Students cut grass with robotic-controlled mower

May 31 2007

Cutting the lawn has taken on significant importance for a group of Wright State University students. The 11-member team is entered in the Fourth Annual Institute of Navigation (ION) Autonomous Lawnmower Competition hosted at Wright State this Saturday (June 2).

The Wright State students, along with teams from seven other colleges, will manipulate a robotic-controlled lawnmower they designed and built. The winning team must cut up to a 30- by-50-foot section of lawn faster than its opponents.

Along the way, and adding to the excitement of the event, the lawnmower navigates obstacles that may be stationary or moving. The public is invited to view the competition, starting at 9 a.m. on the soccer fields adjacent to the Russ Engineering Center. The student teams use computer technology to program the route of the lawnmower with predetermined GPS coordinates. Safety requirements include a maximum speed for the lawnmower of six miles per hour. The lawnmowers are limited in size to two feet wide, three feet high and four feet in length.

The winning team can receive as much as $15,000, with $10,000 for second place and $5,000 for third. “The students must correctly program the lawnmower before the competition starts because all the navigational equipment and controls are built into it,” explained Kuldip Rattan, Ph.D., a WSU professor of electrical and computer engineering who advises the Wright State team. He said the competition allows the students to apply

classroom principles to an actual project while also teaching the students the value of teamwork.

Joining Wright State in the competition are teams from Ecole de Technologie Superieur in Quebec, Florida State University, Illinois Institute of Technology, Miami University, Ohio University, University of Evansville and University of Minnesota in Duluth.

Source: Wright State University