

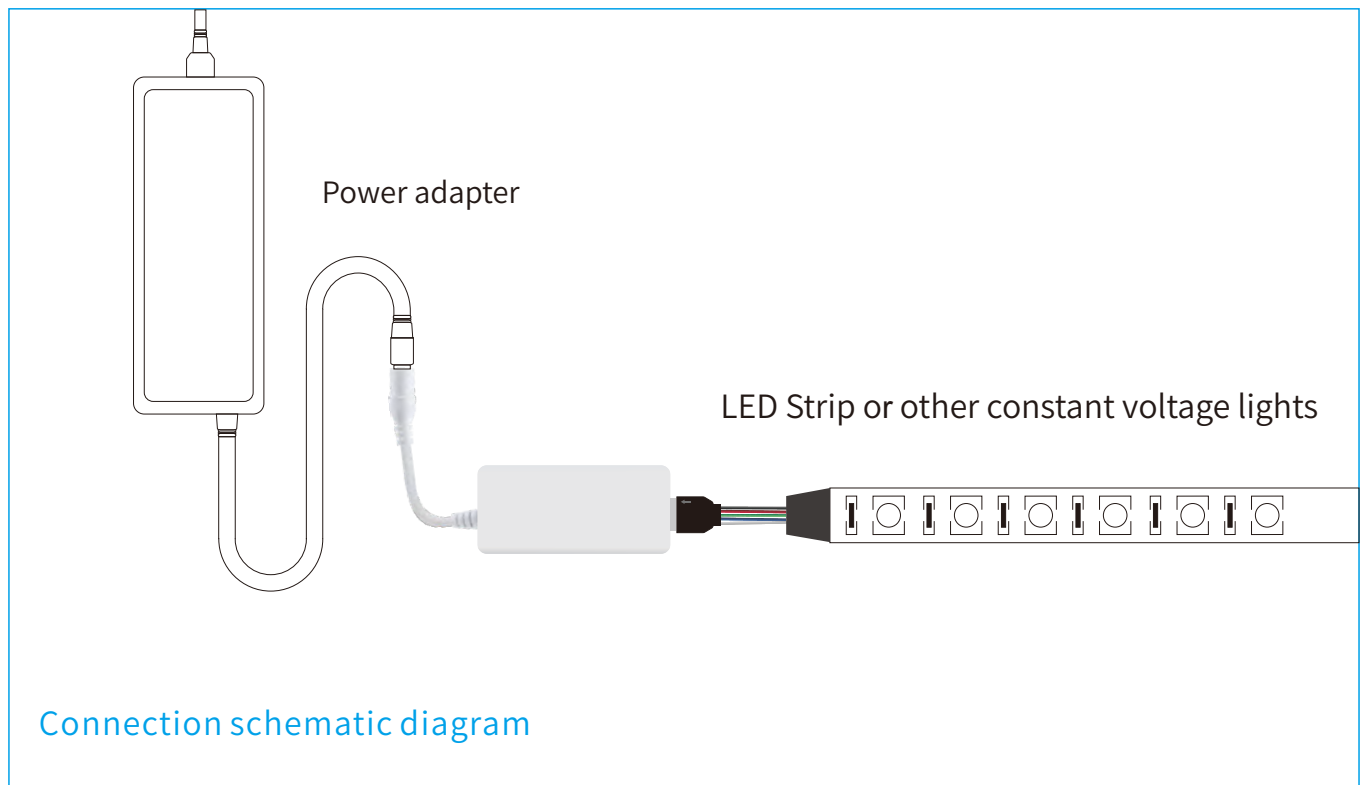
**Model Number: ZJ-MBM-RGBW**

**Product Name: MINI RGBW BT Mesh LED Controller**

## **Product Parameter:**

|                      |                                            |
|----------------------|--------------------------------------------|
| Category             | LED Controller                             |
| Domination Principle | BLUETOOTH                                  |
| APP                  | Hao deng                                   |
| Language             | Chinese、English、Japanese                   |
| Operation Platform   | Android 4.4 or IOS 9.0 or higher           |
| LED Drive Type       | Constant voltage:MOSFET                    |
| Channels             | 1/3/4                                      |
| Input Voltage        | DC (12-24)V                                |
| Max Output Power     | 192W                                       |
| Work For             | LED Strip or other constant voltage lights |
| Connect Method       | Common Anode                               |
| IP Rating            | IP20                                       |
| Working Temperature  | -20-55°C                                   |
