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School robotics team has top idea

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It sounds like something out of a science fiction novel, but a group of Bellewood public school students won a provincewide award for their hypothetical idea to use a laser to zap food-borne *Listeria* and *E. coli* bacteria off fresh produce.

The seven students, who call their team Bellewood Robi Club, won top spot at the First Lego League Provincial Championships on Jan. 14 in Oshawa for their research project.

The competition required the students to build and program a Lego robot to perform a series of tasks related to food safety, safe food handling and food-borne illness.

"It was really fun to learn about different things and work with technology," said Iman Adepetu, a Grade 8 student on the team.

"Learning how to program a robot was really cool, too," Adepetu said, because it was different from the kinds of things they learn in school.

The group came up with the idea of using lasers to zap bacteria after reading about the research of University of Windsor physicist Dr. Steven Rehse, who does work with lasers and bacteria.

The group decided to take Rehse's work one step further and propose a laser that can be



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Bellewood public school robot team Iman Adepetu, back left, Maxine Palazzi, back right, Christopher Gregorian Alia Ibrahim, front left, Addie Burrows, Ines Fiedler and Tracy Chiu show the robot they programmed last week. The team won top spot for their bacteria-zapping laser idea.

used in the field, so to speak, to target bacteria before fresh produce hits the grocery shelves.

"What they're doing is the vision that a lot of people have for the future," Rehse said, referring to tiny robots that can detect and identify bacteria in food or body fluid samples.

For example, the U.S. military is already doing work on this, he said.

The students' presentation to the judges, which included a video shot like a TV news story, explaining the problem and proposing the hypotheti-

cal bacteria-zapping produce-saving laser, netted them a trophy — made of yellow Lego bricks — for research.

"The solution doesn't have to be feasible right now," said Danielle Richer, the Bellewood teacher who heads the Lego club, explaining why the laser doesn't exist yet. "It's a 'what if' scenario."

The team didn't win for programming the robot, so they won't go to the international competition, but the group said the experience is still worthwhile.

Since September, the team

met twice a week over lunch to research and then again on Sunday afternoons to program the robot by trial and error.

Maxine Palazzi, also in Grade 8, said her strength was in programming, so she was able to help her teammates master the programming software for the robot so they could build code to make it stop, start, move in different directions and pick up objects (such as Lego fruit, or fish made of Lego) on its food safety obstacle course.

"We learned a lot of things we can use later in life," Palazzi said.