

# **ESPRESSIF IOT APK: USER GUIDE (HUMIDITY- TEMPERATURE SENSOR)**

---

### Disclaimer and Copyright Notice

Information in this document, including URL references, is subject to change without notice.

**THIS DOCUMENT IS PROVIDED "AS IS" WITH NO WARRANTIES WHATSOEVER, INCLUDING ANY WARRANTY OF MERCHANTABILITY, NONINFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY WARRANTY OTHERWISE ARISING OUT OF ANY PROPOSAL, SPECIFICATION OR SAMPLE.** All liability, including liability for infringement of any proprietary rights, relating to use of information in this document is disclaimed. No licenses express or implied, by estoppel or otherwise, to any intellectual property rights are granted herein.

The Wi-Fi Alliance Member Logo is a trademark of the Wi-Fi Alliance.

All trade names, trademarks and registered trademarks mentioned in this document are property of their respective owners, and are hereby acknowledged.

Copyright © 2013 Espressif Systems Inc. All rights reserved.

## Version History

---

Date	Version	Author	Changes	Comments
2014.5.30	V1.0	Yu Fei		Draft
2014.6.04	V2.0	Yu Fei	Modify reset function, add “sharing”	
2014.9.05	V3.0	Lv Fang fang	Support IOT_Espressif_0.7.4.apk	

# Table of Contents

---

<b>1</b>	<b>INTRODUCTION.....</b>	<b>5</b>
<b>2</b>	<b>BASIC INSTRUCTIONS.....</b>	<b>6</b>
2.1	COMMON FEATURES OF ESPRESSIF IOT DEVICE .....	6
2.2	MAJOR FEATURES OF DEVICES AND THEIR CHARACTERISTICS .....	6
2.2.1	<i>Humidity and Temperature Sensor.....</i>	6
2.2.2	<i>Gas and Smoke Detector.....</i>	6
2.2.3	<i>Plug .....</i>	6
2.2.4	<i>LED Light .....</i>	7
2.2.5	<i>General Devices.....</i>	7
2.3	RESETTING THE DEVICE (EG. TEMPERATURE SENSOR).....	7
<b>3</b>	<b>IOT_ESPRESSIF APP USAGE INSTRUCTIONS .....</b>	<b>9</b>
3.1	REGISTRATION, LOGIN, ACCOUNT SETTING .....	9
3.1.1	<i>Registration.....</i>	9
3.1.2	<i>Login.....</i>	11
3.1.3	<i>Account Setting.....</i>	13
3.2	ACTIVATE THE DEVICE.....	14
3.2.1	<i>Activation Process.....</i>	14
3.2.2	<i>Activation Instrctions .....</i>	15
3.2.3	<i>Dealing with Errors.....</i>	20
3.3	DEVICE FUNCTIONS .....	29
3.3.1	<i>Common Functions.....</i>	29
3.3.2	<i>Humidity and Temperature Sensor.....</i>	35
3.3.3	<i>Smoke and Gas Detector.....</i>	38
3.3.4	<i>Plug .....</i>	39
3.3.5	<i>LED Light .....</i>	44
<b>4</b>	<b>IOT_LOCAL APP USAGE INSTRUCTIONS.....</b>	<b>45</b>
4.1	OPERATION OF THE LOCAL DEVICE .....	45
4.2	CONNECTION.....	47
4.3	CONFIGURATION .....	48

---

## 1 Introduction

This manual mainly introduces how to use the IOT\_Espressif Android App and other related devices. When you have successfully installed this App on your smart phone, two icons will be shown: IOT Expressif and IOT Local (see the Figure below). IOT Expressif supports server authentication, while IOT Local supports only local features. **By the way, this App applies only to devices with Android 4.0 and other above versions.**



Figure 1-1 Successfully Installed the APP

IOT\_Espressif applies to devices connected to the Internet (server), while IOT\_Local is restricted to local control. When using IOT Expressif App, devices must be registered and activated through the server, while when using IOT Local App, it is not necessary to register or activate the devices.

Please refer to "3 IOT\_ESPRESSIF APP INSTRUCTIONS" and "4 IOT\_LOCAL APP INSTRUCTIONS" for more detailed information about how to use IOT Expressif.

## 2 Basic Instructions

---

### 2.1 Common features of Espressif IOT Device

- 1) Default Espressif device name is ESP\_XXXXXX, among which XXXXXX is the last three bytes of the MAC address.
- 2) Sensor products have two kinds of Wi-Fi mode: the co-existence of softAP-station and the station mode. The default mode is the co-existence of softAP-station mode. Following the procedures introduced in Chapter 3, the Wi-Fi mode of your device will change from the co-existence of softAP-station mode to the station mode, and will connect to the internet. If you press the resetting key and power on the device, it will revert to the default softAP-station mode. However, you'll have to reconfigure ur devi and reconnect to the internet.

### 2.2 Major features of devices and their characteristics

#### 2.2.1 Humidity and Temperature Sensor

Humidity and temperature sensor is able to hibernate and be aroused from sleep every 30 seconds. When it hibernates, the indicator light is out, which is normal. Data collected by the humidity and temperature sensor will be transmitted to the server, while user can use the App to read the latest data uploaded by the sensor, including history data. In the App, humidity and temperature sensor is labeled as “Temperature”.

#### 2.2.2 Gas and Smoke Detector

Gas and smoke detector, like humidity and temperature sensor, is able to hibernate and be aroused from sleep every 30 seconds. When it hibernates, the indicator light is out, which is normal. Data collected by the gas and smoke detector will be transmitted to the server, while user can use the App to read the latest data uploaded by the detector, including history data. In the App, gas and smoke detector si labeled as “Gas detector”.

#### 2.2.3 Plug

Plug is not able to hibernate. Users can power on or power off a plug vian APp. In the App, plug is labeled as “Plug”.

## 2.2.4 LED Light

LED light is not able to hibernate. Users can control the RGB values and the frequency of the light via the App. In the APP, LED light is labeled as “Light”.

## 2.2.5 General Devices

Devices in IOT\_Espressif\_Local will be categorized as general devices only when they are unrecognizable. In the APP, general devices are labeled as “Generic”.

## 2.3 Resetting the device (Eg. Temperature Sensor)

Please refer to other documents for the reset modes of other devices. This Figure below (Figure 2-1) showcases the hardware design of a humidity and temperature sensor.

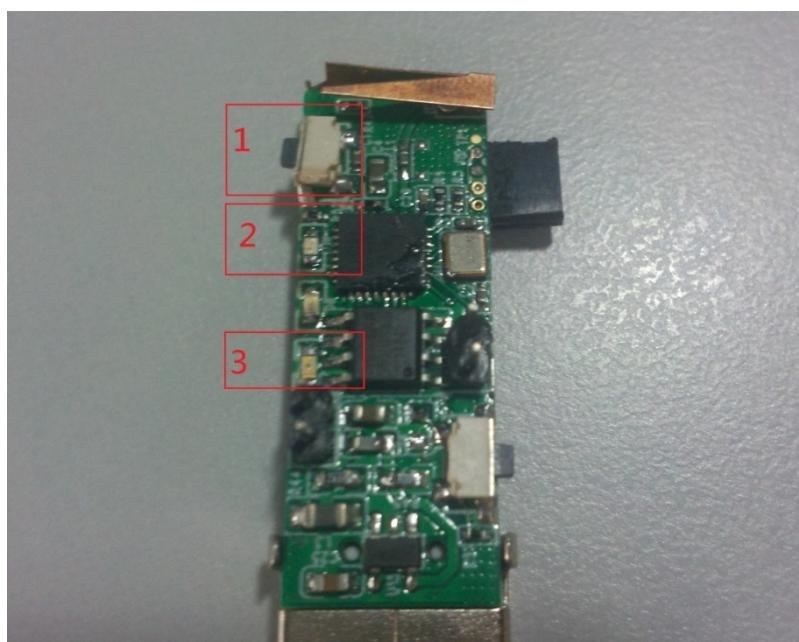


Figure 2-1 Hardware Design of Sensor

The red square frame in Figure 2-1 indicates the following components:

(1) Resetting key: it is used to restore the device.

Press the resetting key, power off the device and then power on again, the device will be reset and restarted, and revert to the defaulted softAP+station mode.

## (2) Connection status light: blue

If the blue light shines every 50 milliseconds, it indicates that the device is connecting to the server.

If the light remains blue, it indicates that the device has successfully connected to the server.

## (3) Wi-Fi status light: red. It is used to display Wi-Fi status.

If the red light shines every 100 milliseconds, it indicates that the current Wi-Fi status is the defaulted softAp+station mode.

If the red light shines every 50 milliseconds, it indicates that the device is connecting to the server.

The light remains red, it indicates that the current Wi-Fi status is the station mode.

## 3 IOT\_ESPRESSIF APP Usage Instructions

**Handheld devices:** handheld devices refer to cell phones and pads that feature Wi-Fi functionality and Android operating system, and are hereafter referred to as handheld devices in the following pages.

### 3.1 Registration, Login, account setting

#### 3.1.1 Registration

Please register an account when you first use IOT\_Espressif. The Figure below (Figure 3.1-1) shows the user registration interface.

