

Product Overview

WS001 is a WIFI-based multi-color LED light controller with convenient control, extensive scenes and powerful functions. It can control RGB, RGBW, RGBWW, single color, dual color led strip light via mobile phone APP, smart speakers and infrared remote control.

Product Features

- Based on Android and IOS systems, local/remote control, mobile phone self-editing scene effects available.
- Support automatic detection of new device to achieve one-touch network set up.
- Extensive one-touch execution and automated intelligent scene combination, scene and device link to achieve product interaction.
- Amazon Echo, Google Home and other cross-platform third-party voice control to liberate your hands.
- Permission management and device sharing that fit into your real life to make the product operate secure.
- Seamlessly connected to local life, easily control smart device and learn the device status. Enjoy the intelligent life.

Product Parameters

Model	WS001	Wi-Fi standard	IEEE 802.11b/g/n (channel 1–14)
Load current	2A (For channel current) 10A (Total current)	Control ways	Mobile app,smart speaker, infrared remote control
Input voltage	DC12–24V	BLE standard	Bluetooth 4.0 (for auxiliary distribution only)
Operation frequency	2.412 to 2.484GHz	Infrared remote control angle	120°
Compatible apps	IOS/Android	Infrared remote control distance	≤7m
Dimming range	10%–100%	0V memory function	Yes, 5s after stop operation
Dimming frequency	1,000Hz	Certification	CE/ROHS/FCC

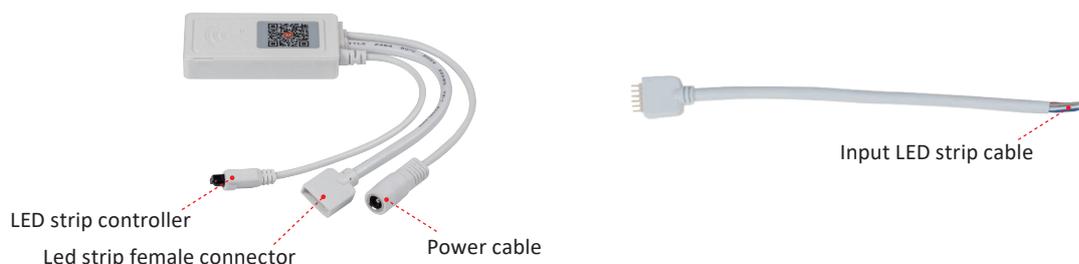
Product Operation

WS001 support three control ways: mobile phone APP, smart speakers and infrared remote control. Methods of usage and connection ways as following:

1. Led Strip Connection

Connecting parts introduction

- 1) Connection components consist of 4 sections: LED strip controller, Led strip female connector, power cable and input led strip cable. Details picture as following:



Led Strip Connection

- 1) Connect the led strip with male connector as the indicated LED colors.
- 2) Connect the female connector of WS001 controller to the led strip male connector in the direction indicated by the arrow.
- 3) Connect power supply with power cable of WS001 controller to make LED strip working.

2 Infrared Remote Control Operation

- Infrared remote control panel function introduction.
Details as following picture:



- **Attentions for infrared remote control**

- 1) Remove the battery insulation sheet when use first time.
- 2) Replace the button battery of the corresponding model when needed, such as: CR2025-2023
- 3) Keep the infrared receiver exposed when installation and nothing shielding between it and the remote control.
Control angle is 120°, control distance about 7m depend on the operate environment.
- 4) Infrared remote controller is not available when entering the distribution network status.

3 Mobile APP Operation

1. APP Download

Two ways for download as following:

- 1) Search “Tuya” in Iphone and Android APP Store.
- 2) Scan the following QR codes with iPhone or Android mobile phone to download the “Tuya “Smart APP



2. APP Function Module Introduction

2-1 APP account

- **Registration**

- 1) Registration via mobile phone number
- 2) Registration via email address

- **Login**

- 1) Phone number login: Login successfully via mobile phone number, user information will be stored in the cloud.
- 2) Mailbox login: Login successfully through mailbox, user information will be stored in the cloud.
- 3) UID login: Access our SDK via UID login system if users have their own system.
- 4) Three-party login: Using WeChat, QQ third-party accounts.

