

MS-002 Matrix Color sensor Example of use

1. Hardware Configuration

I² C ports : I² C1~I² C4



2. Sensor return value

Laser sensor distance return value range: 21 ~ 1999(mm)

3. mBlock command

Matrix Laser I2C1 ▾ Get Distance mm	Read the laser sensor distance return value
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4. mBlock example program

Repeat: Laser sensor returns distance value and determines

Greater than 100: LED2 output **red**.

Less than 100: LED2 output **green**.

```
Matrix Mini Begin 2C Li ▾ Serial IT Disable ▾ Baud 115200 ▾  
forever  
  if Matrix Laser I2C1 ▾ Get Distance mm > 100 then  
    Mini RGB LED LED1 ▾ R 255 G 0 B 0  
  else  
    Mini RGB LED LED1 ▾ R 0 G 255 B 0
```

5. Arduino Sample Programs

```
1 // generated by mBlock5 for Matrix Mini
2 // codes make you happy
3
4 #include <Arduino.h>
5 #include "MatrixMini/MatrixMini.h"
6
7 void _delay(float seconds) {
8     long endTime = millis() + seconds * 1000;
9     while(millis() < endTime) {
10         ;
11     };
12 }
13 void setup() {
14     Mini.begin(7.4,0,115200);
15     while(1) {
16         if(Mini.I2C1.MXlaser.getDistance() > 100){
17             Mini.RGB1.setRGB(255,0,0); //RGB value range: 0 ~ 255
18
19         }else{
20             Mini.RGB1.setRGB(0,255,0); //RGB value range: 0 ~ 255
21
22         }
23
24         _loop();
25     }
26 }
27
28
29 void _loop() {
30 }
31
32 void loop() {
33     _loop();
34 }
```

6. Test results

Clearance in front of the laser sensor

Distance > 100mm

R:255 G:0 B:0 => **Red**



Blocking Laser Sensor

Distance < 100mm

R:0 G:255 B:0 => **Green**

