# **Autonomous Vehicle for Logistics and Delivery Services**



## **Application**

To facilitate the contact-less freight transportation in the post COVID-19 world, an autonomous logistic vehicle is developed to reduce direct human contacts, delivery time and freight costs; improve fuel efficiency and truck utilization.

Global self-driving truck market is expected to reach USD\$1,699 million by 2025<sup>1</sup>



### **Technology**

The autonomous vehicle is composed of hardware and software systems including sensors, cloud server modules and algorithms to achieve autonomous navigation with a dynamics-based Model Predictive Controller (MPC)





Fig 1. Test of the autonomous vehicle in Shenzhen, China, (left) and The Hong Kong University of Science and Technology (HKUST) (right)



#### Talk to Us

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## **Advantages**

- On road running distance > 2,500km without any incidents
- Total avoided contacts > 67,600
- Granted a stage 0 moving permit from Hong Kong Transport Department (HKTD), ready to get another permit in a month
- Achieved level 4 autonomy

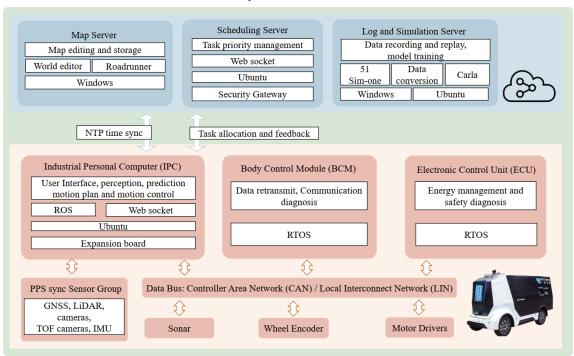


Fig 2. The software architecture of the autonomous vehicle.



## **Intellectual Properties**

Chinese Patent Applied, 202010104509.6 & 201810029397.5