| Control Distance     | Visible distance 30M                       |
| Warranty             | 1 Year                                     |
| Net Weight           | 14g                                        |
| Dimension(L*B*H)     | 53MM*24MM*11MM                             |
| Carton Size(L*B*H)   | 55CM*29CM*23CM                             |
| QTY Per Carton       | 200Sets/CTN                                |
| Gross Weight         | 5.7kg                                      |

# Controller connection mode



The connection between the controller and the power supply



Controller and device connection

It is necessary to ensure that the red arrow of the controller corresponds to the black arrow at the device end, otherwise the device will have a short circuit.



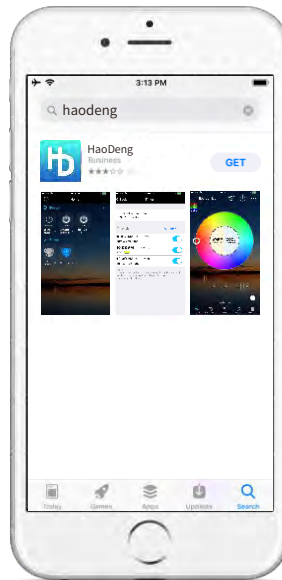
# Software User Manual for IOS

APP installation instructions:

Method 1: Search “Hao deng” in APP Store.



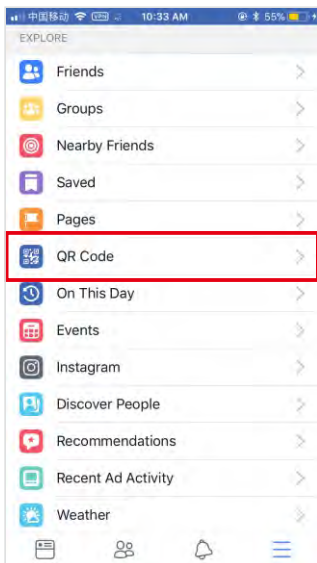
HaoDeng



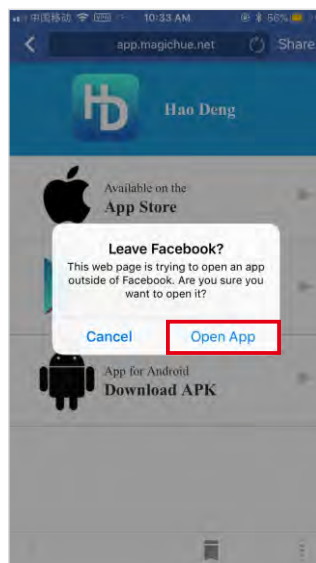
Method 2: Download the APP by scanning the below QR code for free.



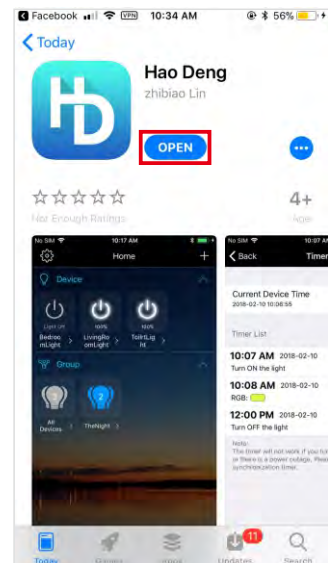
Installation details as below.



