

MS-003V2 Matrix Grayscale sensor V2 Example of use

1. Hardware Configuration

Analog ports : A1 ~ A3



2. Sensor return value

Grayscale sensor return value: 0 ~ 1023(Light ~ Dark)

3. mBlock command

Mini Read analog Signal A1 ▼	Read the analog grayscale sensor return value
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4. mBlock example program

Repeat: Analog sensor returns A1 value and judge
Greater than 500: LED2 output **red**.
Less than 500: LED2 output **green**.

```
Matrix Mini Begin 2C Li Serial IT Disable Baud 115200
forever
  if Mini Read analog Signal A1 > 500 then
    Mini RGB LED LED2 R 255 G 0 B 0
  else
    Mini RGB LED LED2 R 0 G 255 B 0
```

5. Arduino Sample Programs

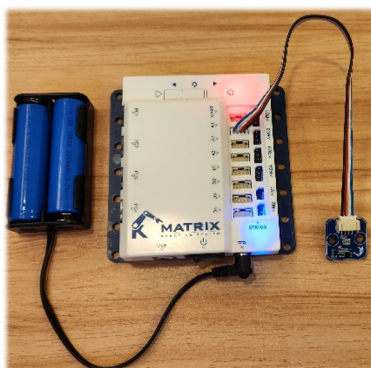
```
1 // generated by mBlock5 for Matrix Mini
2 // codes make you happy
3
4 #include <Arduino.h>
5 #include "MatrixMini/MatrixMini.h"
6
7 void _delay(float seconds) {
8     long endTime = millis() + seconds * 1000;
9     while(millis() < endTime) {
10         | ;
11     };
12 }
13 void setup() {
14     Mini.begin(7.4,0,115200);
15     while(1) {
16         if(Mini.A1.getANG() > 500){
17             | Mini.RGB2.setRGB(255,0,0); //RGB value range: 0 ~ 255
18
19         }else{
20             | Mini.RGB2.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

Sensor front headroom

A1 > 500

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



Blocking sensor

A1 < 500

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

