REQUIREMENTS

Introduction:

This system sprays water, or an antifreeze window washer fluid, at the windscreen using several well-positioned nozzles. This system helps remove dirt or dust from the windscreen when it is used in concert with the wiper blades. When antifreeze washer fluid is used, it can help the wipers remove snow or ice.

Advantages:

➡It helps in saving money by switching off the irrigation system when it rains. This saves money by cutting off bills on electricity consumption.

➡It extends life of rain sensor based systems such as car wiper, irrigation systems by running them only when it is necessary.

➡Rain sensors help save water during rain events and hence water is available during summer and emergency applications such as firefighting etc.

➡Operating principle is very easy.

➡It consumes less power for operation.

➡Installation of rain sensor based systems are very much simple.

➡Individual rain sensor costs very less.

Disadvantages:

➡The rain sensor based system functions when water falls on the sensor directly.

➡The cost of overall system increases as additional components are needed along with rain sensor.

➡In order to avoid false detection of rain, it requires rain sensors to take decision after few minutes.

Components:

Car wipers do consist of various components such as the wiper blade, link, switch, motor, and arm.

Objectives:

This project aims to develop an Automated Rain Operated System taking the following objectives:

· To dispense with troublesome wiper operation needed when rainfall condition change or driving condition change, including the car speed and entry to or exit from tunnels.

· To operate the wiper with response to changing rainfall or driving conditions, thus keeping the driver's windshield clear.

· To implement a control system this reduces human efforts.

· To increase automation in vehicle driving system.

· To achieve high safety by reducing the driver's work load.

· To minimize rates of accident caused by distraction in driving.

· To make the system easy to install.

· To develop a cheaper automated system that can be integrated easily.