Step 1



Step 2

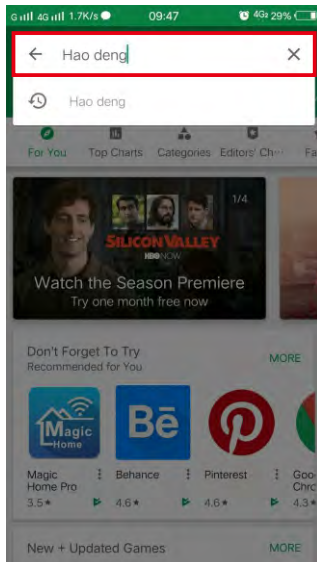


Step 3

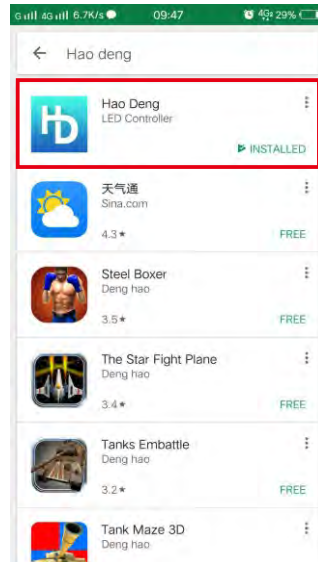
# Software User Manual for Android.

## APP installation instructions:

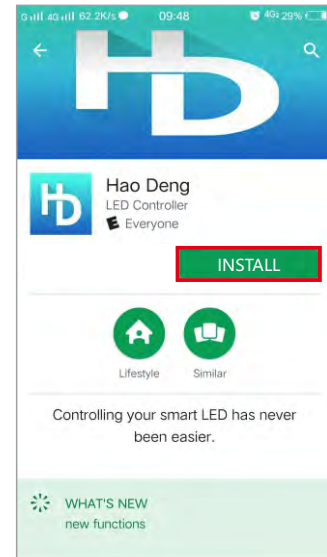
Method 1: Search Magic Light in “Google Play Store” or from browsers. Installation details as follow.



Step 1



Step 2

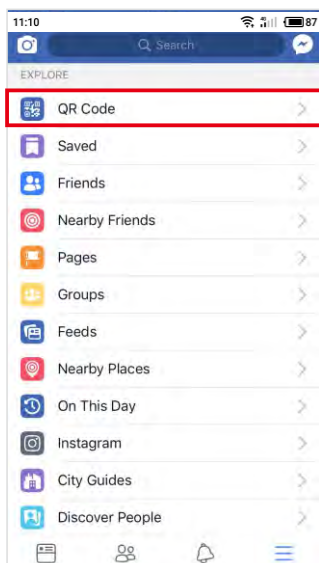


Step 3

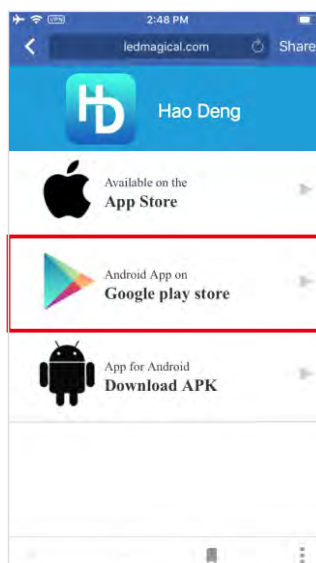
Method 2: Download the APP by scanning the below QR code for free.



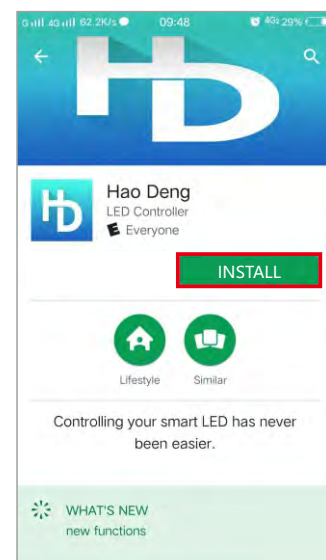
Installation details as below.



