

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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Code:

```
const int ledPin = 3;          // Pin number for the LED
const int ldrPin = A0;        // Pin number for the ldr

void setup() {
    pinMode(ledPin, OUTPUT);
    Serial.begin(9600);
}

void loop() {
    int lightLevel = analogRead(ldrPin);

    // Map the light level to a blinking frequency
    int blinkInterval = map(lightLevel, 0, 1023, 100, 1000);

    digitalWrite(ledPin, HIGH); // Turn on the LED
    delay(blinkInterval);

    digitalWrite(ledPin, LOW);  // Turn off the LED
    delay(blinkInterval);

    // Print the light level and blinking frequency to the
    serial monitor

    Serial.print("Light Level: ");
    Serial.print(lightLevel);
    Serial.print("\tBlinking Frequency: ");
```

```
Serial.print(1000 / blinkInterval); // Frequency in Hz  
Serial.println(" Hz");  
}
```



