

Branchburg's Storming Robots take on the world

By [Laura Craven](#)

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Five 10-and-11-year-olds took their robot across the Atlantic Ocean to compete in their first international "rescue" competition earlier this month in Austria.

Once there, they said they joined nearly 1,000 others to watch as their robots wound their way through "earthquake disaster areas" in search of "victims" in the 2009 RoboCupJunior competition.

The team's members - Andrew Amerman, 10, of Bridgewater, Sunny Agarwal, 11, of Bridgewater, Michael Xie, 10, of Somerset, Rachel Goldman, 11, of Bedminster, and Uday Shankar, 10, of West Windsor - are students at the Storming Robots Technology Learning Center in Branchburg.

Storming Robots director Elizabeth Mabrey said the center runs a hands-on robotics program that teaches students science, technology, engineering and math. The Branchburg team beat 14 others from New York and New Jersey and went on to represent the United States in the international competition. With just six weeks to prepare, the team practiced for about 50 hours before making the 11-hour flight for the contest in Graz, Austria.



Six members of the Storming Robots Technology Learning Center's RoboClub have been invited to represent the United States at the 2009 RoboCupJunior to be held July 1-5 in Graz, Austria.

"We thought we were quite well prepared, but when we got there it was a total shock," Mabrey said. The team would learn later that the other teams had been gearing up for the competition for the past year. The Storming Robots competed in the rescue challenge in which each robot navigated a recreated disaster scene using several light sensors to quickly and accurately identify objects.

Parents and coaches were restricted to the sidelines, while students worked independently to prepare their robots for the course.

Since the competition focuses on robots that can act independently, without remote controls, students had to rely on their programming skills to get through each round, Mabrey said.

On the second day, the team ran into mechanical difficulties and were not able to fully compete.

Team member Michael Xie said it was the most challenging part of the competition. "Our robot pretty much fell apart and we had to spend a lot of time fixing it," he said.

The team worked for nearly 13 hours, breaking only for dinner, in an attempt to get back on track, Mabrey said.

But the malfunction put them out of the running for the finals.

"They knew they weren't going to the finals at that point, but they didn't care. They just wanted to be better," she said.

Mabrey said she was awed by their enthusiasm. "Right after the game, they kind of sighed and were a little disappointed, but before we could say anything they said 'We'll come back next year, we will do better'," she said.

The team's other challenges yielded better results. To encourage communication across cultural lines a section of the competition, called Super Teaming, required the students to work with another team to complete a task. The Storming Robots were coupled with a team from Italy. However, the Italians spoke no English and the Storming Robots didn't speak Italian. Determined not to let this stop them, Rachel Goldman said her team gathered around the hotel's computer and downloaded key phrases to help them communicate.

She said this experience helped her understand how technology can bring people together. "The best part of the competition was seeing so many people from countries that you've never heard of enjoying the same thing that you do," she said.

Mabrey said the competition has strengthened her resolve to explore funding on the federal level.

"The way the students performed at the competition was very impressive, but if the U.S. had more funding for this, just imagine what these kids could have done," she said.

Next year's RoboCup competition is in Singapore, Mabrey said, adding she'll create a formal team by fall and work toward being much more prepared. Although cost is an issue, she said she's focusing on qualifying for the competition first, then she'll worry about the price tag.