Problem statement:

Develop an IoT Drive Warning System that enhances driver safety by providing real-time alerts for potential collisions, lane departure, driver fatigue, and adverse road conditions.

KEY COMPONENTS:



Collision Detection
Sensors



Lane Departure Warning

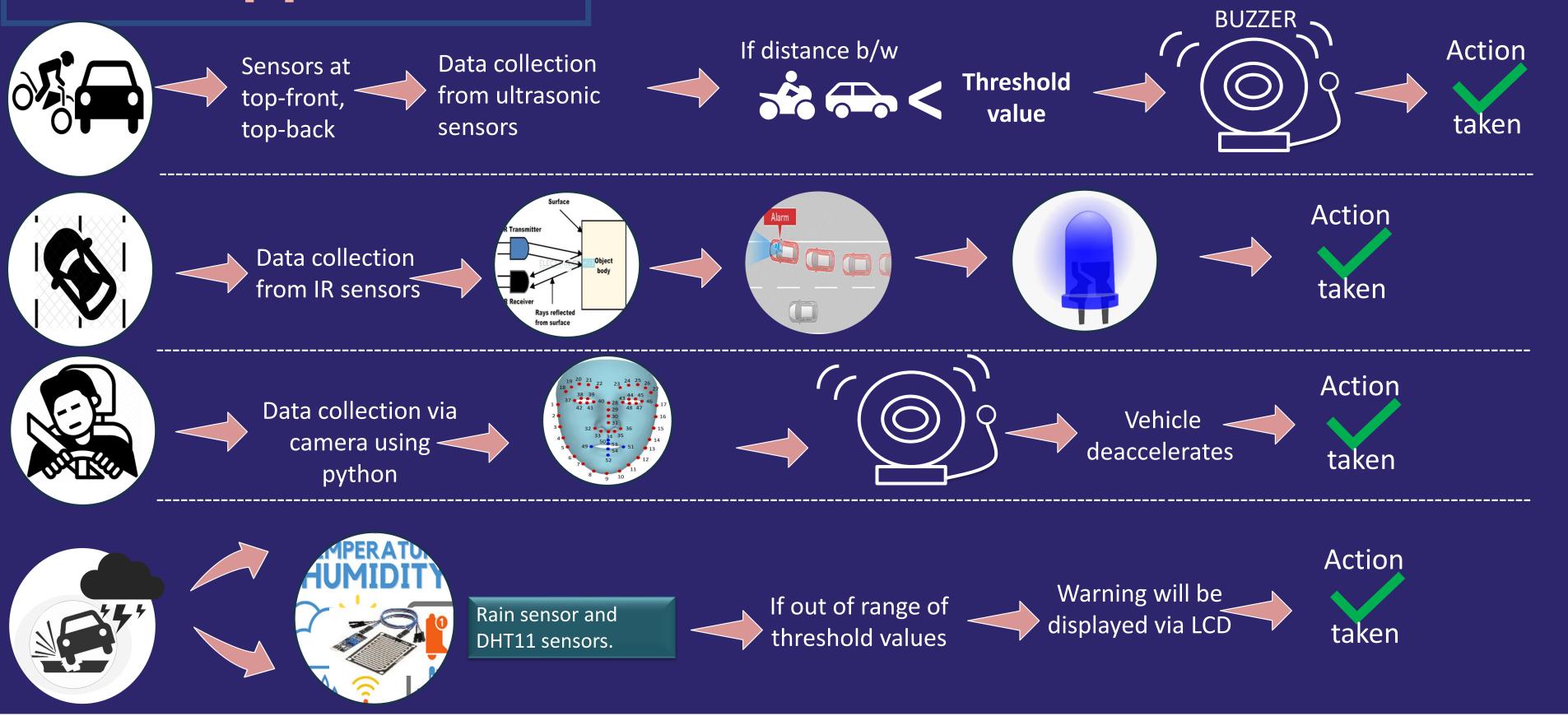


Driver Fatigue Monitoring



Weather Condition Alerts

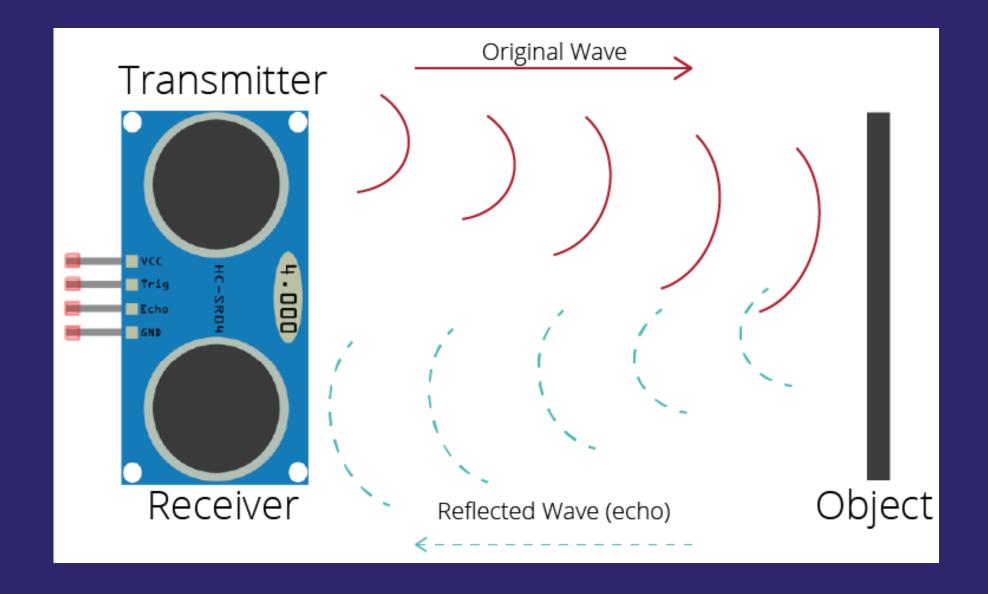
Idea/Approach:

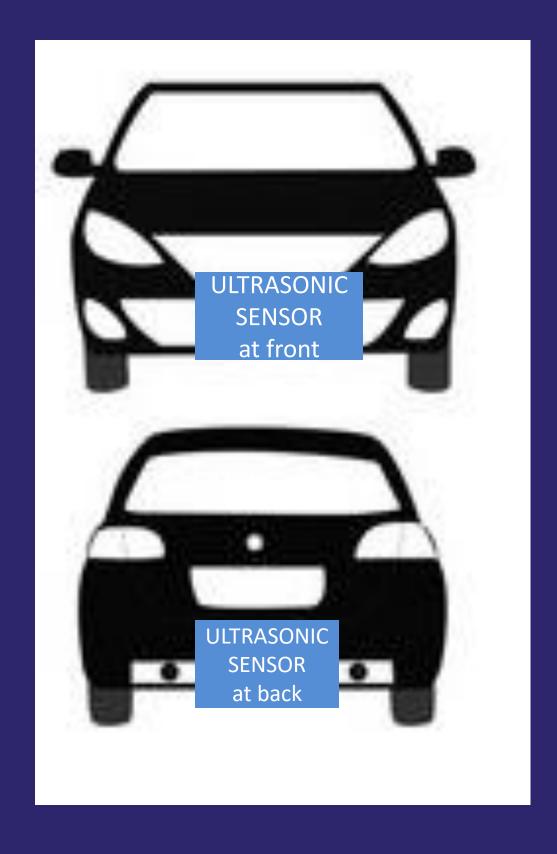




Collision Detection:

Working of the sensor:

