

1. Feature

- Red, Green, Blue (RGB), and Clear Light Sensing with IR Blocking Filter.
- Programmable Analog Gain and Integration Time.
- On-board auto fill light.

2. Application

- Signage recognize
- Industrial automation
- Light Color Temperature Measurement

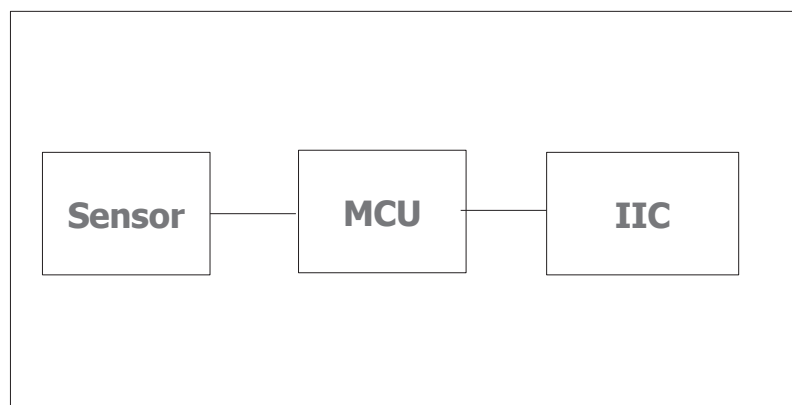
3. Introduction

The MATRIX Color Sensor V3 is an RGB color sensor with TCS34725. The on-board fill light allows the sensor to work under low illumination conditions.

The sensor also features programmable analog gain and integration time, allowing you to adjust the sensor configuration to match your needs.

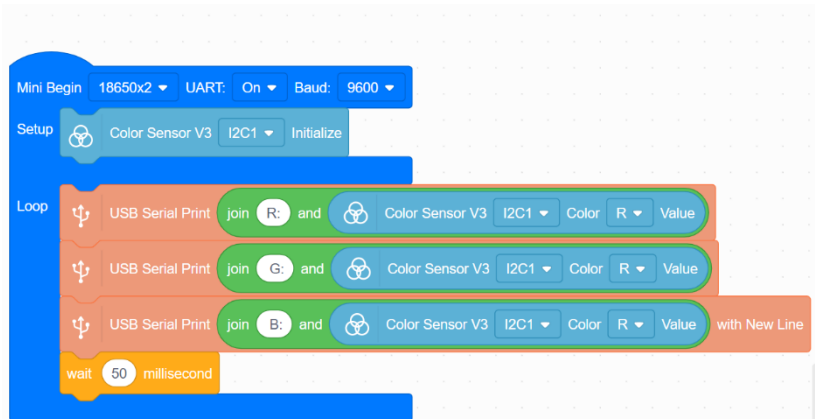


4. Block Diagram



Warning: Color sensor V1,2 and V3 are **Different Sensors**, and use **Different Code**.

4.Example Code of Block and C++



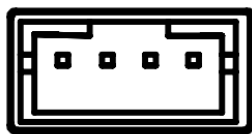
```

1  #include "MatrixMiniR4.h"
2
3  void setup()
4  {
5      MiniR4.begin();
6      MiniR4.PWR.setBattCell(2);
7      Serial.begin(9600);
8      MiniR4.I2C1.MXColorV3.begin();
9  }
10
11 void loop()
12 {
13     Serial.print(String("R:") + String(MiniR4.I2C1.MXColorV3.getR()));
14     Serial.print(String(" G:") + String(MiniR4.I2C1.MXColorV3.getG()));
15     Serial.println(String(" B:") + String(MiniR4.I2C1.MXColorV3.getB()));
16     delay(50);
17 }
18
  
```

- After download program into controller, open Serial Monitor to observe.

5. Hardware Spec

- Voltage: 3.3v – 5v
- Red channel wavelength: 465nm
- Green channel wavelength: 525nm
- Blue channel wavelength: 615nm



1 4

JST PH2.0

Pinout-I2C			
NO.	Name	I/O	Description
1	SDA	I/O	Serial data line.
2	SCL	I	Serial clock line.
3	VCC	O	Supply voltage.
4	GND	-	Supply ground.

- For More technical info of Sensor, Please visit [manufacturer datasheet](#).