Singapore has its very own autonomous driving testing center which includes its own traffic light system and dummy skyscrapers. This center is part of the city’s effort to become a nerve center for self-driving technology.

However, while authorities are keen to tap a global drive by auto giants and startups to develop vehicles, the industry must still prove it is safe and persuade people to use the technology.

The two-hectare (4.9-acre) site has a track with sharp turns, traffic lights, a slope, and a bus stop to simulate real driving conditions. Shipping containers are also stacked up to emulate how high rises could potentially block satellite signals to self-driving machines.

The CETRAN centre, run by Nanyang Technological University (NTU), even has a rain-making machine that can simulate the frequent tropical downpours in the Southeast Asian city-state of 5.7 million people.

"Before you are ready to go to the public roads, we test them here to see if they are actually ready," said Niels De Boer, Programme Director at the centre.

Negotiating turns, dodging pedestrians

All companies must put their autos through the centre’s testing and certification programmes before they are allowed to hit public roads.

The sweeper is being trialled as part of a government plan that could eventually see them deployed in the city, according to local media, while cars and buses are also being tested, and trials of delivery robots will soon take place.