



FLORIDA ADVANCED TECHNOLOGICAL EDUCATION  
CENTER for EXCELLENCE IN MANUFACTURING EDUCATION

NEWS from  
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FOR IMMEDIATE RELEASE

**Summer Robotics Camp: An Innovative approach to robotics, science and technology**

FLATE -Florida Advanced Technological Education Center for Manufacturing hosted a robotics camp designed to educate middle school students about robotics and its application in modern manufacturing operations. This week-long event, from July 14-18, was held at Hillsborough Community College (HCC) in Brandon, and made possible through a partnership between FLATE, HCC and Dowdell Middle Magnet School.

Participants included 15 students from Dowdell Middle Magnet School, and five middle school students from the Hillsborough School District. The event focused on key concepts of STEM (science, technology, electronics and math) education and was part of a pilot program aimed at creating a “portable robot workshop”.

During the camp, students reconfigured Lego® Mindstorms® robots and programmed them to operate within a “bottle maze,” follow a dark line utilizing light sensors, change directions at certain sounds and stop at a predetermined distance. The exercises required team work, accuracy and speed to get through each of the challenges.

(more)

1<sup>st</sup> add Summer Robotics

Students also experienced a live demonstration of an underwater ROV (remotely operated vehicles) and learned about its design and operations. Matt Samide a 6<sup>th</sup> grader said “I want one and I am going to try and build an underwater robot.” He said he likes programming robots because of the challenges it involves.

Additionally students toured the Center for Rehabilitation Engineering and Technology Engineering at the University of South Florida where they saw robotic engineering projects providing solutions for problems caused by physical disabilities. The students also had the opportunity to test-ride a newly designed robotic wheel chair steered by body movements.

Echoing these sentiments, Diane Matthews director of education at the Florida Technical Research and Development Authority said she hopes such an initiative “will help students learn the value of teamwork, and teach them problem-solving skills” which are essential in the work place. Matthews hopes this experience will enable instructors involved in STEM education to introduce a fresh dimension to their teaching experience.

FLATE is a National Science Foundation center, committed to ensuring that Florida has a well prepared workforce. Created in 2004, it is one of 33 centers in the United States focused on improving science, technology, engineering, and mathematics education to meet the needs of American advanced-technology industries. For more information visit [www.fl-ate.org](http://www.fl-ate.org)

Hillsborough Community College – Brandon campus serves approximately 6800 students per semester and is home to the college’s manufacturing related academic programs as well as FLATE and the Employ Florida Banner Center for Manufacturing.

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## 2<sup>nd</sup> add Summer Robotics

Here students can learn the high-tech skills needed in modern manufacturing, such as controls, hydraulics, pneumatics, robotics, computer aided drafting, and automation. District wide, Hillsborough Community College serves more than 40,000 students on campuses on Dale Mabry Highway and in Ybor City, Plant City and Brandon. HCC also serves students at learning centers on MacDill Air Force Base and in Ruskin. HCC was the recipient of the 2006 Association of Community College Trustees (ACCT) Equity award.

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