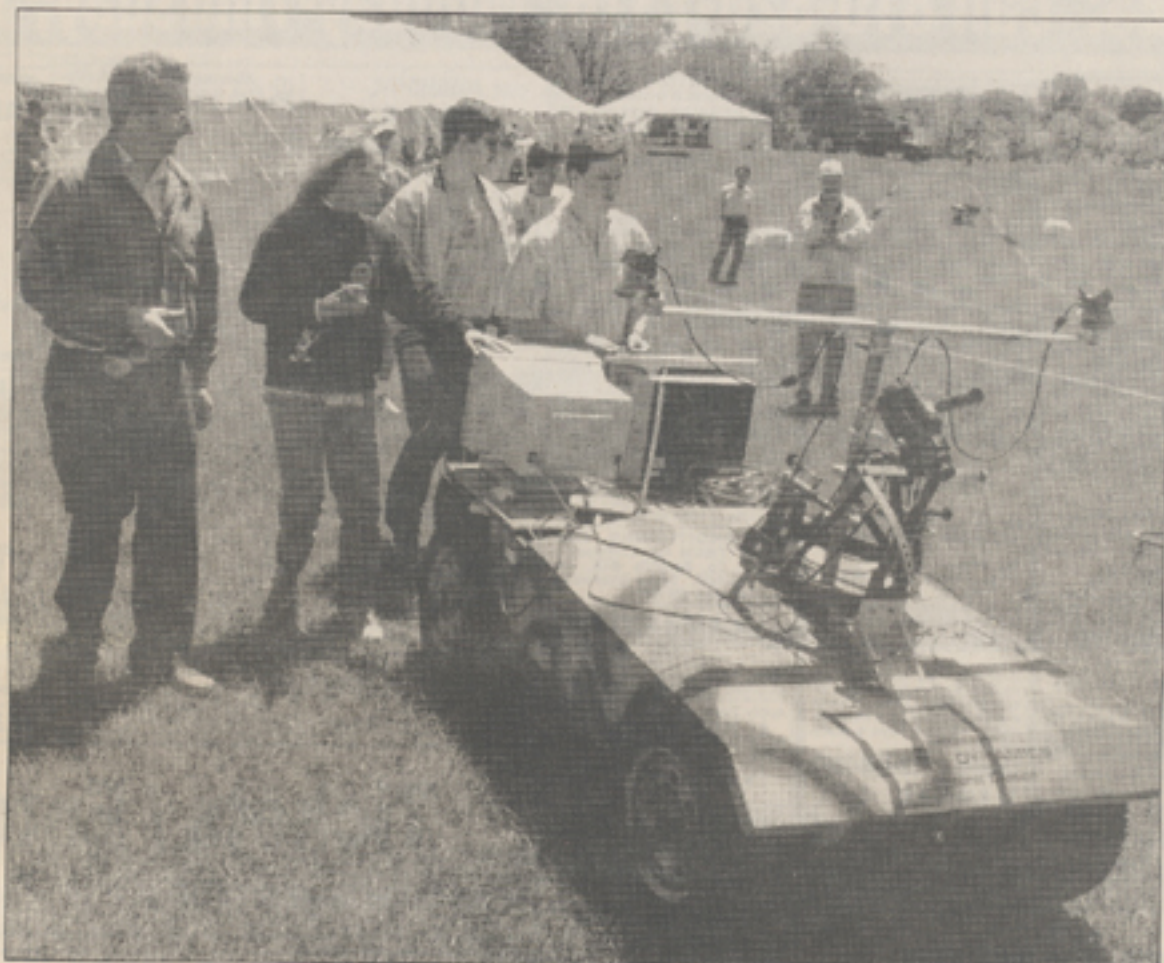


# Macomb Today

INCLUDING THE GROSSE POINTES

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Tom Pudgeon

Members of the Michigan Technological Institute robotic team, from left, Brian Crull, Michael Coop, William Schnepf and Peter Ellison steer Veronica into position.

## Robots roll in robotics competition

OU contest pits teams from across U.S. trying to out-maneuver each other

By Irvin L. Jackson  
*The Detroit News*

Robocar rocketed over a ramp and hurtled through bails of hay before it was stopped by another, unexpected obstacle.

Someone had tripped over the power cord.

Soon the little robot's camera eye was swiveling and its ultrasonic scanner rotating again as his creators restored power.

The little red rover and more than a dozen other robots are competing today in the Third Annual International Unmanned Ground Robotics Competition at Oakland University.

Robotics teams from universities across the country gathered in Rochester Hills this weekend to prepare for today's \$11,000 competition to decide which robot really is the lord of the land rovers.

Looking more like mutant golf carts, Robocar, Maverick, UND-2,

and their computer-run competitors must navigate an obstacle course by staying inside the course's white lines and also avoid bails of hay put haphazardly in their paths. This must all be done with no assistance from their human creators.

"We see the opportunities to eventually send these robots into dangerous environments, like nuclear hot-spots, or toxic areas," said Paul Lescoe, event organizer and judge. "We possibly could have used robots to help rescue operations in Oklahoma."

Ranging in costs from \$350 to \$40,000, the only feature common to the robots was their variety. While virtually all the designers used video cameras to make their robot "see" the white lines, similarities ended there.

Some teams used ultra-sound to avoid obstacles, and others used video cameras. One team from the University of North Dakota even

employed lasers to detect objects up to 100 meters away, using a "sonic bumper" to avoid close range obstacles. One team from Oakland University programmed their robot, Maverick, with "fuzzy logic," meaning Maverick knows that sometimes there are no definite answers and can make educated guesses based on past experiences.

Judges also focused on the robots' inventors, questioning them about costs, safety features, and presentations to prospective clients.

Design judge Bill Asnew, a retired General Motors Researcher and Development engineer, said good designing went far beyond just the hardware used to make the robot.

"It also includes selling your product," he said. "That means they (inventors) have to be good communicators."