Lab 3 : Program 6

Date : 30/09/20
Experiment : LDR Sensor
Aim: To make the LED glow based on brightness of light

Hardware :

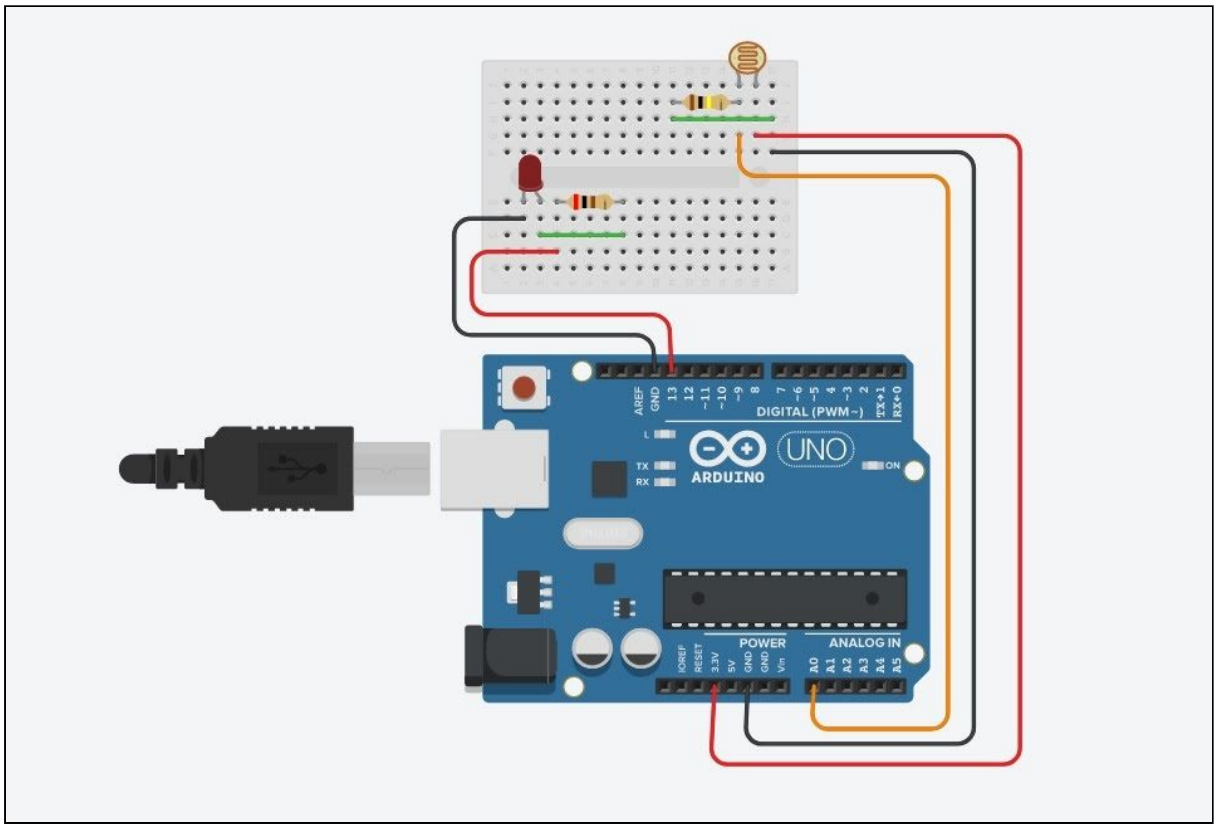
- Arduino Uno
- LDR
- LED
- Resistors : 220 Ohm, 10K Ohm

Source :

```
int led = 13;
int ldr = A0;
int ldrStatus ;
void setup() {
    Serial.begin(9600);
    pinMode(led, OUTPUT);
    pinMode(ldr, INPUT);
    ldrStatus = 1000 ;
}

void loop() {

    ldrStatus = analogRead(ldr);

    if (ldrStatus <= 300) {
        digitalWrite(led,HIGH);
        Serial.print((String)" LED on , It's Dark :
"+ldrStatus+"\n");
    }
    else {
        digitalWrite(led,LOW);
        Serial.print((String)"LED off, It's Bright :
"+ldrStatus+"\n");
    }
}
```

Observation:
The LED glows when it’s dark and fades when it’s bright.

Circuit :



Write Up :

IOT Lab 3 LDR

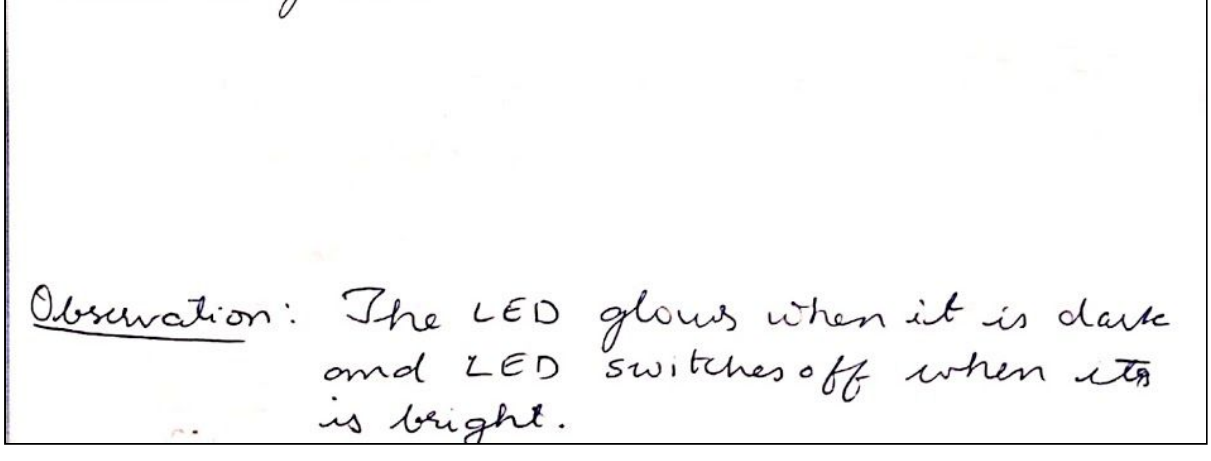
Mohammad Tanwir

30/09/20

Source Code

```
int led = 13;
int ldr = A0;
int ldr
void setup() {
    Serial.begin(9600);
    pinMode(led, OUTPUT);
    pinMode(ldr, INPUT);
}
void loop(){
    if (analogRead(ldr) <= 300) {
        digitalWrite(led, HIGH);
        Serial.print((String)"LED on, It's Dark: "
            + analogRead(ldr) + "\n");
    }
    else {
        digitalWrite(led, LOW);
        Serial.println((String)"LED off, It's bright"
            + analogRead(ldr) + "\n");
    }
}
```

Circuit Diagram



Observation: The LED glows when it is dark and LED switches off when it is bright.