



Autonomous Vehicle Testing License

**Nevada Department of Motor Vehicles
ATTN: Director's Office
555 Wright Way
Carson City, Nevada 89711**

For questions regarding the autonomous vehicle regulations, testing process and/or consumer deployment please contact:

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For questions regarding the autonomous application packet please contact:

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Introduction

The State of Nevada is excited to lead autonomous vehicle development by licensing qualified companies to begin testing on our public roads. However, it is crucial that autonomous vehicles permitted to test in the state do not create an elevated risk to the Nevada public. Because the safety of the public is always the Department of Motor Vehicles' (Department) primary concern, we require that all testing applicants articulate how they have combined competent autonomous technology and safe testing practices.

Application Submittal

Testing Proof

In order to establish whether the autonomous technology to be tested on Nevada roads has reached a reasonable level of maturity, regulations require that applicants provide proof of ten thousand miles of prior autonomous vehicle operation. The application should show a report of the prior autonomous testing for the Department to consider when processing the application.

The report should be made with a non-technical audience in mind. The Department is not requesting exhaustive logs of all the miles claimed, however, applicants should have and maintain proof of all the miles claimed. The report should explain how the vehicle handles the following while driving in autonomous mode; traffic control devices, pedestrians/objects of variable size, speed variations and various environmental types.

Examples of these include but are not limited to:

- Traffic Control Devices: roundabouts, stop lights, traffic signs, school zones, cross walks, construction zones, unmarked intersections
- Pedestrians/Object of Variable Size: humans, bicycles, animals, rocks, sandbags, cones
- Speed Variations: recognize speed limit signs, temporary speed restrictions, school zone variable speed limits
- Environmental Types: rain, snow, ice, fog, high wind, blowing dust, night driving
- Emergency Vehicles: fire trucks, ambulance, law enforcement vehicles, etc.

The report should also include descriptions of any past incidents in which a vehicle in autonomous mode was in an accident or issued a traffic citation.

Nevada Testing Geographical Categories and Environmental Types

At the discretion of the Department, the testing license may be limited to specific geographic categories and environmental types. The Department has partitioned all of Nevada's public roads into four geographic categories. This section describes what the Department has determined to make these locations uniquely challenging for autonomous vehicles.

Geographic Categories:

Interstate Highways

Interstate highways are any highways that are part of the federal interstate highway system and exhibit the following characteristics:

1. speeds of up to 80 MPH
2. ongoing road construction
3. infrequent pedestrian traffic and foreign debris
4. controlled access
5. high speed maneuvers and braking requirements
6. toll booths

State Highways

State highways are any US or SR highway (*State Highways inside an urban corridor must have additional authority*) and exhibit the following characteristics:

1. Speeds of up to 80 mph
2. Ongoing road construction
3. Possibility of pedestrian, bicycle, and livestock obstacles
4. Traffic control devices (such as stop lights and stop signs)
5. Downtown/mid-city congestion
6. Various non-controlled access points

Urban Environments

Nevada's Urban Environments exhibit the following characteristics:

1. High levels of pedestrian traffic
2. Traffic control devices (such as stop lights, stop signs, and school zones)
3. Frequent road construction or roadblocks and foreign debris
4. Variable speed controls
5. Metered and parallel parking
6. Speed bumps or physical speed control devices
7. Animals off leash
8. Children at play in the roadway
9. Commercial shopping centers
10. Intersections lacking traffic control devices

Unpaved or Unmarked Roads

Any road outside of a city that is not a State Highway or Interstate are considered Rural or Unpaved roads. Additionally, any roads found inside an urban environment which are unpaved or unmarked are considered part of this environment. Unpaved or Unmarked roads exhibit the following characteristics:

1. Degraded pavement quality or no pavement (dirt roads)
2. Inconsistent or nonexistent road markings
3. Moderate levels of pedestrian traffic and foreign debris
4. Children at play in roadways
5. Animals off leash
6. Unmarked intersections

Environmental Types:

The environmental types you may apply for are:

- Night driving
- Rain
- Fog
- Snow/ice
- High crosswinds (gusts above 30mph)

The above environmental types must be indicated on the "Autonomous Technology Capabilities Checklist" in order to have them added to the testing license. Due to the unpredictability of weather conditions, environmental types may be added to the testing license if the applicant can present documented proof, satisfactory to the Department that the technology has safely operated in the same conditions in another location.