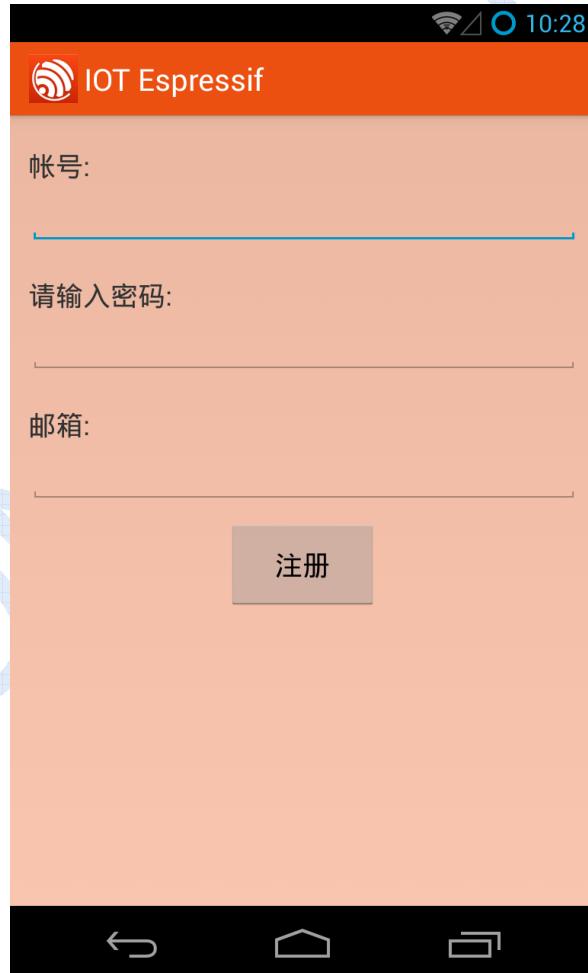


Figure 3.1-1 User Registration

**Note:** No blanks shall be included in the account name, or the registration will fail. See Figure 3.1-2.



Figure 3.1-2 Registration Failed

### 3.1.2 Login

When you use an e-mail account to register, please go back to the login interface and input your e-mail address and password, see Figure 3.1-3.



Figure 3.1-3 User Login

After successfully log in, you will see an interface with a list of devices searched automatically. Users can also slide down the menu and refresh the list of devices manually. The following Figure (Figure 3.1-4) shows a list of devices.



Figure 3.1-4 A List of Devices

### 3.1.3 Account Setting

Click “More Options” on the right corner to manage your current accounts, and to set the auto-login option. When the application breaks down due to abnormal operations, you can set the accent and decide whether program error warnings shall be sent or not. The version of App that you use currently will also be shown in “More Options”, see Figure 3.1-5.



Figure 3.1-5 Account Setting

## 3.2 Activate the device

### 3.2.1 Activation Process

Normally, the device is activated following the steps below:

- 1) The handheld device is connected to a device requires activation.
- 2) The handheld device send SSID, password, and a random token generated by itself to an AP ( one that can be connected to the Internet), with which the device requiring activation will connect.
- 3) The handheld device connects to the device requires activation.
- 4) The handheld device reconnects to the device requires activation.
- 5) The handheld device obtains the activation status sent by the device requires activation.
- 6) The handheld device is connected to the AP of the device requires activation.
- 7) Through the random token, the handheld device obtains an owner key of the device requires activation (i.e., the user become the owner of the device requires activation).
- 8) App will skip to the device list interface automatically.

Among which:

In step (1), the status displayed on the App is “connecting to the device”.

In step (2), the status displayed on the App is “configuring the device”.

In step (3) to step (5), the status displayed on the App is “registering the device”. The status displayed on the App will be “successfully registered” after the device requires activation has been successfully registered on the server.

Due to the fact that the channel may change when the device requires activation is connected to the server, it is necessary to disconnect and reconnect it before it is connected to the server, as is shown in step (3) and step (4).

### 3.2.2 Activation Instructions

- 1) Click “New” after the device list and enter the configuration interface, as is shown in Figure 3.2-1. In this manual, we’ll take the device named “ESP\_97EED4” as an example. When clicking Wi-Fi, there will be a series of Wi-Fi devices for you to choose, see Figure 3.2-2. Choose one that can be connected to an external network, such as “xu\_private”. If you click the “eye-shaped” icon at the right side of Wi-Fi password, the password of the Wi-Fi device that you are connecting to become visible. If the “eye” is closed, the password will be hidden, see Figure 3.2-3.



Figure 3.2-1 Configuration Interface

Figure 3.2-2 Selection of Wi-Fi Devices

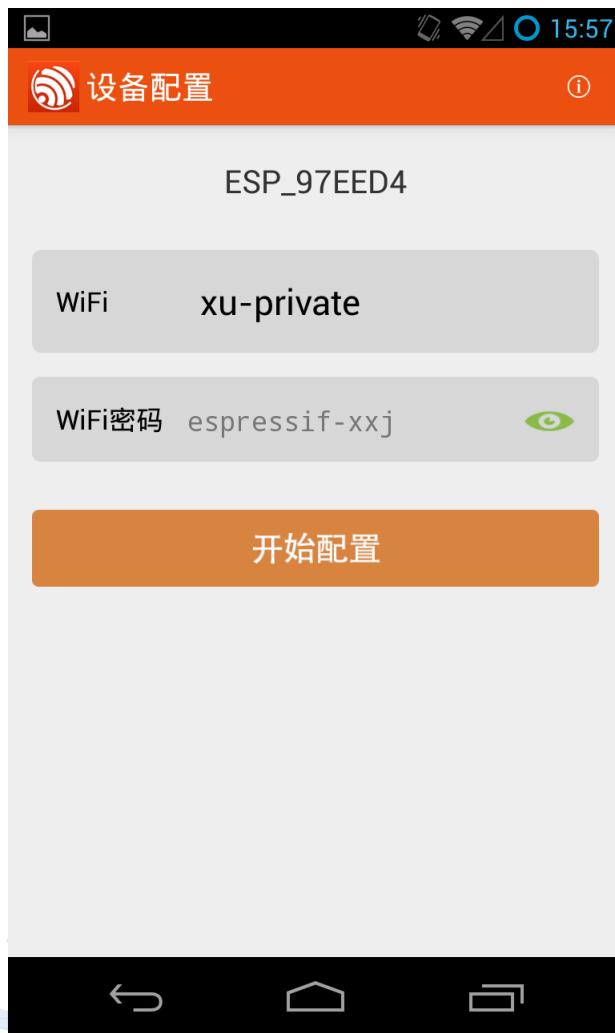


Figure 3.2-3 Display the Wi-Fi Password

- 2) Select the wireless network that you are connecting to, enter the password, and click "starting to configure". The configuration process includes six stages: connecting to the device → configuring the device → registering the device → successfully registered → connecting to the AP → acquiring network authorization. The six stages are shown in Figure 3.2-4, 3.2-5, 3.2-6, 3.2-7, 3.2-8, 3.2-9. When the six stages are completed, the device is therefore activated successfully.