Step 1



Step 2

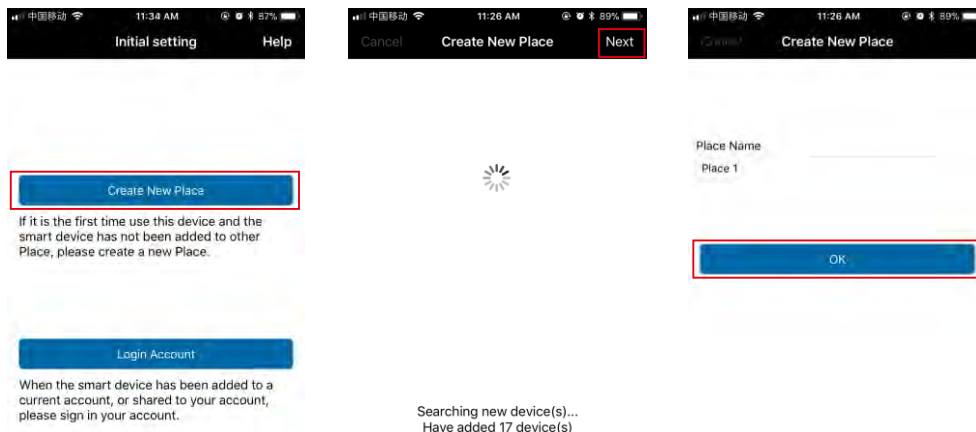


Step 3

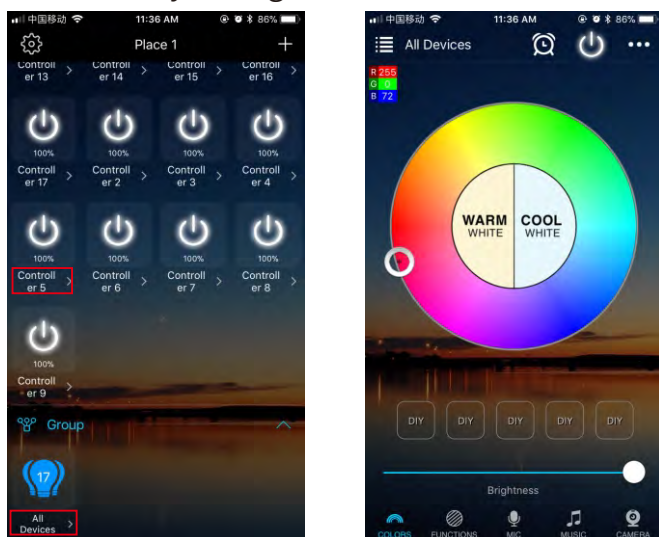
# Instructions

a) Open the “Hao Deng” APP after it has been connected to the power supply and open the Bluetooth function on smart phone.

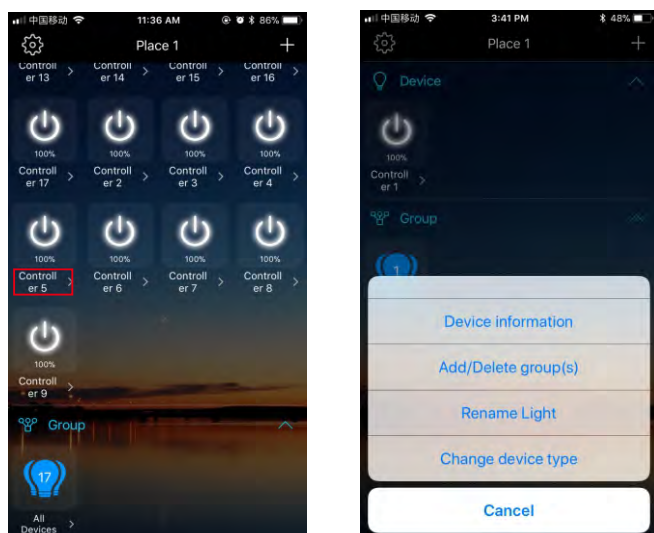
1. Click “Create New Place” and find the devices.