At any point, an applicant can apply to expand their testing license to more geographic categories or environmental types. This does not require a separate ten thousand miles of prior testing experience to be submitted. Instead, the applicant can fill out the OBL326 (Application for Autonomous Vehicle Testing License) to identify the new geographic category or environmental type.

Combining Procedure & Technology

In addition to the minimum of ten thousand miles of autonomous vehicle driving, applicants must have in place processes and procedures to mitigate the risk of any potentially underdeveloped technologies.

Additional documentation we would like to see for our evaluation:

- A complete description of your autonomous technology
- The safety plan for testing on public roadways
- Your plan for hiring and training the test vehicle operators

For a full list of required items, please reference the Autonomous Vehicle Testing License Application Requirements at the end of this application.

Safety Practices

Licensees must ensure that at least one person is physically present in the autonomous vehicle while being tested on a highway in this state. The operator must at all times be seated in a position which allows the person to take active control or physical control of the vehicle. Each person must hold a valid driver's license and be trained in the operation of the autonomous vehicle including the capabilities and limitations of the technology.

Within 10 days of any accident or traffic violation occurring while operating an autonomous test vehicle, the licensee must provide the Department with a report of the incident. The report must include a copy of any accident report or any citation.

Application and Technology Evaluation

Upon review of the application, testing proof, and additional documentation, the Department will determine if additional information is needed. If no additional information is needed, a drive demonstration will be scheduled. The drive demonstration is used to determine if the vehicle can safely perform the autonomous functions outlined in the application. The designated route is at the discretion of the licensee. It should encompass several characteristics in the geographic categories and environmental types selected on the application. While navigating this route in autonomous mode, the technology will be evaluated to determine if it can handle the various situations encountered. The Department may ask for additional explanation or documentation describing the methodology used to handle conditions not encountered while on the drive demonstration.

The Nevada Department of Motor Vehicles is a public agency. All books, communications and records are subject to inspection or review upon request, per NRS 239.010. Be sure to omit any proprietary information that should not be made public prior to submission.

Application Approval

Upon approval of the application and drive demonstration, a test license and a certificate detailing the testing parameters and limitations will be provided by the Department. This test license is \$101 (\$100 for testing license; \$1.00 Technology Fee). The certificate must be carried at all times in each vehicle that has been approved for testing in Nevada and presented to a peace officer upon demand.

Each vehicle must display the autonomous vehicle testing license plates. A set of plates are \$21.00 per vehicle (\$12.00 Business Plate Fee; \$3.50 per plate Production Fee; \$0.50 cents per plate Prison Industry Fee; \$1.00 Technology Fee). Each test vehicle to be tested in Nevada must be listed on the application and proof of vehicle ownership and insurance must be attached. To add or remove test vehicles associated to the autonomous vehicle test license, notify the Department by *filling out the OBL326 (Application for Autonomous Vehicle Testing License). A new certificate will be provided by the Department.

Testing License Renewal

Your autonomous vehicle testing license and testing plates will expire one (1) year from the date the testing license was approved. To renew, complete the OBL326 (Application for Autonomous Vehicle Testing License) and submit it to the Department thirty (30) days prior to the expiration date. Some changes may require additional documents, so please contact the Department for assistance. The renewal fee is \$101 for the autonomous vehicle testing license, plus \$13 per set of testing license plates for each vehicle.

Disabled Operators

Overview: In July 2016, the Department of Motor Vehicles was successful in expanding their existing regulatory requirements for autonomous testing. The new testing requirements are **not intended** for companies with test drivers possessing a valid driver's license in the State they reside in. The new requirements are for test operators who would be required to apply for a "restricted" driver's license with the Department and do not currently hold a valid driver's license in any state due to their disability.

If the operator of the autonomous vehicle has been disqualified from driving due to a disability, then a restricted driver's license is required for the disabled operator to be able to operate the autonomous vehicle. The following restrictions will apply:

- A detail form is carried by the restricted license holder authorizing that holder to only operate the autonomous **test** vehicle with the technology engaged.
- The restricted license holder is **employed** by the company applying for this autonomous vehicle testing license.
- A pilot vehicle, **supplied by the autonomous test company**, will be operated directly in front of the autonomous vehicle
- The restricted license holder must be accompanied by a second person that:
 - Is seated in a position which allows the person to safely engage and disengage the autonomous technology and take active or physical control of the vehicle.

