

THE WINDSOR STAR

University of Windsor inventions to help the world

Projects cap undergrad degrees

BY DYLAN KRISTY, THE WINDSOR STAR JULY 30, 2011



WINDSOR, Ont. -- The products of four years of caffeine-fuelled studying and labour were on display at the University of Windsor Friday.

Engineering students at the university displayed their capstone projects, the final component required for their undergraduate degrees.

"At the end of the term each group has to produce something viable that will help the world," said Don Tersigni, a technologist with the department of electrical and computer engineering.

The 65 students were divided into 13 groups, 12 of which focused on designing components for an electric car utilizing the shell of a 1985 Porsche. One group worked on a robotic hand.

He said the groups working on the Porsche, which he resurrected out of a farmer's field in Chatham, each worked on a different element of the car, such as outside sensors to detect pedestrians and stop signs, front and back detection to engage the brakes if it approaches an obstacle and providing power to the roadster.

He said with the current electric engine, the car can reach speeds up to 130 kilometres an hour and can travel for up to 150 kilometres.

"In the future we're going to change the motor to one that usually goes into a train or a bus so the car should go from 0 to 60 kilometres an hour in 2.5 seconds," Tersigni said, adding the main obstacle to the success of the electric car is the battery.

Kiri McDermott-Berryman and her group successfully built a robotic hand that would act as a fully-functional prosthetic.

"I am really pleased with how it's come along considering what we had to use and it's a different approach than what other researchers were doing," the 22-year-old said.

"It's trained to recognize five different gestures: an open, a close, point your middle, point your index and a pinch ... and as someone wears the hand they'll be able to have it react in real time."

Tersigni said he was there to offer advice to make the students' lives a lot easier, but the bulk of the research and build was done on their own. Along with receiving credit for the projects, Tersigni said students take away an experience that will stay with them for a lifetime.

"These students are building things that car companies usually have whole teams of engineers working on," Tersigni said.