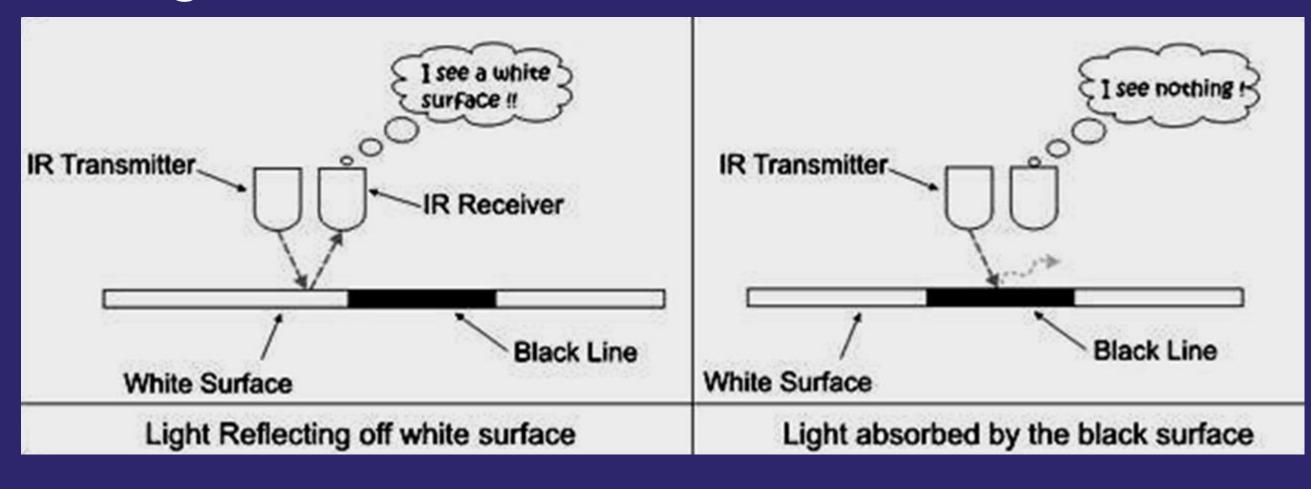






Lane Departure Warning:

Working of the sensor:

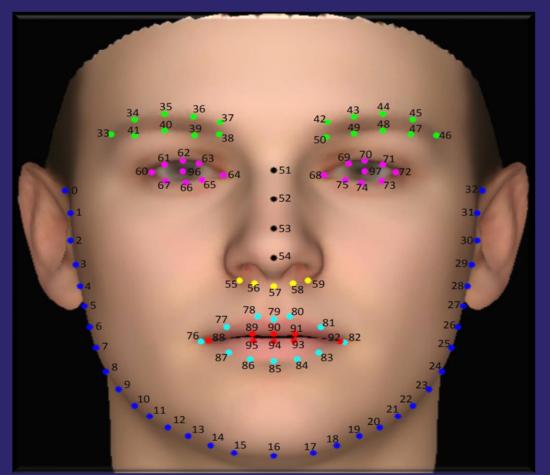


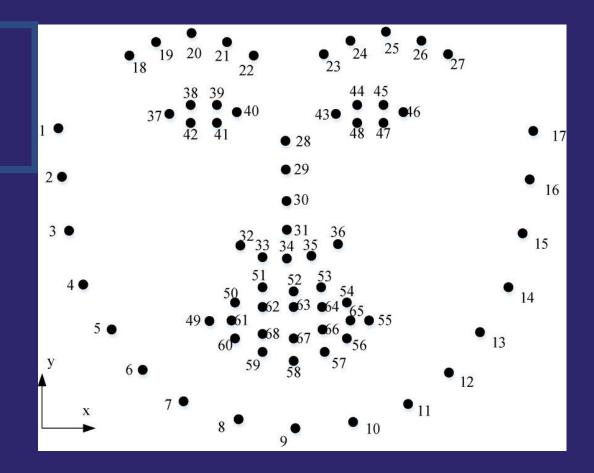




Driver fatigue detection:

- ☐ Here we have used 68 point face landmark.
- ☐ It detects the sleeping, active, drowsy or fatigue conditions using python and few libraries such as dlib, opency.







Weather conditions:

DHT sensor

Working Principle DHT11 Thermistor Variable Resistor Variable Resistor Variable Resistor Freasure Powder Temperature "NTC Temperature Sensor Thermistor "NTC" - Negative Temperature Coefficient SUBSCRIEE NOW!

Rain sensor