2. Click the device name or All Devices can control them individually or together.



3. Long press the device name can modify them individually.



# PRODUCT FUNCTION INTRODUCTION

## Support 16 million color control and brightness adjustment

You can adjust both the color RGB(Red/Green/Blue) as well as the brightness of the color. It's likewise possible in this function to adjust and store 5 own created colors and brightness levels. You can save this, if you press long on the “DIY” button.

The adjusted color/brightness will be stored and displayed in the “DIY” button. You can recall the color/brightness if you press shortly on one of the five DIY buttons.

On the display top left, the individual channels R/G/B can be called separately and adjusted from 0-255 to obtain the desired color.

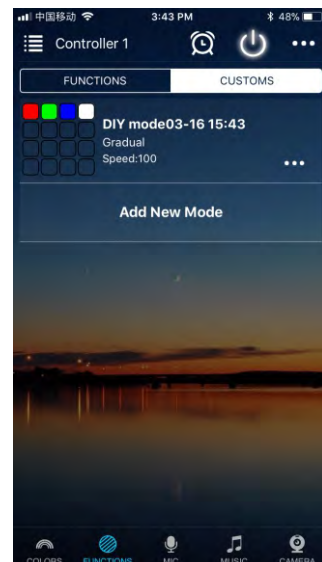
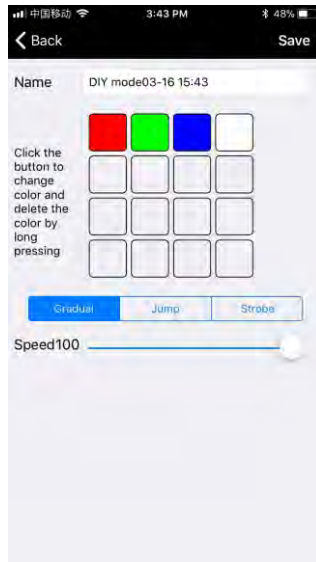
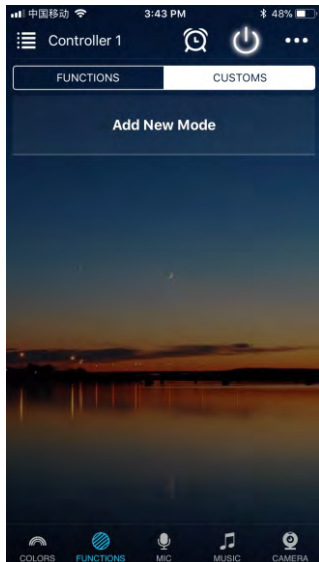


## RGBW

In addition to the functions as in RGB mode. the warm white channel adjusts separately. (Warm White & RGB channels cannot be used simultaneously.)

## Support for customised colours and preservation

In DIY function, you can select your favorite colors and gradual, jump or strobe between the functions. Press the menu “customs” and then “Add new Mode”. By briefly pressing one of the selection rectangles you can change the color. By pressing long, you can delete the color. It can be defined in a sequence up to 16 different colors. After setting the color, speed and award of the user mode name, press “save” on the top right. Now you see your personal role in the selection mode. You can create unlimited changing modes and they can always be edited or deleted.