If, for any unforeseen reason, the above mentioned pilot vehicle is unable to continue to operate as such:

- The operator of the autonomous vehicle must pull the autonomous vehicle safely to the side of the road, **or**
- The second person in the autonomous vehicle must disengage the autonomous technology and take active or physical control of the vehicle.

If a restricted license, as mentioned above, is issued then the test license applicant must provide proof to the Department that:

- The holder is an employee of the test license holder.
- The holder has completed no less than 50 hours of training in an autonomous vehicle.
 - May include no more than 10 hours of operation of an autonomous vehicle simulator.
 - Must include no less than 40 hours of operation of an autonomous vehicle on any paved, graded, or similar surface, including a race track or private course
- Any other information the Department may request.



Occupational and Business Licensing
555 Wright Way
Carson City, Nevada 89711
(775) 684-4690
www.dmvnv.com

APPLICATION FOR AUTONOMOUS VEHICLE TESTING LICENSE

Application Type:

License Number (If new applicant, please leave blank)

- Application type options: New, Renewal, Change (Type of change): Address, Geographical Categories, Vehicles, Environmental Types

Business Name:

Mailing Address: Street City State Zip

Physical Address: Street City State Zip

Business Telephone Number: Business Fax Number:

Email address: FEIN:

Entity type options: Sole Proprietorship, Partnership, LLP, LLC, Corporation Incorporated in State of

List name and title of each individual, each partner, whether general or limited, or each principal officer, director or stockholder participating in the direction, control or management of the policy of the project.

Table with 3 columns: Name (Last, First, Middle), Title, Contact Telephone Number

Registered Agent Information:

Table with 3 columns: Name, Address, Telephone Number

Licensed Operators:

Table with 3 columns: Name, Driver's License Number, State Issued

Autonomous Test Vehicle Information:
(A \$21 fee for each set of new Testing License Plates is required)

Year	Make	Vehicle Identification Number (VIN)

As a Nevada Autonomous Vehicle Testing Company, I affirm to the best of my knowledge and belief, each vehicle to be tested in Nevada is: 1) safe to operate on the highways of this State; 2) has a separate mechanism, in addition to, and separate from any other mechanism required by law, to capture and store, the autonomous technology sensor data for at least 30 seconds before a collision occurs between the autonomous vehicle and another vehicle, object or natural person. The autonomous technology sensor data must be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. Such data must be preserved for 3 years after the date of collision; 3) has a switch or mechanism to engage and disengage the autonomous vehicle that is easily accessible to the operator and is not likely to distract the operator from focusing on the road while engaging or disengaging the autonomous vehicle; 4) has a system to safely alert the operator to take control of the autonomous vehicle if a technology failure is detected; 5) is equipped with autonomous technology which does not adversely affect any other safety features of the vehicle which are subject to federal regulation. Additionally, I agree to operate my testing company in accordance with the requirements set forth in Chapter 482A of the Nevada Revised Statutes and Nevada Administrative Codes.

I understand that providing of false information or the omission of the requested information in this application is grounds to deny, suspend, or revoke my testing license and constitutes a gross misdemeanor under Chapter 482A of the Nevada Revised Statutes. **I declare under penalty of perjury that the information contained in my application, proof of 10,000 miles of prior autonomous vehicle operation, complete description of the autonomous technology, safety plan for testing on public roadways, plan for hiring and training of test vehicle operators, and any and all additional materials supplied to the Department are true and correct.**

Applicant's Signature

Date

Applicant's Printed Name and Title

State of _____, County of _____

Subscribed and sworn before me this _____ day of _____, _____

Notary Public or Authorized Nevada DMV Representative Signature

(Notary seal)

