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DTV - Drivable Testing Vehicle

A Human-machine co-driving autonomous development platform

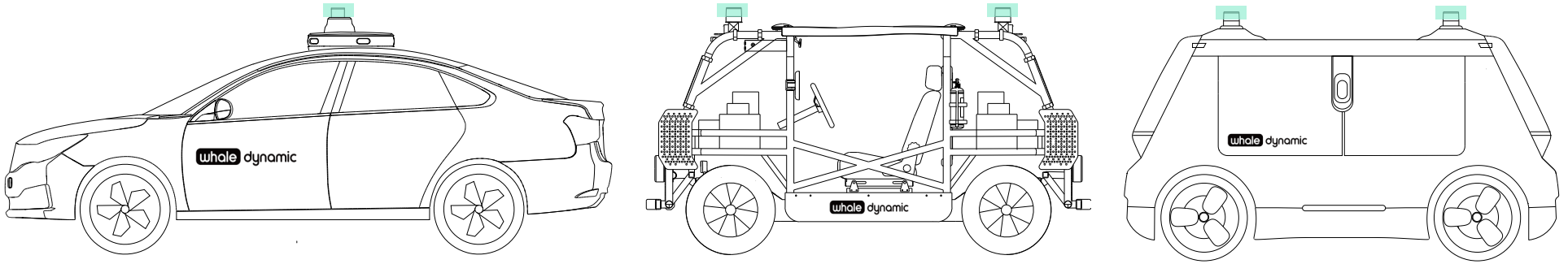
DTV Introduction

DTV (drivable test vehicle) integrates the EV chassis with control-by-wire protocol and hardware turnkey solution . The overall hardwareis autoware ready with abundant open-source software ecosystem . The DTV is equipped with passenger car driving capability and all autonomous driving components from passenger cars, so humans can intervene in the machine driving mode while verifying autonomous driving to facilitate safe road use. The platform is the middleware for our move to a fully autonomous platform, testing the vehicle-side and cloud-side stability of the skateboard chassis, wire control protocols, AV scheduling, and teleoperation.

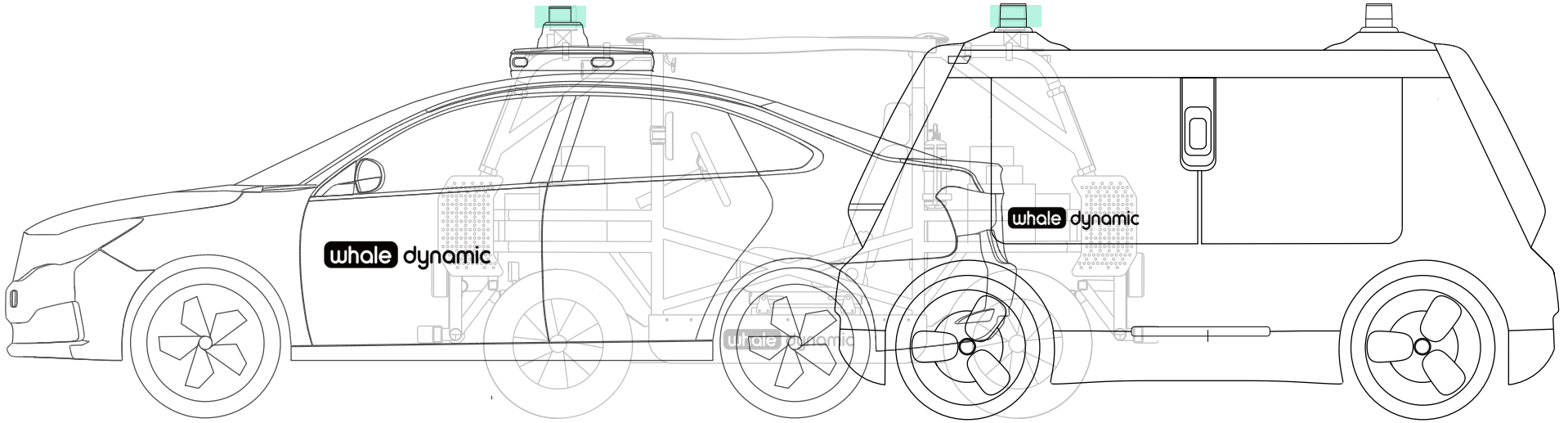
Secondly, it also serves as a comprehensive education kit to provide comprehensive assistance for education and scientific research institutions, helping experts, students, R & D engineers quickly get started with autonomous vehicle and promote the rapid landing of automatic driving.

