



## **VIDEO AVAILABLE: AFCEA Educational Foundation Announces The 2005 National High School Science Fair Grand Prize Winner**

For Immediate Release

FAIRFAX, Va./EWorldWire/May 10, 2005 --- The AFCEA Educational Foundation today announced that Donald Eng is this year's grand prize winner for the 2005 AFCEA National High School Science Fair Award for the best high school science project related to communications, intelligence or information systems. The winning project was selected from science fairs nationwide and will be displayed at AFCEA International's TechNet International 2005 convention and exposition, May 17-19, 2005 at the Washington, D.C. Convention Center. The award includes a cash prize and a trip to Washington, D.C. for the winner and his family.

Eng, 18, is from Stanton College Preparatory School in Jacksonville, Florida. His project, entitled "Factors Affecting Cooperative Robotic Behavior," is a robot system with four robots using an overhead camera to locate the robots, radio frequency communications to send commands and layered behaviors to control their actions. The purpose of the experiment is to demonstrate cooperative robotic behavior by developing a robot protocol based on a rudimentary form of distributed intelligence.

Each robot is a separate entity that collects data and commands from a C++ ActiveX control that uses Visual Basic as a user interface. An image analysis program decomposes a field image and streams the appropriate data to the robots. Based on the inherent programming within each robot module, each robot will utilize its data to evaluate a given problem. These robots are able to push a block as well as follow each other in a line while avoiding collisions.

This is not Eng's first science award; his numerous awards include first place in Engineering in the Florida State Science Fair two years in a row, the Excellence in Robotic Engineering award from the American Association for Artificial Intelligence, the Herbert Hoover Young Engineer Certificate of Merit, the Florida Foundation of Future Scientists Award, and the U.S. Army Certificate of Achievement for an Outstanding Science Fair Project. In addition, he placed as a semi finalist in the Intel Science Talent Search.

Eng plans to attend the Massachusetts Institute of Technology in the fall to pursue a degree in robotics. Future plans involve research dedicated to cooperative robotics and exploring the potential of multirobot systems.

The AFCEA Educational Foundation promotes excellence in education with scholarships, awards, grants and prizes, awarded annually to students studying the scientific and technical disciplines that support communications, intelligence and information systems. AFCEA International is a non-profit association providing a forum for the professional communications, electronics, intelligence and information systems community. For more information, visit [www.afcea.org](http://www.afcea.org)

HTML: <http://www.eworldwire.com/pressreleases/11990>

MOBILE: <http://e4mobile.com/pressreleases/11990>

PDF: <http://www.eworldwire.com/pdf/11990.pdf>

ONLINE NEWSROOM: <http://www.eworldwire.com/newsroom/1769.htm>

LOGO: <http://www.eworldwire.com/newsroom/1769.htm>

**CONTACT:**

Tobey Jackson  
AFCEA International  
4400 Fair Lakes Court  
Fairfax, VA 22033  
PHONE. 703-631-6189  
FAX. 703-631-6405  
EMAIL: [tjackson@afcea.org](mailto:tjackson@afcea.org)  
<http://www.afcea.org>

**KEYWORDS:** science, IT, robotics, engineering, education, military, defense, conference, exposition

**SOURCE:** AFCEA International

**AVAILABLE MEDIA:** Video Clip: AFCEA International (size: 4,200.0 k)  
Press Release Highlights  
[http://eworldwire.com/mediauploads/afcea\\_051005.wmv](http://eworldwire.com/mediauploads/afcea_051005.wmv)