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Experiment No. : 03

Statement : Make a light intensity meter that represents light intensity on 5 LEDs, such that all LEDs would glow for maximum light, no LED would glow for dark conditions, and likewise for in between light intensities.

Date of Exp. : xx/xx/xxxx

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const int ldrPin = A0; // LDR sensor pin

const int ledPins[] = {2, 3, 4, 5, 6}; // 5 Led’s

const int numLeds = 5; //No of Led’s

void setup() {

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

pinMode(ledPins[i], OUTPUT); //Setup for 5 Led’s

}

}

void loop() {

int lightIntensity = analogRead(ldrPin); //Read LDR pin

// 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

}



