

## PEOPLE IN THE NEWS

# Students, Robots Get Get Boost From Engineer

By Phyllis Lader

When the Long Island regionals of the FIRST (For Inspiration and Recognition of Science and Technology) Robotics Competition are held March 14-16 at Suffolk Community College's Brentwood Campus, Smithtown resident Robert Drexel will have a rooting interest in not just one team, but two.

Mr. Drexel, senior product engineer with Festo Corporation of Hauppauge, has mentored the Hauppauge High School FIRST Robotics Team for the past three years. He found that experience so worthwhile that, when he learned his home school district of Smithtown would become rookie FIRST competitors, he decided to assist Smithtown's team as well.

"I wanted to help get it going in Smithtown because it's a very worthwhile program. We had some real success in Hauppauge, inspiring and motivating kids," he said.

The FIRST Robotics Competition is a design competition that brings professionals and young people together to solve an engineering design problem in a competitive way. It's a six-week challenge in which each team competing is given the same box of parts. They have to put the parts together to create a remote-controlled device which will achieve the specific goal that is presented.

"It's not like assembling a toy, as there are no instructions and no finished components," said Mr. Drexel. This presents a whole myriad of design and engineering problems, with quite a bit of basic physics and engineering skills needed, he explained. No two robots are alike, as every team

comes up with its own permutation, he said.

Mr. Drexel became involved in the FIRST competition when his company, Festo, a global manufacturer of automation equipment specializing in pneumatic components, made a commitment in 2000 to make Hauppauge High School its company-sponsored school. He noted that Festo saw the value in developing home-grown talent by inspiring local students to seek careers in science and technology, which they would hopefully pursue here on Long Island. In addition to giving Hauppauge's team monetary support, Festo sought mentors for the team among its staff. Mr. Drexel, who wants students to see what kind of fun science and engineering can be and how an engineering career is an attainable goal - "it's a heck of lot easier to be a good engineer than to be a superstar ballplayer," he said—volunteered, as did several colleagues.

The first time that Hauppauge entered "it was a learning curve for everyone," and the team needed a lot of professional support. The second year, they were more self-sufficient but by this, the third year, the professional contribution was minimal. "They did a lot of the design, development and assembly themselves," said Mr. Drexel, who is very proud of their progress. "They're almost ready to be cut loose."

Since the specific game that the robots will play in

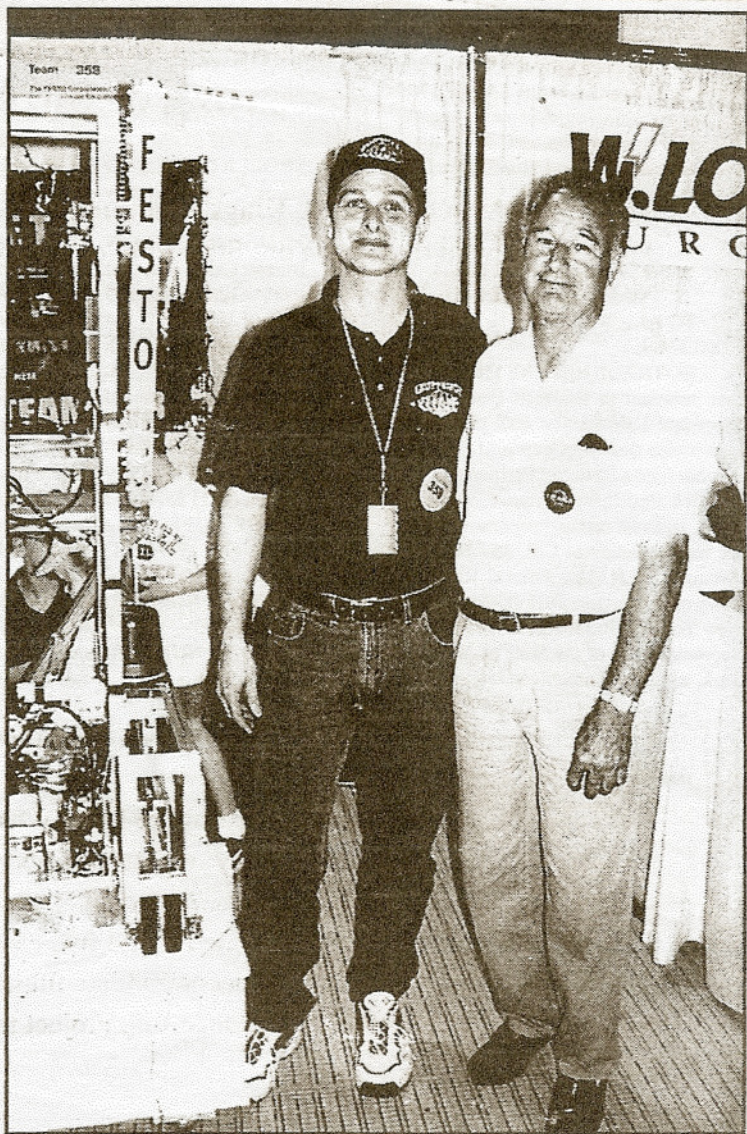
competition changes each year, a new robot must be built every time because "last year's robot is not adequate for this year's game." He described this year's game as a little bit like hockey, except that the robots can keep moving the goals to different spots on the playing field.

Although Hauppauge is his company's official team, Mr. Drexel was given the OK to help out Smithtown High School. Another colleague is helping a third school, so that three robots will bear Festo stickers.

"Smithtown is doing very well. They've got quite a good machine, and they managed to design, develop, build, test and ship the robot within the six week time frame," said Mr. Drexel.

He is hoping Smithtown and Hauppauge's teams will both perform magnificently in the Long Island regionals as well as the optional New York City regionals, March 21-23 at Columbia University. Mr. Drexel said that Hauppauge must place among the top 12 of 42 teams in Long Island regional competition to qualify for the nationals at Disney World's EPCOT center, April 25-27, while Smithtown, as a rookie team, is automatically entered in the nationals.

A graduate of Commack High School South (class of 1979) and SUNY-Farmingdale, Mr. Drexel has been with Festo since 1989. He and his wife, Adrienne, have two children, Max, 8, a Mount Pleasant Elementary School third grader, and Christina, 5, who will start kindergarten next fall.



**FIRST ENGINEERS:** Smithtown resident Robert Drexel (left), Senior Product Engineer with Festo Corporation, Hauppauge and a mentor to both the Hauppauge and Smithtown teams in the FIRST Robotics Competition, discusses robotics with his dad, retired engineer Werner Drexel, at last year's national FIRST Robotics Competition at EPCOT. The Long Island regional competition will be held March 14-16 at Suffolk Community College, Brentwood.