

TRANSPORTATION PUBLIC WORKS

Autonomous Vehicles January 10, 2024



Texas State Law

Transportation Code Section 545.452 EXCLUSIVE REGULATION OF THE OPERATION OF AUTOMATED MOTOR VEHICLES AND AUTOMATED DRIVING SYSTEMS.

(b) A political subdivision of this state or a state agency may not impose a franchise or other regulation related to the operation of an automated motor vehicle or automated driving system.

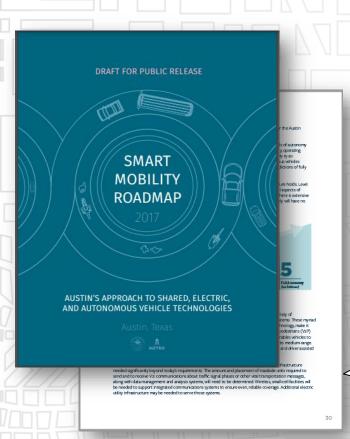
Bottom Line: As a City, we cannot regulate or permit AVs.

Our History With AVs

Smart Mobility Roadmap **2017** SB2205 gives the State exclusive AV oversight **2017**

Ford – ARGO AI begin testing AVs in Austin **2019** Cruise begins operating driverless rideshare **2022**

AV Working Group formed July **2023**



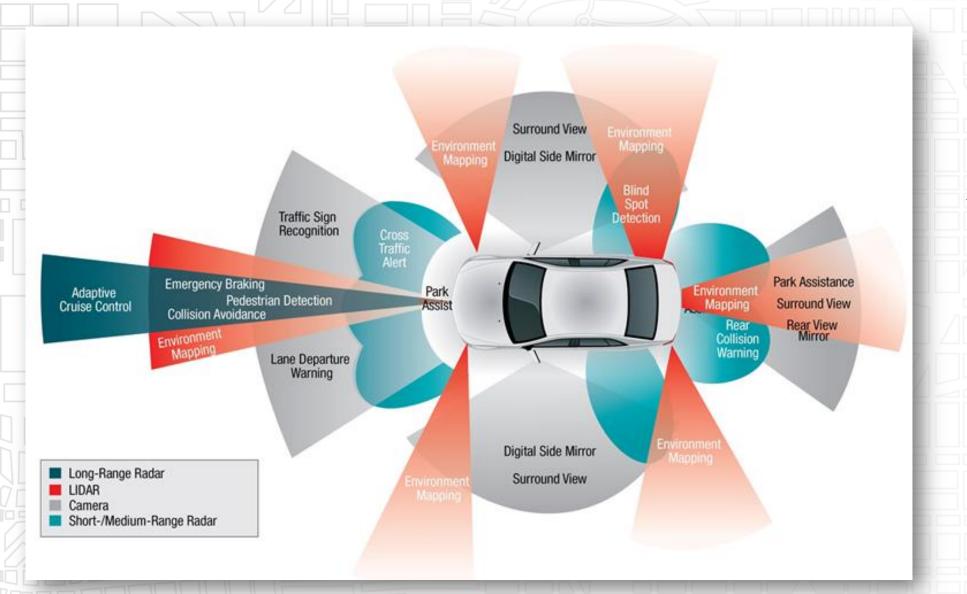




As AV demonstrations and discussions are occurring across the nation, City officials are cooperating with other cities, industry, research and government experts to develop best policies and practices for our region.

1/10/2024





The Tech

RADAR – detect and track moving objects

LiDAR – 3D environment map, detects obstacles

Camera – detailed information – visuals on traffic signs



Automation Levels

SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) AUTOMATION LEVELS













No **Automation**

Zero autonomy; the driver performs all driving tasks.

1

Driver **Assistance**

Vehicle is controlled by the driver, but some driving assist features may be included in the vehicle design.

2

Partial Automation

Vehicle has combined automated functions, like acceleration and steering, but the driver must remain engaged with the driving task and monitor the environment at all times.

3

Conditional Automation

Driver is a necessity, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice.





Full Automation

4

High **Automation**

The vehicle is capable of performing all driving functions under certain conditions. The driver may have the option to control the vehicle.

Full **Automation**

5

The vehicle is capable of performing all driving functions under all conditions. The driver may have the option to control the vehicle.

AV Companies Currently Deployed & Estimated Fleet Size

Company	Number	Status	Model
Cruise	Not currently operating in Austin		
Waymo	25	Includes Test Drivers	Jaguar I-PACE
ADMT (Volkswagen)	10	Includes Test Drivers	VW ID Buzz (European model)
AV Ride	4	Includes Test Drivers	Hyundai Sonata & Ioniq







Data current as of 11/30/23

AV Safety Working Group









Even though the City cannot regulate AVs, the City has been proactive by establishing the AV Safety Working Group to:

- Prepare and train for incidents
- Collect data and standardize documentation
- Facilitate Communication



AV Safety Working Group

- Creates a single group to communicate about incidents, communicate with AV companies, create procedures, and share data.
- Develop expectations around AV deployment and communication.
- Bring in all public safety departments for trainings and include Texas DPS and UT Police.
- Gather data and analyze it to determine "hot spots" and frequent issues. Communicate with AV companies to identify remedies.







