```
/*

Experiment No. :    03

Statement      :    :    Make a light intensity meter that represent light intensity on 5 LEDs, such that all LEDs would glow for maximum light, no LED would glow for dark condition, and likewise for in between light intensities.Date of Exp.  : xx/xx/xxxx

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*/
```
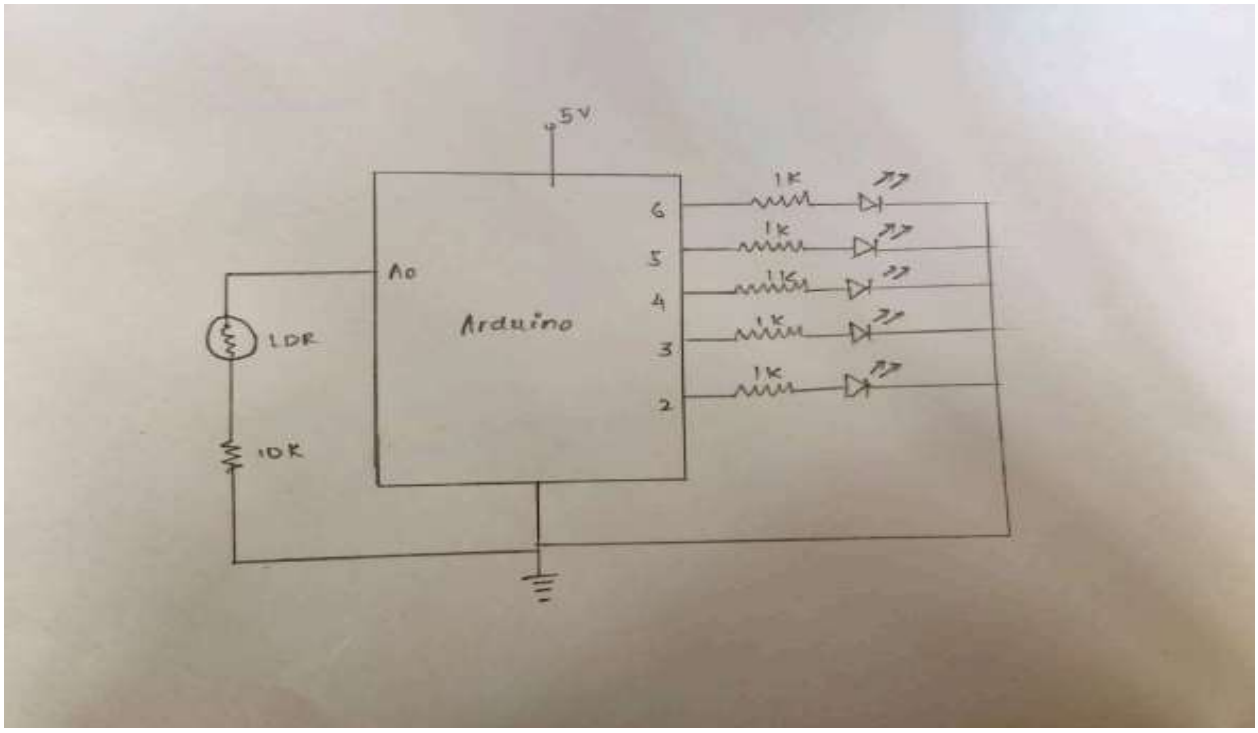

Code:

```
const int ldrPin = A0; // Pin connected to the LDR

const int ledPins[] = {2, 3, 4, 5, 6}; // Pins connected to the 5 LEDs

void setup() {

// Set up LED pins as outputs

for (int i = 0; i < numLeds; i++) {

pinMode(ledPins[i], OUTPUT);

}

Serial.begin(9600);  //  Initialize  serial  communication  for debugging

}

void loop() {

// Read the analog value from the LDR

int ldrValue = analogRead(ldrPin);

// Map the LDR value to the range of LEDs (0 to numLeds - 1)

int ledLevel = map(ldrValue, 0, 1023,0,numLeds);
```

```
// Display the light intensity on the LEDs

displayLightIntensity(ledLevel);

// Print the LDR value and LED level to the serial monitor (optional)

Serial.print("LDR Value: ");

Serial.print(ldrValue);

Serial.print(" | LED Level: ");

Serial.println(ledLevel);

delay(500); // Adjust the delay as needed

}

void displayLightIntensity(int level) {

// Turn off all LEDs

for (int i = 0; i < numLeds; i++) {

digitalWrite(ledPins[i], LOW);

}

// Turn on LEDs up to the specified level

for (int i = 0; i <= level; i++) {

digitalWrite(ledPins[i], HIGH);

}

}
```


5V
1K
1K
1K
1K
1K
6
5
4
3
2
A0
Arduino
LDR
10K