

■ May 2016

Guidelines for public road testing of automated driving systems

On the conditions that a driver sits in the driver's seat and is ready to take necessary measures in an emergency, it is possible to conduct testing of automated vehicles on public roads without prior permission or a report.



Tests have been conducted in various parts of Japan.

Tests on public roads

< Points to Note >

- A vehicle has to comply with the requirements of the Safety Regulations for Road Vehicles.
- A driver has to sit in the driver's seat and be ready to take control over the vehicle in an emergency.
- Those who conduct the tests have to obey the laws.

Obligations of the “Test driver”



- Following the obligations applicable to the driver
- Taking necessary measures in an emergency

Guidelines for Public Road Testing of Automated Driving Systems (MAY 2016)

■ Public Road Testing that Can Be Held without Special Permissions

<Basic Requirements>

- Test vehicles comply with the safety requirements of safety standard provisions for road vehicles (including special approval)
- Test drivers in the driver's seat of a test vehicle must:
 - Monitor surrounding traffic conditions and vehicles at all times,
 - Operates vehicle as necessary to ensure safety
(such as during emergencies, malfunctions, or when the system reaches a functional limitation)
- * As long as a test driver can perform the necessary operations in the event of an emergency including the above situations, public road testing according to guidelines is permitted even for systems in the development stage.
- Drive in compliance with the Road Traffic Act and other relevant laws

■ Test drivers bear the obligation and responsibility of driver.

<The case where Permission for Road Use is Required>

- Motor vehicles are operated with special devices other than ordinary steering wheel/brakes
- Motor vehicles are operated by a remote automated driving system with a remote monitor/driver present who is not in the driver's seat of the test vehicle

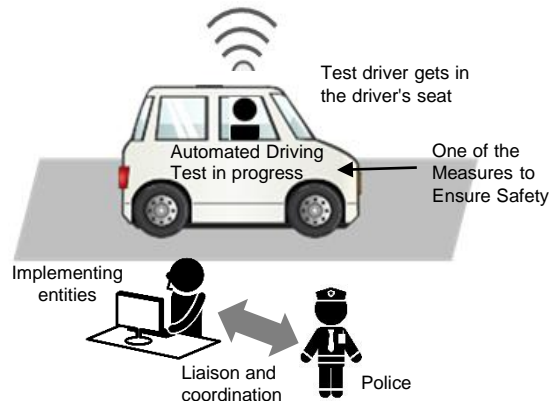
<Key Points> (*) Legally mandatory requirements

Test Driver Requirements

- Holds the necessary driver's license (*)
- Acknowledges obligations and responsibilities as a driver (*)
- Understands well the mechanism, characteristics, and driving operation of the automated driving system of the test vehicle
- Constantly monitors surrounding road traffic conditions and vehicles to immediately operate the vehicle as necessary in an emergency or other situations (*)
 - Hands do not necessarily have to be on the steering device such as the steering wheel at all times while using the automated driving systems(ADS).
 - In situations where a driver is likely to perform emergency actions, such as in areas with poor visibility or heavy traffic, they should have hands on the steering devices or keep at a close distance so they can grab them in an instant.

Safety Measures Aligned with Public Road Test

- Safety verification at test facilities prior to testing on public roads
- Step-by-step testing on public roads;
Starting from the tests in environments where unpredictable situations are relatively unlikely to occur
- Safety measures aligned with the test
 - Deployment of persons monitoring the ADS
 - Signage indicating automated driving test is underway
 - Dissemination of information to local residents



Measures to Be Taken in the Event of a Traffic Accident

- Measures to enable traffic accidents investigation
 - Record of various data on test vehicles during public road testing and maintenance of such data
- Measures taken in a traffic accident
 - The test driver immediately stops driving and takes necessary measures, such as rescuing injured persons, and reports the traffic accident to police officers. (*)
 - The person conducting the test shall refrain from conducting road tests of the same type until they take measures to prevent recurrence.
- Ensuring the ability to pay damages

System Requirements related to the Test Driver

- Specifications to enable control by the test driver in an emergency (*)
- Specifications to enable appropriate take-over between ADS and a test driver
Ex.) ADS issues an alarm to clearly indicate the start or end of automated driving
- Ensuring appropriate cybersecurity

Advance Notification to Related Agencies

- When conducting highly novel public road tests and large-scale public road tests, notify the following relevant agencies in advance, providing sufficient time to receive necessary advice.
 - Police with jurisdiction over test site
(Traffic Planning [General Affairs] Section Traffic Division, Prefectural Police Headquarters)
 - Road administrators
 - District Transport Bureau or Okinawa General Bureau