Figure 3.2-4 Connecting to the device

Figure 3.2-5 Configuring the device

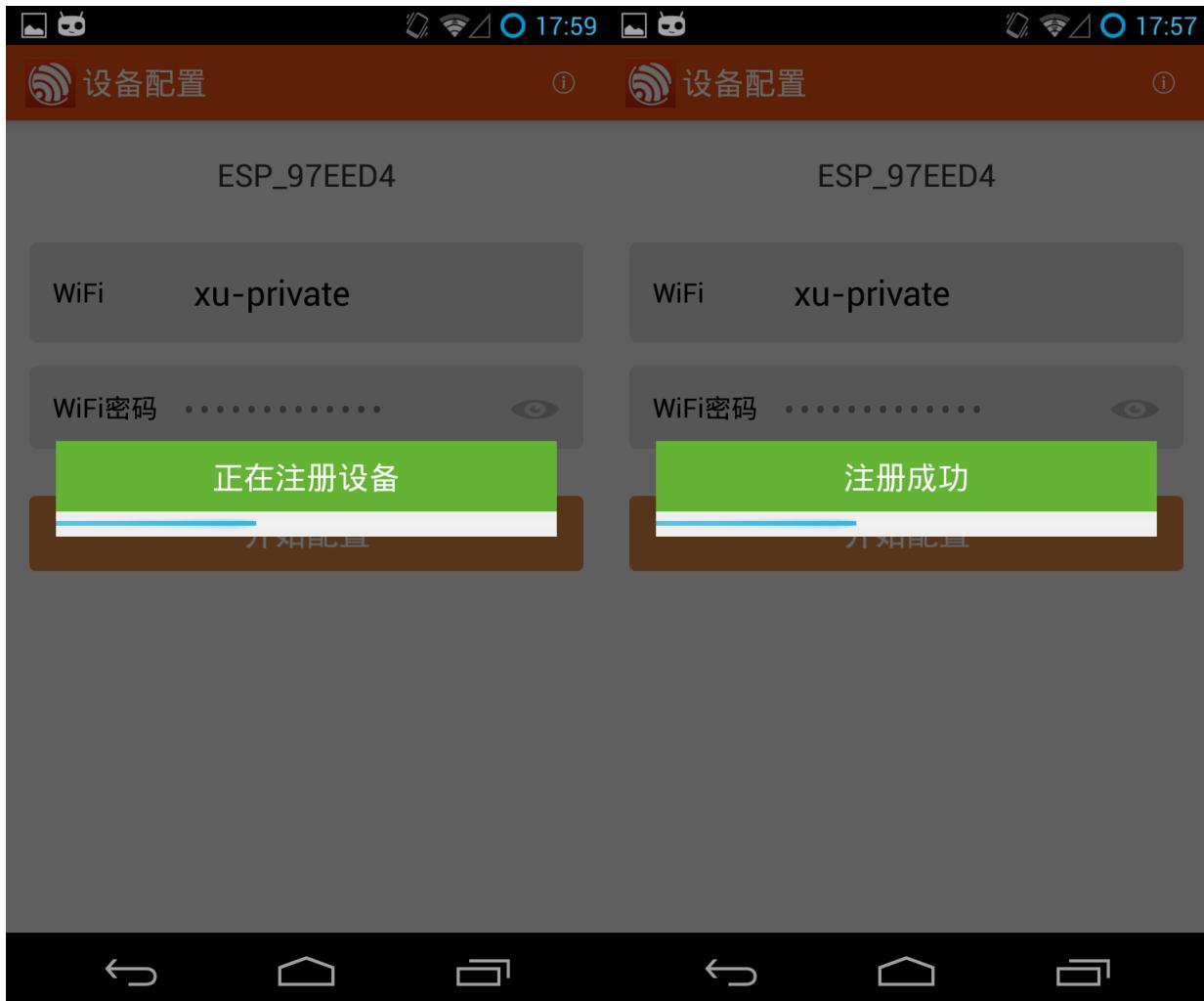


Figure 3.2-6 Registration

Figure 3.2-7 Successfully registered

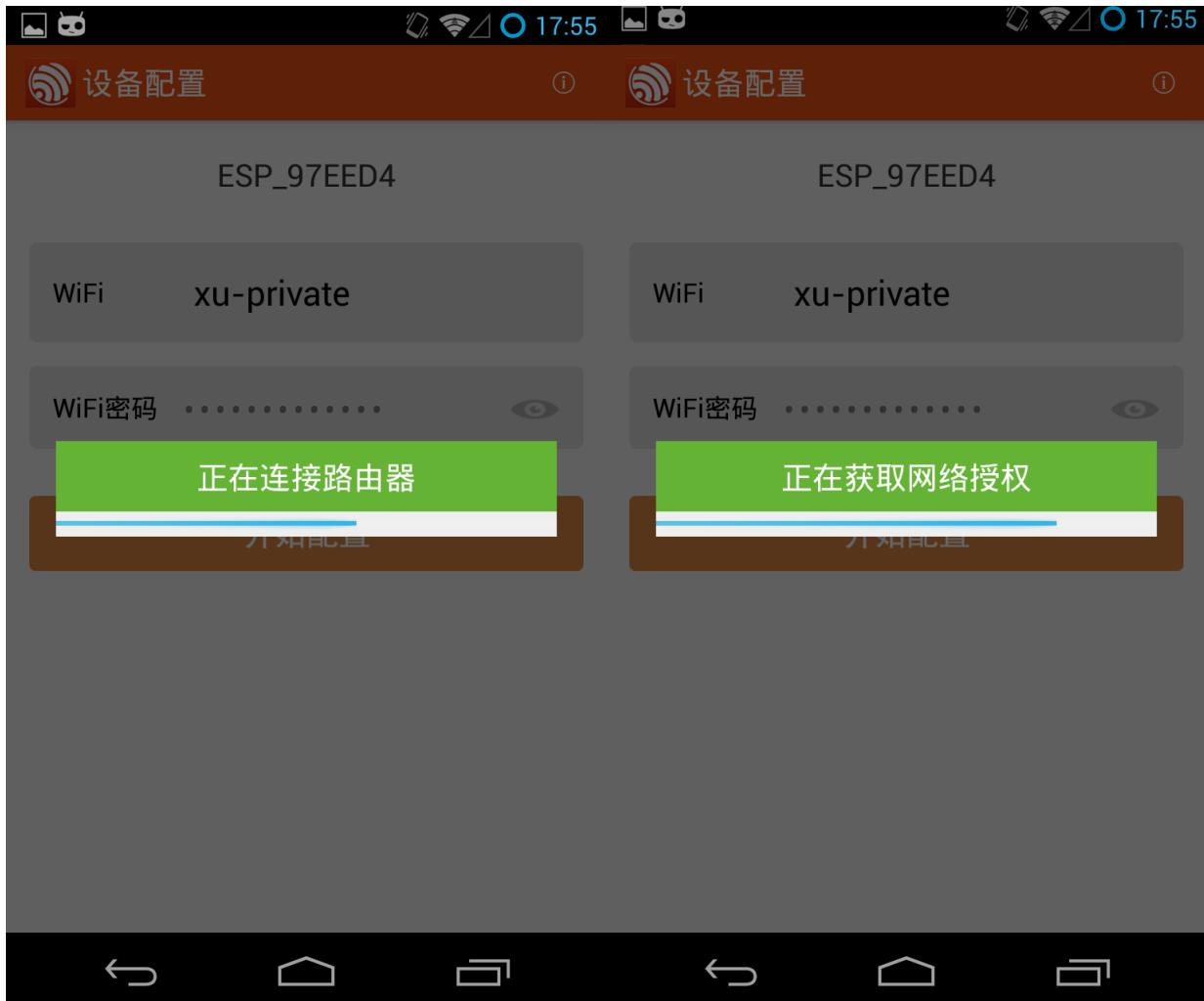


Figure 3.2-8 Connecting to the AP

Figure 3.2-9 Acquiring for network authorization

After the configuration process is completed, the list of devices is displayed as below. When the status of the device is shown as “online” (as is shown in Figure 3.2-10), it indicates that the configuration is succeed. If the interface doesn’t update automatically, you can pull down the menu and update the device list manually.



Figure 3.2-10 Configuration succeed

### 3.2.3 Dealing with Errors

#### 3.2.3.1 Cases when errors occur

All kinds errors may occur in the process of setting the device. Possible errors are indicated below:

- 1) Handheld device is connecting to the device requires activation
  - a. Device connection error

- 2) The handheld device send a SSID and password, and a random token generated by the handheld device to an AP that can be connected to the Internet and that will connect with the device requires activation.
- 3) The handheld device disconnect with the device requires activation.
- 4) The handheld device is reconnecting with the device requires activation.
- 5) The handheld device acquires the activation status of the device requires activation.
  - b. Wrong password.
  - c. The AP cannot connect to an external network.
  - d. Cannot find an AP.
  - e. The device registration has failed. (b, c, d, e are four coordinated situations, only one of them might happen at one time)
- 3) The handheld device is connecting to the AP that the device requires activation is connected to.
  - f. The AP fails to get connected.
- 4) Through the random token, the handheld device obtains an owner key of the device requires activation (i.e., the user become the owner of the device requires activation).
  - g. The network authorization has failed.
- 5) App skips to the device list interface automatically.

### 3.2.3.2 Handling of Errors

There are various solutions to resolve the above-mentioned errors:

- a. Device connection error

The device connection error (as is shown in Figure 3.2-11) may be caused by the poor Wi-Fi signal strength of the device or malfunction of the Wi-Fi module. In this case, we need to check the source of Wi-Fi signal and to test the Wi-Fi module installed on the phone.

**Solution:** *Make sure that the Wi-Fi signal is steady and strong enough and that the Wi-Fi module on the phone is working well, reset the device, and then reconfigure.*

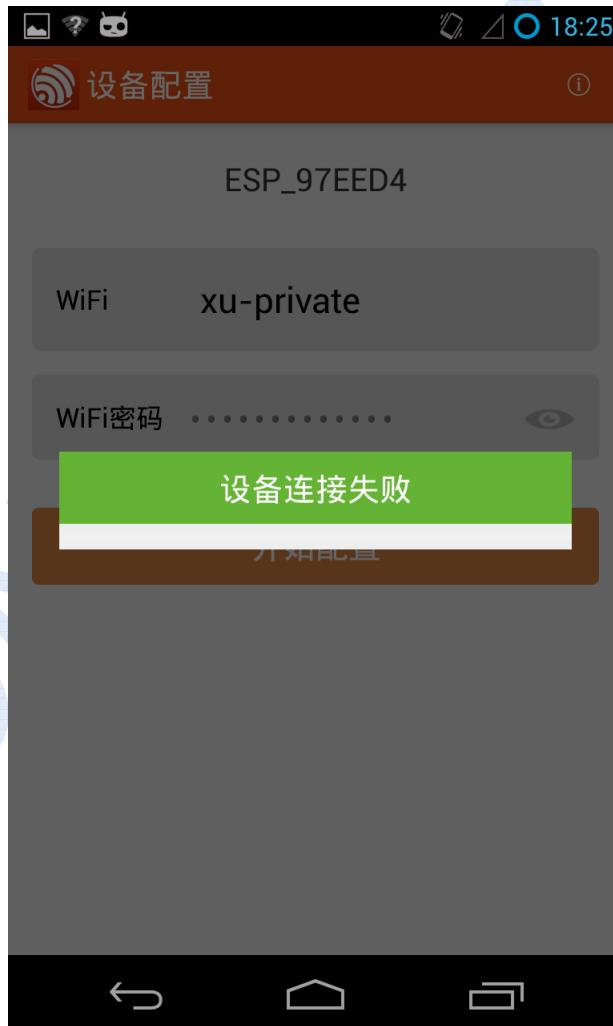


Figure 3.2-11 Device connection failure

b. Wrong password

The failure occurred in Figure 3.2-12 is due to the wrong password, i.e., the password entered in the configure interface is not corresponding to the selected Wi-Fi device.

