



Enabling Autonomous Mass Transportation Vehicles



Advanced Smart Mobility Selects Trimble for Positioning Technology

- ▶ Around the clock research and development for autonomous driving and intelligent transportation systems (ITS)
- ▶ Pinpoint positioning for all environments, weather conditions, 24/7/365
- ▶ Seamless integration: Trimble BX940 with BD940-INS inside, Zephyr 3 Rover antenna
- ▶ Longstanding relationship with Trimble

Developing Autonomous Buses and Truck

- ▶ A collaboration of Advanced Smart Mobility, University of Tokyo, Trimble
- ▶ GNSS positioning technology including RTK with VRS to generate stable, reliable, and high accuracy positioning solutions
- ▶ Goal is to creating a smart public transportation system with autonomous transportation
- ▶ Fully operational in urban, suburban and mountainous regions
- ▶ [Learn more at: intech.trimble.com](https://intech.trimble.com)



Advanced Smart Mobility sought positioning technology for vehicular localization

Japan has recently faced a severe driver shortage in their public mass transportation systems. To solve this challenge, they are looking to create a smart public transportation system, including a significant component of autonomous buses and trucks.

To meet this challenge, Advanced Smart Mobility, in collaboration with the University of Tokyo, is conducting research on autonomous driving and intelligent transportation systems (ITS) geared toward large trucks and buses.

On-road autonomous driving has significant challenges. ASM teams needed to first understand how to build an application that responds accurately in multiple environments (urban, suburban and mountain areas). In order to perform correctly in those settings, the application needs to be stable and robust, while also capable of delivering accurate vehicular localization.

Precise positioning is also a significant challenge. With a long-standing relationship with Trimble, ASM selected their high-precision positioning technology (including RTK with VRS) to achieve the highest level accuracy. Many Trimble BX940 enclosures with BD940-INS inside, and Zephyr 3 Rover antennas are currently in use for this research and development program.

Trimble's products provide the latest in precision GNSS + Inertial positioning technology. Trimble offers integrated GNSS precise positioning solutions in a highly compact form-factor. You can leverage different communications technologies like Wi-Fi, Bluetooth or GSM for data transfer in unique work scenarios like network based Trimble CenterPoint® RTX, RTK, or DGPS applications.



About Advanced Smart Mobility Co., Ltd

Advanced Smart Mobility is a venture company in collaboration with The University of Tokyo. Together they pursue research while embedding research results into final products. Their mission is to use advanced mobility technologies to allow everyone, regardless of health or physical limitations, to enjoy comfortable travels.

The company was established in June of 2014 in order to bring the research of Prof. Yoshihiro Suda (president of Advanced Mobility Research Center), to the commercial transportation marketplace.

Learn More: <https://www.as-mobi.com>



TRIMBLE AND AUTONOMOUS ROAD VEHICLES/ ADAS TESTING

Trimble is a leading provider of precise positioning solutions that offer high- accuracy orientation and continuous mobile positioning for applications such as autonomous vehicles and field robotics. System integrators and OEMs select our products for their reliability and robustness in GNSS- challenged environments.

Unmanned ground vehicles demand accuracy and reliability while OEMs and systems integrators require ease of integration to reduce development time and cost. Trimble's hardware and software systems are designed specifically for rugged dependability and ease of integration. The product portfolio offers a host of easy to use features and access to powerful technologies. Achieve accurate real time positioning for your navigation, guidance, control and mobile mapping applications.

TRIMBLE

Integrated Technologies

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TRANSFORMING THE WAY THE WORLD WORKS



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