DRAFT ONLY NOT APPROVED FOR INTRODUCTION

HOUSE BILL NO.

Autonomous vehicles.

Sponsored by: Joint Transportation, Highways & Military
Affairs Interim Committee

A BILL

for

- 1 AN ACT relating to motor vehicles; providing for the
- 2 regulation, registration and licensing of fully autonomous
- 3 vehicles; authorizing a fee; creating an account; requiring
- 4 rulemaking; and providing for effective dates.

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STAFF COMMENT

This bill draft provides illustration for discussion purposes, but each section opens policy considerations, which the working group plans to explain at the September 2020 committee meeting. The Select Committee on Blockchain, Financial Technology and Digital Innovation Technology is also participating in this discussion. The bill draft has not been through the complete LSO internal review process, and technical or substantive changes may be required even after committee action on the bill draft.

1	Be It Enacted by the Legislature of the State of Wyoming:
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3	Section 1 . W.S. 31-21-101 through 31-21-110 are
4	created to read:
5	
6	Chapter 21
7	AUTONOMOUS MOTOR VEHICLES
8	
9	Article 1
10	AUTOMATED DRIVING SYSTEM REGULATION
11	
12	31-21-101. Definitions.
13	
14	(a) As used in this chapter:
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16	(i) "Automated driving system" means the
17	hardware and software that are collectively capable of
18	performing the entire dynamic driving task on a sustained
19	basis, without active physical control or monitoring by a
20	human driver, regardless of whether the system is limited
21	to a specific operational design domain. An automated
22	driving system is not a vehicle that is equipped with only
23	one (1) or more collision avoidance systems, including

1	electronic blind spot assistance, automated emergency
2	braking systems, park assist, adaptive cruise control, lane
3	keep assist, lane departure warning, traffic jam and
4	queuing assist or other similar systems that enhance safety
5	or provide the human driver assistance, but where the
6	collision avoidance systems are not capable, collectively
7	or singularly, of driving the vehicle without the active
8	control or monitoring of a human driver;
9	
10	(ii) "Department" means the department of
11	transportation;
12	
13	(iii) "Dynamic driving task" means all of the
14	real-time operational and tactical functions required to
15	operate a vehicle in on-road traffic, excluding strategic
16	functions such as trip scheduling and selection of
17	destinations and waypoints, and including at least all of
18	the following:
19	
20	(A) Lateral vehicle motion control via
21	steering;

1	(B) Longitudinal motion control via
2	acceleration and deceleration;
3	
4	(C) Monitoring the driving environment via
5	object and event detection, recognition, classification and
6	response preparation;
7	
8	(D) Object and event response execution;
9	
10	(E) Maneuver planning;
11	
12	(F) Enhancing conspicuity via lighting,
13	signaling and gesturing.
14	
15	(iv) "Fully autonomous vehicle" means a vehicle
16	equipped with an automated driving system designed to
17	function without a human driver as a level four (4) or five
18	(5) system as the standards of driving automation are
19	defined in the SAE J3016 standard;
20	
21	(v) "Highway" means as defined in
22	W.S. 31-1-101(a)(viii);
23	

1 (vi) "Human driver" means a natural person in

2 the vehicle with a valid class of license for the type of

3 motor vehicle being operated who controls all or part of

4 the dynamic driving task;

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person 6 (vii) "Manufacturer" means the originally manufactures a vehicle and equips the vehicle 7 8 with an automated driving system or, in the case of a 9 vehicle not originally equipped with an automated driving 10 system, the person who modifies the vehicle by installing 11 an automated driving system to convert it to a fully 12 autonomous vehicle after the vehicle is originally 13 manufactured. "Manufacturer" also means the person who originally manufactures or who modifies the vehicle who 14 15 obtains certification that a fully autonomous vehicle is in 16 compliance with all applicable federal motor vehicle safety 17 standards for the vehicle's model year, or obtains a national highway traffic safety administration approved 18 exemption in lieu of certification, and attests that the 19 20 vehicle complies with all other applicable safety standards 21 and performance requirements required by state and federal 22 law;

