

## HOUSE OF REPRESENTATIVES STAFF ANALYSIS

**BILL #:** CS/HB 725 Autonomous Vehicles

**SPONSOR(S):** Transportation & Infrastructure Subcommittee; Brodeur and others

**TIED BILLS:** IDEN./SIM. **BILLS:** SB 1066

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Transportation & Infrastructure Subcommittee	14 Y, 0 N, As CS	Johnson	Vickers
2) Government Accountability Committee		Johnson	Williamson

### SUMMARY ANALYSIS

Current law authorizes a person possessing a valid driver license to operate an autonomous vehicle in autonomous mode on Florida roads if the vehicle is equipped with autonomous technology. The physical presence of an operator in the autonomous vehicle is not required under specified conditions. Current law provides that federal standards and regulations relating to autonomous vehicles supersede Florida law when there is a conflict.

An "autonomous vehicle" is a vehicle equipped with autonomous technology. Autonomous technology is defined as technology installed on a motor vehicle that has the capability to drive the vehicle on which the technology is installed without the active control or monitoring of a human operator.

The bill amends current law relating to the operation of autonomous vehicles. For purposes of determining compliance with applicable traffic and motor vehicle laws, the bill provides that autonomous technology is deemed to be the operator of an autonomous vehicle operating in autonomous mode regardless of whether a human person is physically present in the vehicle. It also provides that a licensed human operator is not required in order to operate an autonomous vehicle in certain instances. When an autonomous vehicle is operating in autonomous mode, the autonomous technology is deemed to be validly licensed to operate a motor vehicle and to satisfy all examination and physical acts required of a human operator.

The bill provides that certain provisions of law do not apply to autonomous vehicles operating in autonomous mode if, in the event of a crash, the vehicle owner, or a person on behalf of the owner, promptly contacts law enforcement to report the crash. The bill also provides that provisions regarding unattended motor vehicles do not apply to autonomous vehicles operating in autonomous mode and requirements regarding passenger restraint only apply when a human person is physically present in the vehicle.

For autonomous vehicles operating in autonomous mode, the bill provides that the autonomous technology is deemed to be validly licensed.

The bill does not appear to have a fiscal impact on the state or local governments.

## FULL ANALYSIS

### I. SUBSTANTIVE ANALYSIS

#### A. EFFECT OF PROPOSED CHANGES:

##### Current Situation

##### Autonomous Vehicles

While there are multiple definitions for various levels of vehicle automation, the National Highway Traffic Safety Administration (NHTSA) has adopted the SAE International (SAE)<sup>1</sup> definition for automation, which divides vehicles into levels based on “who does what, when.” Generally:

- At SAE Level 0, the human driver does everything;
- At SAE Level 1, an automated system on the vehicle can sometimes assist the human driver conduct some parts of the driving task;
- At SAE Level 2, an automated system on the vehicle can actually conduct some parts of the driving task, while the human continues to monitor the driving environment and performs the rest of the driving task;
- At SAE Level 3, an automated system can both actually conduct some parts of the driving task and monitor the driving environment in some instances, but the human driver must be ready to take back control when the automated system requests;
- At SAE Level 4, an automated system can conduct the driving task and monitor the driving environment, and the human need not take back control, but the automated system can operate only in certain environments and under certain conditions; and
- At SAE Level 5, the automated system can perform all driving tasks under all conditions that a human driver could perform.<sup>2</sup>

##### Federal Policy

In January 2016, the United States Department of Transportation (USDOT) Secretary announced new policy that updated the NHTSA’s 2013 preliminary policy statement on autonomous vehicles. The announcement was made in conjunction with a commitment of “nearly \$4 billion over the next 10 years to accelerate the development and adoption of safe vehicle automation.”<sup>3</sup> The announcement also indicated that within the next six months NHTSA would propose guidance to the industry on establishing principles of safe operation for fully autonomous vehicles.<sup>4</sup>

In September 2016, the USDOT issued its model state policy on autonomous vehicles in order to assist in creating a consistent national framework rather than a patchwork of inconsistent laws and regulations. In developing the model policy, USDOT worked with “industry leaders, experts in the field, state governments, the traveling public, and safety advocates, among others.”<sup>5</sup> The model state policy addresses issues such as autonomous vehicle testing by the manufacturer, who is considered the “driver” of an autonomous vehicle, registration and titling of autonomous vehicles, law enforcement considerations, and liability and insurance issues.<sup>6</sup>

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<sup>1</sup> SAE International is a global association of more than 128,000 engineers and related technical experts in the aerospace, automotive, and commercial-vehicle industries. <http://www.sae.org/about/> (last visited March 14, 2017).

