

# Robot Wars

## Engineering students design award-winning 'GeauxBot'

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Nine University students designed and built a fully autonomous robot that took second place in a national competition.

The electrical engineering students entered the 7-inch diameter robot in competition of the Institute of Electrical and Electronics Engineers, the world's largest technical professional organization, at its annual regional conference in San Antonio, Texas.

The robot, called "The GeauxBot," competed against 31 robots from other universities including the University of Texas at Austin and the South Dakota School of Mines and Technology.

"It's pre-programmed to know what to do," said Greg Domingue, electrical engineering junior who helped build the robot.

The competition required students build a robot to sort items in a mock-warehouse environment.

The robot identified and retrieved four colored soda cans and delivered them to corresponding places.

"We've been working on the project since October," said Scott Padgett, electrical engineering junior. "We had group meetings every other week and we came back over the Christmas holidays and put it all together."

The team members designed and built the robot outside of class, including the internal electronics.

"When you turn on the on switch, it goes through some procedures so all you have to do is set it on the track," Padgett said.

The members designed the robot using similar methods to the previous year's robot, which won first place in the same competition.

"Even though we only got second place, we have won first for the previous two years," Domingue said. "It performed a lot better than last year's robot, but it wasn't as fast as our competitors."

The robot completed the course in about 56 seconds, but some of the team members were worried the robot would not be able to identify the can color correctly.

“We got really nervous that our robot wouldn’t run the course,” Domingue said. “The sun was shining on the side of the course, so we didn’t think it would still recognize the red can because when different light hits an object, it changes totally.”

The cost of building the robot was about \$1,000, a relatively low cost for competitions, because the team used mostly scrap parts from last year’s model to build it.

The team had sponsors help with the cost but said it was hard to find them because of hurricanes Katrina and Rita.

“It was hard to get sponsors this year because of Hurricane Katrina, so we’re hoping maybe the University can help us out next year or different departments can help us,” Domingue said. “It was a lot of work.”