SB178
173421-1
By Senator Marsh
RFD: Transportation and Energy
First Read: 09-FEB-16
SYNOPSIS: This bill would authorize the operation of autonomous motor vehicles on the public roads of the state and would require that each make and model of autonomous vehicle be tested and approved for use before being operated on a public road by anyone other than a licensed tester.

This bill would provide that the Alabama State Law Enforcement Agency (ALEA) would license all persons authorized to test autonomous vehicles. This bill would specify criteria for testing of autonomous technology on the roads of the state.

This bill would require each autonomous vehicle operated on the public roads to carry insurance.

This bill would authorize ALEA to create a new endorsement on the driver's license and specify additional testing requirements for persons authorized to operate approved autonomous vehicles.
To authorize the operation of autonomous motor vehicles on the public roads of the state; to require testing of autonomous technology and approval by the Alabama State Law Enforcement Agency of autonomous vehicles authorized to operate; to require each autonomous vehicle operated on a public road to carry insurance; and to authorize the agency to create a driver's license endorsement and require testing.

BE IT ENACTED BY THE LEGISLATURE OF ALABAMA:

Section 1. For purposes of this act, the following terms shall have the following meanings:

(1) ALEA. The Alabama State Law Enforcement Agency.

(2) ARTIFICIAL INTELLIGENCE. The use of computers and related equipment to enable a machine to duplicate or mimic the behavior of human beings.

(3) AUTONOMOUS VEHICLE. A motor vehicle that uses artificial intelligence, sensors, and global positioning system coordinates to drive itself without active intervention of a human operator. The term excludes a vehicle enabled with a safety system or driver assistance system, including, without limitation, a system to provide electronic blind spot assistance, crash avoidance, emergency braking, parking assistance, adaptive cruise control, lane keep assistance, lane departure warnings and traffic jam and queuing assistance, unless the vehicle is also enabled with artificial
intelligence and technology that allows the vehicle to carry
out all the mechanical operations of driving without the
active control or continuous monitoring of a natural person.

Section 2. (a) An autonomous vehicle may be operated
in autonomous mode in this state only if ALEA has issued a
certificate of compliance for the make and model of the
vehicle. For the purpose of enforcing the traffic laws and
other laws applicable to drivers and motor vehicles operated
in this state, the person operating the autonomous vehicle in
autonomous mode shall be deemed the driver of the autonomous
vehicle regardless of whether the person is physically present
in the autonomous vehicle while it is engaged.

(b) ALEA may create an endorsement on the driver's
license for drivers of autonomous vehicles and prescribe
additional testing requirements for persons licensed to
operate an autonomous vehicle.

(c) Each autonomous vehicle operated in the state
shall be registered and licensed in the same manner as other
motor vehicles.

(d) Each autonomous vehicle approved for operation
of the public roads and operated by a licensed driver shall
carry liability insurance in an amount of at least five
million dollars ($5,000,000).

(e) ALEA and the Department of Revenue may adopt
rules necessary to effectuate the registration and licensing
of autonomous vehicles.
Section 3. (a) Each make and model of autonomous vehicle operating on the roads of this state shall be tested by a person licensed by ALEA to test autonomous technology and approved for operation by ALEA. A person may apply for a license to test the autonomous technology installed on the autonomous vehicles of the person by submitting an application to ALEA on a form provided by the agency and paying all applicable fees as determined by ALEA.

(b) An applicant for a license to test autonomous vehicles pursuant to this section shall do all of the following:

(1) Submit proof that each autonomous vehicle which will be tested in this state is covered by insurance in an amount that meets or exceeds the minimum requirements provided in this act.

(2) Submit with the application proof satisfactory to ALEA that one or more of the autonomous vehicles of the applicant has been driven by the applicant for a combined minimum of not less than 10,000 miles in autonomous mode. The applicant must further provide proof that the autonomous vehicle or vehicles of the applicant have been driven in various conditions, such as, without limitation, operating the autonomous vehicle in various weather conditions, on various types of roads, and during various times of the day and night, for a number of miles that demonstrates the safety of the vehicle or vehicles in those conditions.
(3) Demonstrate the artificial intelligence and technology used in its autonomous vehicles to ALEA for approval.

(4) Submit the proposed geographic locations where the applicant wishes to test the autonomous vehicles. The applicant must establish to the satisfaction of ALEA that the autonomous vehicles of the applicant are capable of being driven in the conditions of the proposed geographic locations in compliance with the traffic laws and other laws applicable to drivers and motor vehicles operated in this state.