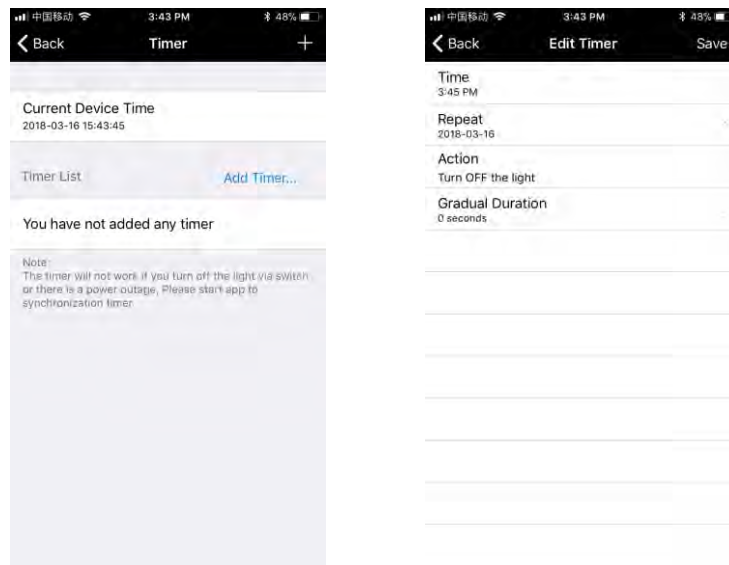


## Group Feature

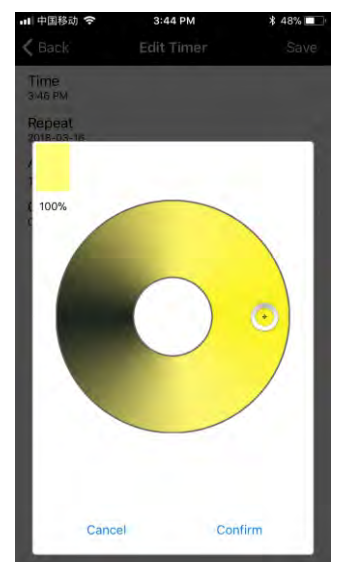
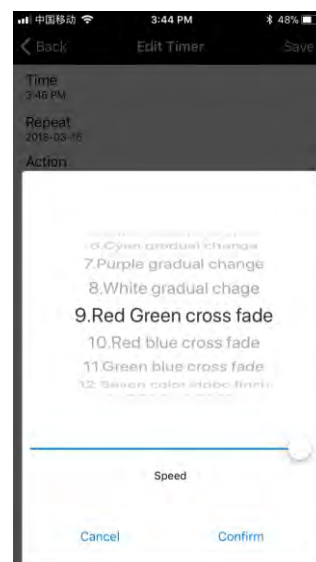
Zengge controllers (Hao deng) allows you to create different groups to control more than one controllers, for example, if you have 2 controller units, you can use one system in your living room & the other out on your patio. The grouping function allows you to either control these systems individually or to group them together as one unit.

## Light timer

You can have your lights automatically turn on or off in a specified time by setting up the timer.



The controller has a build in timer function. To do so, press on the top right, next to ON/OFF, switch the clock icon. Then the selection menu will be shown with time, Repeat (Mon-Sun), ON/OFF switch and the optional Model (color setting, Brightness and gradient program.) The timer will not operate when the power supply is interrupted. In this case, start the APP to resynchronize.



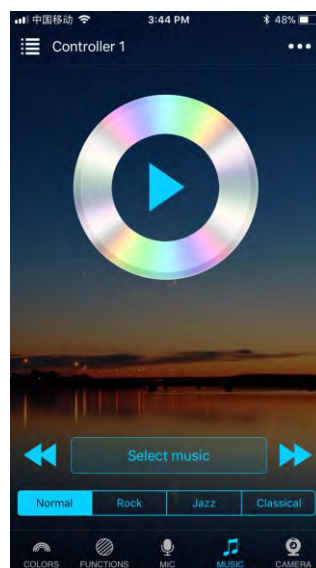
## Light and music rhythm synchronization function

In this function, you can let shine the connected LED in the rhythm of the music will be played on the smartphone or tablet. To do this, select the menu item “select music” and then select your music library on smartphone or tablet the desired music.