1 (viii) "Minimal risk condition" means a low-risk 2 operating mode in which a fully autonomous vehicle 3 operating without a human driver achieves a reasonably safe 4 state, such as bringing the vehicle to a complete stop in a location that does not obstruct traffic or obstructs 5 traffic as little as possible, upon experiencing a failure 6 of the vehicle's automated driving system that renders the 7 8 vehicle unable to perform the entire dynamic driving task; 9 10 (ix) "On-demand autonomous vehicle network" 11 means a network used to dispatch or otherwise enable the 12 provision of transportation services with fully autonomous vehicles for purposes of transporting persons or goods, 13 including for-hire transportation and transportation for 14 15 compensation; 16 17 "Operational design domain" (x)means the specific operating domain in which an automated driving 18 19 system is designed to properly operate, including roadway 20 types, speed range, environmental conditions (weather, 21 daytime/nighttime, etc.) and other domain constraints;

1	(xi) "Operator" means a human driver who is
2	seated in the driver's seat, or, if there is no human
3	driver in the driver's seat, the person who causes a fully
4	autonomous vehicle to engage;
5	
6	(xii) "Request to intervene" means notification
7	by an automated driving system to a human driver, that the
8	human driver should promptly begin or resume performance of
9	part or all of the dynamic driving task;
10	
11	(xiii) "SAE J3016" means the Taxonomy and
12	Definitions for Terms Related to Driving Automation Systems
13	for On-Road Motor Vehicles published by SAE International
14	in September 2016 and any amendments thereto and any
15	successor standard publication.
16	
17	31-21-102. Operation of fully autonomous vehicles
18	without a human driver.
19	
20	(a) A person may operate a fully autonomous vehicle
21	on the highways of this state without a human driver
22	provided that an operational automated driving system is

1 engaged and the vehicle meets all of following the 2 conditions: 3 4 (i) If a failure of the automated driving system 5 occurs that renders the system unable to perform the entire dynamic driving task relevant to its intended operational 6 design domain, the fully autonomous vehicle will achieve a 7 8 minimal risk condition; 9 10 (ii) The fully autonomous vehicle is capable of 11 operating in compliance with all applicable traffic and 12 motor vehicle laws and regulations of this state, unless an exemption has been granted by department rules; 13 14 15 (iii) The vehicle bears the required 16 manufacturer's certification indicating that it has been 17 certified to be in compliance with all applicable federal

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national

safety administration

motor vehicle safety standards for the vehicle's model year

highway traffic

approved exemption in lieu of certification;

1	(iv) The vehicle is in compliance with all other
2	applicable safety standards and performance requirements
3	required by state and federal law.
4	
5	31-21-103. Licensing.
6	
7	(a) When an automated driving system installed on a
8	motor vehicle is engaged:
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10	(i) The automated driving system is considered
11	the driver for the purpose of assessing compliance with
12	applicable traffic or motor vehicle laws and the automated
13	driving system may satisfy electronically all physical acts
14	required by a driver of the vehicle; and
15 16 17 18 19 20 21	**************************************
22	(ii) The automated driving system is considered
23	to be licensed to operate the vehicle if the operator has a
24	valid class of license for the type of motor vehicle being
25	operated.

1	31-21-104. Insurance.
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3	Before operating a fully autonomous vehicle on highways in
4	this state without a human driver, a person shall submit
5	proof of financial responsibility satisfactory to the
6	department that the fully autonomous vehicle is covered by
7	insurance, proof of self-insurance or a bond that satisfies
8	the requirements of W.S. 31-2-225(e) in amounts specified
9	in W.S. 31-20-107(c).
L0 L1 L2 L3 L4 L5 L6 L7 L8 L9	W.S. 31-2-225(e) requires that a vehicle be insured before it may be registered and has several other requirements. It refers to different statutes than W.S. 31-20-107(c) for the amounts. The amounts required in W.S. 31-30-107(c) are higher. The amounts can be discussed and these references adjusted accordingly. Any requirements stated in this section need to be workable for both passenger and interstate commercial vehicles operating in Wyoming.
22	31-21-105. Duties after crashes involving fully
23	autonomous vehicles.
24	
25	(a) In the event of a crash:
26	
27	(i) The fully autonomous vehicle shall remain on
28	the scene of the crash when required by W.S. 31-5-1101 and

- 1 31-5-1102, but only where the fully autonomous vehicle
- 2 achieves a minimal risk condition as required by
- 3 W.S. 31-21-102(a)(i);

- 5 (ii) The operator of the fully autonomous
- 6 vehicle, or a person on behalf of the operator, shall
- 7 report the crash consistent with W.S. 31-5-1104, 31-5-1105
- 8 and 31-5-1107 and shall provide the information required in
- 9 W.S. 31-5-1103.