**Solution:** In the interface shown in Figure 3.2-1, select a Wi-Fi device and enter in the correspondent password, reset the device, and then reconfigure.

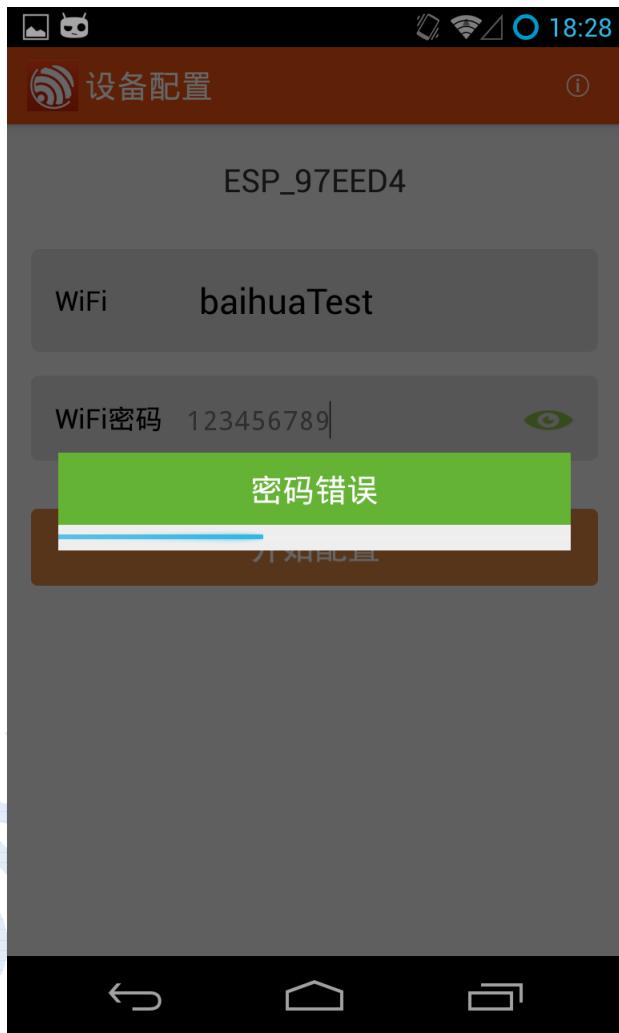


Figure 3.2-12 Wrong password

- c. The AP cannot connect to an external network

The error occurred in Figure 3.2-13 shows that the AP cannot connect to an external network.

**Solution:** *Make sure that the Wi-Fi selected can be connected to an external network, reset the device and reconfigure it, and then connect it to the wireless network.*

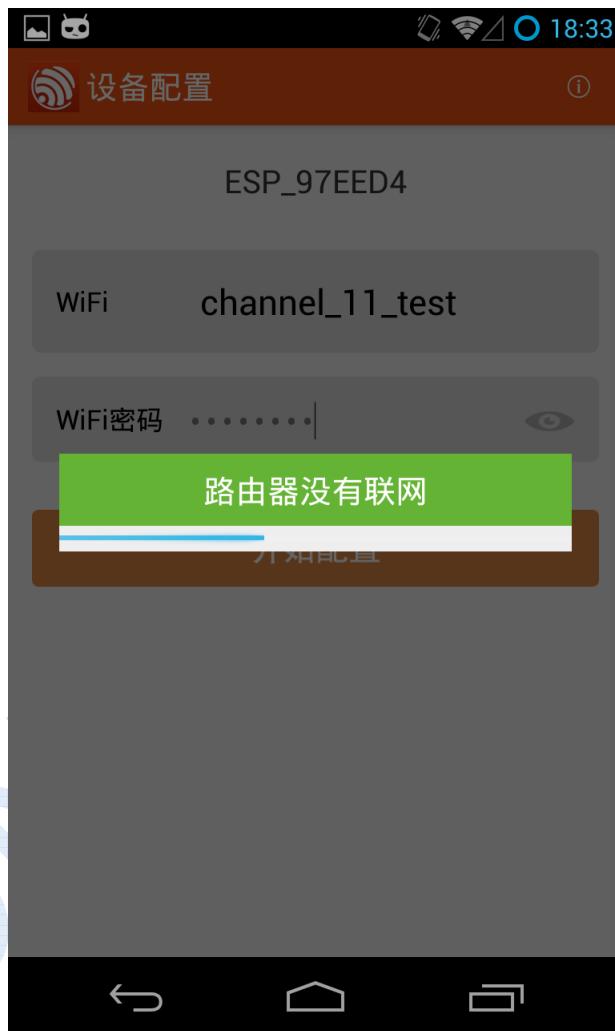


Figure 3.2-13 AP cannot connect to external network

## d. Cannot find an AP

Figure 3.2-14 shows that the device fails to find the AP.

**Solution:** *Make sure that the AP is under normal working condition, reset the device, reconfigure it, and then connect the AP to the wireless network.*

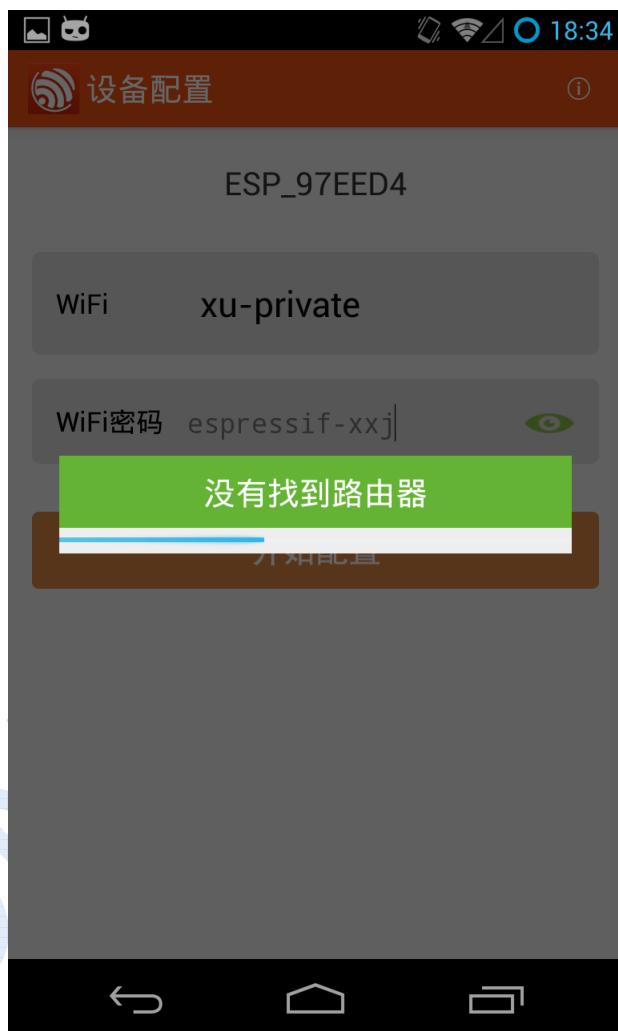


Figure 3.2-14 AP unavailable

## e. Device registration error

Figure 3.2-15 shows that the device fails to register because no information indicating the successful registration of the device is transmitted within 60 seconds.

**Solution:** *Make sure that the AP is under normal working condition, and that the AP are within the limits of its working conditions, then reset the device and reconfigure it.*

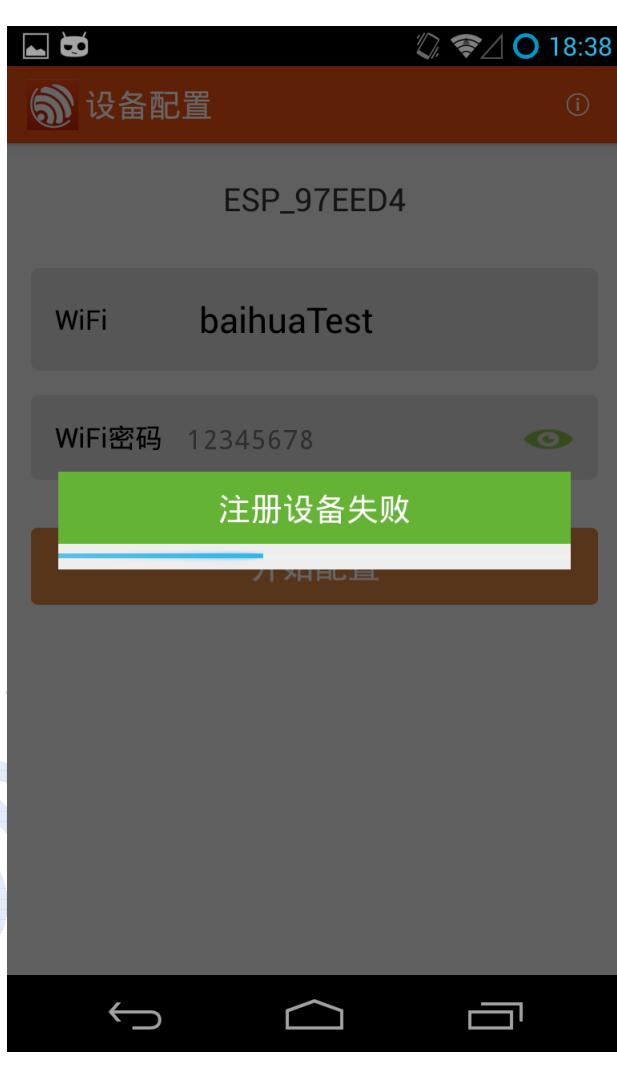


Figure 3.2-15 Device registration failure

## f. AP connection error

Figure 3.2-16 shows that the device fails to connect to the AP. The reason is that when the device has successfully registered on the server (the end-user is not authorized as the owner of the device), the handheld device fails to connect to the AP that the device registered.

