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By **CHRIS PALMER**

Custom-built robots buzzed across the crowded floor of the [Polytechnic Institute of New York University](#) in Brooklyn on Saturday, as more than 350 elementary and middle school students packed the campus for the Brooklyn qualifying round of the New York City FIRST Lego League, a citywide academic competition focusing on topics in science and engineering.

Forty-three teams of students between the ages of 9 and 14 competed in a set of challenges throughout the day, which included using robots that each team had constructed out of Legos to complete various tasks. Other activities included a research presentation and an explanation of the robot's technical capabilities.

This year's research theme was "food security," which means making sure food is cleaned and produced in a safe way, understanding health hazards surrounding food distribution and production, learning how to safely control pests/insects, and other aspects of food safety.

Each team, which had between six and 10 members, was judged on the functionality of its robot, the comprehensiveness of the research report, and teamwork. The top 22 teams were selected to advance to a citywide final at the Jacob K. Javits Center in Manhattan in March.

NYU-Poly assigns graduate students to help teachers at participating schools develop curriculum for after-school and in-class programs related to robotics. The teams are formed out of those experiences. Some teams had separate robots to compete in various tasks and for the food-safety research part of the competition.

Vikram Kapila, a professor of mechanical and aerospace engineering at NYU-Poly who has helped coordinate the program since 2007, said that the goal of the competition, which is now in its 12th year, is to get students excited about science, math and engineering.

Dr. Kapila said the competition aims "to make science fun, make it be celebrated. Just like when you go to a basketball game and everyone celebrates," he said, the organizers want to have "the same kind of phenomenon for math and science."

There were plenty of celebrations in the NYU-Poly gymnasium and cafeteria during the competition, as students chanted, laughed and cheered for one another throughout the day. Most competitors wore team T-shirts, while some went further and dressed in costumes. Several teams were even accompanied by cheerleader squads, who waved pom-poms in the air while cheering their favorite robots to victory.

During breaks in the competition, students tweaked and tested their robots while escaping from the competitive pressure with pizza, chicken fingers and fries.

Zohirul Islam, an eighth grader at [Middle School 113 Ronald Edmonds Learning Center](#) in Brooklyn, said that he was “really nervous” during the first round of competition in the morning, when his team had to guide its robot through a series of tasks on a course in 2.5 minutes. But he said during a break, he was able to re-set his nerves and regain his composure.

“In the second round, I was very calm and we did very well,” he said.

His team would eventually be awarded second place overall, advancing to the citywide final in March.

Earlier in the day, before the results were announced, Zohirul said that no matter what happened during the competition, he had learned valuable lessons by being a part of a team, and was thrilled to have had the chance to participate.

“The robot we built, we worked together and created something,” he said. “That teaches you a lot.”

Chris Palmer is a SchoolBook intern and a graduate student in journalism at New York University. Follow him on Twitter @cs_palmer.