

## Robotics program teaches engineering, programming skills

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Students participating in the For Inspiration and Recognition of Science and Technology program at Southwood High School in Shreveport could someday create instruments to make surgery easier or a rover to explore distant planets.

Senior John Adams, who's participated in robotics since eighth grade, plans to major in mechanical engineering. He's part of a team that competed in three robotics challenges this spring, including the FIRST regional challenge in New Orleans in March.

FIRST got its start in 1989. Inventor Dean Kamen — creator of the machine that later became the Segway — created the program as a way to encourage innovation. More than two decades later, FIRST includes more than 200,000 students and 19,000 teams across the world. The program offers middle school and high school divisions.

"In my seventh-grade year, I was in the Science Club at Keithville (Middle School). I'd always make something out of paper balls, or make paper airplanes," Adams said. "The teacher asked me if I'd like to try robotics, so I did. I like to build things."

Biomedical Research Foundation of Northwest Louisiana helped found the Caddo Parish schools FIRST program five years ago as part of an effort to beef up math, science and technology offerings. One of the foundation's goals is creating a biotechnology industry workforce.

Students have built their skills each year and for the first time participated in three major competitions. This year, team members created contraptions that maneuvered through a miniature town, scooped up whiffle balls and played soccer.

They build the robots from kits, then program the moves on a computer. Some robots require controllers, while others are self-propelled using an attached microprocessor.

Southwood invested donations totaling \$20,000 in 25 mini-controllers and 25 mini-robots this year. The equipment will allow more students to learn programming, an essential part of competition, said Bill Fegley, Southwood's FIRST director.

Big contests generate as much excitement as sports playoffs and teach valuable lessons students don't get in the classroom, he said.

"When you get to a competition, almost invariably something breaks, and you have to fix it," Fegley said. "If that isn't real-world, hands-on experience, I don't know what is."



Theodore Reeser (from Left), Billy Layton and John Adams work on one of their robots during a news conference about the For Inspiration and Recognition of Science and Technology robotics program at Southwood High School