(5) Submit a proof of insurance acceptable to ALEA or a surety bond or deposit of cash in lieu of the bond in the amount of five million dollars ($5,000,000).

(c) ALEA may require such additional information, documentation, and affirmations as it deems necessary or appropriate before approving an application to test autonomous vehicles that is submitted pursuant to this section.

(d) A license to test autonomous vehicles that is issued by ALEA pursuant to this section is valid for one year after the date of issuance and may be renewed by submitting an application in the same manner as for the initial license. To avoid a lapse in the license issued pursuant to this section, a licensee wishing to renew his or her license must submit an application for renewal at least 30 days before the date on which the license is set to expire.

Section 4. (a) Before testing any autonomous vehicle, the licensee shall affirm on a form provided by ALEA
that, to the best of his or her knowledge, the autonomous vehicle to be tested meets each of the following requirements:

(1) The vehicle is safe to operate on the highways of this state.

(2) The vehicle 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 while the vehicle is operating in autonomous mode. The autonomous technology sensor data shall 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 shall be preserved for three years after the date of the collision.

(3) The vehicle has a switch to engage and disengage the autonomous operation of the vehicle that is easily accessible to the operator of the autonomous vehicle and is not likely to distract the operator from focusing on the road while engaging or disengaging the autonomous operation.

(4) The vehicle has a system to safely alert the operator of the autonomous vehicle to take control of the autonomous vehicle if a technology failure is detected.

(5) The vehicle is equipped with autonomous technology which does not adversely affect any other safety
features of the vehicle which are subject to federal regulation.

(b) When ALEA issues a license to test autonomous vehicles pursuant to this act, the license shall identify the geographic locations where ALEA authorizes the licensee to test autonomous vehicles. A licensee may submit a request to ALEA to add one or more geographic locations where the licensee may test autonomous vehicles after a certificate is issued. To obtain approval for an additional geographic location, the licensee must establish to the satisfaction of ALEA that the autonomous vehicles of the licensee are capable of being driven in the conditions of the proposed geographic location in compliance with the traffic laws and other laws applicable to drivers and motor vehicles operated in this state. ALEA shall issue a new certificate for each geographic location approved to test autonomous vehicles.

(c) Unless otherwise approved in advance by ALEA, a licensee shall ensure that at least two persons are physically present in an autonomous vehicle at all times that the autonomous vehicle is being tested on a public road, one of whom is the operator who must at all times be seated in a position that allows the person to take complete control of the vehicle, including, without limitation, control of the steering, throttle, and brakes.

(d) Each person present in an autonomous vehicle during testing shall meet all of the following requirements:

(1) Hold a valid driver's license.
(2) Be trained in the operation of the autonomous vehicle and have received instruction concerning the capabilities and limitations of the autonomous vehicle.

(3) Monitor for any aberration in the functioning of the autonomous vehicle while it is engaged.

(e) A licensee shall submit a report to ALEA within 10 business days after an autonomous vehicle of the licensee is involved in an accident during the course of testing or after an operator of such autonomous vehicle is issued a citation for any violation of the traffic laws or other laws applicable to drivers and motor vehicles operated in this state during the course of testing. The report must include a copy of any accident report prepared regarding an accident and any citation issued to the operator or licensee and such additional information as may be required by ALEA.

Section 5. (a) ALEA may suspend, revoke, or refuse to renew a license to test autonomous vehicles or may deny a license to operate an autonomous vehicle for any of the following reasons:

(1) Failure to comply with the traffic laws of this state.

(2) Any material misstatement on the application for the issuance or renewal of a license.

(3) Operation of an autonomous vehicle by the person would create a danger to the public.

(4) Failure to comply with the other requirements of this act.
(b) If ALEA has reasonable cause to believe that a specific model of autonomous vehicle or artificial intelligence and technology used in an autonomous vehicle presents an unsafe condition for operation on the highways of this state, it may prohibit the operation of the model or the technology in the state until the unsafe condition is eliminated.

(c) An applicant whose license to test autonomous vehicles or a licensee may appeal a denial, suspension, revocation of, or refusal to renew a license within 30 days of receipt of notice of the adverse action. The appeal shall be conducted in accordance with the rules of the Public Safety Division of ALEA.

Section 6. The Alabama State Law Enforcement Agency may adopt rules as necessary providing for the testing and operation of autonomous vehicles in this state.

Section 7. This act shall become effective on the first day of the third month following its passage and approval by the Governor, or its otherwise becoming law.