

Intersection and Vehicle of the Future



INSIDE A CONNECTED VEHICLE

1. An under-the-hood box (a processor with memory) collects and transmits data between the vehicle's onboard equipment (OBE) and between OBEs on near-by connected vehicles and safety devices along the roadside.
2. A display panel, sitting in the vehicle's center console opposite the driver's dashboard, displays audio or visual safety warnings to the driver.
3. A radio and antenna, using dedicated short-range communications (DSRC) and a GPS receiver, receive and transmit data about the vehicle's position to other vehicles and to safety devices along the roadway.
4. Sensors collect additional information that improves the accuracy of the data being collected and transmitted by the vehicle.

Information for Freight Carriers
Provides information on deteriorating road and weather conditions on specific roadway segments to both truck drivers and their dispatchers to support routing and scheduling decisions

Intersection Movement Assist
Warns the driver if it is not safe to enter an intersection - for example, if another vehicle is running a red light or making a sudden turn.

Pedestrian in Signalized Crosswalk
Warns the bus driver when a pedestrian is crossing the street as the bus is making a right or left turn.

Information for Maintenance and Fleet Management Systems
Connected maintenance and specialty vehicles provide real-time information, such as their status, location, and materials onboard, to assist agencies with scheduling, maintenance, and inventory

Truck Forward Collision Warning
Warns truck drivers if a vehicle ahead is stopped or traveling slower and there is a potential risk of collision

Red Light Violation Warning
Issues warning to the driver if he is about to run a red light