



Autonomous Vehicles in California

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California DMV

California Legislation

Senate Bill 1298

- DMV must adopt regulations setting forth requirements for:
- Manufacturers' testing of autonomous vehicles on public roadways
- Operation of autonomous vehicles on public roadways

California's Definition of Autonomous Vehicle

- A vehicle equipped with autonomous technology that has the capability to drive the vehicle without the active physical control or monitoring by a human operator



Testing Regulations Summary

- \$5 million in insurance, bond, or self-insurance
- Test driver requirements:
 - No DUI, not an at-fault driver, and no more than 1 point
 - Successful completion of test driver training program
 - Employee, contractor, or designee of manufacturer
- Test driver must be seated in driver seat during testing
- Report any accident within 10 days
- Report unanticipated disengagements of autonomous technology annually
- Testing permit valid for one year
- Vehicles excluded from testing:
 - Commercial vehicles
 - > 10,000 lbs GVW
 - Motorcycles

Approved Testing Permits



Mercedes-Benz

TESLA MOTORS



HONDA



BOSCH
Invented for life



Reported Accidents



Twelve crashes since testing permits issued

- 6 crashes occurred while AV stopped at red light
 - AV operated in autonomous mode, hit from behind a very low speed (1-5 mph)
 - Vehicle behind attempted right turn and clipped side mirrors
 - Left turn light turned green while light remained red for straight traffic
- AV waiting to turn left across traffic, opposing vehicle ran over median and struck AV
- Cross traffic vehicle ran stop sign and struck AV
- AV slowed to stop at intersection and hit from behind with enough force to deploy airbags

Reported Accidents

(cont.)

- AV slowed to yield to pedestrian. Vehicle behind AV struck AV while traveling at 10 mph. AV was traveling at 5 mph at time of impact.
- AV moved within lane to the left, then corrected to the right (while still in lane). Test driver took manual control and did not change the trajectory of the vehicle. AV struck an unoccupied vehicle that was parallel parked.
- Latest reported crash

Draft Components of Deployment Regulations

Theme: Necessary to ensure safe operation on public roads

- Independent 3rd party certification of a vehicle's performance relative to a specified set of behavioral competencies.
- Exclude autonomous vehicles capable of operating without the presence of a driver.
- Operators must be a licensed driver, responsible for monitoring the safe operation of the vehicle.
- Manufacturers initially issued a three-year deployment permit. Autonomous vehicles may be made available to the public on no more than a lease basis.
- During deployment period, collect and report on performance, safety, and usage of autonomous vehicles.

Deployment Regulations Public Workshops

- January 28, 2016
 - Sacramento

- February 2, 2016
 - Los Angeles

Dear Bernad Soriano,
Thank you so much for
coming to Bohannon
Middle school's collage
career Day and
talking to us about
your career! Something
I learned from you
is what you have to
do to become an
engineer. One thing
that impressed me
about your career
is how you work

ON SELF driving
cars. Because of
your presentation,
I have decided to
become a Lawyer.
I really appreciated
you coming.

Sincerely,
Alejandro

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Linked ™



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