



Peter Chen / The Post-Standard

TANDI PAUGH, coach of The Milky Way, the FIRST LEGO League robotics team, which meets at Holy Cross Academy, in Oneida, helps Emmanuel Esparza (middle), 11, and Robert Kohler, 9, both of Oneida, with their robot.

# Applied Robotics

Students spend 10 weeks preparing, 2½ minutes competing

By Alaina Potrikus  
Staff writer

Sixth-grader Emmanuel Esparza doesn't just play with Legos after school.

The 11-year-old used the blocks — and lessons in mathematics, engineering and computer programming — to build one of the robots and compete this weekend at the FIRST LEGO League regional championship at State University Institute of Technology in Utica.

The international competition was founded in 1989 by inventor and entrepreneur Dean Kamen, whose nonprofit organization, FIRST (For Inspiration and Recognition of Science and Technology), offers an array of programs for different age groups — from Legos for elementary and middle schoolers to full-scale robotics for high school students. Last year, the program included more than 248,000 students and more than 90,000 mentors, coaches and volunteers from 56 countries.

Saturday's competition in Utica included more than a dozen teams from Central New York vying for a chance to compete in national championships in Florida and California.

Esparza's team is based at Holy Cross Academy in Oneida and includes students from the Oneida City School District and St. Patrick's School.

The students spent the last 10 weeks building and programming their robots. On

Saturday, the team had 2½ minutes to complete as many tasks as possible, scoring points with each successful mission.

While practicing earlier in the week, Esparza and his teammate, fourth-grader Robert Kohler, shared a celebratory high-five after their robot successfully delivered tiny yellow Legos — meant to represent corn — to the proper location.

The task took less than 30 seconds for the robot. But figuring it out took a lot longer, said Esparza as he reviewed the components of his team's computer program.

It's a painstaking process. At the practice, the students were tweaking the programming for each of the robots, making minute changes.

"Sometimes you feel like killing the robot," said Maria Twal, 12, a seventh-grader at Holy Cross.

"You try it once, see if it works, then go back and fix it," said Brianna Paugh, 14, an eighth-grader at Holy Cross. "And then you do it all over again."

For the coaches, part of the challenge is letting the students make mistakes.

"You might have an idea in your head for how to do it, and then the kids come up with something completely different," said Holy Cross coach Tandi Paugh.

Contact Alaina Potrikus at 470-3252 or apotrikus@syracuse.com.

## Local teams

Three dozen teams of middle and high school students from Syracuse to Albany competed Saturday in the FIRST LEGO League regional championship tournament at State University Institute of Technology in Utica. Here are the teams from Central New York:

- Girl Scouts of NYPENN Pathways
- CNY Robotics
- Tully Elementary PTO
- Rome Catholic School
- Holy Cross Academy
- YMCA of Greater Syracuse
- Bishop Grimes Prep
- Vernon-Verona-Sherrill Middle School
- Rome City School District
- Christian Brothers Academy
- Immaculate Conception School
- Onondaga 4H
- Cornell Cooperative Extension of Oswego County