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- 11 (b) The operator, manufacturer, or both, of a fully
- 12 autonomous vehicle involved in a crash shall be liable if
- 13 either or both are at fault for any crash, each according
- 14 to the same applicable local and state laws that determine
- 15 liability for a crash involving a vehicle with a human
- 16 driver.

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- 18 31-21-106. On-demand autonomous vehicle network;
- 19 fully autonomous commercial vehicles.

- 21 (a) An on-demand autonomous vehicle network shall be
- 22 permitted to operate pursuant to state laws governing the
- 23 operation of transportation network companies, taxis or any

1	other	ground	transportation	for-hire	of	persons	or	of

- 2 goods, with the exception that any statutory provision that
- 3 reasonably applies only to a human driver would not apply
- 4 to the operation of fully autonomous vehicles with the
- 5 automated driving system engaged on an on-demand autonomous
- 6 vehicle network.

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8 STAFF COMMENT

- 9 Rather than listing "transportation network companies, 10 taxis or any other ground transportation for-hire," which
- 11 may give AVs the choice of how to be regulated, it may be
- 12 good to select one.
- 13 Rather than broadly not applying any provision that
- 14 reasonably applies only to a human driver, it may be that
- 15 the Committee wants any/some provision/s that applies to a
- 16 human driver to apply to the operator.
- 17 ********************************

- 19 (b) Fully autonomous commercial vehicles shall be
- 20 permitted to operate pursuant to state laws governing the
- 21 operation of commercial vehicles, except that any statutory
- 22 provision that reasonably applies only to a human driver
- 23 would not apply to the operation of fully autonomous
- 24 vehicles with the automated driving system engaged on an
- 25 on-demand autonomous vehicle network.
- 26 *******************
- 27 STAFF COMMENT
- 28 Rather than broadly not applying any provision that
- 29 reasonably applies only to a human driver, it may be that
- 30 the Committee wants any/some provision/s that applies to a
- 31 human driver to apply to the operator.

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3	31-21-107. Registration and title.
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5	(a) A fully autonomous vehicle shall be properly
6	registered in accordance with W.S. 31-2-201 and
7	W.S. 31-18-201 if it is a fully autonomous commercial
8	vehicle. If a fully autonomous vehicle is registered in
9	this state, the vehicle shall be identified on the
10	registration as a fully autonomous vehicle.
11	
12	(b) A fully autonomous vehicle shall be properly
13	titled in accordance with W.S. 31-2-101. If a fully
14	autonomous vehicle is titled in this state, the vehicle
15	shall be identified on the title as a fully autonomous
16	vehicle.
17 18 19 20 21 22 23 24 25	**************************************
26	(c) In the case of a vehicle not originally equipped
27	with an automated driving system but later modified by

1	installing an automated driving system to convert it to a
2	fully autonomous vehicle after the vehicle is originally
3	manufactured, the vehicle's annual registration due
4	immediately following the modification shall identify the
5	vehicle as a fully autonomous vehicle and the vehicle's
6	title shall be amended to identify the vehicle as a fully
7	autonomous vehicle. After the modification and on or before
8	the date that the annual registration is due, the owner of
9	record shall notify the county clerk in the county in which
10	the vehicle is:
11	
12	(i) Registered that the vehicle is now a fully
13	autonomous vehicle and the registration shall reflect the
14	modification; and
15	
16	(ii) Titled that the vehicle is now a fully
17	autonomous vehicle and the title shall be amended to
18	reflect the modification.
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20	31-21-108. Controlling authority.
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22	(a) Unless otherwise provided in this chapter, fully
23	autonomous vehicles and automated driving systems are

- 1 governed exclusively by this chapter, applicable federal
- 2 laws and department rules and are subject to state and
- 3 federal laws governing traffic on highways and equipment.
- 4 The department is the sole and exclusive state agency that
- 5 may implement the provisions of this chapter. The
- 6 department may impose any additional requirements that it
- 7 deems necessary to ensure the safe operation of fully
- 8 autonomous vehicles, automated driving systems or on-demand
- 9 autonomous vehicle networks. The department shall provide
- 10 for the administration and enforcement of this chapter by
- 11 its divisions.

- 13 (b) No state agency, political subdivision, county,
- 14 municipality or local entity may prohibit the operation of
- 15 fully autonomous vehicles, automated driving systems or on-
- 16 demand autonomous vehicle networks.

