

Robots to make food deliveries from Westgate mall to JTC Summit in upcoming trial



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Robots pictured above that will be put on trial to make food deliveries are weather-resistant, can travel at up to 20km/h, clear security turnstiles and take the lifts in buildings on their own.

- Shoppers at Westgate mall may start to see a robot plying its premises later this year
- It will be making food deliveries as part of a trial involving NTU, LTA, JTC and a company
- The self-driving robots can use footpaths, cross traffic junctions, take the lift, and even clear security turnstiles
- The project is one of 16 being developed at the S\$50 million Continental-NTU Corporate Laboratory

SINGAPORE — Autonomous robots that perform the job of a food delivery rider will be on trial in Jurong East in the second half of this year.

For a start, it would pick up bubble-tea orders from HeyTea, located on the first floor of Westgate mall, and fetch the drinks to those working at JTC Summit, an eight-minute walk away.

The two places are separated by a road, but the robots, which would travel on footpaths, are programmed to cross traffic junctions and interact with infrastructure.

The robots, which can be used in the day or night, rain or shine, can even clear security turnstiles and take the lifts in buildings on their own.

This project is one of 16 that would be developed at the new S\$50 million joint laboratory between the Nanyang Technological University (NTU) and Continental, a German multinational automotive parts manufacturing firm.

The lab, called Continental-NTU Corporate Laboratory, was officially launched on Friday (April 9).

It is aimed at developing next-generation urban mobility solutions such as this one, which could address the shortage of food delivery riders and high delivery costs associated with the boom in the food delivery scene here.

A memorandum of understanding was signed among JTC Corporation, the Land Transport Authority (LTA), NTU and Continental at the lab's launch to formalise the trial of the new automated last-mile delivery service.

As part of the trial, industrial landlord JTC will be allowing the food delivery robots to "communicate" with its building management systems to seamlessly clear security turnstiles and service lifts, so that the robots may roam around its premises to get to the customer.

Communications between the robots and the building's systems, which would be integrated via an open digital platform, will be enabled by telco Singtel's standalone 5G network.

On its part, LTA will administer safety assessments and provide regulatory advice to support the safe deployment of the robots along the designated route for the trial.

ROUND OF TESTS AT BOON KENG FIRST

In a joint press release on Friday, NTU, Continental and the National Research Foundation said that "robust safeguards" will be put in place during the trial to ensure public safety.

For instance, LTA will require autonomous vehicles on trial to undergo rigorous safety testing at a test circuit in the Jurong Innovation District located next to NTU before they can be used on public paths and roads.

Mr Lam Wee Shann, LTA's chief innovation and transport technology officer, said: "Ensuring public safety is a top priority in the conduct of autonomous vehicle trials.

"LTA will work closely with NTU, JTC and Continental to carry out comprehensive safety assessments and put in place the necessary safeguards to support the trial."

Dr David Woon, co-director of the Continental-NTU Corporate Laboratory, told reporters at the launch event that the robots can travel at 20km/h but would only go in speeds of up to 5km/h for the sake of the trial.

The food delivery robot will be piloted in more controlled settings in Boon Keng first — starting by June this year — before the trial at Jurong goes live, he added.

The trials in Boon Keng would involve a safety driver that can override the robot using a remote control as the driver follows behind it on its rounds to make food deliveries.

There are now fewer than 10 of these robots around, he revealed.

This is not the first trial focusing on last-mile delivery.

Last month, the Infocomm Media Development Authority announced that a one-year trial had started in February to test robots that can deliver parcels and groceries to the lift lobbies of seven public housing blocks in Punggol.

NTU students and staff members have also been using FoodBot, which was first launched last June to deliver food across the campus.

‘WHOLE GAME HAS CHANGED’

At the lab’s launch event at NTU’s Research Techno Plaza on Friday, Transport Minister Ong Ye Kung gave an impromptu speech to say that the concept of land transport has evolved to take on the wider scope of mobility.

“Twenty-five years ago, when we talk about land transport, it is about roads, trains, buses, cars, but today we talk about mobility, because there is just so much more technology involved and the whole game has changed.”

Pointing out that sustainable development is now a core preoccupation of many government agencies, he added: “We are doing so many things — AI (artificial intelligence)... big usage of electric vehicles, building up charging points, expanding our public transport network, complementing our road network with another network for cycling, for pedestrians. All these, (in order to work) towards a much more sustainable Singapore.”