OFFICE USE ONLY BOX

Approved Geographic Categories	Approved Environmental Types	Testing License Plates	<input type="checkbox"/> Approved <input type="checkbox"/> Denied
<input type="checkbox"/> Interstate Highways <input type="checkbox"/> State Highways <input type="checkbox"/> Urban Environments <input type="checkbox"/> Unpaved/Unmarked Roads	<input type="checkbox"/> Night Driving <input type="checkbox"/> Rain <input type="checkbox"/> Fog <input type="checkbox"/> Snow/Ice <input type="checkbox"/> Wind	_____ _____ _____ _____	Initials: _____ Employee ID: _____ Date: _____

LETTER OF AUTHORIZATION

Business Name: _____ License Number: _____

Address: _____

City State Zip Code: _____

Telephone Number: (____) _____

Please check appropriate authorization boxes:

Pick Up Licenses

Pick Up Plates/Decals

Printed Name of Authorized Agent

Signature

Printed Name of Authorized Agent

Signature

Printed Name of Authorized Agent

Signature

Printed Name of Authorized Agent

Signature

The listed Agent(s) is no longer authorized to represent my business:

Printed Name of Agent

Printed Name of Agent

Printed Name of Agent

Printed Name of Agent

Printed Name of Agent

Printed Name of Agent

I hereby authorize the changes as indicated above for my business with the Nevada Department of Motor Vehicles.

Printed Name of Principal

Signature of Principal

Date

To protect your business, notify the Department immediately of any changes to the above information.

CHILD SUPPORT INFORMATION

Nevada Administrative Code 482A requires the Department to request statements regarding child support from applicants for new and renewal of Autonomous Vehicle licenses.

Each license applicant applying for a new or renewal of his or her license must complete and sign the Child Support Information below.

Regulation prohibits the Department from processing your application without submission of the information below. Please mark the appropriate response and complete the remainder of the form. Failure to mark one of the three and completion of the form will result in denial of the application.

- I am not subject to a court order for the support of a child.
- I am subject to a court order for the support of one or more children and am in compliance with a plan approved by the district attorney or other public agency enforcing the order for the repayment of the amount owed pursuant to the order; or
- I am subject to a court order for the support of one or more children and am not in compliance with the order or plan approved by the district attorney or other public agency enforcing the order for the repayment of the amount owed pursuant to the order.

Applicant's Social Security No.

Applicant's Name (*please print*)

Signature of Applicant

Date

AUTONOMOUS VEHICLE TEST LICENSE BOND

Bond Number _____

License Type:

- Testing Company
 Certification Facility

KNOW ALL MEN BY THESE PRESENTS:

That _____, as principal,
(Corporate Name and Doing Business As Name)

located in the County of _____, State of Nevada, obligee, and, _____
(Name of Surety)

a corporation organized and existing under and by virtue of the laws of the State of _____, and authorized to transact a surety business in the State of Nevada, as surety, are held and firmly bound unto the State of Nevada in the penal sum of \$5,000,000 for the payment of which well and truly to be made we hereby bind ourselves, our respective heirs, administrators, executors, successors and assigns jointly and severally, firmly by these presents:

To be effective on the _____ day of _____, _____

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

WHEREAS, the above-named principal has been licensed to carry on or conduct in this State the business of testing and/or certifying Autonomous Vehicles; and

WHEREAS, the above-named surety herein agrees that any person injured by the action or actions of the principal and/or his employees involved in any fraud or fraudulent representation or in violation of any of the provisions of Chapter 482A of the Nevada Revised Statutes or Nevada Administrative Codes may bring action in said injured person's own name against the said surety. This bond is continuous in form and the total aggregate liability of the bond is limited to the payment of the total amount of the bond. In the event of a dispute of a claim by the surety company, application may be made to the Director, Department of Motor Vehicles for good cause shown. After notice and hearing, the director may authorize payment of funds from here said surety coverage.

(SEE NEXT)

Bond Number _____

This bond may be canceled by the surety at any time by giving written notice by registered mail of its desire and intention so to do. Said cancellation shall be effective thirty (30) days after the receipt of said notice by the State of Nevada, Department of Motor Vehicles, Occupational and Business Licensing Section.

