

PROJECT 3

LDR sensor

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. Led
2. Wemos
3. Ldr sensor

APPLICATION: -

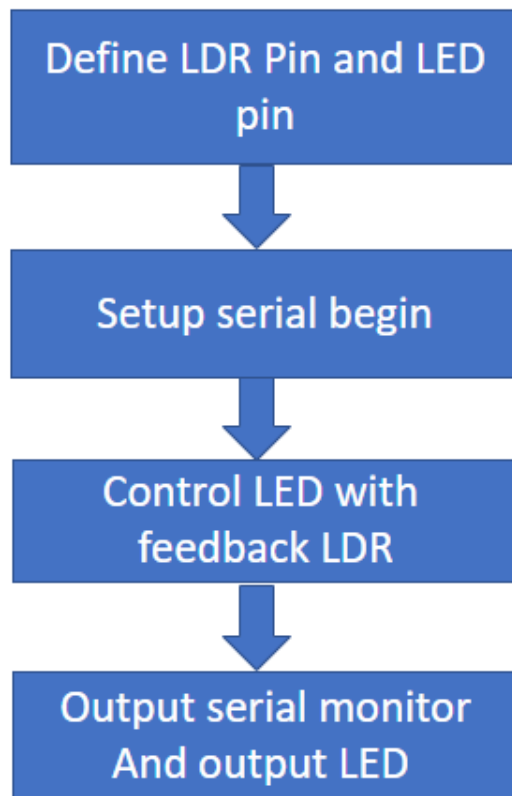
These devices are used where there is a need to sense the presence and absence of light is necessary.

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: -

```
const int ledPin = D2;
const int ldrPin = A0;
void setup() {
  Serial.begin(9600);
  pinMode(ledPin, OUTPUT);
  pinMode(ldrPin, INPUT);
}
void loop() {
  int ldrStatus = analogRead(ldrPin);
  if (ldrStatus <= 300) {
    digitalWrite(ledPin, HIGH);
    Serial.print(ldrStatus);
    Serial.println(" LDR is DARK, LED is ON");
  }
  else {
    digitalWrite(ledPin, LOW);
    Serial.println(" LED is OFF");
  }
}
```

HARDWARE CONNECTION: -

1. Connect LED to D2 .
2. Connect LDR પનિ to AO.
3. Connect GND to GND.
4. Connect 5V to 5V.
5. LED ના પોજિટિવિને રસસિટોર સાથે WeMos ની D11 સાથે કનેક્ટ કરો .અને GND પનિ ને GND સાથેકનેક્ટ કરો .

CURCUIT DIAGRAM: -

