

# Self-driving mobility scooter is shown in Singapore

November 25 2016, by Nancy Owano

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An autonomous mobility scooter and related software were designed by researchers from MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL), the National University of Singapore, and the Singapore-MIT Alliance for Research and Technology (SMART). Credit: Courtesy of the Autonomous Vehicle Team of the SMART Future of Urban Mobility Project

(Tech Xplore)—Singapore has been noticed as one of the places in the world showing keen interest in our future with self driving vehicles. *Ubergizmo's* Tyler Lee noted that Singapore "has been testing out self-driving taxis, driverless pods, and self-driving golf carts that will ferry tourists around the island."

Add one more type of vehicle to the lot, and that is a self-driving mobility [scooter](#). It's not on the market but Dr. Marcelo Ang has been in the news for demonstrating the [scooter](#). He and others in the team at the National University of Singapore (NUS) showed off their latest model.

You can consider it as ideal for phone-centric walkers who just cannot drop the phones to see where they are going, and bump into barrels and walls, if not baby strollers, in the process.

Getting from point A to point B sitting down just may be the answer. Kenneth Lim for Channel NewsAsia said the little scooter travels about 6 kmph.

The one-seater weighs 50 kgs (110 pounds).

What can the scooter do if there are obstacles in its path? The scooter has laser sensors that help in navigating around them. Lee said that it is also capable of slowing down or stopping when it detects an obstacle ahead.

Specifically, according to Channel NewsAsia, the device has laser sensors to detect obstacles up to 2.5m in front and 10cm at the sides. Channel NewsAsia said it works indoors and outdoors.

"At present," wrote Pradeep Shah in *Oncars.in.*, "the only problem developers see in the scooter is it takes a few seconds to re-route once it finds an obstacle. For this and other reasons as well, the scooter will be

tested further for [improvements](#)."

No, you would not want to see one of these things on an interstate highway. Shah said the scooter "is meant for narrow pathways on which large vehicle cannot pass." That is fine with the project team because there is a need for mobility on the modest scale of distance too.

Lee quoted Prof. Ang, who said "the concept of mobility is not only on the roads but the total [mobility](#) to get me from point A to point B."

Reuters quoted him on why this scooter could be practical. "I'm sure you have experienced [people](#) who just use their handphone while walking, and almost run into you ... so it would be nice if you are just sitting down and checking your emails."

In student settings, could walking to class become a thing of the past?

One can imagine a student liking a few seconds or minutes to check out a textbook item or smartphone message on the way to class via sitting down on a scooter, easier and safer than staring at a book or screen while walking. Yiming Woo in Reuters quoted a student who tried moving along on the scooter and said "It goes really smoothly and travels very safely."

Ang told Channel NewsAsia that he hoped to eventually commercialize the [project](#).

The project is a collaboration between the Massachusetts Institute of Technology (MIT), Singapore-MIT Alliance for Research and Technology (SMART), and National University of Singapore.

The scooter presently is not for sale. Reuters reported the scooter has undergone successful tests on campus.

**More information:** Andersen, Hans, You Hong Eng, Wei Kang Leong, Chen Zhang, Hai Xun Kong, Scott Pendleton, Marcelo H. Ang Jr., and Daniela Rus. "Autonomous Personal Mobility Scooter for Multi-Class Mobility-On-Demand Service." In 2016 IEEE 19th International Conference on Intelligent Transportation Systems (ITSC 2016), Convention Center, Windsor Oceanico Hotel, Rio de Janeiro, Brazil, November 1-4, 2016, [dspace.mit.edu/handle/1721.1/105326](https://dspace.mit.edu/handle/1721.1/105326)

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