**Solution:** *Make sure that the AP is under normal working condition, reset the device and then reconfigure it.*

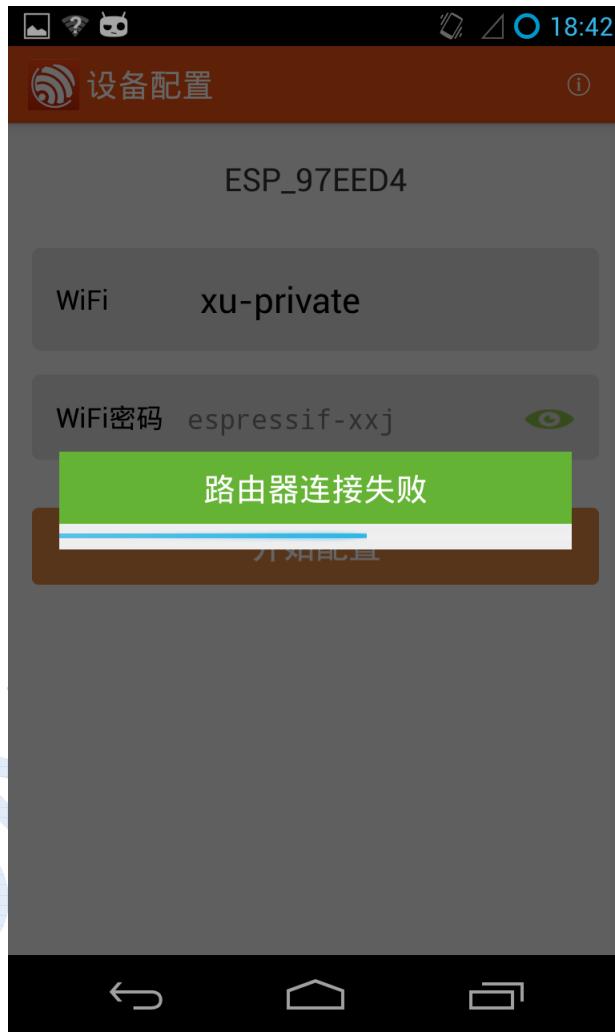


Figure 3.2-16 AP connection failure

## g. Network authorization error

Figure 3.2-17 shows that the device fails to be authorized, the reason of which is that the handheld device fails to acquire the ownership of the device from the server.

**Solution:** *Make sure that the AP is under normal working condition, reset the device and then reconfigure it.*

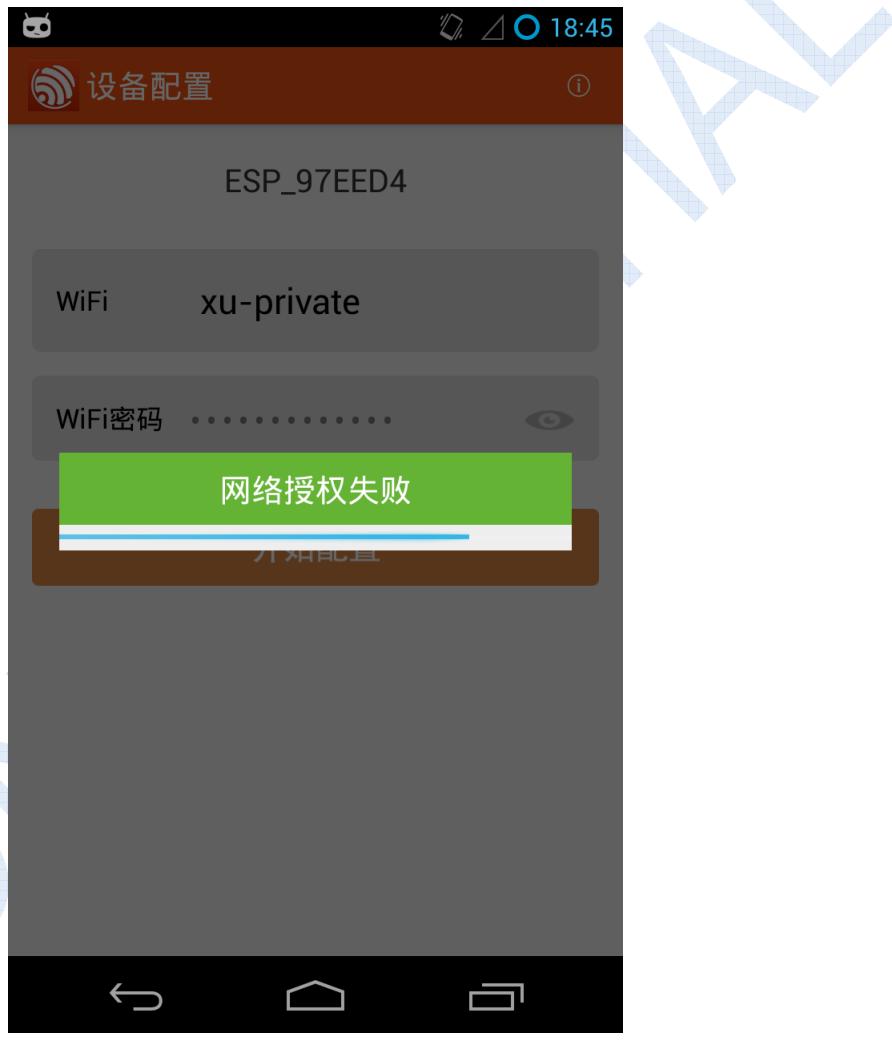


Figure 3.2-17 Network authorization failure

### 3.3 Device Functions

#### 3.3.1 Common Functions

The section will introduce the common functions of the device. Although the screenshots showcase some specified device, note that all devices are featured with the same common functions.

##### 1) Status

There exist 5 status: New, connecting, local, online, and offline, as shown in Figure 3.3-1. You can pull down the device list and acquire the latest status of various devices.



Figure3.3-1 Status of the device

➤ New

The device is under the co-existence of SoftAp-Station mode and is not activated yet (if the Wi-Fi connection of the handheld device is turned off, even though there exists inactivated device, it will not show in the list). RSSI (Received Signal Strength Indication) indicates the strength of the signal received by the device, the value of which ranges from -255 to 0 (value range [-255, 0]). Usually, if the value of RSSI is large (i.e., the absolute value of RSSI is small), it indicates that the handheld device is closer to the device, otherwise, further.

➤ Connecting

When you pull down the device list as is shown in Figure 3.3-1, the status of the devices will change to “Connecting”. Then you can check the whether the status of the device is “local” or “online” one by one afterwards. If it is “Local”, then it is unnecessary to check if it is “Online”. If the status of the device is neither “local” nor “online”, it will be “offline”.

➤ Local

The device and the handheld device are connected to the same AP, so the device can be controlled even though there is no internet (server). At present, this kind of local mode only applies to devices including plugs and LED RGB lights. Since humidity and temperature sensors, smoke and gas detectors need hibernation/sleep; they do not support the local mode. UDP broadcast packet can now be used to estimate whether the device is under local mode or not.

➤ Online

The device and the handheld device are connected to different APs, but the handheld device can be used through internet/server, or it can also be used when there is mobile data. If there are data transmitted to the server within 5 minutes, then the humidity and temperature sensor, as well as smoke and gas detector can be regarded as “online”. We can estimate whether Plug or LED light is online by checking whether the server remains connected to their sockets.

➤ Offline

If the status of activated devices is neither “local” nor “online”, it is “offline”.

## 2) Share

After activation, users can share their devices with other users. The shared users only have the right to use the device, but they do not have the right to share the devices once again. Only the user who activates the device will be its owner, and has the right to share the device with others.

### ➤ Share the device with other users

Every owner of the device can share the use permission of the device with other users. A two-dimensional code will be generated when you click “share the device” on the upper-right corner of the device (as is shown in Figure 3.3-2). Other users can used this two-dimensional code share by the owner to acquire the use permission of the device. It should be noted that this two-dimensional code can be used only once.

When using the device, the shared user doesn't have an icon named “share the device” (see Figure 3.3-3) for he/she has no right to share the device.

