

IOT LAB - 5th Sem

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Program Title : Light Sensor

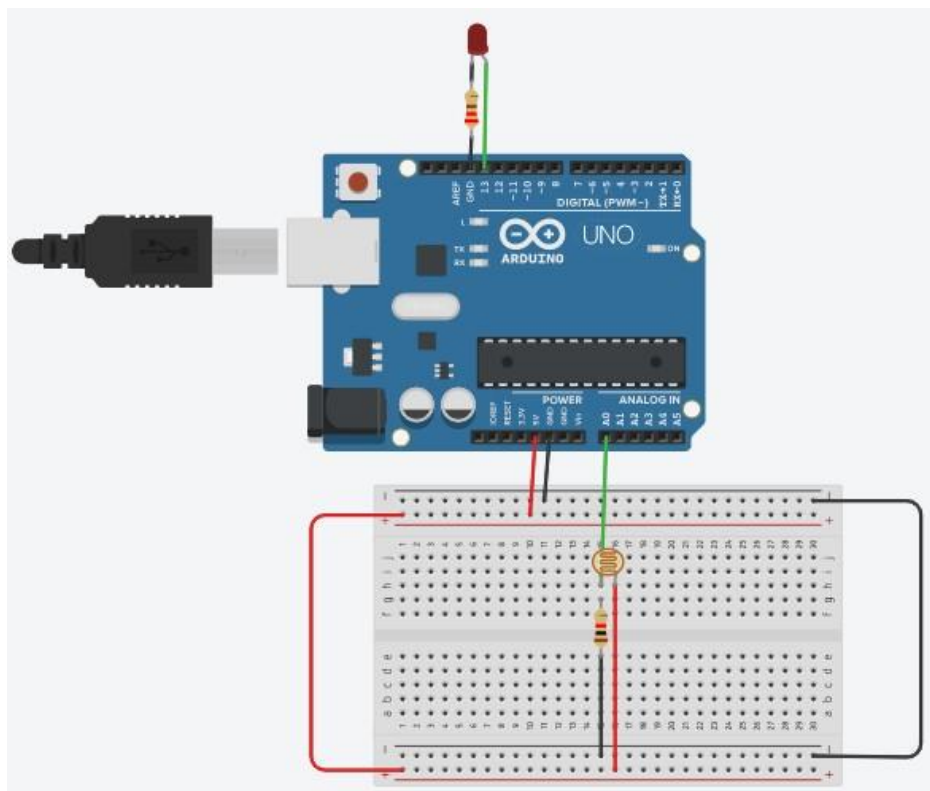
Aim :

To turn on and off an LED beyond a certain threshold using an Arduino Uno board.

Hardware Required

- Arduino Uno Board
- LDR
- LED
- 2 Resistors

Circuit Diagram -



Written Code :

```
{  
  digitalWrite(13, LOW);
```

```
  int led = 13;  
  int sensor = 6;  
  delay(1000);
```

```
}  
  
void setup() {  
  pinMode(led, OUTPUT);  
  pinMode(sensor, INPUT);  
  Serial.begin(9600);
```

```
{  
  
  void loop() {  
    Val = digitalRead(sensor);  
    if (Val == HIGH) {  
      digitalWrite(led, HIGH);  
      delay(10);  
    }  
    if (Val == LOW) {
```

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6) LDR

```
intldr=A0;  
intldrvalue=0;  
int light_sensitivity = 500;
```

```
Void setup()
```

```
{
```

```
  Serial.begin(9600);
```

```
  pinMode(13, OUTPUT);
```

```
}
```

```
Void loop()
```

```
{
```

```
 ldrvalue = analogRead(ldr);
```

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

```
  if(ldrvalue < light_sensitivity)
```

```
{
```

```
    digitalWrite(13, HIGH);
```

```
}
```

```
  else
```

Observation /Output:

The LED turned off as the light increased beyond the threshold.