- **Logout**

- 1) Logout: Users can log out of the current status of APP
- 2) Deactivate account: Deactivate current account and delete all information about the account in one week

● Account settings

- 1) Avatar setting: Users can upload custom avatars.
- 2) Nickname setting: Users can customized the user name.
- 3) Temperature units setting: Users can switch the temperature display units (Celsius and Fahrenheit) in app.
- 4) Time zone setting: Users can choose the time zone in the app.
- 5) Save the account password into the keychain: User can choose to save the account password to the keychain after the first logged in.
- 6) Then users can login without entering account password (Android users depends on whether the mobile system supports this feature).

● Password setting

- 1) Forgot password: Support mobile phone/email to get the verification code to login.
- 2) Change password: Support to change passwords.
- 3) Gesture password setting: Supports setting a gesture password to open the app.

2-2 Home Function Module

● Family Basics

- 1) Add family members: Support for adding family members
- 2) Remove family members: Support family owner to remove family members
- 3) Exit the family group: Support administrators and family members leave the group
- 4) Switch family groups: Multi-family users are free to switch family groups
- 5) Modify name: Users are free to modify the name of the family group
- 6) Manage room: Users are free to add or remove the rooms in family group
- 7) Set location: Users can customize the home location
- 8) Display current family weather: Including outdoor temperature and humidity, PM2.5, air quality,outdoor UV index and wind scale

● Family Member Management

- 1) Adding family members: Support for the addition of family members
- 2) Removal of family members: Support for the removal of family members
- 3) Set family member permissions: Support ssetting different permissions based on the role of family members

● Room Management

- 1) Additional rooms: Support for additional rooms.
- 2) Remove room: Support to remove rooms.
- 3) Modify name: Support to change the room name.
- 4) Manage room device: support the management of different devices in the room.

2-3 Device Management Function Module

● Basic information of device

- 1) Device addition: Support for manual addition, automatic discovery, scan
- 2) Remove device
- 3) Device list sorting: Display all the added devices and support sequencing
- 4) Regional screening: Display all devices that have been added by region
- 5) Device list arrangement graph: Grid/list switching available
- 6) View device basic information: Device ID,IP address, and other information
- 7) Modify device picture: Support custom upload of device pictures
- 8) Modify the device name: User can set the user name
- 9) View device scenarios, automation: View and edit related device scenarios, automation
- 10) Issues feedback: Submit the usage problem
- 11) Feedback issues: Feedback when users submit to use the device

● Device Control

- 1) Manual control: Control the device according to the instructions of the device panel
- 2) Voice control: Device controlled by voice function of the APP
- 3) Siri control: Support Siri for IOS users

- 4) Widget control: Widget control available for users.
- 5) 3D touch control: 3D touch control available.
- 6) Third party control: Support third party device controlled.
- 7) Other control terminals: Iwatch can control device\ perform scene (IOS only).

- Other

- 1) Dynamic: Apps can support new device access and control without an upgrade (except for new devices that are connected)
- 2) Shared devices: Sharing devices to others (not members of the current family).

2-4 Smart Function Module

- One-click execution

- 1) Editing "one-click execution": Support editing "one-click execution".
- 2) "one click execution" added to Siri: Support for adding scenarios to Siri.
- 3) Recommend "one click execution".
- 4) Perform "one-click execution": Siri execution, iwatch execution, widget execution, etc.

- Automation

- 1) Edit automation: Users can set automated conditions and actions, automatically perform set actions when conditions are triggered.

2-5 Message Function Module

- Push

- 1) Push Integrated Channel: Support Umeng, Google push channels, etc. send operation push and products warning push
- 2) Push switch settings: Support switch settings, receive or do not receive different types of push messages
- 3) Push Block (DND) settings: Customize the time for DND (Do not disturb)

- Message Center

- 1) Message classification: Warning, family and notification

2-6 Other functi modules

- Voice and other third-party services

- 1) Alexa, Google Assistant, Ding Ting, Tencent Xiaowei, DuerOS.

- APP FAQs and Feedback

- 1) View app FAQs: Users can view common problems encountered in using apps.
- 2) Feedback questions: Users submit feedback on the app.
- 3) Uses log upload: IOS users available, to locate and solve problems encountered in the process of use.