An Unique Forward Development Path

Passenger Vehicle → Drivable Testing Vehicle → Multi-Purpose Autonomous Vehicle



- The hardware shares the same postion
- The sensors share the same configuraton
- The software shares the same algorithm



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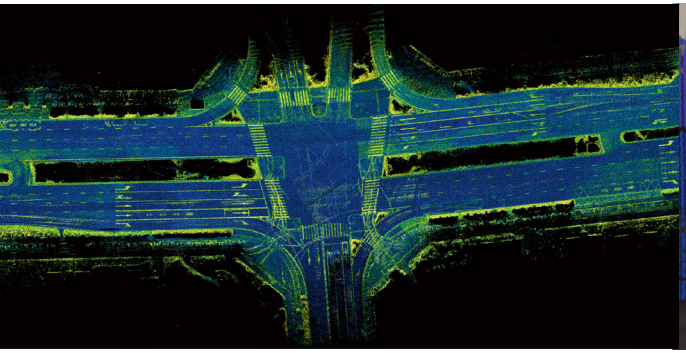
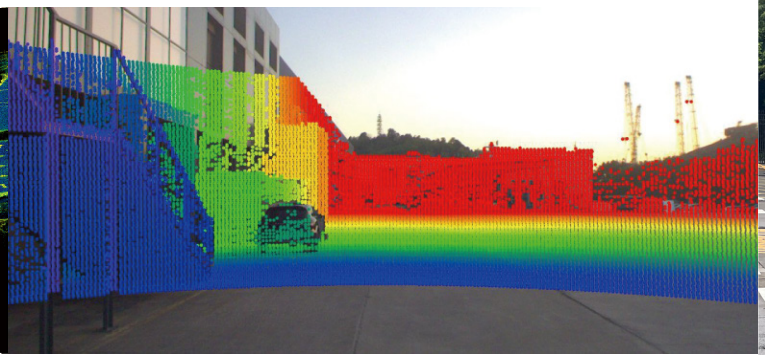
Software Introduction | Autoware Ready

The DTV is equipped with six core autonomous driving capalibities , wildly used on passenger cars or robotaxis , that has been embedded into the Autoware software stacks.



HD Map (with full semantic annotation)

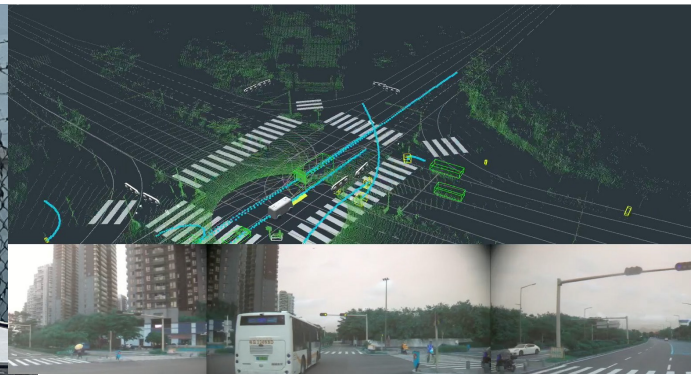


Proprietary MSF Perception

Control-by-wire Chassis

Passenger Vehicle Grade Planning and Control
(ready for urban scenarios)

Early-stage Fusion Ready Hardware
(with ultra-precision spatial-temporalsynchronization)



MSF Localization
(with centimeter level accuracy)

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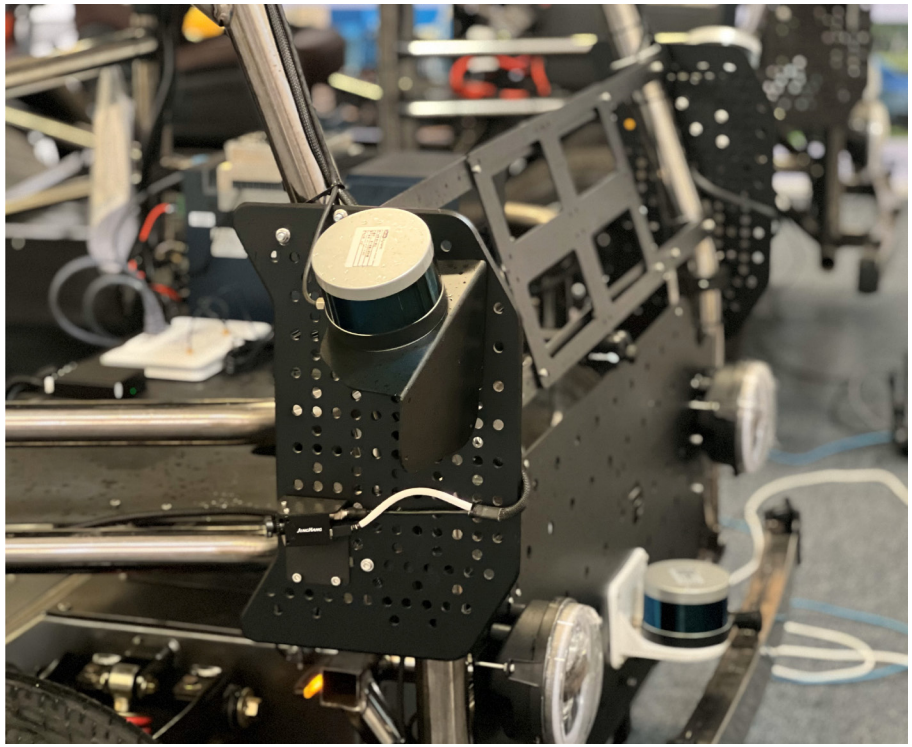
Hardware Introduction

DTV is designed to apply a wild range of hardwares which adopt the Autoware system.

The DTV configuration can be designed as high as possible, with up to two 128-line and four 16-line lidars, four millimeter-wave radars, and eight cameras. Through the proprietary fusion box, and the sensor fusion technique, the DTV has the same functions as passenger cars with L4 level autonomy.



Skateboard Chassis | partnered with

100km
Range

Four-Wheel Steering
Steering Form

1465mm
Track

40km/h
Maximum speed

2510*1670*638mm
Body Size

1900mm
Wheelbase

30%
Maximum Hill Climbing

3m
Minimum Turning Radius

500kg
Chassis Mass

POWERED BY

Suggested Specifications

① 16-line Lidar/32-line Lidar

② Ultrasonic Radar

③ Camera + Lens, up to 8 Million Pixels

④ Integrated Navigator (GNSS+IMU)

⑤ Multi-sensor Fusion Box

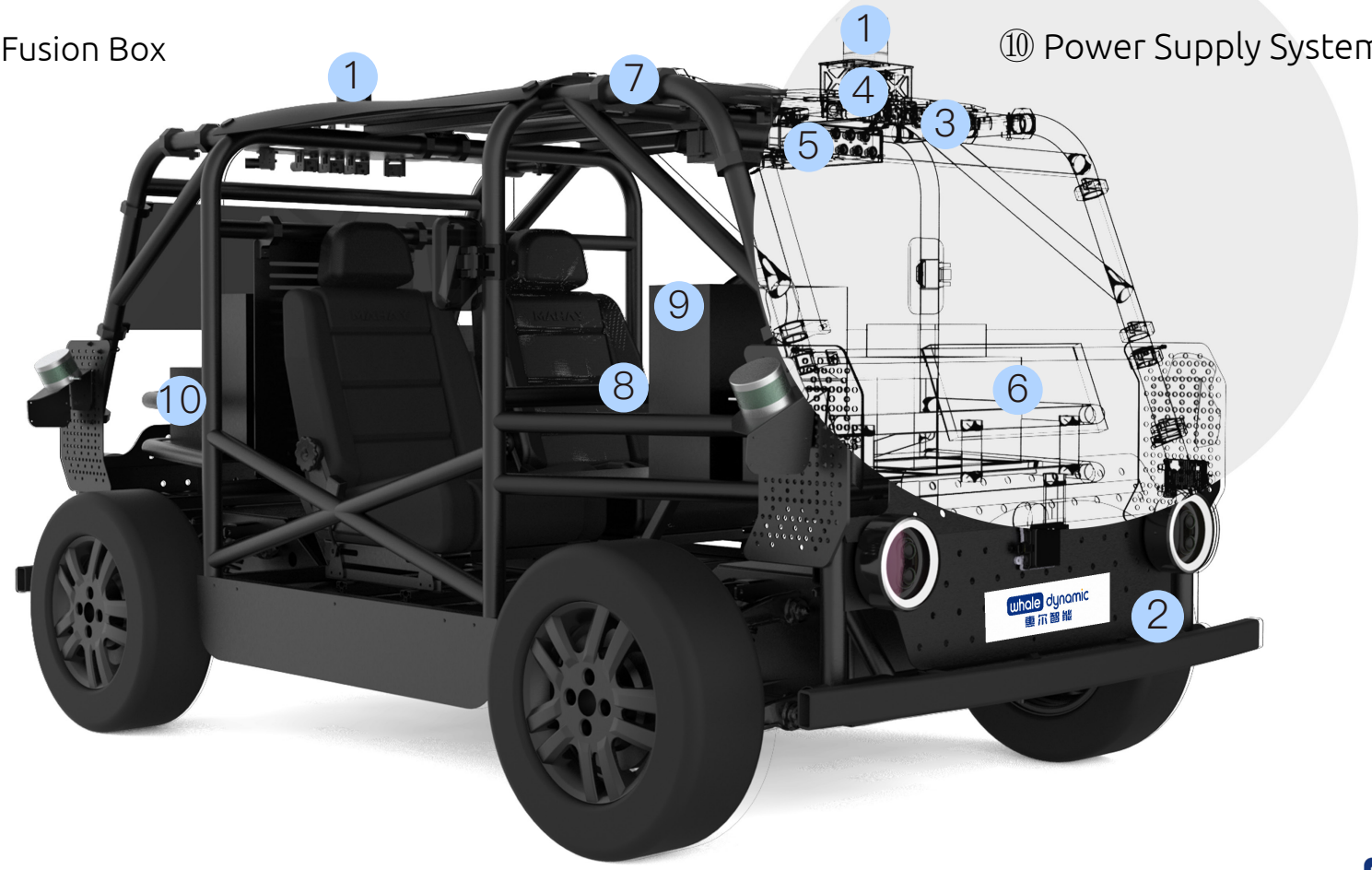
⑥ Vehicle Display

⑦ Integrated Navigation Antenna

⑧ 4G/5G Router

⑨ Computing Unit

⑩ Power Supply System



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