

Active Cruise Control

What is Active Cruise Control

What:

A cruise control system that can maintain a desired differential to the vehicles in front, allowing the vehicle to accelerate, decelerate, or come to a stop as conditions require. **Video:** <https://youtu.be/LnUtjs-jeJA>

Why:

To improve passenger safety by providing warnings and / or intervention to potentially tired or distracted drivers.

Benefits:

Decrease in accidents / injuries / deaths caused by tired or distracted drivers

Pathway to autonomous vehicles

Increased traffic flow

How:

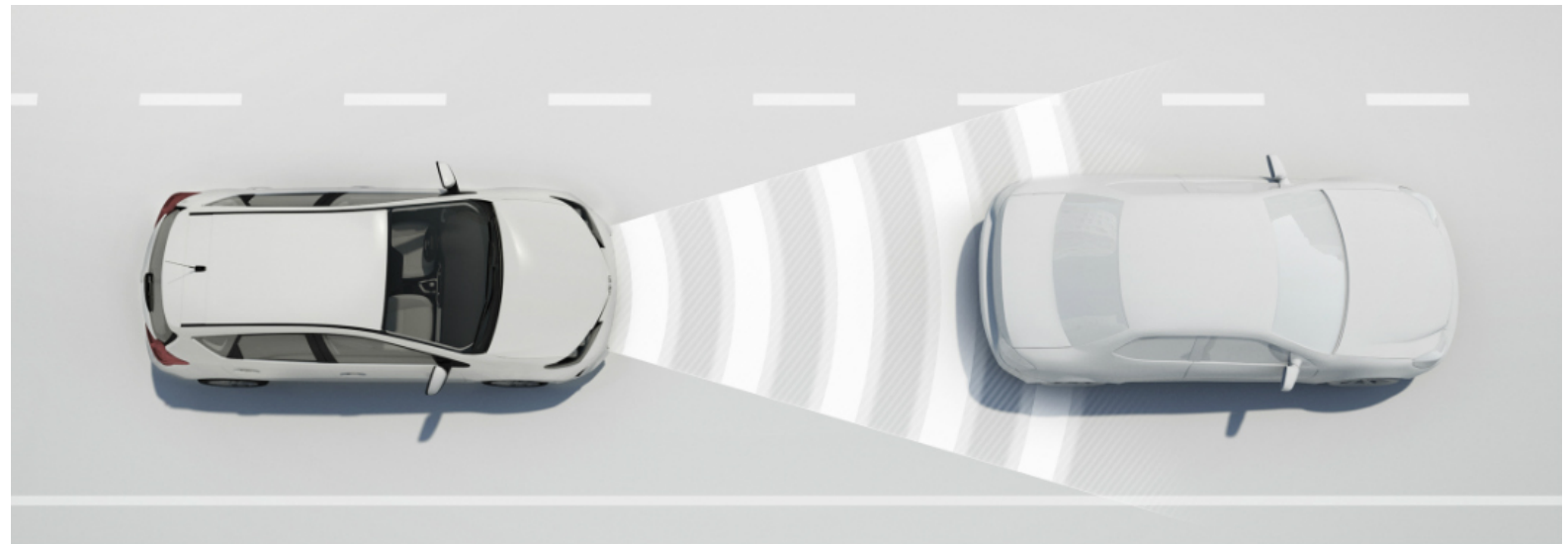
Utilization of sensors and electronically controlled systems can interpret and react to changing conditions faster than a human driver in many situations reacts. System can be “Passive” (Provide audio, visual or haptic feedback) to notify driver of a pending situation or can be “Active” (Intervention with engine control or brakes) as the situation dictates.

Active Cruise Control Operation

Radar to track vehicles in front

Maintain time / distance space to vehicle in front

Adjust throttle and brake to control



Active Cruise Control Components

Radar sensor(s)

Module(s)

Engine Management system

Electronic Throttle

Brake System

ABS

Control Switch



Active Cruise Control Diagnosis

Visual inspection

- Damage to bumper / Grill
- Damage to sensor
- Contamination

Fault codes

- OEM
- SAE

Electrical testing

- Power
- Ground
- Signals
- BUS Communications



Lane Departure System Service / Calibration

Mechanical

Targets

Some sensors hard mounted, some may be adjustable

Non-related repairs and services can require calibration

Alignment

Collision

Self / Auto

Driving

