Traffic Sign Recognition

What is Traffic Sign Recognition

What:

A system that utilizes a camera to “See” posted road signs, primarily for speed limits.

Why:

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

Benefits:

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

How:

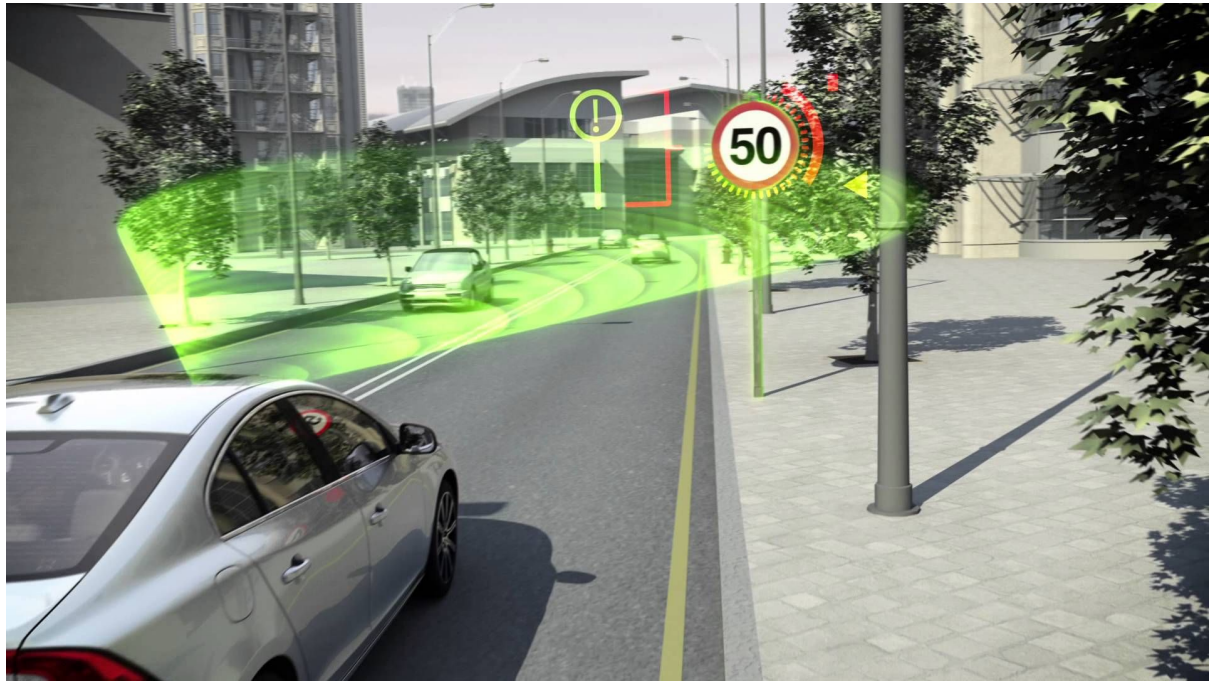
Utilization of cameras and electronically controlled systems can interpret and react to changing conditions faster than a human driver in many situations reacts. System is “Passive” (Provide audio, visual or haptic feedback) to notify driver of a pending situation.

Traffic Sign Recognition Operation

Camera “Sees” posted road signs

Can be used for: Navigation system, instrument cluster, Heads up Display to improve driver awareness

May have interaction with speed control

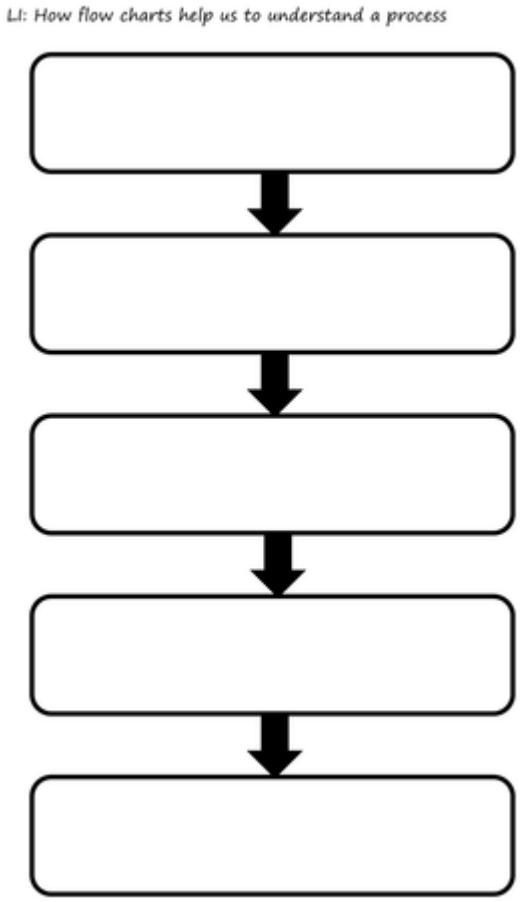


Traffic Sign Recognition Components

- Camera
- Module(s)
- Engine Management
  - Cruise Control
    - Throttle Control if applicable
- Control Switch
- Navigation
- Visual Indicators
  - Display
  - Instrument Cluster
  - Heads up Display (HUD)

Traffic Sign Recognition Diagnosis

- Visual inspection
  - Windshield
  - Damage to camera
- Fault codes
  - OEM
  - SAE
- Electrical testing
  - Power
  - Ground
  - Signals
  - BUS Communications
- External conditions
  - Weather
    - Heavy rain
    - Snow / Sleet / Hail
    - Fog
    - Smoke / Dust
  - Clarity of road signs
  - Cleanliness of windshield



Traffic Sign Recognition Service / Calibration

- Mechanical
  - Targets
  - Some sensors hard mounted, some may be adjustable
  - Non-related repairs and services can require calibration
    - Alignment
    - Collision
  - Lens Cleaning Systems
- Self / Auto
  - Driving