

HIGH TECH

Robot event builds teamwork, grows careers

The goal of the FIRST robot wars at Hofstra Arena last weekend went well beyond simply building robots. It starts with an expensive box of parts and a few simple instructions. Then, anything can happen.

For the 1,000 participants, students and adults, it was a chance to show off, solve problems and embrace technology in a fun, yet competitive, outlet.

Under the guidance of mentoring programs from major Long Island technology companies, including Festo, EDO and Northrop Grumman, engineers and high school students worked together over five weeks to design and build their robots. Then after a period of eliminations, the big event arrived and their creations were put to the test.

Dave Burghardt, head of the engineering department at Hofstra, said that the Long Island model of sponsorship and mentorship is unique. Whereas in other areas of the country one title sponsor absorbs the costs of the parts and provides technical help, a real cross-section of Long Island industry takes part in the Hofstra event.

Burghardt also said that broad-based

community support contributes significantly to get the project going. Each team needs to raise \$5,000 for the parts kit that this year consisted of 509 individual components.

Eliza Lamin, a senior at Baldwin High School, is the team captain for finance and organization, and has no plans to be an engineer. Instead, she crunches numbers and project management sheets. "There is so much time and money that goes into an event like this. Leadership skills are so important," she said.

Hans Zobel, chief executive of Festo, one of the major sponsors of the event, was watching each of the teams with excitement. "This is the future of our nation, kids embracing technology. It's terrific."

If you have never seen a robot war, it is nothing short of impressive. Imagine a center arena on the stadium floor with racecar style "pits" for the 33 Long Island teams plus 6 visiting teams circling the playing field. There is a flurry of activity as teams change cogs, belts and repair wiring after each two-minute match. At best, it's controlled chaos.

George Feist, the president and CEO

of NOVUS Management Services Corporation who volunteers his time to coordinate the event, said, "You see grown-ups acting like children and children acting like grown-ups. These kids are working with their heroes. When they finish the program, many know what they want to do with their life. When they come back to Long Island and work for companies like Grumman, that is the perfect circle."

Indeed, getting students involved with engineering is one goal of the nationwide program started by Dean Kamen, creator of the Segway scooter. To that end, a number of scholarships are made available to the participants. In the seven years the event has been on Long Island, more than \$1 million in scholarships have been granted to Long Islanders.

This year, Hofstra announced four \$1,500-per-year scholarships for participants of FIRST who plan to attend Hofstra to pursue an undergraduate degree in engineering or computing.

Chris Sanders, a senior at Hauppauge High School, is team captain and driver for the school's robot. Describing how it felt to work with seasoned engineers on the project, Sanders said, "It gives you a great start into engineering. You solve

simple problems, but working with real engineers, you see what they would have done in that situation."

To operate a robot, you need a driver, a gunner and a coach. "It's pretty much like driving a tank," Sanders said.

This year's contest called on the robots to play a sort of basketball, which is not as easy as it sounds. As the robots shot balls into a vertical hoop, they also had to retrieve balls from the floor. All this while other robots attacked.

Baldwin Senior High School team captain Greg Stoddard said, "We may not have the most technically capable robot, but we have a great strategy. We looked at all the other teams and developed a strategy based on their strength and weaknesses."

Unfortunately, their analysis didn't lead them to be the tournament's big winner. They did win the Johnson and Johnson Sportmanship Award, however.

The School Business Partnership of Long Island sponsored the March 24 and 25 event, which drew over 3,000 spectators.

Winning teams will compete nationally in Georgia on April 27-29.

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