

1 SB178  
2 173421-1  
3 By Senator Marsh  
4 RFD: Transportation and Energy  
5 First Read: 09-FEB-16

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8 SYNOPSIS: This bill would authorize the operation of  
9 autonomous motor vehicles on the public roads of  
10 the state and would require that each make and  
11 model of autonomous vehicle be tested and approved  
12 for use before being operated on a public road by  
13 anyone other than a licensed tester.

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

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

22 This bill would authorize ALEA to create a  
23 new endorsement on the driver's license and specify  
24 additional testing requirements for persons  
25 authorized to operate approved autonomous vehicles.

26  
27 A BILL

1 TO BE ENTITLED

2 AN ACT

3  
4 To authorize the operation of autonomous motor  
5 vehicles on the public roads of the state; to require testing  
6 of autonomous technology and approval by the Alabama State Law  
7 Enforcement Agency of autonomous vehicles authorized to  
8 operate; to require each autonomous vehicle operated on a  
9 public road to carry insurance; and to authorize the agency to  
10 create a driver's license endorsement and require testing.

11 BE IT ENACTED BY THE LEGISLATURE OF ALABAMA:

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

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

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

18 (3) AUTONOMOUS VEHICLE. A motor vehicle that uses  
19 artificial intelligence, sensors, and global positioning  
20 system coordinates to drive itself without active intervention  
21 of a human operator. The term excludes a vehicle enabled with  
22 a safety system or driver assistance system, including,  
23 without limitation, a system to provide electronic blind spot  
24 assistance, crash avoidance, emergency braking, parking  
25 assistance, adaptive cruise control, lane keep assistance,  
26 lane departure warnings and traffic jam and queuing  
27 assistance, unless the vehicle is also enabled with artificial

1 intelligence and technology that allows the vehicle to carry  
2 out all the mechanical operations of driving without the  
3 active control or continuous monitoring of a natural person.

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

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

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

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

24 (e) ALEA and the Department of Revenue may adopt  
25 rules necessary to effectuate the registration and licensing  
26 of autonomous vehicles.

1                   Section 3. (a) Each make and model of autonomous  
2 vehicle operating on the roads of this state shall be tested  
3 by a person licensed by ALEA to test autonomous technology and  
4 approved for operation by ALEA. A person may apply for a  
5 license to test the autonomous technology installed on the  
6 autonomous vehicles of the person by submitting an application  
7 to ALEA on a form provided by the agency and paying all  
8 applicable fees as determined by ALEA.

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

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

16                   (2) Submit with the application proof satisfactory  
17 to ALEA that one or more of the autonomous vehicles of the  
18 applicant has been driven by the applicant for a combined  
19 minimum of not less than 10,000 miles in autonomous mode. The  
20 applicant must further provide proof that the autonomous  
21 vehicle or vehicles of the applicant have been driven in  
22 various conditions, such as, without limitation, operating the  
23 autonomous vehicle in various weather conditions, on various  
24 types of roads, and during various times of the day and night,  
25 for a number of miles that demonstrates the safety of the  
26 vehicle or vehicles in those conditions.

1           (3) Demonstrate the artificial intelligence and  
2 technology used in its autonomous vehicles to ALEA for  
3 approval.

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

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

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

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

26           Section 4. (a) Before testing any autonomous  
27 vehicle, the licensee shall affirm on a form provided by ALEA

1 that, to the best of his or her knowledge, the autonomous  
2 vehicle to be tested meets each of the following requirements:

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

5 (2) The vehicle has a separate mechanism in addition  
6 to, and separate from, any other mechanism required by law, to  
7 capture and store the autonomous technology sensor data for at  
8 least 30 seconds before a collision occurs between the  
9 autonomous vehicle and another vehicle, object, or natural  
10 person while the vehicle is operating in autonomous mode. The  
11 autonomous technology sensor data shall be captured and stored  
12 in a read-only format by the mechanism so that the data is  
13 retained until extracted from the mechanism by an external  
14 device capable of downloading and storing the data. Such data  
15 shall be preserved for three years after the date of the  
16 collision.

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

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

25 (5) The vehicle is equipped with autonomous  
26 technology which does not adversely affect any other safety

1 features of the vehicle which are subject to federal  
2 regulation.

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

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

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

- 27 (1) Hold a valid driver's license.



1           (2) Be trained in the operation of the autonomous  
2 vehicle and have received instruction concerning the  
3 capabilities and limitations of the autonomous vehicle.

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

6           (e) A licensee shall submit a report to ALEA within  
7 10 business days after an autonomous vehicle of the licensee  
8 is involved in an accident during the course of testing or  
9 after an operator of such autonomous vehicle is issued a  
10 citation for any violation of the traffic laws or other laws  
11 applicable to drivers and motor vehicles operated in this  
12 state during the course of testing. The report must include a  
13 copy of any accident report prepared regarding an accident and  
14 any citation issued to the operator or licensee and such  
15 additional information as may be required by ALEA.

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

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

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

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

26           (4) Failure to comply with the other requirements of  
27 this act.

1 (b) If ALEA has reasonable cause to believe that a  
2 specific model of autonomous vehicle or artificial  
3 intelligence and technology used in an autonomous vehicle  
4 presents an unsafe condition for operation on the highways of  
5 this state, it may prohibit the operation of the model or the  
6 technology in the state until the unsafe condition is  
7 eliminated.

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

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

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