

Assignment No: 9

Code:

```
// Define the pins for the RGB LED

const int redPin = 7;

const int greenPin = 6;

const int bluePin = 5;


// Define the pin for the potentiometer

const int potPin = A0;


void setup() {

    // Set the RGB LED pins as outputs

    pinMode(redPin, OUTPUT);

    pinMode(greenPin, OUTPUT);

    pinMode(bluePin, OUTPUT);

}


void loop() {

    // Read the value from the potentiometer

    int potValue = analogRead(potPin);


    // Map the potentiometer value to a range of 0-255

    int colorValue = map(potValue, 0, 1023, 0, 255);


    // Set the color of the RGB LED based on the potentiometer value

    analogWrite(redPin, colorValue);

    analogWrite(greenPin, colorValue/2);

    analogWrite(bluePin, colorValue/4);


    // Add a small delay to reduce flickering

    delay(10);
```

}

Output:

