AN INNOVATIVE AND HOLISTIC SOLUTION FOR AUTONOMOUS DELIVERY

Meituan Autonomous Delivery Platform
Meituan provides an innovative and holistic solution for autonomous delivery, which incorporates an online order platform, dispatch system, and road network logistics with big data optimization. Their solution uses a variety of intelligent delivery devices, including unmanned aerial vehicles (UAVs), high-/low-speed autonomous delivery vehicles and robots, to meet the needs for on-demand delivery in diverse scenarios such as buildings, business campuses, and public roads. Their autonomous delivery vehicles adopt L4 level autonomous driving technology and use multi-sensor fusion schemes such as laser radar, ultrasonic wave, and cameras to autonomously drive at low speeds in urban environments. Accurate perception, high-precision localization, mapping, and planning ensure efficient and optimal shipping routes.

NVIDIA Platform
Meituan are using NVIDIA Jetson AGX Xavier™ as the computing unit for perception, localization, mapping, and planning tasks. They’re using NVIDIA® TensorRT™ to optimize deep learning models for perception-related tasks and DeepStream SDK to fully utilize the NVIDIA Volta GPU and deep learning accelerators (DLAs). These software SDKs allowed them to improve the efficiency and performance of their autonomous delivery vehicles with Jetson.
Meituan Results

Currently, Meituan autonomous delivery vehicles have been tested and deployed in three major locations: Joy City Mall in Beijing’s Chaoyang District, Lenovo’s offices in Shenzhen, and Songjiang University Town in Shanghai. In the Joy City Mall, the vehicles pick up orders from restaurants and bring them to a collection point where the delivery drivers then take them to their final destination. In Lenovo’s office, the vehicles collect orders and distribute them across offices, and they’re linked to the elevator systems to service multiple stories in the buildings. In SongJiang University Town, Meituan delivers meals directly from merchants to consumers and they’re delivering over 1,000 meals a day.

Meituan is also collaborating with Tsinghua University, University of California Berkeley, China Fortune Land Development, Beijing Innovation Center for Mobility Intelligent, Segway, and DeepBlue Technology to expand their locations and capabilities. Meituan believes that the future lack of workers will force traditional logistics to transform, and they’re hoping to “deliver everything for everyone everywhere.”

About Meituan

Meituan Dianping (HKSE: 3690.HK) is a leading Chinese O2O local life service platform, connecting over 240 million consumers and five million local merchants via a comprehensive array of e-commerce services and products. As of today, Meituan Dianping is already the largest on-demand food delivery player in China. With the mission of “We help people eat better, live better,” the company is now aiming at using self-driving technologies to build the world’s largest interactive platform for intelligent delivery and speeding up the development of unmanned delivery technology.