# Automatic Car Wiper System

Introduction

Today's car wipers are manual systems that work on the principle of manual switching. So here we propose an automatic wiper system that automatically switches ON detecting rain and stops when rain stops. Our project brings forward this system to automate the wiper system having no need for manual intervention. For this purpose we use rain sensor along with microcontroller and driver IC to drive the wiper motor. Our system uses rain sensor to detect rain, this signal is then processed by microcontroller to take the desired action. The rain sensor works on the principle of using water for completing its circuit, so when rain falls on it. It is circuit gets completed and sends out a signal to the microcontroller. The microcontroller now processes this data and drives the motor IC to perform required action. The motor driver IC now drives a servomotor to simulate as a car wiper.

Block Diagram
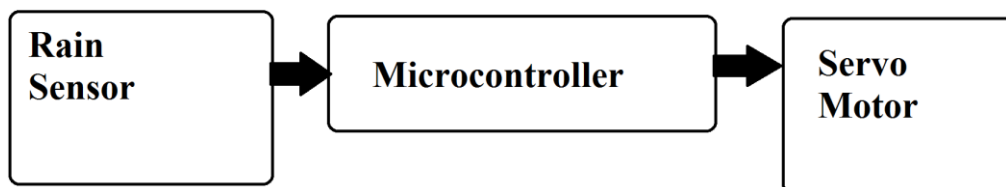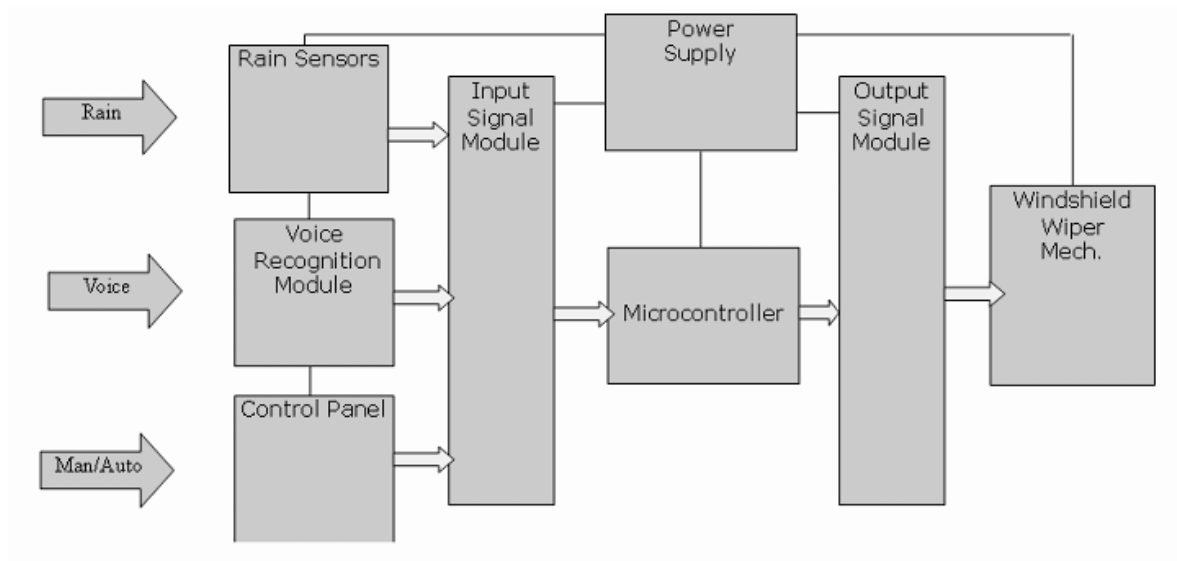
Component

- **Hardware Specifications**
- Microcontroller
- Rain Drop Sensor
- Servo Motor
- Crystal Oscillator
- Resistors
- Capacitors
- Transistors
- Cables and Connectors
- Diodes
- PCB and Breadboards
- LED
- Transformer/Adapter
- Push Buttons

- Switch
- IC
- IC Sockets
- **Software Specifications**
- Compiler
- MC Programming Language: C

Application

- It is used in four wheeler
- It is used in aircraft
- It is used in train
- It is used in six wheeler

Advantages

- Low cost automation project.
- Free from wear adjustment.
- Less power consumption.
- Operating principle is very easy Installation is simple.
- It is possible to operate manually/automatically by providing On/Off switch
- Sensor cost is very low due to the use of conductive sensor.