Robots invade Dallin
By Patricia Bertuccio/Staff Writer
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Fourth-graders at the Dallin Elementary School led the march of machines after spending the morning building and programming robots.

With the help of Tufts University graduate students, the fourth-grade class designed floats on March 30 to represent the 50 states, used Lego parts and installed a control panel to put a parade in motion in front of the Florence Avenue school.

The robotics project was actually a class assignment for college students taking an early childhood development class led by Dallin parent and Tufts professor Marina Bers. The students were asked to design a two-and-a-half-hour activity that incorporated computer technology and robotics.

Krista Bethke, one of the grad students working with the fourth-graders, said the purpose was to integrate what the kids were already learning in school with technology that they use everyday.

"The goal was not to teach them about the 50 states," Bethke said. "So many things use automated control and we try to give [the students] a taste of that."

The Tufts students helped the fourth-graders use graphing, a skill they learn in math class, to help plot their robots' path during the parade. The students were taught to write "sentences" in computer languages, which would guide the robot, similar to how some space technology, like the Mars Rover, works.

"We're trying to spark kids' interest in science, technology and engineering," said doctorate student Jan Hollenbeck.

Dallin Principal Wallis Raemer said kids noticed the new features of the school — automatic lights and faucets among them — and the collaboration with Tufts University students exposed students to how things they use daily operate.

"Kids intrinsically love to build and create," Raemer said. "Ultimately, [robotics] is a lesson in problem-solving and teach them how things work."

Some of the fourth-graders said the project was not without some glitches, but as a whole, they enjoyed learning about robots.

William Doyle said he worked with robotics before.

"I like Legos and I like robotics," Doyle said. "When the teacher told us we were going to do robotics, I got really excited."

Nicholas Madden said his robot wouldn't stop when it was supposed to and Noli Rosen said keeping the decorations in place was not always easy.

"It's all so much more complicated than it looks," Madden said. "Programming was fun, but it was hard work."

Raemer invited the opportunity for robotics at her school because the project covered a topic outside of the state-mandated curriculum.

"We're not trying to raise engineers," Raemer said. "But if we don't turn them onto science and math now, they may not be interested later."

On April 13, the fifth-graders will perform their own robotics project. The fourth-graders followed the first-graders, who worked with the grad students last fall. The Parent-Teacher Organization purchased the Lego Mindstorm kits that the students used for building their machines and will be running an after school robotics program.