

Automated Vehicle – Pilot Program Participation

Ontario's roads are among the safest in North America and the Ministry of Transportation (MTO) seeks to maintain and continuously improve its safety record. MTO also recognizes the importance of creating an effective regulatory environment that promotes and accommodates the use and testing of new vehicle technology while maintaining road safety.

On January 1, 2016, [Ontario Regulation 306/15: Pilot Project - Automated Vehicles](#) took effect, establishing a pilot framework for the on-road testing of automated vehicles (AV). This ten year pilot allows Ontario to establish rules, monitor industry developments and evaluate the on-road operation of AVs included in the pilot prior to them becoming widely available to the public.

To accommodate changes to AV technology and align more closely with other jurisdictions, where possible, Ontario has made amendments to its AV pilot regulatory framework and the application to participate. A new application is required for new pilot program applicants as well as for previously approved participants that modify their testing plans (e.g., driverless testing).

What Automated Vehicles are included in the pilot?

AVs included in the pilot are motor vehicles (passenger and commercial) or streetcars, excluding motorcycles and motor-assisted bicycles, with an automated driving system that operates at Society of Automotive Engineers (SAE) International driving automation Level 3, 4, or 5.

Starting January 1, 2019, SAE Level 3 (Conditional Automation) automated vehicles originally manufactured with SAE Level 3 technology or upgraded to SAE Level 3 through a software update by the Original Equipment Manufacturer are exempt from the AV pilot program.

Vehicles equipped with aftermarket SAE Level 3 technology may only be used on public roads in accordance with Ontario's AV pilot program. Entities responsible for such vehicles are required to apply to the pilot and meet all requirements stated within Ontario Regulation 306/15, Pilot Project – Automated Vehicles, as amended.

Participation

We welcome all eligible participants. If your organization would like to join the pilot program or modify your existing test regime, please complete the attached application form.

As a participant, you will be required to provide certain information directly to the Registrar of Motor Vehicles. Some of these requirements are highlighted in the application form and included in Ontario Regulation 306/15. Requirements include, but are not limited to: providing MTO with an up-to-date list of vehicles participating in the pilot at all times; collision notification within 10 days of occurrence, including collision details (vehicles and persons involved, location, injuries and damage, etc.); and, an annual report, including information relating to: unplanned or non-scheduled disengagements (can be system initiated or user initiated depending on the circumstances)¹, testing environments, geography/terrain, weather conditions, number of km driven, hours tested and speed (km/hr). MTO will provide a template for the report. This information can be shared via e-mail to AVPilot@Ontario.ca. As a participant, you will also be required to participate in regular touchpoint conversations with MTO every six months.

All *Highway Traffic Act* (HTA) rules of the road and penalties will apply to the operation of AVs and subsequent responsibilities of the driver/vehicle owner, including collision reporting to police. Additionally, operators of the AV must understand the operation of the vehicle(s) they will be driving. The driver must hold a valid licence for the class of vehicle being tested. The vehicle(s) is prohibited from being used for a MTO road test.

Applicants must specify the actions, design choices and measures they have taken to ensure the vehicles they plan to test have accounted for cybersecurity risks as they might impact road safety. An explanation of how your organization has accounted for cybersecurity challenges as part of your testing plans should be submitted to the ministry in writing and in a format of your choosing. You may find it helpful to reference the guidance provided in Transport Canada's (TC) Safety Assessment Protocol on pages 18-19. TC's protocol is available at the following link:

http://www.tc.gc.ca/en/services/road/documents/tc_safety_assessment_for_ads-s.pdf

All participating motor vehicles must be insured under a contract of automobile insurance with an insurance company licensed to operate in Ontario to the limit stipulated in the pilot regulation: \$5 million liability coverage or, if there are eight or more passengers, \$8 million.

A copy of the signed application form will need to be kept in the vehicle(s) being tested at all times and for driverless testing a

¹ An example of a system-initiated disengagement would be a case where the system disengages as it would need to operate beyond its operational design parameters. Further examples will be provided in the template for the annual report.

copy must also be retained by the remote operator in a visible location. This will be used as proof of participation in the pilot program, should the vehicle be stopped at roadside by an enforcement officer.

For further information about the pilot, contact the Safety Policy and Education Branch, Ministry of Transportation, at 416-235-3585 or via e-mail at AVPilot@Ontario.ca.

Testing Driverless Vehicles (no driver in the driver’s seat)

In order to test driverless vehicles (SAE Level 4 or 5) in Ontario, the applicant must complete the entire application, even if they are an existing pilot participant. Previously approved participants, once approved for driverless testing, must carry the new approval form going forward. The old version of the application will no longer be valid and must be destroyed.

Certain additional conditions apply to driverless testing and these are outlined in the application form. These conditions include: providing MTO with a self-declaration of technology safety and efficacy and operational design parameters of the vehicle; informing MTO of testing plans; vehicle oversight function; work zone and law enforcement interaction plan; alerting local authorities about testing; and, acceptance of liability.

Vehicle(s) to be tested must also have signage affixed, at a minimum, to the passenger side of the front windshield and clearly visible on either the rear window or another prominent area on the rear of the vehicle. It is the responsibility of the company to procure their own signs. The design and dimensions are as follows:




Note (For information purposes only): if an applicant imports a vehicle that does not meet all requirements of the federal *Motor Vehicle Safety Act* (MVSA), the applicant must receive an appropriate MVSA exemption from Transport Canada.


Application Form Tips:

Part A: Applicant Information

- The applicant is the organization applying to the pilot, not the person completing the form.
- The Registrant Identification Number (RIN) is a ministry assigned number that is used to identify the vehicles registered under a registrant’s name. The RIN can be located on the vehicle portion of the ownership document, adjacent to the Vehicle Identification Number and is nine characters in length. Please see sample below for reference. If your organization does not have a RIN, please contact the Safety Policy and Education Branch for assistance (contact information below).

 Ontario		PLATE PLAQUE	
<small>Issued pursuant to the Highway Traffic Act / Délivré en vertu du Code de la route</small> PERMIT - PLATE PORTION / CERTIFICAT D'IMM - PLAQUE			
V.I.N. N.I.V.	R.I.N. N.I.T.		
MAKE MARQUE	MODEL MODÈLE	YEAR ANNÉE	
VALIDITY NO. N° DE VALIDATION	EXPIRY DATE DATE D'EXPIRATION		
CODE	REG. GROSS WT. POIDS BRUT ENR.	kg	
NAME NOM			
ADDRESS ADRESSE			
MAILING ADDRESS ADRESSE POSTALE			
OFFICE / BUREAU		EFF. DATE / EN VIGUEUR	PERMIT NO. / N° DE CERTIFICAT
SIGNATURE		Minister of Transportation Ministre des Transports	

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 This plate portion must be signed by the owner to be valid. / Le certificat d'immatriculation-plaque doit être signé par le propriétaire pour être valide.

Part B is only to be completed if your organization is applying for driverless AV testing.

Submitting Your Application Form

In order to participate in the pilot, a copy of this application form is to be submitted to the Ministry of Transportation's Safety Policy and Education Branch by mail to 87 Sir William Hearst Ave., Room 212, Toronto Ontario M3M 0B4, by fax to 416-235-5129 or by e-mail to AVPilot@Ontario.ca.

Please allow 5 to 10 business days for MTO to review your completed application and provide a response.