

U hosts climate themed robotics competition

Publish Date:

01/25/2009

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Blurb:

Sixty-seven teams of up to 10 students competed over the weekend.

Referees in black and white stripes keep a careful point count as a yelling crowd, decked out in fluorescent green wigs, bright pink t-shirts and other team garb, gazes at the big-screen projections and the announcer's voice booms. "The Hurricanes are going for the insulation ? and they've got it!" the announcer yells as a Lego robot moves ?insulation? from one part of the 4-by-8 foot mat to another.

The University of Minnesota hosted hundreds of middle school students this weekend as they demonstrated engineering and programming skills with Lego robots and presented solutions to climate-related problems in their own communities in the statewide F.I.R.S.T. Lego League competition.

Sixty-seven teams of up to 10 students competed over the weekend, and "The DITSci Chx" and "The Techno Travelers" will advance to May competitions in Ohio and Atlanta, respectively. The teams' robotics prowess and their climate solutions both figured into their scores.

Judges said the topic of climate change was a challenge and many teams had trouble sufficiently narrowing it or making the connection between climate change, the problems it causes and their proposed solutions.

Nonetheless, coaches, judges and parents seemed to agree it was a good experience for the kids, as they practiced teamwork and presentations, and engaged themselves with science and engineering in a way that's hard to achieve with a textbook.

As for the students, their excitement was palpable in the performance room where they cheered as their robots simulated burying carbon dioxide, constructing levees and extracting ice cores.

But their enthusiasm seemed just as clear as they explained their climate research to judges.

The members of Robbinsdale Spanish Immersion School's "Lego Patrol" took turns explaining how rain gardens and barrels can be used to mitigate water pollution. The team plans to design, and help dig and plant a rain garden at a St. Paul apartment complex to ease the runoff from its large roof.

Students got help starting their climate change research with a visit to the University last October where they attended faculty-run workshops.

Soil, water and climate professor Mark Seeley , who gave the keynote presentation, said he discussed evidence of climate change here in Minnesota, including climate records throughout the state that show warming ? especially in the winter ? over the past 100 years.

Anshuman Sharma , a first-time judge for the robot programming and design part of the competition, said he was pleasantly surprised to hear "8-year-olds talking about torque and gear ratios."

He said he often spends a portion of the judging time giving programming tips, and though he'd encountered a rather cocky team Saturday that wasn't interested in advice, he said his favorite part of judging was interacting with the kids.

After the Highland Elementary "Globorobos" explained the workings of their robots to technical judges, team member Olivia Nichols said she liked competing because she'd never done anything like it before.

Fred Rose, Honeywell's director of technology, founded the nonprofit organization High Tech Kids, which supports Minnesota's participation in F.I.R.S.T. Lego League, in 1999.

He said it's important to get middle-school age kids interested in math and science, because that's the age at which they tend to decide what they want to do.

"They say science is boring," he said, and this gets them to make the connection between fun and science.

He added his goal wasn't that they grow up to be engineers, but that they gain the technical literacy to make informed decisions in an increasingly complex world.

And, in the words of fifth grade Globorobo member, Nichols, "it's really fun."

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Source URL (retrieved on 04/27/2009 - 4:08pm): <http://www.mndaily.com/2009/01/24/u-hosts-climate-themed-robotics-competition>