**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");

}