There are four main modes for four music styles: ROCK for rock & roll music style, NORMAL for default music style, JAZZ for jazz music style, CLASSICAL for classical music style.

IOS system needs to download music files in iTunes or copy audio files from computer's iTunes to iPhone. After then, you can select the music when you open APP music mode to synchronize the lights and music rhythm. The light color changes automatically with music rhythm.

Android system needs to download the music files to the phone for use.



## Function

In this capacity, 20 programmed are preset. In addition, you can adjust the speed of the gradients with a slider. With the keys M+/M- or scroll up and down you can switch between the preset modes.

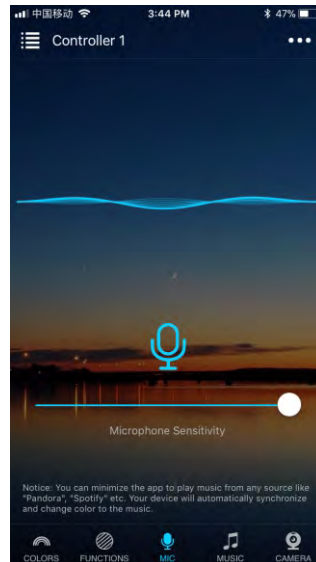
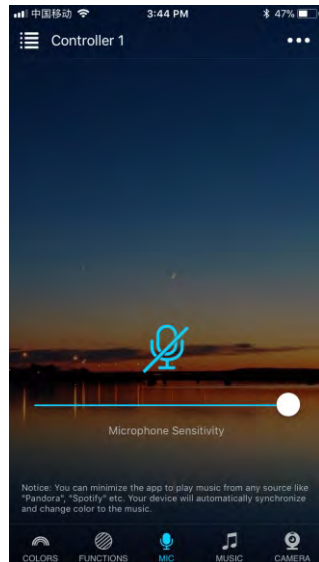


## Microphone function

Click/ go to “Disco” interface of the APP.

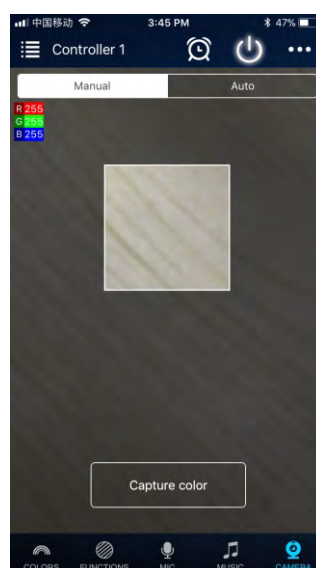
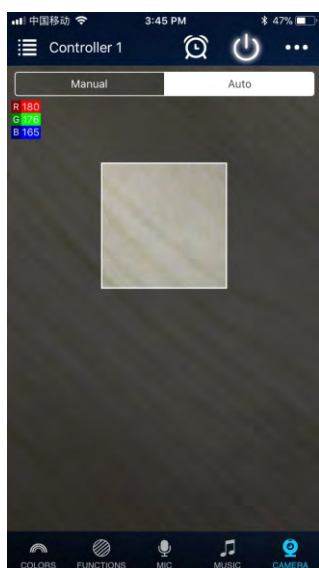
In this function the connected LED light lights up depending on the volume/noise from the outside like a microphone. This also works when playing music or there is a noise from outside, the light will begin “dancing” base on different rhythm.

The microphone sensitivity can be adjusted by the slider.



## Background color function of camera

In this function, you can select a color with the smartphone or tablet where you point the camera of your smartphone or tablet to an object. The selected color will be display from the connected LED light in the RGB spectrum. This can be done manually transmitted to the LED light with “Manual” “Capture color” or switch to “Auto” and the LED light will show immediately the color which has been selected on the camera.