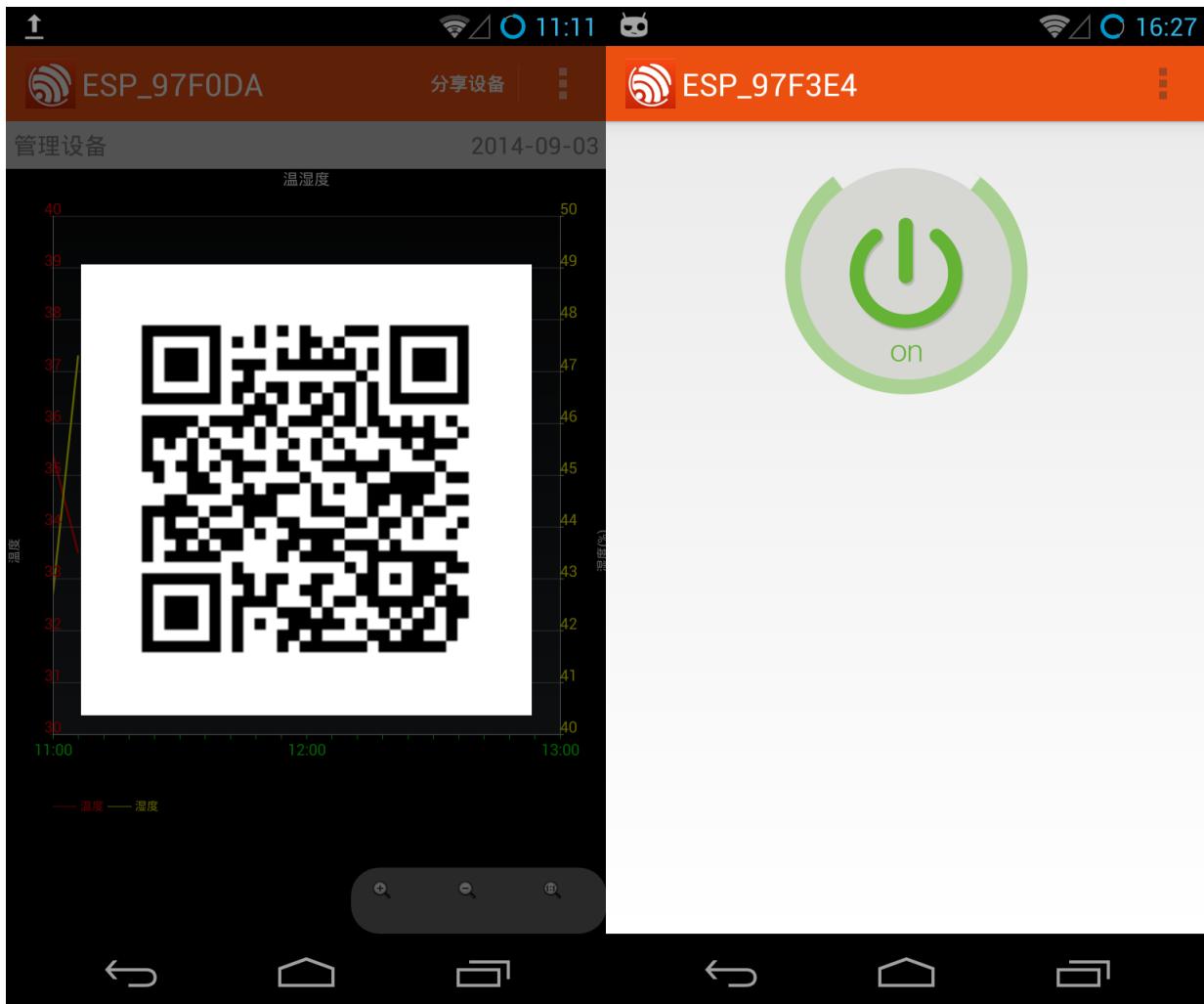


Figure 3.3-2 Share the device with other users

Figure 3.3-3 The shared user has no right to share

➤ Obtain device shared by other users

To obtain use permission shared by other users, you can click menu option (see the yellow circle in Figure 3.3-4) in the interface of device list, or you can click the menu key of your handheld device (if it has a tangible menu key), then a page will pop up, as is shown in Figure 3.3-5. You can acquire the use permission of the device by scanning the two-dimensional code (see Figure 3.3-2) shared by device owner.



Figure 3.3-4 Obtain device shared by other users



Figure 3.3-5 Scan the two-dimensional code to obtain device use permission

### 3) Delete and rename

Press the device with extra long time and you can delete or rename the device (see Figure 3.3-6). It should be noted that once the device is deleted, it won't recover. If it is the owner who deleted the device, you can reset and reactivate the device to regain it. If it is the shared user who deleted the device, you can ask the owner to share the user permission of the device once again.



Figure 3.3-6 Delete or rename the device

### 3.3.2 Humidity and Temperature Sensor

If you want to review data uploaded to the server, you can click the humidity and temperature sensor no matter it is online or offline. When you click it, it will choose the exact day when the data is the latest by default. If the date displayed on the upper-right corner is the present date, a prompt dialogue box will pop up and reveal the latest date and data, as is shown in Figure 3.3-7. Click the three buttons from left to right, as is shown in the three yellow circles on the lower right corner, the Figure will become larger, smaller, or restore to the original size. Besides, you can pull down the line chart and update the data.

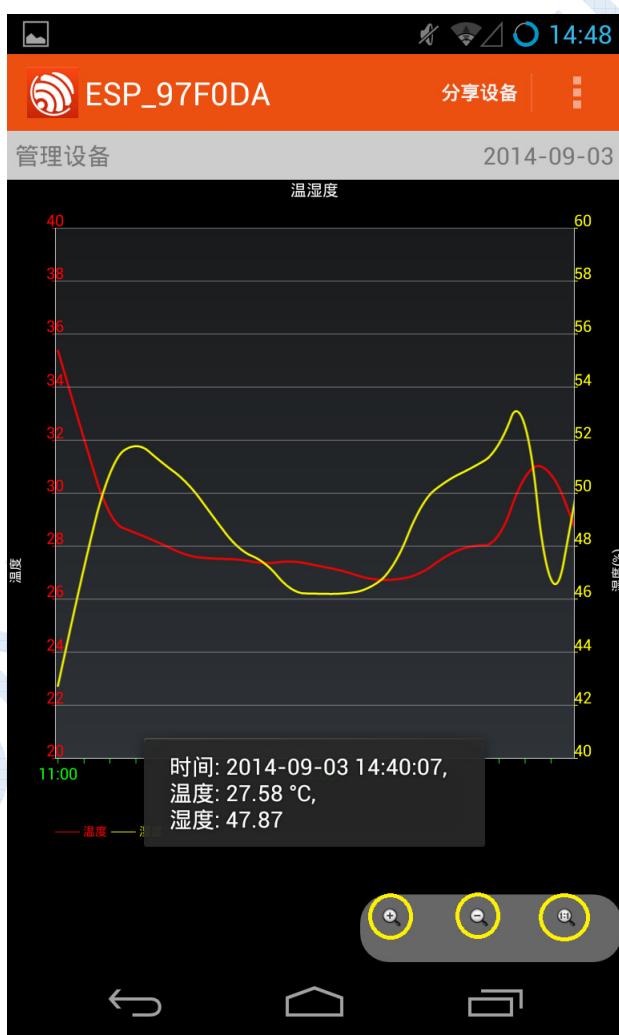


Figure 3.3-7 User guide to humidity and temperature sensor

Users can click the upper right corner of the interface or click the menu key of the handheld device (if it has a tangible one) to select one specific day and view historical humidity and temperature data (see Figure 3.3-8).

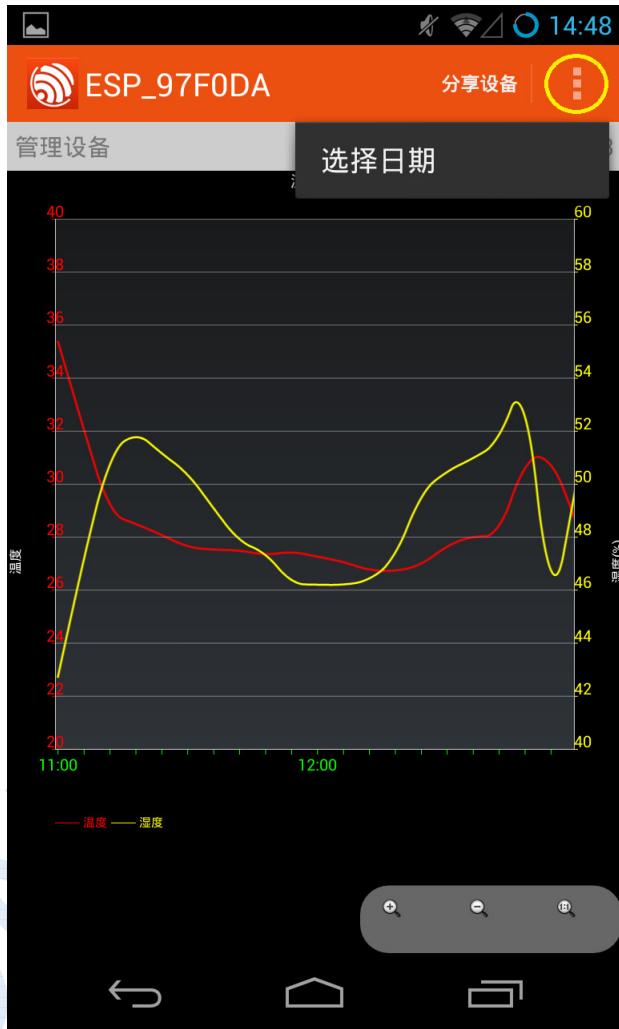


Figure 3.3-8 Select a date

If there is no data uploaded to the server on the date selected, a tip will pop up to remind you that there is no data on that typical day (see Figure 3.3-9).

