PROJECT 8

LDR Sensor Using Blynk

1. **INTRODUCTION: -**

Another important category of sensors that you need to interface with ESP32 is analog sensors. There are many types of analog sensors, LDRs (Light Dependent Resistors), current and voltage sensors being popular examples.

COMPONENTS: -

1. **WEMOS**
2. **LDR sensor**

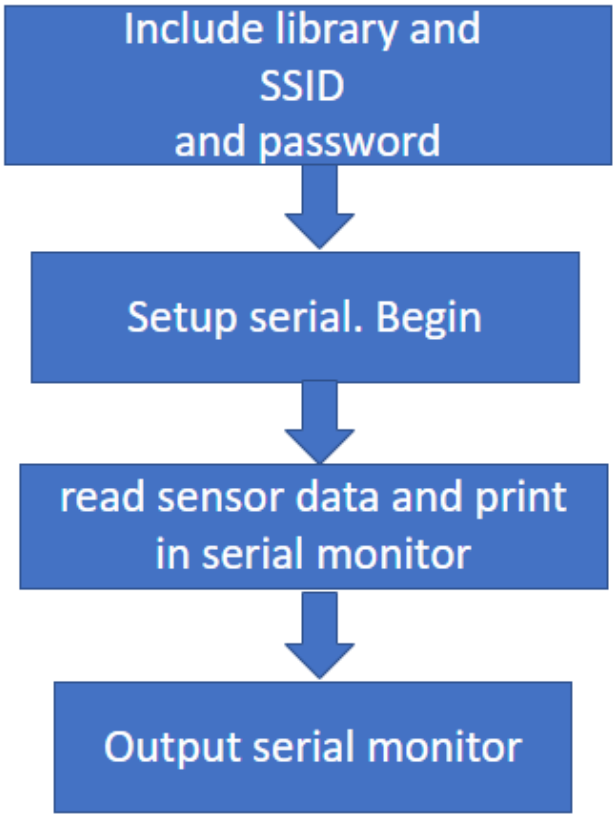
APPLICATION: -

These devices are used where there is a need to sense the presence and absence of light is necessary. These resistors are used as light sensors and the applications of LDR mainly include alarm clocks, street lights, light intensity meters, burglar alarm circuits.

OBJECTIVES: -

Light dependent resistors, LDRs, or photoresistors are electronic components that are used to detect light & change the operation of a circuit dependent upon the light levels.

FLOW CHART:-



PROGRAMMING: -

```
#include <ESP8266WiFi.h>
#include <BlynkSimpleEsp8266.h>
    // You should get Auth Token in the Blynk App.
// Go to the Project Settings (nut icon).
char auth[] = "YourAuthToken";

// Your WiFi credentials.
// Set password to "" for open networks.
char ssid[] = "YourNetworkName";
char pass[] = "YourPassword";

void setup()
{
  // Debug console
  Serial.begin(9600);

  Blynk.begin(auth, ssid, pass);
}

void loop()

{
```

```
  int lightReading = analogRead(0);   // Read the sensor value
  Serial.println(lightReading);       // Send sensor data to the serial
monitor
  delay(1000);                        // 1 second delay
  Blynk.run();
}
```

HARDWARE CONNECTION: -

1. Connect Pin LDR TO WEMOS
2. Connect pin A0 to AO
3. Connect pin GND to GND
4. Connect pin 5v to 5v

CURCUIT DIAGRAM:-