<sup>2</sup> SAE International website: <https://www.sae.org/news/3544/> (last visited March 14, 2017).

<sup>3</sup> National Conference of State Legislatures, *Autonomous Vehicles*, Feb. 21, 2017, available at <http://www.ncsl.org/research/transportation/autonomous-vehicles-self-driving-vehicles-enacted-legislation.aspx> (last visited March 14, 2017).

<sup>4</sup> *Id.*

<sup>5</sup> U.S. Department of Transportation, *Message from Secretary of Transportation Anthony R. Foxx*, available at <https://www.transportation.gov/AV> (last visited March 14, 2017).

<sup>6</sup> U.S. Department of Transportation, *Federal Automated Vehicles Policy*, September 2016, available at <https://www.transportation.gov/sites/dot.gov/files/docs/AV%20policy%20guidance%20PDF.pdf> (last visited March 14, 2017).

## Florida Law

### *Autonomous Vehicles*

Section 316.003(2), F.S., defines “autonomous vehicle” as any vehicle equipped with autonomous technology. “Autonomous technology” means technology installed on a motor vehicle that has the capability to drive the vehicle on which the technology is installed without the active control or monitoring by a human operator.<sup>7</sup>

Current law authorizes a person possessing a valid driver license to operate an autonomous vehicle in autonomous mode on Florida roads if the vehicle is equipped with autonomous technology.<sup>8</sup> For purposes of Ch. 316, F.S., a person is deemed to be operating an autonomous vehicle operating in autonomous mode when he or she causes the vehicle’s autonomous technology to engage. This is regardless of whether he or she is physically present in the vehicle while it is operating in autonomous mode.<sup>9</sup>

The original manufacturer of a vehicle converted by a third party into an autonomous vehicle is not liable in, and has a defense to and must be dismissed from, any legal action brought against the original manufacturer by any person injured due to an alleged vehicle defect caused by the conversion of the vehicle, or by equipment installed by the converter, unless the alleged defect was present in the vehicle as originally manufactured.<sup>10</sup>

Section 319.145, F.S., requires an autonomous vehicle registered in Florida<sup>11</sup> to meet federal standards and regulations for a motor vehicle. The autonomous vehicle must:

- Have a means inside the vehicle to visually indicate when the vehicle is operating in autonomous mode;
- Have a means to alert the vehicle operator if a technology failure affecting the ability of the vehicle to safely operate autonomously is detected while the vehicle is operating autonomously in order to indicate to the operator to take control of the vehicle; and
- Be capable of being operated in compliance with the applicable traffic and motor vehicle laws of this state.<sup>12</sup>

NHTSA regulations supersede s. 319.145, F.S., when the section is found to be in conflict with federal regulations.<sup>13</sup>

### *Driver Licensing*

Section 322.03, F.S., generally requires drivers to be licensed and provides penalties for operating a motor vehicle without a valid driver license. However, the section does not address licensing of drivers operating autonomous vehicles operating in autonomous mode.

### **Proposed Changes**

The bill amends s. 316.85, F.S., relating to the operation of autonomous vehicles. In addition to operating an autonomous vehicle, the bill authorizes a person to engage autonomous technology to operate an autonomous vehicle in autonomous mode on Florida roads if the vehicle is equipped with autonomous technology.

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<sup>7</sup> Autonomous technology does not include a motor vehicle enabled with active safety systems or driver assistance systems, 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 warning, or traffic jam and queuing assistant, unless any such system alone or in combination with other systems enables the vehicle on which the technology is installed to drive without the active control or monitoring by a human operator. Section 316.003(2), F.S.

<sup>8</sup> Section 316.85(1), F.S.

<sup>9</sup> Section 316.85(2), F.S.

<sup>10</sup> Section 316.86, F.S.

<sup>11</sup> Chapter 320, F.S., reflects no vehicle registration provision specific to autonomous vehicles.

