

Experiment No. : 10

Statement :

Blink an LED in accordance with the brightness. Blinking frequency increases with increase in brightness.

Date of Exp. : xx/xx/xxxx

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```
const int photoresistorPin = A0; // Analog pin
const int ledPin = 13;           // Digital pin for the LED

void setup() {
    pinMode(photoresistorPin, INPUT);
    pinMode(ledPin, OUTPUT);
}

void loop() {
    // Read the analog value from the photoresistor
    int sensorValue = analogRead(photoresistorPin);

    // Map the sensor value to the blinking frequency range
    int blinkingFrequency = map(sensorValue, 0, 1023, 50, 1000);

    // Blink the LED with the calculated frequency
    digitalWrite(ledPin, HIGH);

    delay(blinkingFrequency / 2); // Half of the period

    digitalWrite(ledPin, LOW);

    delay(blinkingFrequency / 2); // Half of the period
}
```

