

Project 25:

Rain water sensor using Wemos and Blink led in wemos

Introduction

In this Project we use Rain water sensor and when rain detect led will blink in wemos

COMPONENTS: -

1. LED
2. WEMOS
3. Rain water sensor

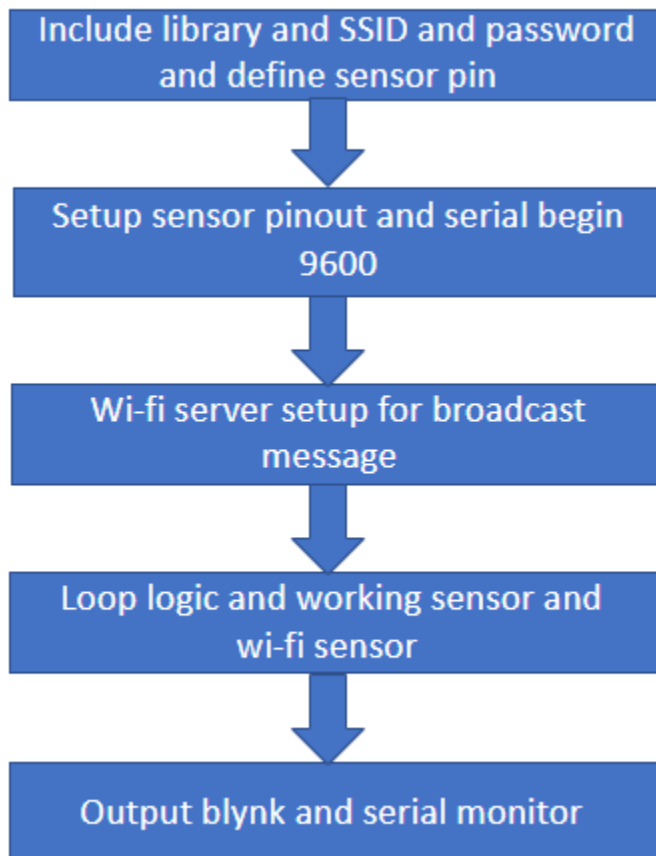
APPLICATION: -

- This sensor is used as a water preservation device and this is connected to the [irrigation system](#) to shut down the system in the event of rainfall.
- This sensor is used to guard the internal parts of [an automobile](#) against the rainfall as well as to support the regular windscreen wiper's mode.
- This sensor is used in specialized satellite communications aerals for activating a rain blower over the opening of the aerial feed, to get rid of water droplets from the mylar wrap to keep pressurized as well as dry air within the waveguides.

OBJECTIVES: -

Rain Alarm Project is a simple but very useful project that detects Rain (Rain Water) and automatically triggers an alarm or buzzer. ... Rain water detector will detect the rain and make an alert; rain water detector is used in the irrigation field, home automation, communication, automobiles etc.

FLOW CHART: -



PROGRAMMING: -

```
#include <ESP8266WiFi.h>
const char* ssid = "rowsoni";
```

```
//fill in your wifi name
```

```
const char* password = "007892057";           //fill in your wifi  
password
```

```
WiFiClient client;
```

```
int sensorPin = A0;  // input for LDR and rain sensor
```

```
int enable2 = 13;    // enable reading Rain sensor
```

```
int sensorValue2 = 0; // variable to store the value coming from sensor  
Rain sensor
```

```
//-----setup-----
```

```
void setup() {
```

```
  // declare the enable and ledPin as an OUTPUT:
```

```
  pinMode(enable2, OUTPUT);
```

```
  Serial.begin(115200);
```

```
  delay(10);
```

```
  WiFi.begin(ssid, password);
```

```
  Serial.println();
```

```
Serial.println();
Serial.print("Connecting to ");
Serial.println(ssid);
Serial.print(".....");
Serial.println();
WiFi.begin(ssid, password);

while (WiFi.status() != WL_CONNECTED) {
  delay(500);

}
Serial.println("WiFi connected");
Serial.println();

}
```

```
void loop() {
```

```
//-----Rain Sensor-----
```

```
  delay(500);
```

```

sensorValue2 = analogRead(sensorPin);
sensorValue2 = constrain(sensorValue2, 150, 440);
sensorValue2 = map(sensorValue2, 150, 440, 1023, 0);
if (sensorValue2 >= 20)
{
    Serial.print("rain is detected");

    digitalWrite(enable2, HIGH);
}
else

{
    Serial.print("rain not detected");
    digitalWrite(enable2, LOW);
}
//Serial.print("Rain value:    ");
//Serial.println(sensorValue2);
Serial.println();
delay(100);

}

```

HARDWARE CONNECTION: -

1. Connect wemos data pin to sensor pin A0

2. Connect pin vcc to vcc
3. Connect pin GND to GND

CIRCUIT DIAGRAM: -

