

Tech, schools team up for enterprise

Teams head to Detroit to show off projects

May 2, 2012

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CHASSELL - A group of students left this morning for a trip to Detroit to show off the enterprise projects they have been working with for years.

The High School Enterprise Program through Michigan Technological University consists of teams from BRIDGE Alternative High School, Chassell High School, Dollar Bay High School, Hancock Central High School and Horizons Alternative High School. At the showcase, sponsored by General Motors and the National Science Foundation at the GM Renaissance Center, the students will have the opportunity to show off their projects while having the opportunity to explain how each works.

The enterprise program offers teams of students the chance to "operate as a company," while dealing with practical matters such as budget, deadline and the delivery of a product solution.

The students from Chassell High School have become so acquainted with their project, they can explain their work with nanotechnology with ease, and even built a Lego model of an atomic force microscope based on a project already completed by a Michigan Tech enterprise team.

Monday, the team of four, consisting of Bryan Waimeo, Jared Jarvi, Nathan Maki and Garrett Warren, were busy testing the two models they built - one with a laser optical system - while making travel plans for their models.

"The hardest part for us was coming up with a logo," Waimeo said.

Each member of the team brings something different to the group, be it through science or computer use. The project is called "Investigating New Academic Nanotechnology Opportunities," or INANO.

The goals for the Chassell High School seniors, who for some have been working with the project for nearly three years, were to develop an awareness of nanoscale and its technology, create a model of an atomic force microscope to use as a teaching tool, improve the model to include a cantilevered laser system and inform the general public about nanotech career opportunities and applications.

"We made the model to show how the atomic force works," coach Mary Markham said.

The team discovered that a real atomic force microscope measures the distance between atoms. With the use of the real microscope, modern technology will allow for drugs to be delivered to patients in a small, centralized dose to particular parts of the body, Markham said.

"Just a little dose, right where it's needed," Waimeo said.

The instrument can also be used to design waterproofing and heat design of clothes, which would come in handy for military dress.

"You can make sports equipment stronger and more durable," Jarvi said.

Also with their Lego model, the team can send values and results to a laptop and create a three-dimensional model of the sample that was scanned, and in their case, tall and short Legos placed on a table.

The model created by the High School Enterprise team will be used as a teaching tool to younger students.

BRIDGE sent one student down for the trip to present the school's enterprise project.

The BRIDGE students worked on a home winterization project, partnering with Little Brothers Friends of the Elderly. Teaming up with students at Michigan Tech, the BRIDGE students helped winterize homes for the elderly and low-income residents, said coach Chuck Palosaari.

"They worked with the Efficiency Through Engineering and Construction Enterprise team at Tech," he said.

BRIDGE student Skyler Kuoppus will present the work the students did throughout the last few years. The students used technology to evaluate the home using infrared cameras to take pictures of the interior of the homes to find where cold air enters.

The team hopes the simple 10-step winterization program will make a substantial economic and thermal difference in the lives of our elderly neighbors and the benefits of this program will extend broadly across the community.

Austin Pearce, Zach DesRosier and John Grant are representing their project at Horizons Alternative High School, said coach Lucas Theisen.

"This is our first year doing this," he said.

The group is also staying an extra day to tour metropolitan Detroit, including the Henry Ford Museum in Dearborn.

Cameron McKenzie, Brandon Joyal, Colin Pekkala, Noah Ponnikas and Jacob Wells are representing the team from Hancock High School this weekend.

Students from Dollar Bay High School include Xena Cortez, Tom Dunstan, Brady Erickson, Liam Hrabinsky, Tyler Jarvi, Carl Kangas, Monica Kangas, Victoria Kangas, Meagan Kangas, Erica LeClaire, Reece Nye, Cameron Ringler, Jake Westphal, B.B. Willis-Jordan, Sam Richards, Cole Stout, Nate Tervo and Stanley Peterson.

Doug Oppliger, director of the High School Enterprise Program, left earlier in the week to help the teams.