



## Update: Connected and Autonomous Vehicles

Department of Public Works

Transportation Committee  
April 13, 2017

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### SUMMARY

1. Previous briefing to Transportation Committee in April 2016
2. Today's update:
  - a. Current state of autonomous & connected vehicle technology
  - b. State & National level developments
  - c. Plans for autonomous & connected vehicles in Riverside

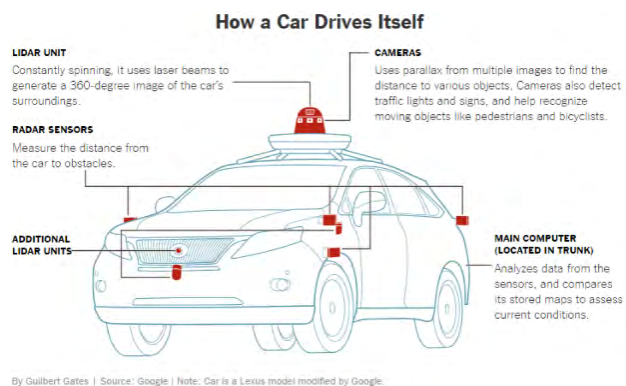


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## AUTONOMOUS VEHICLES

1. Use an array of laser and radio imaging tools to visualize the world
2. Can be constructed with or without the ability for a human driver to intervene

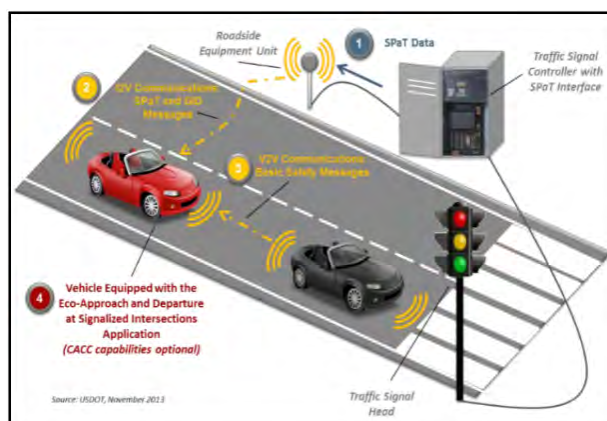


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## CONNECTED VEHICLES

1. 'Speak' to both traffic signals and nearby vehicles using secured radio communications
2. Can inform driver of critical safety information
3. Technology can be used in Autonomous Vehicles



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## RECENT DEVELOPMENTS

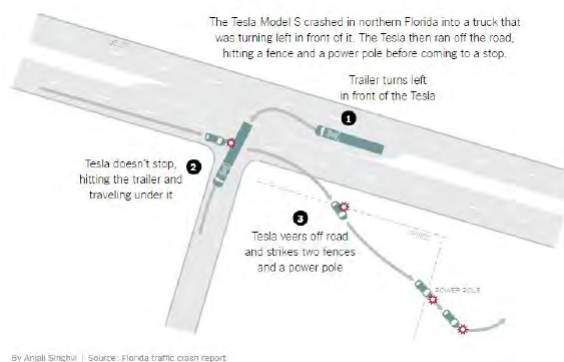
1. The Department of Motor Vehicles has issued revised, more lenient, regulations for autonomous vehicles in California
2. A fully-autonomous shuttle program has kicked off in San Ramon, California



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## RECENT DEVELOPMENTS

1. Uber, after experiencing an issue with red-light violations is back to testing in California
2. May 2016: the first fatal self-driving incident, highlighting the need for both imaging and connected technology



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## **PREPARING FOR CONNECTED & AUTONOMOUS IN RIVERSIDE**

1. Partnership with the University of California, Riverside (UCR) to deploy connected vehicle technology (non-autonomous) in Riverside at 5 intersections for use with UCR testing vehicles
2. Received funding through the Highway Safety Improvement Program to upgrade 250 traffic signal control computers, making them 'connected ready'
3. Applied for significant funding through the Volkswagen Green City program



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