

# LUTZ Pathfinder pod is off to University of Oxford for brains

September 16 2015, by Nancy Owano



The electric-powered LUTZ Pathfinder pod was presented Tuesday. This is Britain's self-driving car and it is paving the way for trials across the UK, said *The Telegraph*. The trials will be assessing the vehicle on "pedestrianized" areas and footpaths.

The name of the vehicle is the LUTZ Pathfinder. LUTZ stands for Low-carbon Urban Transport Zone. The Tuesday debut was in front of a train station in Milton Keynes.

This is a two-seater and it travels at a maximum speed of 15 mph. The electric-powered vehicle is significant as "it signals the completion of the manufacturing phase and the effective start of the autonomous technology trial," said Steve Yianni. He is chief executive of the Government's Transport Systems Catapult, a UK center focused on "intelligent" mobility.

The Tuesday presentation was a debut but *The Telegraph* [reported](#) that there is still work to be done before the car actually goes into public trials. The car still needs a "brain" –that is, an autonomous control system making use of cameras, laser and radars to scan streets for hazards such as people, bikes, cars and curbs. *The Telegraph* noted Milton Keynes was its "urban laboratory." The LUTZ Pathfinder project will oversee the trial of up to three automated pods within the city center and assess their feasibility.



The autonomous control system is to come from Oxford University's Mobile Robotics Group; the system is called Mercury.

"We invent the technologies that allow machines to ask and answer 'Where am I?', 'What surrounds me?' and 'What should I do next?' These three key questions underpin all that we do. They force us to confront fundamental questions in navigation, [perception](#), machine learning and systems design," said the group.

Nick Summers in *Engadget* explained a time line to all this: "We first saw the vehicle back in February, covered with Union Jack decals, but that was actually just a [prototype](#). The new two-seater pod unveiled this morning is far closer to completion—it just needs to visit Oxford University's Mobile Robotics Group, where it'll be fitted with an autonomous control system."

[Findings](#) from the research carried out using the three LUTZ Pathfinder pods will inform the larger-scale UK Autodrive project, which will trial 40 pods (as well as regular road-based vehicles) in Milton Keynes and Coventry. RDM Group is the manufacturer that developed the pod

Lee Bell in *The Inquirer* on Tuesday provided more details about the technology and trial process:

"Once the [autonomous control](#) system has been installed, the pods will be driven initially in manual mode, allowing them to map and 'learn' their environment. They will then begin to operate in autonomous mode, but with a trained operator still remaining in each pod, ready to take control

if necessary."

There are 22 external sensors involved in the design. These monitor the environment using LiDAR light remote technology.

"LiDAR measures distance by illuminating a target with a laser and analyzing the reflected light. The pods can then build up an image of what's going on around them using artificial [intelligence](#). The pod then 'knows' its environment and will react to any changes." said Bell.

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