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- 18 31-21-109. Operation of a motor vehicle with an
- 19 automated driving system by a human driver.

- 21 (a) A human driver may operate a motor vehicle
- 22 equipped with an automated driving system capable of
- 23 performing the entire dynamic driving task but that is not

1 a fully autonomous vehicle if all of the following 2 conditions are true: 3 4 (i) The human driver holds the appropriate class of license for the type of motor vehicle being operated; 5 6 7 (ii) The automated driving system is designed 8 with the expectation that the human driver will respond appropriately to a request to intervene and to issue such a 9 10 request whenever the automated driving system is not 11 capable of performing the entire dynamic driving task; 12 13 (iii) The automated driving system is capable of being operated in compliance with all applicable traffic 14 and motor vehicle laws and regulations of this state, 15 16 unless an exemption has been granted by department rules. 17 18 (b) Nothing in this chapter prohibits or restricts a 19 human driver from operating a fully autonomous vehicle 20 equipped with controls that allow for the human driver to 21 control all or part of the dynamic driving task.

1 (c) A vehicle equipped with an automated driving 2 system and driven pursuant to subsection (a) of this 3 section and a fully autonomous vehicle driven pursuant to 4 subsection (b) of this section shall allow the human driver to take control in multiple manners, including through the 5 use of the brake, the accelerator pedal or the steering 6 wheel, and the vehicle shall alert the human driver that 7 the autonomous technology has been disengaged. 8

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10 31-21-110. Testing permits.

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12 The department may issue special permits, which shall not be in force more than ninety (90) days, authorizing the 13 operation of fully autonomous vehicles, automated driving 14 systems or on-demand autonomous vehicle networks. 15 The 16 permits shall be issued for the purpose of testing the use 17 such vehicles, systems or networks under actual operating conditions on the highways. The permits shall be 18 19 issued under the supervision of and under conditions 20 determined by the department.

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22 31-21-111. Rulemaking; fee; autonomous vehicle

23 account.

2	(a) Consistent with this chapter and other applicable
3	state and federal laws, the department shall promulgate
4	rules consistent with this chapter and that it determines
5	are necessary to implement this chapter and to ensure the
6	safe operation of fully autonomous vehicles on highways,
7	with or without human drivers, including rules for the
8	registration and insuring of fully autonomous vehicles,
9	license requirements for operators of fully autonomous
10	vehicles and vehicles equipped with automated driving
11	systems, and rules for the revocation, suspension or denial
12	of any license or any approval issued pursuant to this
13	chapter. In developing these rules, the department may
14	consult with any entity that has expertise in law
15	enforcement, automotive technology, automotive safety or
16	automated driving system design.

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18 (b) If federal rules regulating fully autonomous
19 vehicles conflict with this chapter or any rules
20 promulgated pursuant to this chapter, the federal
21 regulations shall be given precedence over the provisions
22 of this chapter or any rules promulgated pursuant thereto.

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1 (c) The department may assess an additional fee upon 2 an operator of a fully autonomous vehicle in an amount 3 necessary to recover all costs reasonably incurred by the 4 department attributable to regulation and administration to accommodate the vehicle. Once established, the department 5 may annually increase the fee authorized under this section 6 to recover costs reasonably incurred for regulation and 7 8 administration but not to exceed the percentage increase as 9 shown by the Wyoming cost-of-living index as determined by 10 the division of economic analysis of the department of administration and information unless authorized by the 11 12 legislature.

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(d) The funds the department receives from the fee 14 authorized in subsection (c) of this section shall be 15 16 deposited into an account, hereby created as the autonomous 17 vehicle account. Funds in the autonomous vehicle account are continuously appropriated to the department and shall 18 19 only be used for administration [and infrastructure 20 improvements] related to autonomous vehicles. Any funds the 21 within account, including any additional funds appropriated by the legislature, shall not lapse or revert 22

1	until directed by the legislature. Earnings on funds in the
2	account shall accrue to the account.
3 4 5 6 7 8 9	**************************************
10	Section 2. Not later than January 1, 2022, the
11	department shall promulgate rules to administer this act.
12	
13	Section 3.
14	
15	(a) Except as provided in subsection (b) of this
16	section, this act is effective immediately upon completion
17	of all acts necessary for a bill to become law as provided
18	by Article 4, Section 8 of the Wyoming Constitution.
19	
20	(b) Section 1 of this act is effective
21	January 1, 2022.
22	
23	(END)