# RAIN SENSING AUTOMATIC CAR WIPERS

DESCRIPTION

We have proposed an automated wiper system with a rain sensor That detects rain and automatically starts and stops when it stops. The automatic wiper system with rain sensor is not only automatic but also intelligent. The wiper system automatically detects and activates precipitation. The wiper system is also intelligent. When a raindrop hits the sensor, the sensor detects the intensity and the wiper speed is automated accordingly

HARDWARE

* + - UNO Arduino
    - Jumpers
    - Servo motor
    - Rain detection sensor

WORKING

The rain sensor is placed on the vehicle front glass. The rain sensor, servo motor and other required components get power from the battery. When the rain droplets fall on the rain board, the control board of the rain sensing unit sends the signal to the Arduino Uno module. The Arduino module estimates the intensity of rain fall by manipulating the signal given by the rain sensor module and then gives signal to the servo motor according to the rain fall. The servo motor takes the signal in the form of pulse width modulation, which is the representation of the intensity of the rain drops. The servo motor then rotates the wiper in accordance with the signal given by the Arduino module. The wiper rotates in accordance with the intensity of the rain fall. For instance, if the rain fall intensity is very high the pulse width modulation will be high and hence the servo motor will drive the wiper speedily and if the rain fall intensity is low then wiper will rotate slowly by the mechanism explained above. This system avoids the interaction of the vehicle operator to operate the wiper. So, operator will concentrate on the driving

SOFTWARE USED AND CODE

Arduino ide software