Signed, sealed and dated this _____ day of _____, _____

(Printed Name, Principal)

(Signature, Principal)

(Surety)

Telephone Number of Surety: (____) ____-____

(Mailing Address of Surety Company, Street)

(City, State and Zip Code)

By _____
(Signature, Attorney-In-Fact for Surety)

(Printed Name, Attorney-In-Fact)

(Surety Seal)

Countersigned on behalf of:

(Surety)

this _____ day of _____, _____

(Signature, Agent)

(Printed Name, Agent)

(Business Name, Agent)

(Business Address, Agent)

AUTONOMOUS TECHNOLOGY CAPABILITIES CHECKLIST

This checklist is to identify the geographic categories, environmental types and specific capabilities that the autonomous vehicle can perform.

Please check the box that indicates the geographic categories and/or environmental types that you intend to test your AV technology in.

Geographic Categories:

- Interstate Highways
- State Highways
- Urban Environments
- Unpaved/Unmarked Roads

Environmental Types:

- Night Driving
- Snow/Ice
- High Crosswinds (gusts above 30 mph)
- Rain
- Fog

Please check the box next to each capability that indicates how the technology will handle these specific road characteristics. Also, in the space provided, give a brief description as to how the technology will conduct that action.

Autonomous = the vehicle performs the required action in autonomous mode without operator control

Operator Controlled = the vehicle is taken out of autonomous mode to perform the required action

Stop Signs

- Autonomous Operator Controlled

Speeds up to 80 mph

- Autonomous Operator Controlled

Pedestrian Traffic

- Autonomous Operator Controlled

Children at Play

- Autonomous Operator Controlled

Freeway On/Off Ramps

Autonomous Operator Controlled

Crosswalks

Autonomous Operator Controlled

Turns

Autonomous Operator Controlled

Railroad Crossings

Autonomous Operator Controlled

Roundabouts

Autonomous Operator Controlled

Road Construction Signs

Autonomous Operator Controlled

Speed Limit Signs

Autonomous Operator Controlled

High Traffic Congestion

Autonomous Operator Controlled

Debris/Obstacles in Roadway

Autonomous Operator Controlled

Lane Changes

Autonomous Operator Controlled

School Zones

Autonomous Operator Controlled

Passing School Buses

Autonomous Operator Controlled

Emergency Vehicles

Autonomous Operator Controlled

Intersections

Autonomous Operator Controlled

Degraded Pavement Quality

Autonomous Operator Controlled

Speed Bumps

Autonomous Operator Controlled

Parallel Parking

Autonomous Operator Controlled

“No Zones” Passing

Autonomous Operator Controlled

Right Turn on Red

Autonomous Operator Controlled

Passing Bicycles

Autonomous Operator Controlled

Metered On Ramp

Autonomous Operator Controlled

Highway Markings

(Broken/Dashed White/Yellow)

(Solid/Double Yellow/White Lines)

Autonomous Operator Controlled

Traffic Lights

(Flashing red/yellow light)

(Red/Yellow/Green light)

Autonomous Operator Controlled

If there are any other capabilities that are not listed that your technology can perform in autonomous mode, please list them in the space provided below. If not, please use this

AUTONOMOUS VEHICLE TESTING LICENSE APPLICATION REQUIREMENTS

- Application for Autonomous Vehicle Testing License (OBL326).
- A nonrefundable licensing fee of \$101.00, plus \$21 for each set of Testing License Plates required for each vehicle.
- A Letter of Authorization (OBL276).
- A Child Support Information form (OBL268).
- A Surety Bond (OBL328), Cash Deposit, or proof of insurance or self-insurance in the amount of \$5,000,000.
- Submit proof sufficient to the Department of Motor Vehicles that one or more of the applicant's AV's have been driven for a combined minimum of at least 10,000 miles in Autonomous mode, under varying types of roads, weather conditions and times of day and night.
- Proof of ownership for each AV listed on the application (i.e. Title, Manufacturer's Certificate of Origin, Security Agreement, Vehicle Registration or other proof sufficient to the Department).
- An Insurance Certificate that meets or exceeds Nevada's minimum liability requirements pursuant to NRS 485.185 for each autonomous testing vehicle listed on the application. May not be an Operator's Policy as described in NRS 485.186.
- Submit a complete description of your autonomous technology.
- Submit documentation detailing your safety plan for testing on public roadways.
- Submit your plan for hiring and training the test vehicle operators.
- Autonomous Technology Capabilities Checklist