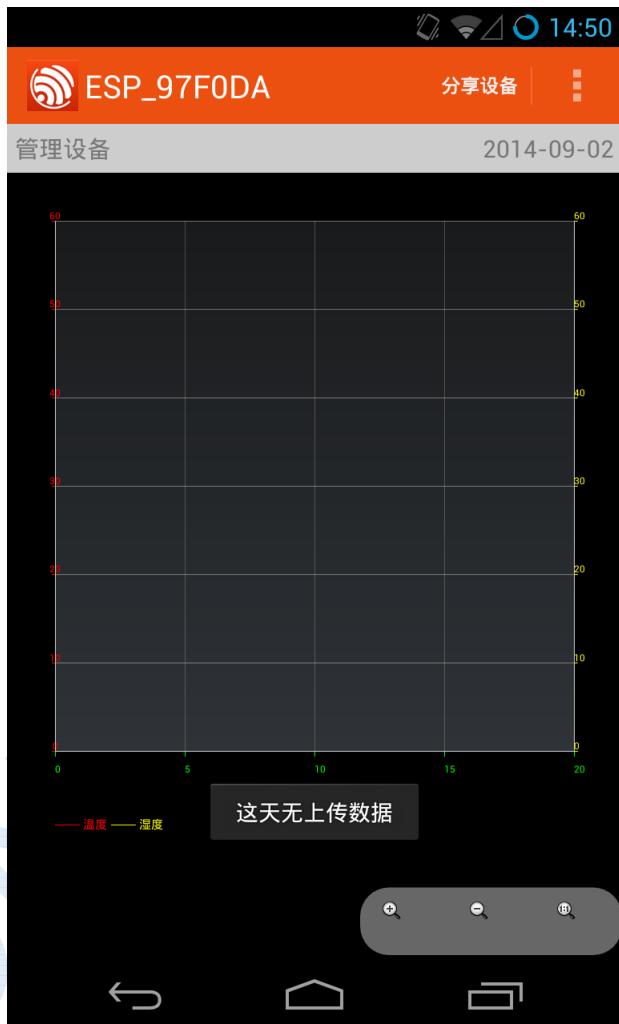


Figure 3.3-9 No date on the selected day

### 3.3.3 Smoke and Gas Detector

Similar to humidity and temperature sensor, smoke and gas detector can upload information about gas concentration to the server. When gas concentration exceeds 5000ppm, an alarm will be raised (see Figure 3.3-10).

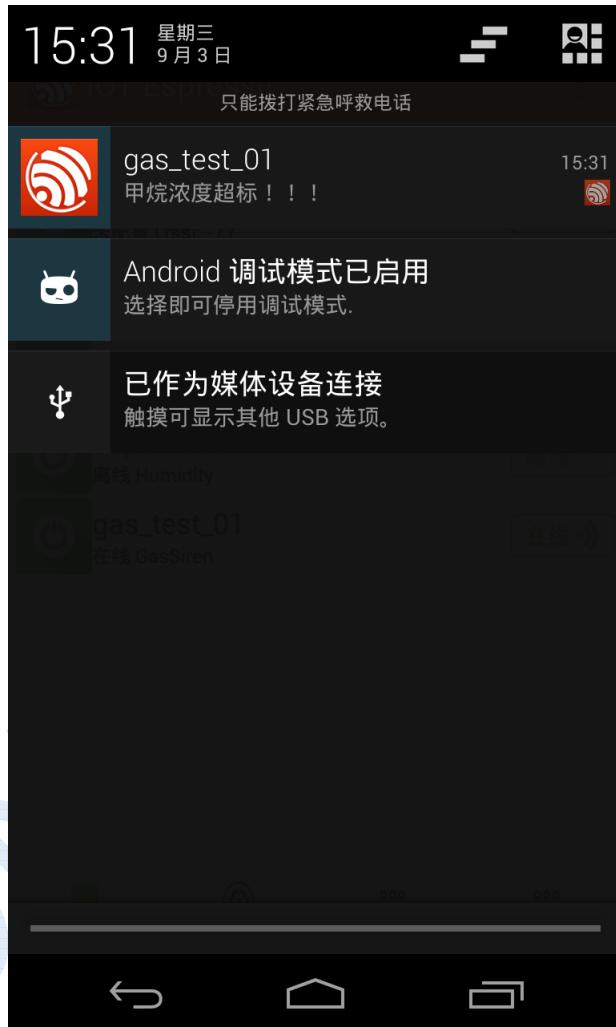


Figure 3.3-10 The smoke and gas detector receives an alarm

### 3.3.4 Plug

Only when the status of the device is local or online can the plug be used. When it is local, users can control it directly without connecting to the internet/server. When it is online, users can control it via the server.

You can either control the plug in the device list interface, or you can enter the control interface.

Click the area in the yellow circle, a command will be sent to the device by the server, and you can control it. However, the device may not respond to the demand occasionally.



Figure 3.3-11 Use of plug in the control list

Click a plug whose status is either “local” or “online”, it will turn to the control interface (see Figure 3.3-12). Click the on and off icon and you can switch on or switch off the plug. It will take a moment for the device to respond to the command. You can use the timer by clicking the upper right corner.

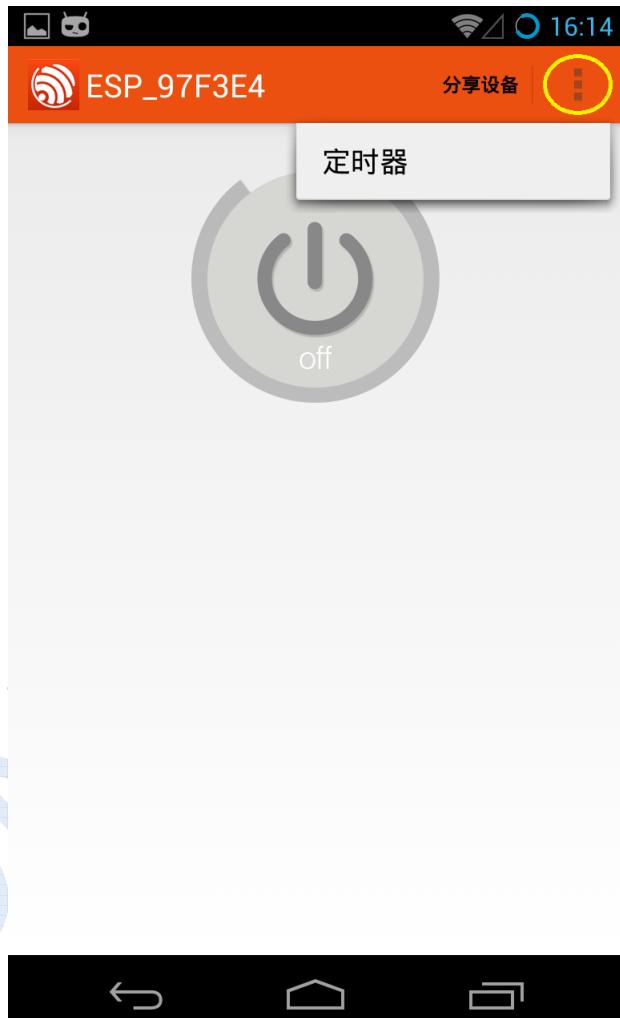


Figure 3.3-12 Use of the switch

When you choose the timer, a timer list will be shown (see Figure 3.3-13). You can click the “plus” icon on the upper right corner to add a new timer, or click the “delete” button to delete a timer, or click the name of the timer to edit it.



Figure 3.3-13 Timer list

The timer supports three working modes: appointing a time, cycling according to a defined time, cycling at a certain time every week. To be specific, the first mode means that the device will perform a task at an appointed time; the second mode means that the device will perform a task at every defined time intervals; the third mode means that the device will perform a task at a specific time every week. You can click the button “timing” to select one working mode.



Figure 3.3-14 Select one working mode for the plug timer

Plug timer supports three operations: off, on, and on-and-off. If the device is on, you can click the timer and turn it off, and vice versa. Click the button in the yellow circle as is shown in Figure 3.3-15 and you can select one operation.



Figure 3.3-15 Task selection

### 3.3.5 LED Light

The use of LED light is similar to that of the plug, i.e., only when the status of the light is “local” or “online” can it be used. The difference is that LED light cannot be controlled through the device list, and it does not support timing function.

Click the light and enter the control interface, as is shown in Figure 3.3-16. Users can drag the line to change the RGB value and frequency of the light. Click “OK” and values will take effect.

