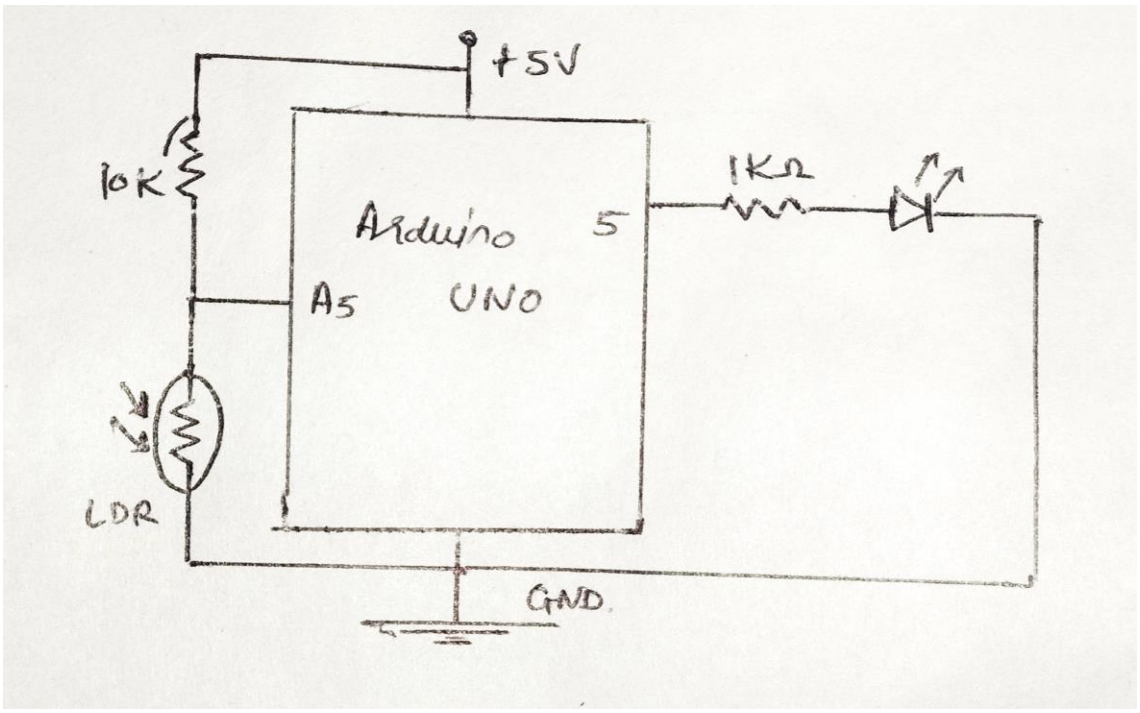
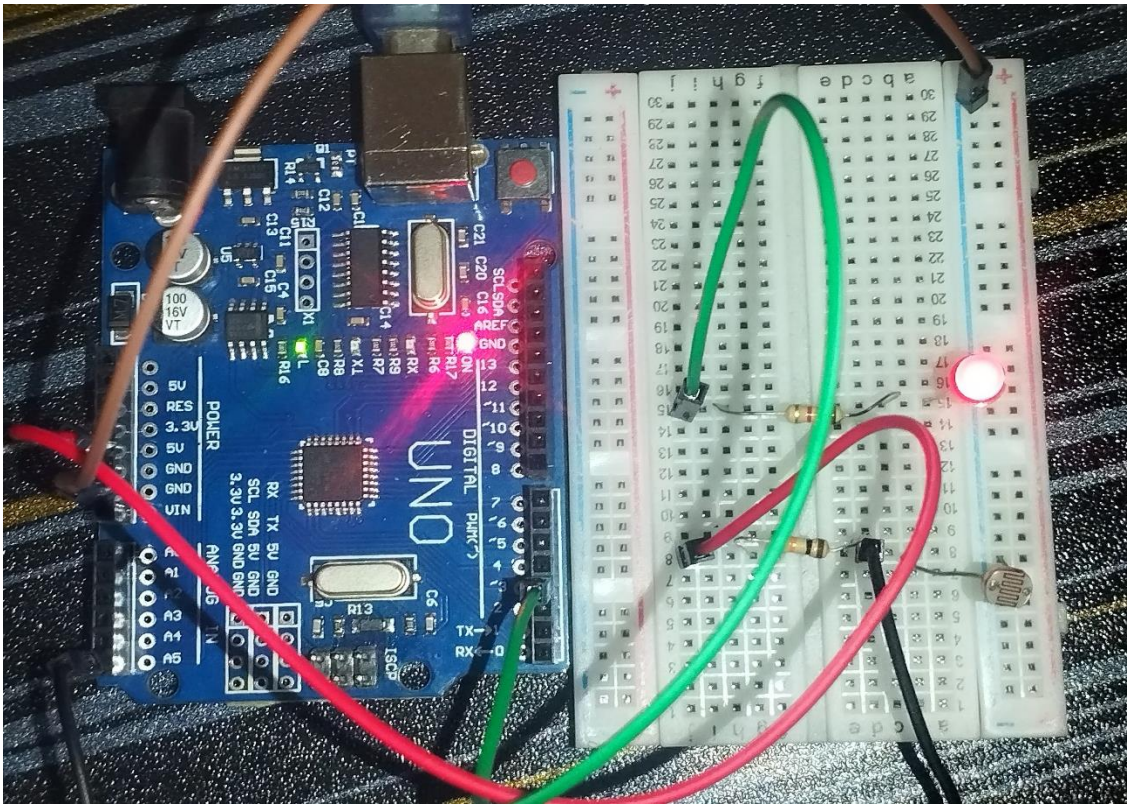
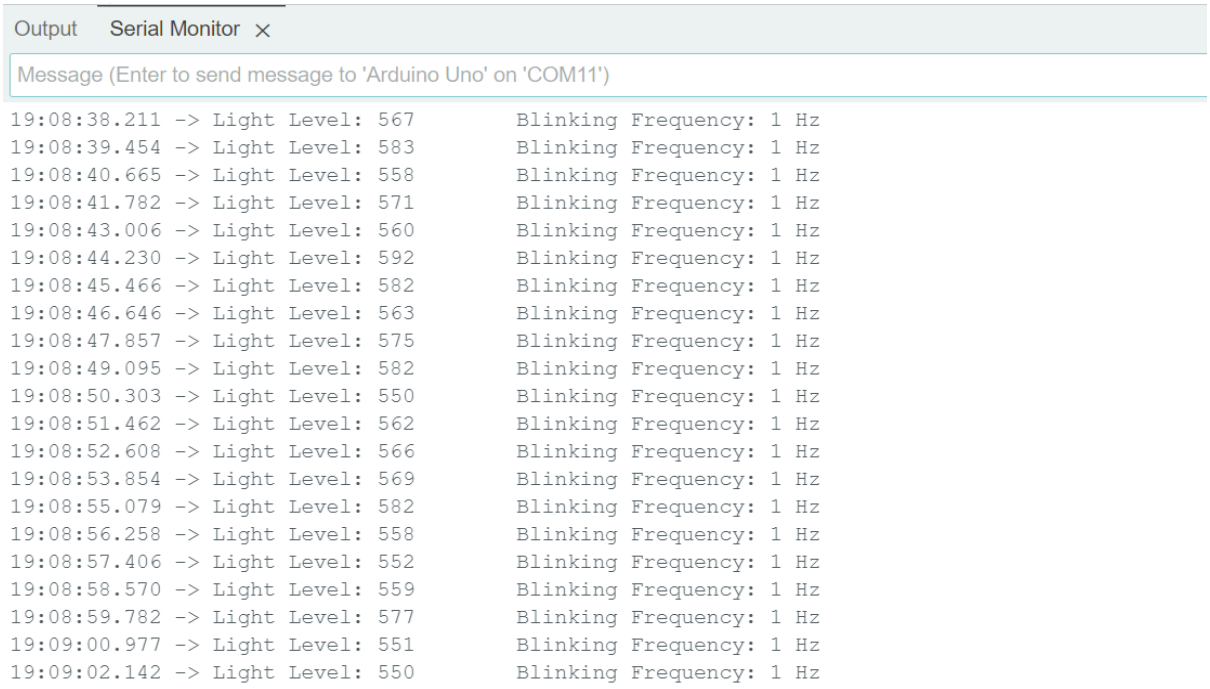
```
/*

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

Author         :    Harsh Devendra Mishra (A-28)



*/
// Define the pin for the LDR
const int ldrPin = A0;

// Define pins for the LEDs
const int ledPins[] = {2, 3, 4, 5, 6};

const int numLeds = 5;

void setup() {
  // Set up LED pins as outputs
  for (int i = 0; i < numLeds; i++) {
    pinMode(ledPins[i], OUTPUT);
  }
}

void loop() {

  // Read the analog value from the LDR
  int lightIntensity = analogRead(ldrPin);

  // Map the analog value to the number of LEDs to light up
  int numLedsToLight = map(lightIntensity, 0, 1023, 0, numLeds);
```

