

## Northwest Students Sweep Western Canadian Robot Games

May 17, 2011

Students from Neilburg Composite School swept the Under-18 classification at the 15<sup>th</sup> Annual Western Canadian Robot Games this past weekend at the Aerospace Museum in Calgary, taking gold, silver and bronze. The gold medal was awarded to Adam Bisson, the silver went to Reid Putnam, and the bronze medal was captured by Tanner Scott. In the Master's Category (open to all comers) students Christine Watson and Lauren Evanger took bronze and Danielle Rogers and Kristen Schmidt placed fifth.

In order to enter the Robot Games competition students must design and build a small autonomous, motorized robot that, when placed within a ring just under a meter wide, can sense both objects and movement, move toward whatever object has been detected and push it out of the area. The robot must be programmed and built in such a way that it can do all of these things without any human control whatsoever beyond turning the thing on. In addition it must be able to sense and not cross the boundaries of the playing surface.

Building on their success last year (when the team of Watson and Evanger won a gold medal in the SIAST tournament) the Neilburg students, under the direction of teacher Jeff Walso, used their experience to make effective modifications in both the design and the programming of the robots that resulted in their stunningly successful results.

Taking advantage of 'Plus time' – a school program which enables students to spend a half hour per day on enrichment activities- the student teams put in approximately 135 hours of work over two years to create their robots.

"Our students' success was due to their hard work, their careful thought and strategic customization," said Walso.

"We modified the blade, making it lower and flanged, which gave us a leverage advantage," said Tanner Scott. "And we changed the tires, using wider and softer treads," said Bisson, "which increased their ability to push."

"With our robot," said Watson, "we modified the programming to give it a better search pattern and the ability to turn in a curve. Most robots turn by pivoting on the spot, but we programmed in a curve which meant that it would come at the opposing robot from a different and better angle."

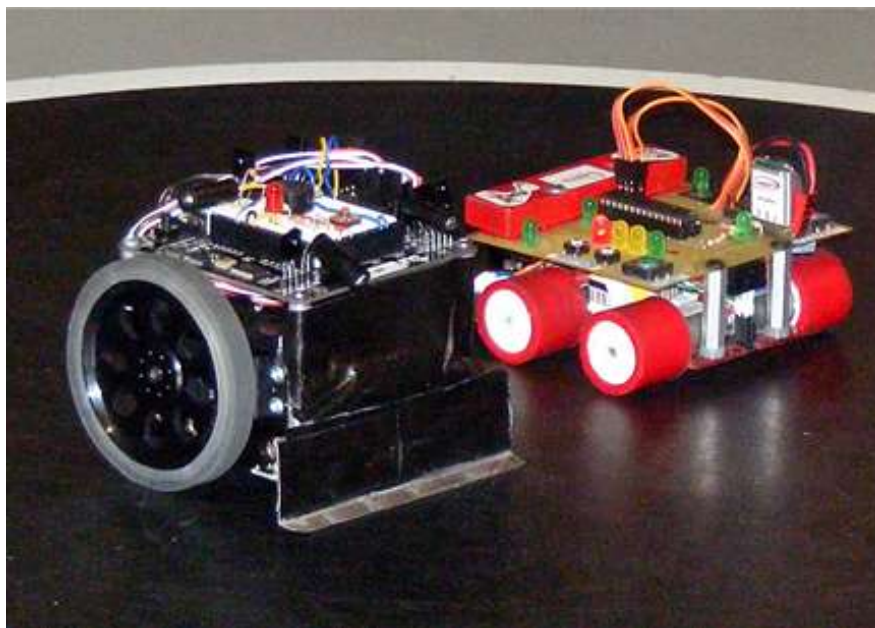
The students in the U-18 class took part in six 3-game matches to reach the medals in what was essentially a single knockout tournament format, while competitors in the Master's section each played 8 matches. "In the Master's section we were up against engineers and computer programmers," said Schmidt. "They had some very innovative designs- in fact, in the whole competition we only saw one other robot that looked like ours."

Of the students who took part in the competition two are going onto further studies in the field: Tanner Scott will be pursuing Mechanical Engineering at the University of Regina, and Christine Watson will be using the \$2000 in scholarships won in Robotics Competitions over the past two years to pursue Computer Engineering at SIAST in Moose Jaw.

“A lot of talent is graduating this year,” said Walso, “but we have a lot of grade 10’s coming up and the future looks bright!”



L to R, Adam Bisson (1st U-18), Christine Watson (3rd, Masters), Reid Putnam (2nd U-18), Tanner Scott (3rd U-18), Lauren Evanger (3rd, Masters), Danielle Rogers(5th, Masters) and Kirsten Schmidt (5th, Masters) (Photo by Murray McDonnell



This photograph illustrates the design differences. A Neilburg student designed one on the left and a design from an adult in the master's competition on the right.

Photo: Jeff Walso



Kirsten Schmidt about to start a match  
in Master's play  
Photo: Jeff Walso