

'They just eat it up'

Students slave for robotics tourney

By Suzanne Gold

High school and CEGEP teams from Quebec and Ontario demonstrated their scientific and creative skills at Quadrum 2004, the third annual Canadian Robotics Competition organized by the Educational Alliance for Science and Technology.

The event was launched at Laurenhill Academy's Junior Campus in St. Laurent on February 20 and ended with a banquet and dance the next day.

Eighteen teams from high schools and CEGEPS from both the French and English sectors competed in five categories: building a robot that accomplishes a specific task, producing a video documentary, designing a website showcasing the team's work, producing a journal chronicling the details of the project and creating an information kiosk to introduce the team and its robot. Every element of the competition was bilingual.

Rules were given at the kick-off in December, where this year's task was also announced: to build a robot that could manipulate tennis balls off the floor and into tubes that were stacked in a pyramid shape.

"It's fabulous," said Brad Moffat, an organizer for the CRC. "There are more robots at a higher level. Every year the kids are getting better and better."

Students were allowed to consult anyone, from engineers to teachers, for advice, but the key was for all the building to be done by the students themselves.

Moffat, who was in charge of inspecting the robots, stressed that this rule was taken seriously throughout the competition. When he caught an adult touching a robot, the students had to redo the work.

The bleachers were filled with cheering parents, friends, teachers and even participants that had been eliminated in previous rounds, but who stayed to cheer on other schools. Bright lights and loud music kept the energy level as high in the stands as in the actual competition.

The Laurenhill community contributed



Jesse Roca and Omir Majundar from James Lyng High School demonstrate radio-control mechanism for their basketball-stacking robot.

countless hours to ensuring the event was a success, said Sal Lancione, a physics teacher at the school. "A lot of teachers did a lot of work for free," said he said. "A lot of students put in a lot of work for no marks."

Some retired teachers came back to help organize the logistics of the event. Students also volunteered their time, selling snacks and entertaining spectators. The Laurenhill dance troupe and bands performed at the event and at the closing dance.

College Regina Assumpta took first place at Quadrum 2004. Marianopolis College came in second and third place went to Selwyn House School. However, for many participants, the competition was about more than just winning.

Tom Downey, a teacher at Selwyn House and one of the CRC founders, said that while the competition was exciting for students, the process of getting there was the best part.

"They've had two-and-a-half months to struggle through [production]," Downey

said. "The competition is just the icing on the cake."

Downey said the different elements of the robotics competition adhere to the provincial government's curriculum reform, which emphasizes cross-curricular and project-based learning. "The government wants us to go project-based," Downey said. "Perhaps this is a perfect example of [project-based learning]."

The competition was judged by professionals in the engineering field, as well as by teachers and computer specialists. "It makes it very official," Downey said. "It brings a lot of validity to the kids when a professional is involved."

Justin Ang, a first-year health science student at Marianopolis, said he was excited to be back at his former high school. He was a member of the Laurenhill team in last year's competition.

Ang said having CEGEP-level teams in the competition motivates high-school students to continue with robotics after graduating. "It's incentive for newcomers to stick with it ... next year," he said.

"The best part about it is working under pressure," Ang said, adding that since it's not an exam, students don't have to worry about not doing well.

The students also learn a lot by working together and helping each other, Downey explained. "You can't measure teamwork and communication skills," he said. "They learn an enormous amount ... especially when they have to make all the decisions."

Tanya Chawla, a grade 11 student at the Sacred Heart School of Montreal, a private girls school, was a first-time participant in the competition.

As part of the only all-girls team, Chawla said her school proved that girls can build robots, too. "It impresses other schools ... that the ladies can actually do something [like this]."

Chawla's team used their distinctiveness to the maximum. The Sacred Heart robot, named "Elle," was pink. In their kiosk, a dressing table was set up, where "Elle" could get ready with makeup and nail polish. "Pink brings out our true spirit," Chawla said. "It's fun to see different teams show their spirit in different ways."

Downey said the competition is an opportunity for students to show what they are capable of creating. "They take ownership over these projects," Downey said. "They just eat it up. They cannot get enough of it." ■