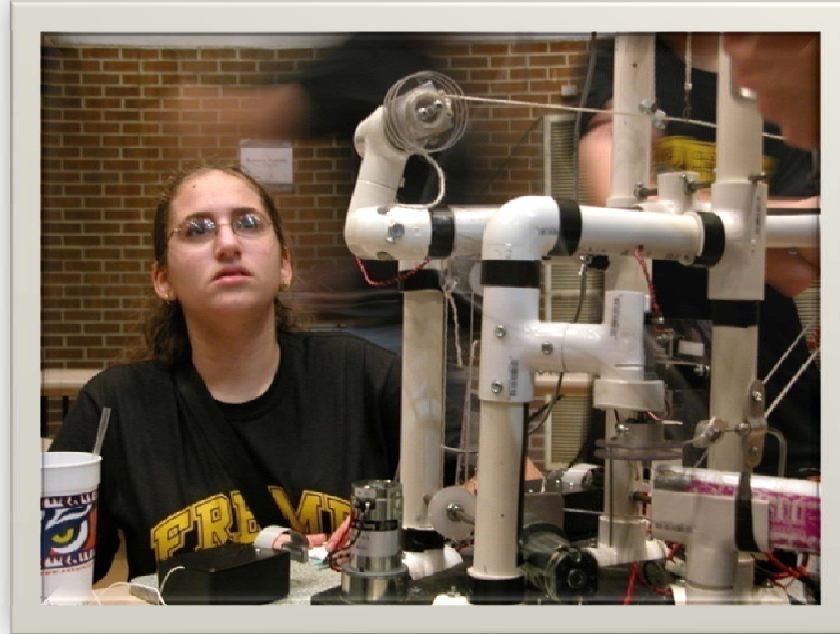
Our Core Values



- Students are the sole participants and primary decision-makers, designers, and builders.
- Any student may participate.
- There is no fee for students or schools to participate.
- Any school (including homeschools) can participate.
- Equipment and materials for the robotics division of the competition are provided at no cost to the school.

What BEST Accomplishes

- BEST establishes an **engineering culture** in schools.
- BEST students become **competent and confident** in:
 - abstract thought
 - self-directed learning
 - teamwork
 - project management
 - decision-making
 - problem-solving
 - leadership
- BEST students become **technologically proficient** and better prepared for the workforce.



As a Result of BEST...



BEST students...

- Better understand mathematical concepts and applied physics.
- Experience **real-world** science and engineering challenges.
- Understand what engineers do – **engineering is “demystified.”**
- Experience “design-to-market” product development - **experience that is transferable to all career pursuits.**