

CT BEST Robotics Competition

HISTORY

BEST is a non-profit, volunteer organization whose mission is to inspire students to pursue careers in engineering, science, and technology through participation in a sports-like, science and engineering based robotics competition. BEST is a grassroots effort that began in 1993 with only 14 schools. Annually, over 600 schools are participating with over 10,000 students involved. BEST has had continual growth since its founding. With this enormous reach, we help build the pipeline of future engineers. 1 out of 2 students surveyed stated their experience in BEST has influenced their plans after high school.

OUR MISSION

To inspire students to pursue careers in engineering, science, technology, and math through participation in a sports-like science- and engineering-based robotics competition.

ORGANIZATIONAL GOALS

- Promote the growth of hubs across the U.S., thus maximizing the “pipeline” of future engineers, scientists, and technical professionals.
- Increase participation of women and minority students in rural and inner city schools.
- Enlist more colleges/universities and corporations to become collaborative educational partners with BEST.

BENEFITS TO STUDENTS

- Increases understanding of technical concepts and scientific principles
- Provides real-world engineering experience with limited resources
- Reinforces project management concepts with constrained time periods
- Encourages abstract thought, self-directed learning, and problem solving
- Promotes team building, good sportsmanship, leadership, and ethical conduct
- Produces pride in success

THE BEST TEAMS

Only one team per school can participate; the school determines student eligibility. There is no limit on the number of students that can participate. Students who want to participate but don't want to do robotics can handle publicity, design the team logo, design T-shirts, or perform an infinite number of other jobs.

THE BEST COMPETITION

Robotics - Each team designs and builds a radio-controlled machine to accomplish defined tasks in a game-type format. Six weeks before the competition, the teams gather for Kick Off Day in early September at local hub sites where they receive identical kits of equipment (motors, r/c unit, batteries, etc.) and raw materials from which to build their machines, and a detailed set of game rules. The machines they build cannot weigh more than 24 pounds, must fit within a 24-inch cube, and must be built only from the raw materials supplied to them by the local hub.

The BEST Award - Teams that compete in this optional competition are judged on the following: a Project Engineering Notebook; an oral presentation; an educational display or exhibit; a judges interview; spirit and

sportsmanship; and robot performance. Winning the BEST Award is considered the highest achievement any team in the competition can accomplish.

Matches - In the robotics competition, four teams compete against each other in a series of 3-minute, round robin matches in a preliminary round. Each team gets to compete in a minimum of five matches. In a match, the robots "race" to determine which robot scores the most points performing certain tasks. The top scoring teams at the end of the preliminary round advance to a championship round.

THE BEST SCHEDULE

Kick Off Day occurs on a Saturday in August or September. The local hub brings together the teams signed up to compete and unveils (in many cases, literally!) the playing field, game theme, and rules for the year. Up until this day, the playing field and challenge have been kept secret from the teams. Teams are introduced to the game, the rules are discussed, and the kits are distributed. The event usually lasts a couple of hours. A high school gym or similar facility is typically used, with the playing field being set up on the court.

Mall Day takes place on the Saturday of the fifth week of the competition. The local hub sets up the playing field at a local mall and teams are encouraged to sign-up for practice driving times throughout the day. The purpose is to provide practice, but, typically, teams come to “borrow” (i.e., steal) ideas from other teams about robot functionality (or lack thereof). It’s also a great way to generate interest in the upcoming game. Hubs usually invite television and newspaper coverage to help promote the competition.

Game Day occurs six weeks after Kick Off Day. It is typically a one-day event that merges the excitement of a high school basketball game with the strategy of a chess match and intellectual challenge of a science fair. Bands, cheerleaders and family cheer their teams on in the competition. Many hubs host the game in local high school gyms that can accommodate several hundred and upwards to a thousand guests. The gym floor is more or less divided in half, with one half containing the playing field and the other half containing what is called “the Pit”—sort of like the pit stop in a NASCAR race. Each team is provided a table on which to work on their machine between matches.

HISTORICAL

BEST has been held for many years. Competitions from the past include:

2008 Just Plane Crazy
2007 - 2021-A Robot Odyssey Challenge
2006 Laundry Quandry
2005 Mission to Hubble
2004 BEST Fever
2003 Transfusion Confusion
2002 Warp X
2001 RAD to the CORE
2000 Pandemonium in the Smithsonian
1999 Rocket Race: The Alien Escape
1998 Toxic Troubles
1997 Dynamite Duel
1996 Block N' Load
1995 TOTALLY aweSUM
1994 Bumble Rumble
1993 PVC Insanity

POINT OF CONTACT/QUESTIONS: ALL QUESTIONS SHOULD BE DIRECTED TO ROBOTICS@CCSU.EDU.