# FAQ

## 1. Why the controller didn't appear in the Bluetooth list of phone setting?

In order to ensure that the controller cannot be connected by others, Bluetooth controller won't appear in the setting list. Just open the APP with Bluetooth enabled and the controller will show up.

## 2. Why the controllers didn't appear in the app after I opened the phone Bluetooth?

In order to ensure the privacy of the controller, the controller needs to be successfully connected with the phone within one minute after powering on. If more than one minute, please restart your controller.

## 3. How to reset your device?

If you experience any issues with your smart device, try following the steps below to reset your devices and then add them back into your app.

Power the device off (8 seconds)

Power the device on (1 second)

Power the device off (8 seconds)

Power the device on (1 second)

Power the device off (8 seconds)

Power the device on (1 second)

Power the device off (8 seconds)

Power the device on (8~12 second)

Power the device off (8 seconds)

Power the device on (8~12 second)

Power the device off (8 seconds)

Power the device on. If the light flashes 3 times and then change to 'bright up and fade gradually' mode, it has been successfully reset.

### Note:

1). Once you reset your devices, they will no longer appear in your app and will need to be added again.

2). Make sure to perform the factory reset by switching on the power supply of the device instead of the APP.

## 4. Can multiple users control the same set of smart devices?

Yes. You and other people you share control with can log into the app on multiple devices and control the same set of smart devices.

## 5. Can I log into the app on multiple devices?

Yes, you can install the app and log in using the same account on multiple devices.

## FAQ

### 6. I'm having trouble adding smart devices to the app. What can I do?

Try the following:

Make sure you're within range of the smart device (about 50 feet).

Make sure to turn on the bluetooth on your smart phone device.

Make sure the device is power on.

Ensure the device is in 'bright up and fade gradually' mode. If not, please do a factory reset.

Try to restart the smart device.

Try to restart your phone.

Perform factory reset of the device.

### 7. What is the range for controlling the smart devices?

About 50ft from one of the smart devices. Performance will vary based on home construction and smart device placement. The smart devices can “mesh” together, effectively extending the control range. So if you are within range of one smart device, you can control other smart devices that are further away as long as the smart devices are with range of each other, a bit like a daisy chain.

### 8. Why does my smart device show offline?

Try the following:

Make sure the device power on.

Make sure the device has not been reset factory defaults.

Make sure your device is in controllable distance, which is within 15 meters between smart devices.

If failed to solve the problems after the above suggestions, please try to restore the factory settings and re-add the device in App.

### 9. Can I share the app with other people?

Yes. Before you share with them, the person who you are sharing with will need to download the app and create an account. From the app's home screen, tap the action menu in the upper right corner, and choose Share Control from the menu. Enter the email address of the person you'd like to share with.

### 10. What is the maximum number of smart devices can control with the app?

Up to 64 devices in each control place. Individual performance will vary based on home construction and smart device placement.

If you want to control more than 64 devices, please create several place to achieve it. It is facile to switch the different place in our app. Because there are up to 64 devices in each control place, you can control lots of devices in your smart phone.

### 11. What is the difference between "Place" and "Group"?

1 Place can support maximum 64 smart devices, 1 smart device can be added to 1 Place only, Can't add 1 smart device to multi Places. 1 Place can support multi Groups, 1 smart device can be added to maximum 8 different Groups.

## FAQ

### 12. Is the device able to connect internet, and control by Alexa or Google Home through voice?

It is not available so far. But, we are developing a repeater, through which you can remote control devices, including Voice Control via Alexa and Google Home. No modification on your existing devices, just add the repeater and all these functions can be implemented.

## ATTENTIONS

1. Please use the product in a dry environment.
2. Please use the input voltage at 12-24V DC voltage, must not connect into 220V AC directly.
3. The product is requested common anode connection. The wrong connection will cause a malfunction.

### FCC Warning

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

### Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.