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.