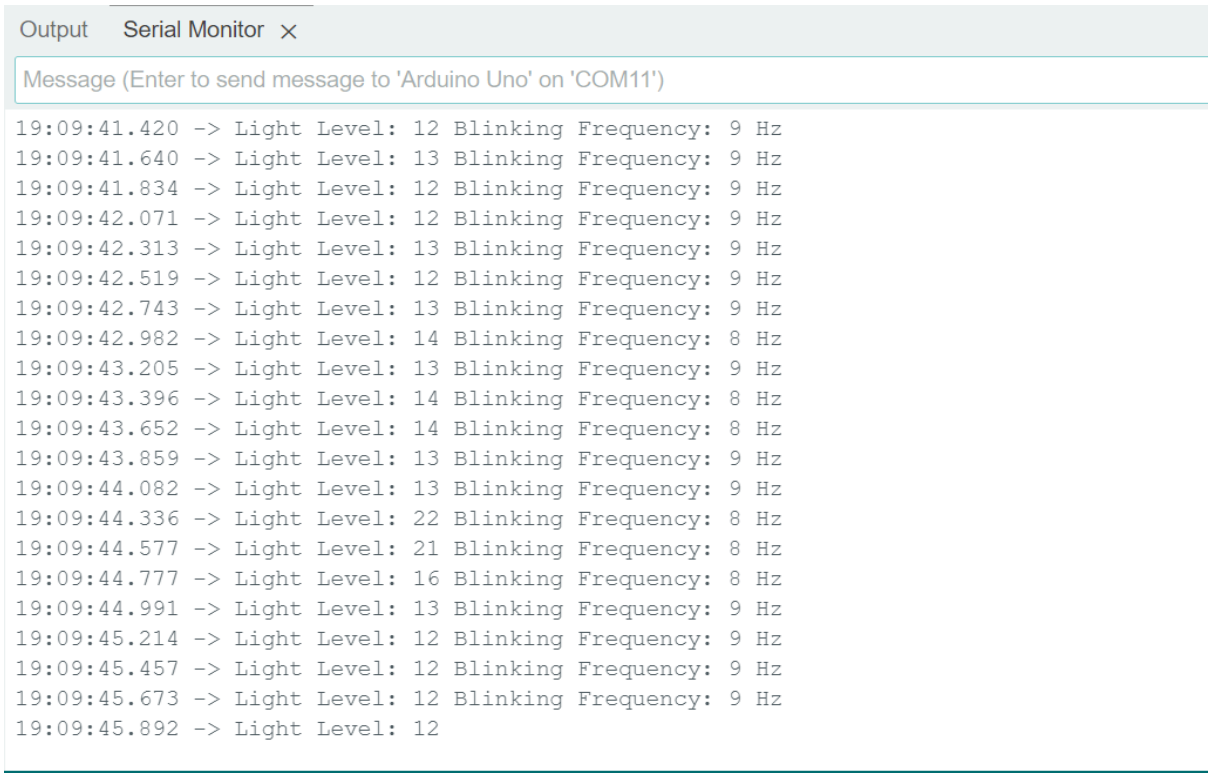
```
  // Turn on the appropriate number of LEDs based on light
intensity

  for (int i = 0; i < numLeds; i++) {
    if (i < numLedsToLight) {
      digitalWrite(ledPins[i], HIGH); // Turn on LED

    } else {
      digitalWrite(ledPins[i], LOW); // Turn off LED
    }
  }

  delay(100); // Delay for stability
}
```


+5V
10K
Arduino
UNO
A5
5
1KΩ
LDR
GND


UNO
POWER
DIGITAL
ANALOG IN
5V
RES
3.3V
GND
VIN
AREF
SCL
SDA
TX
RX
ICSP



// Normal Condition



//Brighten Condition