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Roll No: 10

Batch: S1

Practical No:9

AIM: Write a program to control LED color by turning 3 different potentiometers. One will be read for the value of Red, one for Green and one for Blue.

CODE

```
:// Pin definitions int
redPin = 11; int greenPin
= 9; int bluePin
= 10; // Potentiometer
pins int potRed = A0; int
potGreen = A1; int
potBlue = A2;
// Variables to store potentiometer values int redValue
= 0; int greenValue = 0; int blueValue
= 0; void setup()
{
 pinMode(redPin, OUTPUT); pinMode(greenPin, OUTPUT);
pinMode(bluePin, OUTPUT);
 Serial.begin(9600);
}
void loop()
{
 // Read values from potentiometers redValue =
analogRead(potRed);          greenValue      =
analogRead(potGreen);          blueValue      =
analogRead(potBlue);
 // Map 0-1023 to 0-255 redValue = redValue / 4; // or use map(redValue, 0,
1023, 0, 255); greenValue = greenValue / 4; blueValue = blueValue / 4;
 // Write PWM values to the RGB pins analogWrite(redPin,
redValue);          analogWrite(greenPin,     greenValue);
analogWrite(bluePin, blueValue);
 // Print the values to the Serial Monitor
 Serial.print("Red:\t");
 Serial.print(redValue);
```

```
 Serial.print("\tGreen:\t");
Serial.print(greenValue);
Serial.print("\tBlue:\t");
Serial.println(blueValue); delay(100);
}
```

Output: