

1

Gravio Matrix Led sensor is a product that can display 16 by 16 pixel pictures and animation technology . It transmits pictures based on zigbee wireless transmission technology, and at the same time, uses a stm32 microcontroller to display pictures and animations.

2

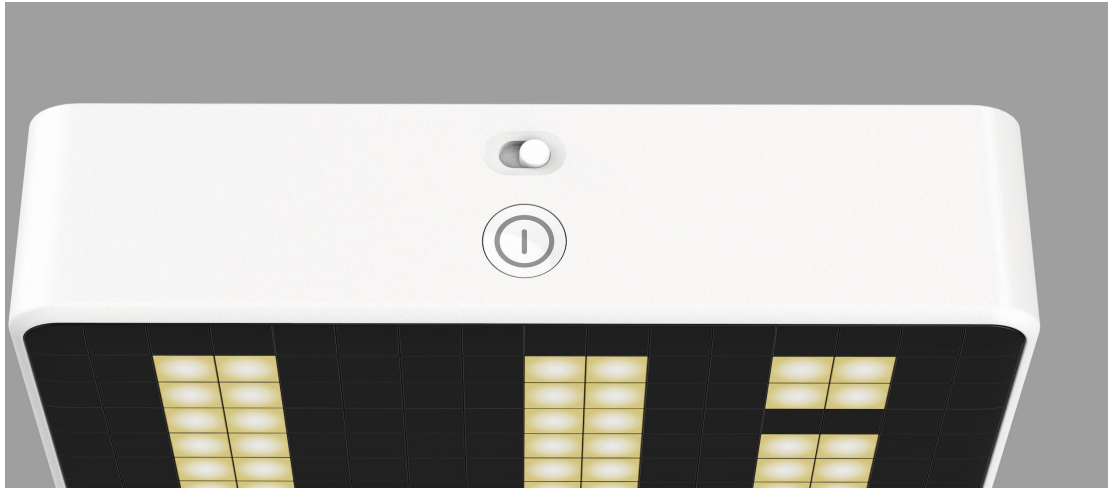
Gravio Matrix Led has this very simple appearance. It has only 3 buttons, which are matching buttons, screen switches and gravity-sensing toggle switches.

Front





Pair Button



Toggle switch and screen switch

3

3.1 Toggle Switches

When you use the Gravio matrix led, you can control whether the matrix uses gravity sensing to rotate the picture by flipping the switch. When the flipping switch is on the right, the gravity sensing is turned on. At this time, when you rotate the Gravio matrix led, the picture will be Follow the rotation, always facing up; when the toggle switch is on the left, the gravity sensor is turned off, no matter how you rotate the Gravio matrix led, the picture will not rotate

3.2 screen Switches

screen switch can control the screen switch.

3.3 Pair button

When you need to wirelessly transmit pictures to Gravio matrix led, you need to add it to the zigbee gateway network now. When the gateway is allowed to access the network, press and hold the pair button for 5 seconds, and the zigbee icon on the screen will flash. At this time, it will be added to the network of your gateway soon. After joining the network, the flashing zigbee picture will be displayed. Prohibited, at this time you can transfer pictures or animations through the host computer

Network access steps: (for example we use Gravio Receiver2)

Insert Gravio receiver into pc, mac or linux, open serial debugging tools, such as sscm

Typed hex : 00 00 03 00 00 AA (build a network)

Go on : 00 00 10 00 01 FF AA (Allow devices to connect to the network)

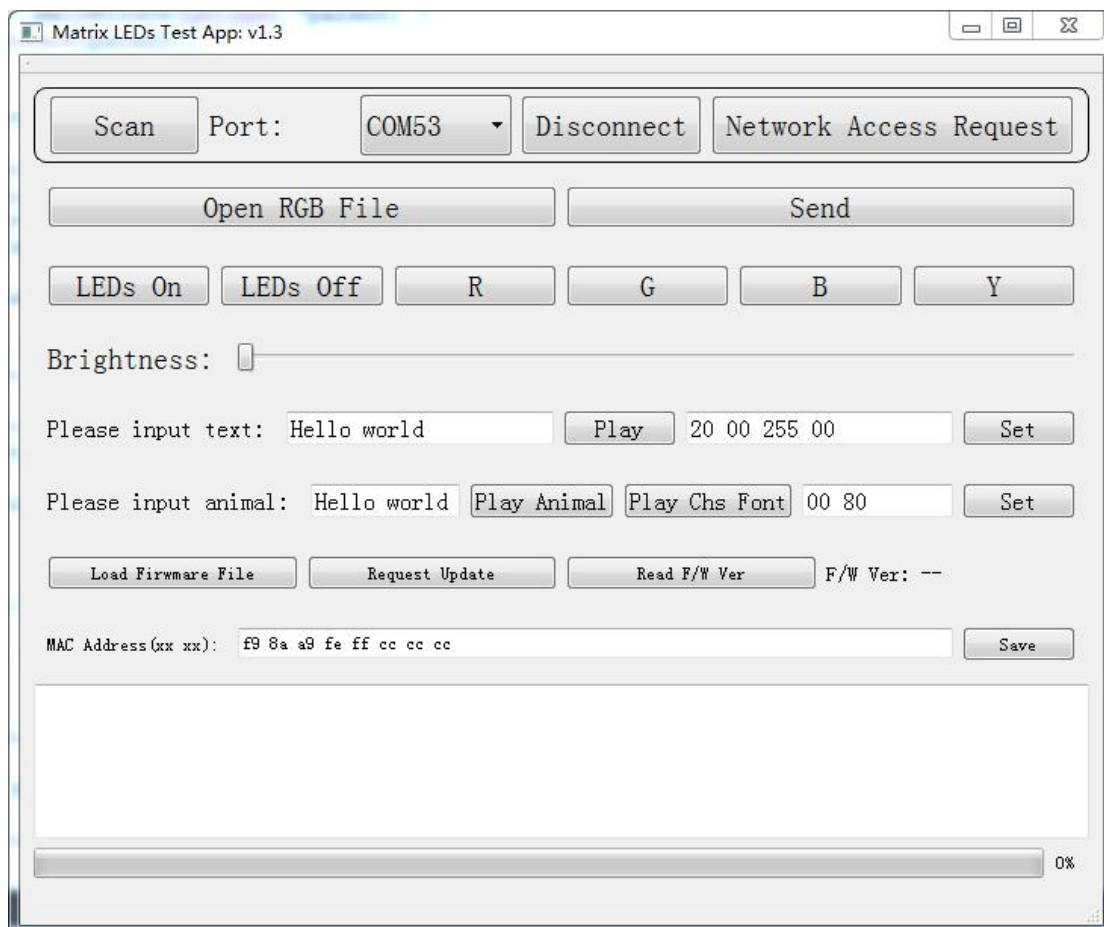
At this time, press and hold the button of Gravio matrix led for 5 seconds until the zigbee icon will flash

When gateway receives network access information,

reply: 00 01 11 08 08 C3 22 01 FE FF 9F FD 90 AA

When Gravio Matrix led is not normal, you can press and hold the button for 5 seconds to enter the matching network access state

4 send a picture



You need to copy the mac address of Gravio Matrix Led in the textbox at the bottom (mac address text box), and click save

And you can chose a rgb (click open rgb file) files form host computer and click send , and few seconds it is will show on Gravio Matrix Led's screen

5 send a text animations

In (plase input text text box) you can text less then 64bytes English alphabet and send to Gravio Matrix Led to show on the screen,you only need type alohabet in text box and click send.

FCC Warning Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.**
- Increase the separation between the equipment and receiver.**
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- Consult the dealer or an experienced radio/TV technician for help**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum distance between 20cm the radiator your body: Use only the supplied antenna.