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Robots (and Human Overlords) Compete in Downtown Brooklyn



A tense moment: Members of P.S. 58's "Brick Boyz" robotics team watch their robot carry out a mission at this past Saturday's Brooklyn qualifier of the annual FIRST LEGO League robotics competition. Eagle photo by Mary Frost

By Mary Frost
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DOWNTOWN BROOKLYN — It was a day of robot guts and glory.

The gym at Polytechnic Institute of New York University (NYU-Poly) was crawling with mechanical critters this past Saturday, as hundreds of students and their supporters gathered for the Brooklyn qualifier of the annual FIRST LEGO League robotics competition.

As the crowd cheered and stomped, 42 elementary and middle school teams — with names like RoboTigers, Germinators and Mission Masters — put the rabbit-sized LEGO Mindstorms robots they had been building and programming since September through their paces on tabletop playing fields.

This year's theme, "Food Factor: Keeping Food Safe," sent the robots on two-and-a-half-minute missions designed to improve the security of our food supply. For example, robots were programmed to harvest plastic "food" while avoiding contamination from oil, hydraulic fluid and insects; maneuver food around pesticides; freeze fish immediately after catching them; and other challenges.

For some, there was triumph and a chance to move on to the regional competition at the Jacob K. Javits Center in Manhattan in March; for others, it was a learning experience. Mark Gazzo, a fifth-grader from P.S. 8 in Brooklyn Heights, said that he and his teammate, Jack, had focused on just one mission. "We didn't do as well as we hoped but we did get one solid program for the tournament," he told the Brooklyn Eagle. "We had to go from the base, go more than halfway across, get something to hold the ice cream and pizza and bring it back to base."

Besides building and programming robots, students learn about research, teamwork and public speaking. Teams explore a problem that today's scientists are trying to solve, develop a solution and present their findings to a panel of judges from the engineering field.

Camila Contreras, a second-grader from P.S. 8 competing for the first time, said she liked the robotics competition because "we get to work with partners and people become our friends, and other people help us. I learned new things about how to put pieces together. You get the right amount of time for everything."

Brandie Hayes, a third-grade teacher at P.S. 8, coaches the two robotics teams — Mission Masters and Astro Knights — along with Tracey Poslusny, an English as a Second Language (ESL) teacher at the school.

"There's lots of problem-solving and teamwork," Hayes told the Brooklyn Eagle. Besides learning the mechanics of programming the robot, "They have to learn how to share ideas without being bossy. They also learn math — things like 360 degree turns, measuring space, and figuring out how many turns of a wheel does it take to get there."

This year's teams at P.S. 8 consisted of 14 boys and 3 girls. Poslusny said she hopes to encourage more girls to participate in the future. "Girls are more reserved," she said. "We're trying to figure out how to make it work."

This is the 12th year that NYU-Poly and FIRST have hosted the robotics tournament on all four FIRST programs, which engage kids from K-12. In addition, NYU-Poly supports robotics programs in 22 Brooklyn elementary, middle and high schools as part of two initiatives — Applying Mechatronics to Promote Science, and Central Brooklyn STEM (science, technology, engineering and math) Initiative.

NYU-Poly graduate students go into local schools to teach robotics, science and engineering, and provide teacher training. The results are impressive: 65 percent of participating students increased their STEM grades by a half- or full-letter grade.

“We’re convinced that the secret to generating excitement like we see here at the FIRST Brooklyn Qualifiers is by lowering the barriers for teachers,” said Ben Esner, NYU-Poly’s director of K-12 STEM education.

“So we are expanding our teacher training and education, and we’re getting help from partners like FIRST, along with the community and business supporters of our Central Brooklyn STEM Initiative. Ultimately, we hope to help build an entire borough filled with youngsters who are so enthused about science, technology, engineering and math that they will pursue these subjects in college and beyond.”