

University of Michigan opens test "city" for autonomous cars

July 20 2015, byDee-Ann Durbin



A pedestrian crosses in front of a vehicle as part of a demonstration at Mcity on its opening day Monday, July 20, 2015 on the University of Michigan campus in Ann Arbor, Mich. The 32-acre simulated city, complete with building facades, a roundabout, brick and gravel roads and other familiar features of urban driving, will be used to test driverless and connected vehicles. (AP Photo/Paul Sancya)

Automakers and researchers say a new simulated city at the University of Michigan could help speed the development of driverless and

connected cars.

The 32-acre site on the university's campus officially opened Monday. The \$10 million testing ground will be run by the Mobility Transformation Center, a partnership between the university, state and federal governments and auto and technology companies.

The site has many familiar features of urban driving, including intersections, a railroad crossing, two roundabouts, brick and gravel roads and parking spaces. Moveable building facades and fake pedestrians can be altered for different kinds of tests. There's a simulated highway entrance ramp. Two features—a metal bridge and a tunnel—will be a special challenge for wireless signals and radar sensors.

Peter Sweatman, the director of the Mobility Transformation Center, says other test sites in Sweden and Japan have some of the same features, but the Michigan site is one of the most advanced autonomous vehicle testing grounds in the world. Automakers, high-tech companies and university researchers will test car-to-car communication systems, which could one day predict accidents and stop cars before a mishap. They'll also be testing semi-autonomous and driverless vehicles at the site.

Ryan Eustice, an associate professor of engineering at the University of Michigan, has been testing driverless cars at the site with Ford Motor Co. since November, when the roads were paved but other features weren't yet installed.

Eustice says the site allows researchers to be "maximally evil" toward the car, putting it into all sorts of situations that can be quickly and easily repeated, like a model of a pedestrian obscured by a bus that walks out into traffic. Every kilometer of testing at the site is worth hundreds of kilometers of real-world driving, he said, since it can take hours of real

driving to come upon a scenario that's difficult for the car to handle.



A cyclist crosses in front of a vehicle as part of a demonstration at Mcity on its opening day Monday, July 20, 2015 on the University of Michigan campus in Ann Arbor, Mich. The 32-acre simulated city, complete with building facades, a roundabout, brick and gravel roads and other familiar features of urban driving, will be used to test driverless and connected vehicles. (AP Photo/Paul Sancya)

"In terms of the weird stuff, we can pack it all in in a very dense way," he said.

Hideki Hada, the general manager of integrated systems at Toyota Motor Corp.'s engineering campus in Ann Arbor, says Toyota also has a test city in Japan, but this is a neutral site that will allow it to make sure its cars can communicate with cars from other automakers. He said Toyota and other companies had input into what would be included at the site.

One of his requests: Dirty, mud-splashed road signs, so that automakers can make sure their cameras can still read them.

Sweatman said the site will also leave a lot of snow on the ground in the winter, so that automakers can make sure that the cameras and radar used in driverless systems will still work in the snow.



A University of Michigan logo decorates a roundabout at Mcity on its opening day Monday, July 20, 2015 on the school's campus in Ann Arbor, Mich. The 32-acre simulated city, complete with building facades, a roundabout, brick and gravel roads and other familiar features of urban driving, will be used to test driverless and connected vehicles. (AP Photo/Paul Sancya)

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