<sup>12</sup> Section 319.145(1), F.S.

<sup>13</sup> Section 319.145(2), F.S.

For purposes of determining compliance with all of the state's applicable traffic and motor vehicle laws, autonomous technology is deemed to be the operator of an autonomous vehicle operating in autonomous mode, regardless of whether a human person is physically present in the vehicle while the vehicle is operating in such mode. The state's traffic or motor vehicle laws do not prohibit autonomous technology from being deemed the operator of an autonomous vehicle operating in autonomous mode and do not require a licensed human operator to operate an autonomous vehicle, except as provided in s. 319.145(1), F.S.<sup>14</sup> As such, the bill no longer requires a person operating an autonomous vehicle or engaging autonomous technology to possess a valid driver license to operate or engage autonomous technology to operate an autonomous vehicle in autonomous mode.

When an autonomous vehicle is operating in autonomous mode, the autonomous technology is deemed to be validly licensed<sup>15</sup> to operate a motor vehicle and to satisfy all examinations and physical acts required of a human operator.

The bill specifies that the following provisions do not apply to autonomous vehicles operating in autonomous mode if, in the event of a crash involving the vehicle, the vehicle owner, or a person on behalf of the vehicle owner, promptly contacts law enforcement to report the crash:

- Section 316.062, F.S., relating to the duty to give information and render aid;
- Section 316.063, F.S., relating to duty upon damaging unattended vehicle or property; and
- Section 316.065, F.S., relating to crash reports.

In addition, the bill also specifies that provisions in current law relating to unattended motor vehicles<sup>16</sup> do not apply to autonomous vehicles operating in autonomous mode and governing child restraint requirements<sup>17</sup> and seat belt usage<sup>18</sup> only apply to a human person physically present in a motor vehicle.

The bill amends s. 319.145(1)(a), F.S., clarifying that regardless of whether a human operator is physically present in an autonomous vehicle, the vehicle must have a system to safely alert a human operator physically present in the vehicle if an autonomous technology failure is detected while the autonomous technology is engaged. When the alert is given, the system must:

- If a human operator is physically present in the vehicle, require the human operator to take control of the autonomous vehicle; or
- If a human operator does not or is not able to take control of the autonomous vehicle, or if a human operator is not physically present in the vehicle, be capable of bringing the vehicle to a complete stop.

The bill creates s. 322.03(5), F.S., providing that notwithstanding any other provision of law to the contrary, for autonomous vehicles operating in autonomous mode, the autonomous technology is deemed to be validly licensed.

Finally, the bill conforms a cross-reference.

## B. SECTION DIRECTORY:

Section 1 amends s. 316.85, F.S., relating to the operation of autonomous vehicles.

Section 2 amends s. 319.145, F.S., relating to autonomous vehicles.

Section 3 amends s. 322.03, F.S., providing that drivers must be licensed.

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<sup>14</sup> Section 319.145(1), F.S., requires autonomous vehicles to meet certain standards.

<sup>15</sup> Section 322.03, F.S., requires drivers to be licensed.

<sup>16</sup> Section 316.1975, F.S.

<sup>17</sup> Section 316.613, F.S.

<sup>18</sup> Section 316.614, F.S.

Section 4 amends s. 322.15, F.S., conforming a cross reference.

Section 5 provides an effective date of July 1, 2017.

## II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

### A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

None.

### B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

None.

### C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill could increase testing and research of autonomous vehicles in Florida.

### D. FISCAL COMMENTS:

None.

## III. COMMENTS

### A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not Applicable. This bill does not appear to require counties or municipalities to spend funds or take action requiring the expenditures of funds; reduce the authority that counties or municipalities have to raise revenues in the aggregate; or reduce the percentage of state tax shared with counties or municipalities.

2. Other:

None.

### B. RULE-MAKING AUTHORITY:

None.

### C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

#### **IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES**

On March 7, 2017, the Transportation & Infrastructure Subcommittee adopted one amendment and reported the bill favorably as a committee substitute. The amendment provided that for autonomous vehicles operating in autonomous mode the autonomous technology is deemed to be validly licensed.

This analysis is written to the committee substitute as reported favorably by the Transportation & Infrastructure Subcommittee.