

Program no 8

Program Title LDR (photo resistor)

Aim: The light Fades as the sunlight increases

Hardware Required

- Arduino Board
- LED
- Photoresistor

Circuit Diagram:

The screenshot shows the Tinkercad web interface for a project named "temperature". The circuit includes an Arduino Uno R3, a Temperature Sensor (TMP36), and a breadboard with an LED and a photoresistor. The sensor is connected to A0, GND, and VCC. The breadboard contains an LED and a photoresistor. The code on the right reads the sensor value and prints it to the Serial Monitor.

```
1 float TempValue, TempValueC, TempValuemv;
2 void setup()
3 {
4   pinMode(A0, INPUT);
5   Serial.begin(9600);
6 }
7 void loop()
8 {
9   TempValue=analogRead(A0);
10  TempValuemv=TempValue*5000/1024;
```

Serial Monitor

27.15
124.80
124.80
124.80
124.80
124.80
124.80
124.80
124.80

CODE:

Name: K. Avashya

USN: IBM17CS034

Experiment-8 → Photoresistor. (LDR)

```
int sensorValue = 0;
```

```
void setup ()
```

```
{
```

```
  pinMode (A0, INPUT);
```

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

```
  pinMode (9, OUTPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
  sensorValue = analogRead (A0);
```

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

```
  analogWrite (9, map(sensorValue, 0, 1023, 0, 255));
```

```
  delay (100);
```

```
}
```

Observation /Output:

The lights fades as the sunlight increases