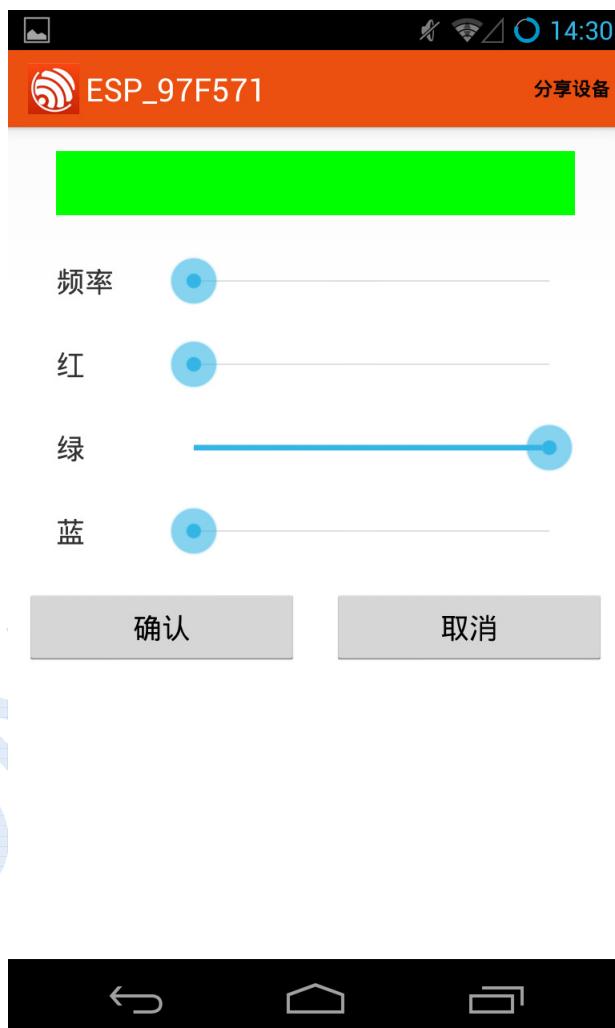


Figure 3.3-16 Use of LED light

## 4 IOT\_LOCAL APP Usage Instructions

The biggest different between IOT\_Espressif\_Local and IOT\_Espressif is that the former does not require the activation process, that is to say, devices don't need to get registered and activated via the server. Meanwhile, the device can be controlled only when it is connected to the same AP with the handheld device, or when the handheld device is connected to softAP of the device. Note that IOT\_LOCAL applies only to devices including LED lights and plugs.

### 4.1 Operation of the local device

There are 3 working modes: SoftAP, Sta, and SoftAP-Sta in IOT\_LOCAL.

SoftAP: it indicates that the device supports SoftAP mode and can be searched through Wi-Fi scanning.

Sta: it indicates that the device does not support SoftAP mode, and cannot be searched through Wi-Fi scanning, but it can be found via UDP broadcast packet sent by the same AP.

SoftAP-Sta: it indicates that the device support SoftAP mode, and can be found via UDP broadcast packet sent by the same AP.

The 3 modes of the device are shown in Figure 4-1.



Figure 4-1 Status of the devices

## 4.2 Connection

Connecting process:

- 1) Mobile phone connects to the device.
- 2) Acquire information about the device.
- 3) Update the result.

Click the “connect” button, the handheld device will connect to the SoftAP of the device.

- If the handheld device does not support the current device, a message will appear to report this mistake (see Figure 4-2).
- If the handheld device supports the current device and the device has been successfully connected to the handheld device, the device list will be updated as is shown in Figure 4-3. It is shown that the “connect” button of the connected device is hidden, the device in SoftAP-STA mode is converted to the SoftAP mode, and devices in the STA mode were removed.
- If the connection process fails, do nothing.

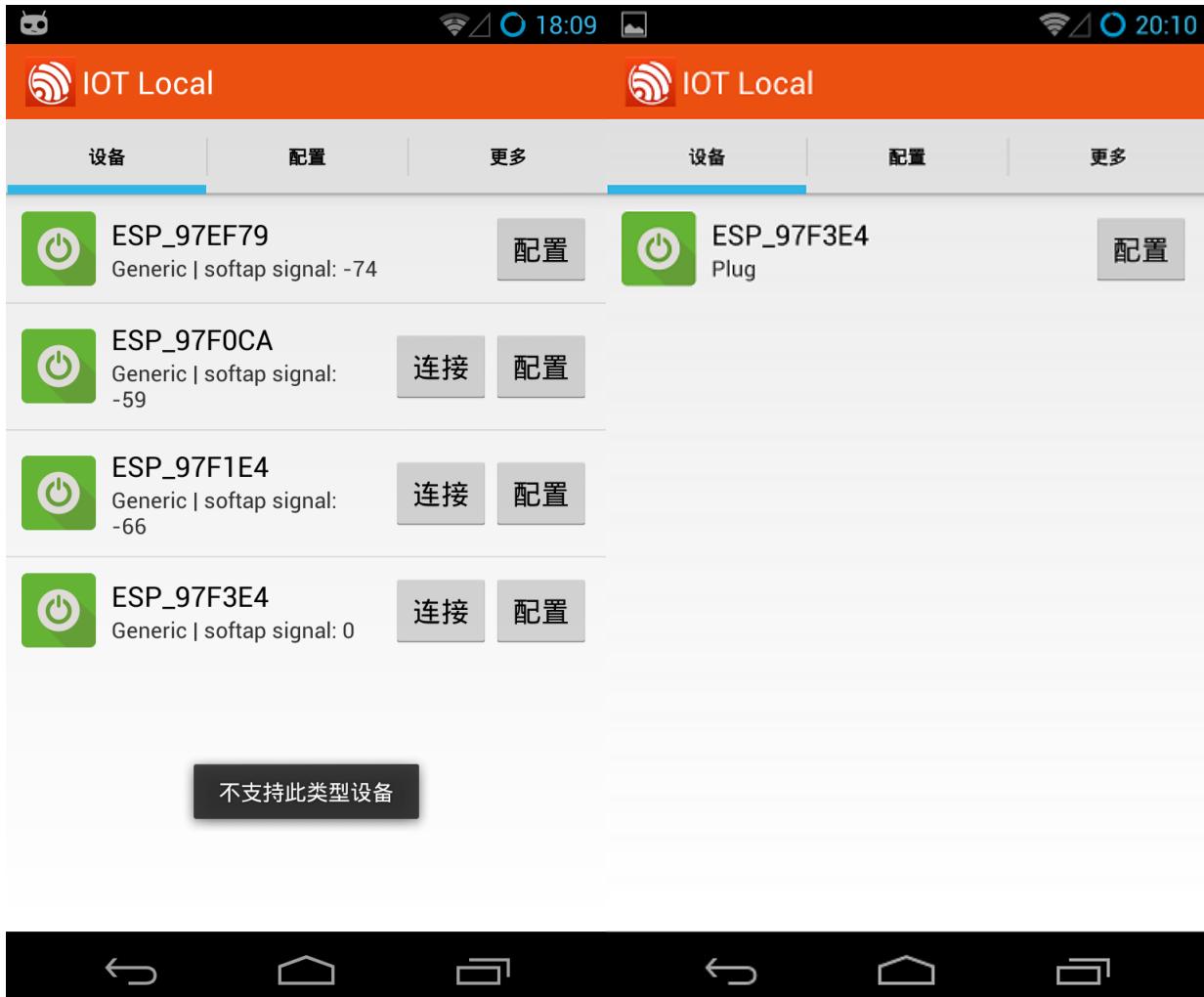


Figure 4-2 Connection fail

Figure 4-3 Connection succeed

### 4.3 Configuration

Click the "Configure" key to enter the configuration interface as is shown in Figure 4-4.

Firstly, choose the option of “Using the default password”, then select the Wi-Fi device and input the correct password. If the device is encrypted and the password format of which is the same with that of the SDK, the defaulted password shall be used when connecting to the device. On the other hand, if the device is not encrypted, the defaulted password shall not be used. If the password of the device has been modified in the process of SDK programming, please input this specific password defined in the SDK.



Figure 4-4 Select Wi-Fi

Figure 4-5 Configuring

Configuration process:

- 1) Connect the device with the mobile phone (this step can be performed 3 times at most, and the timeout value is 12 seconds).
- 2) Acquire the device's information (this step is performed only once, and the timeout value is 15 seconds).
- 3) Connect the device to a specified Wi-Fi (This step can be performed 3 times at most, and the timeout value is 6 seconds).
- 4) Check if the device has successfully connected to the specified Wi-Fi (this step is performed only once, and the timeout value is 30 seconds).

- 5) The mobile phone has been successfully connected to the specified Wi-Fi (this step can be performed 3 times at most, and the timeout value is 12 seconds).
- 6) Return the latest result.

Only when the previous step has been completed can the device go on to the next step. If one step fails, the device will retry this step for the times as is prescribed. If it still fails, information about the failure will be returned and the configuration process will come to an end.

In addition, a timeout value is set for every step. If the time is running over and the configuration is not completed, then this step fails. The timeout value of the whole configuration process amounts to 80 seconds. If 80 seconds is running over while the configuration is still not completed, then it is failed.

Configuration is done:

If the device connects to the mobile phone successfully, it will return to the device list, showing that it has been successfully configured (see Figure 4-6).



Figure 4-6 Configuration is fulfilled

The following cases indicate that the configuration has failed.

- If the mobile phone do not support the current device, a tip will pop up, as is shown in Figure 4-7.



Figure 4-7 Configuration failed – do not support such devices

- If the mobile phone supports the current device, but the configuration still fails, a tip will pop up (see Figure 4-8). The reason may be the password of the device is incorrect, or the setting of the password is wrong.



Figure 4-8 Configuration failed