# ***SOURCE CODE:***

const int LEDred = 9;

const int LEDgreen = 10;

const int LEDblue = 11;

const int sensorPin = A0;

void setup() {

pinMode(LEDred, OUTPUT);

pinMode(LEDgreen, OUTPUT);

pinMode(LEDblue, OUTPUT);

Serial.begin(9600);

}

void loop() {

int sensorValue = analogRead(sensorPin);

int outputRed;

if (sensorValue <= 680) {

outputRed = map(sensorValue, 0, 340, 255, 0);

} else {

outputRed = map(sensorValue, 680, 1023, 0, 255);

}

outputRed = constrain(outputRed, 0, 255);

int outputGreen;

if (sensorValue <= 340) {

outputGreen = map(sensorValue, 0, 340, 0, 255);

} else {

outputGreen = map(sensorValue, 340, 680, 255, 0);

}

outputGreen = constrain(outputGreen, 0, 255);

int outputBlue;

if (sensorValue <= 680) {

outputBlue = map(sensorValue, 340, 680, 0, 255);

} else {

outputBlue = map(sensorValue, 680, 1023, 255, 0);

}

outputBlue = constrain(outputBlue, 0, 255);

analogWrite(LEDred, outputRed);

analogWrite(LEDgreen, outputGreen);

analogWrite(LEDblue, outputBlue);

Serial.println(sensorValue);

delay(1);

}

# ***OUTPUT:***

