December 11, 2017

Completion of initial prototype “One-Mile Mobility” in a business partnership with Aisan Technology Co., Ltd. and Tier IV, Inc.

Okaya & Co., Ltd. has agreed to form a business partnership with Aisan Technology Co., Ltd. and Tier IV, Inc. towards business commercialization of the “One-Mile Mobility”. Of the current autonomous driving technologies, the “One-Mile Mobility” on public roads that Okaya & Co., Ltd. focuses on is one step ahead, and the formation of a new, future market is expected. We are pleased to announce that we have completed the Initial prototype unit (popularly known as: Milee).

[Initial Prototype]

Milee is a fully automatic operation EV for the “last one mile”, requiring no handle, accelerator, or brake. Tier IV, Inc. has developed this initial prototype unit through the “One-Mile Mobility” Project in which Okaya & Co., Ltd. and Aisan Technology Co., Ltd. have been making collaborative progress.

[Picture: Above diagram is the image design,
and the diagram below is a picture of an actual vehicle.]

[Reference Specs]

- Vehicle: Motor-driven golf cart (Yamaha Motor Co., Ltd.)
- Vehicle Body: 3D Printer Resin Material (Kabuku Inc.)
- ECU: DRIVE PX Platform (NVIDIA Corporation)
- Size: 3,209 mm long, 1,488 mm wide, and 1,944 mm high
- Weight: approx. 700kg

Milee uses automatic operation software “Autoware” under development by Tier IV. In addition, the maps and devices such as “High Precision 3-Dimensional Mapping” and Laser Scanner provided by Aisan Technology have been built in. This enabled us to realize the major functions needed for complete automatic operation, such as object detection of the surroundings, estimation of the vehicle’s position, formulating travel routes, and the operation judgment.

[Future Development]

Okaya & Co., Ltd. will carry out verification tests from Spring 2018 onward using this initial prototype unit. We will make a separate public announcement later regarding the specific testing sites. We hypothesize that Millee will be mainly used as a mobility method near urban cities and areas between plains and mountains; with concern over future driver shortages, we intend to aim development at passenger services/logistics services. Our company has a partnership with Aisan Technology and Tier IV, and while we steadily proceed with the verification tests we will aim at commercialization of the “One-Mile Mobility” in the year 2019.

Furthermore, we are scheduled to showcase this initial prototype unit at “GTC Japan 2017 (Hilton Tokyo Odaiba)” from December 12 through December 13, 2017, and at “Autonomous Driving Technology Expo (Tokyo Big Site)” from January 17 through January 19, 2018. We at Okaya & Co., Ltd. sincerely await your visit.

* “One-Mile Mobility” is an approach for solving social problems that more particularly refers to the “Next Generation Terminal Traffic System”, where a low-speed autonomous driving technology utilizes small mobility in limited regions. Low-speed autonomous driving assumes speeds of roughly 30 km/hour or slower, which the competent authority in the USA and the Japan’s Cabinet Office define as “Level 4” (Complete Autonomous Driving).

For reference:

Aisan Technology Co., Ltd.

Representative	Atsushi Kato
Location	7-14 Nishiki 3 Chome Naka-ku Nagoya Japan
Establishment	August 1970
Business purpose	Development and sales of software programs and associated devices related to surveying and real estate registration Producing high-precision 3-dimensional map database and contracting its construction

Tier IV, Inc.

Representative	Kazuya Takeda
Location	1-3 Meieki 1 Chome Nakamura-ku Nagoya Japan
Establishment	December 2015
Business purpose	Development of autonomous driving system