3. Product Network Adaptation Guidance

Wi-Fi devices need to be connected to Wi-Fi hotspots (Wi-Fi AP) before they can communicate with other devices based on IP, we call the process of Wi-Fi devices obtaining the SSID/password of the Wi-Fi hotspot as the Wi-Fi network adaptation.

WS001 support fast Wi-Fi network connection(Flash), hotspot connection(slow flash) and Bluetooth auxiliary connection(send the Wi-Fi name and password to the module via Bluetooth).

Fast Wi-Fi network connection: First, re-energize WS001 after turn off the device over 10 seconds, then switch WS001 three times (on-off-on-off-on)(with 2-4S interval each time), few moments later until the device has started flashing (0.5S/times), WS001 entered the "Fast Wi-Fi connection" mode. You can follow the APP instruction for network adaptation.

Hotspot Connection Mode: No need to turn off the device. Switch the WS001 three times (on-off-on-off-on) (with 2-4S interval each time) when the device is in the status of fast flashing, few moments later until the device has started flashing (2S/times), WS001 entered the "Hotspot connection" mode (compatible mode). You can follow the APP instruction for network adaptation.

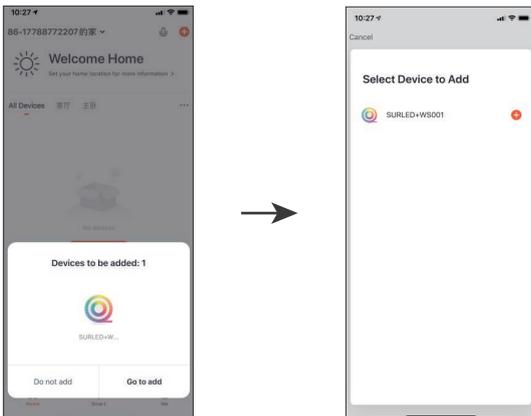
Make sure the WS001 is in one of the above 2 network distribution modes before adding the device.

● Device addition

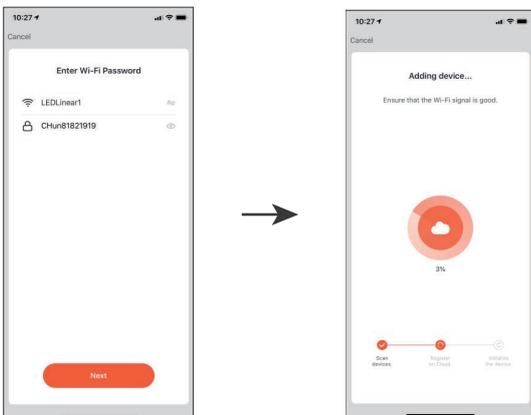
Click the “Add device” button in the center of the device list page or click the “+” button at the top right then enter the “Add device” page, which is currently divided into “Manual Addition” and “Auto Discovery” modes. (Auto Discovery mode requires users Wi-Fi and Bluetooth permission of APP).

① Manual addition

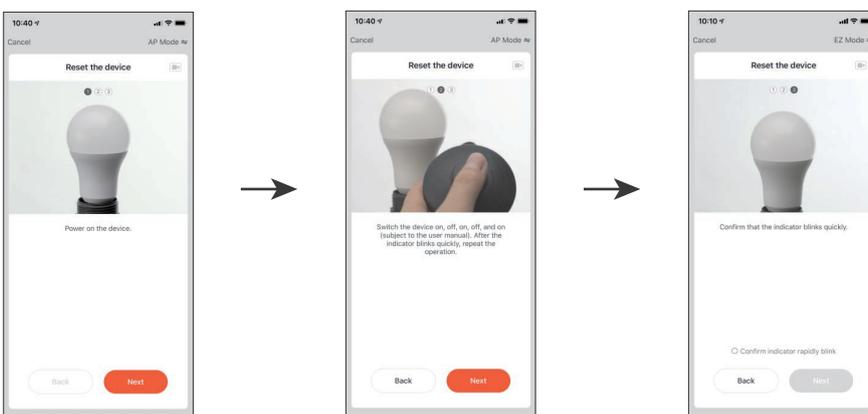
a) When the device is turn on and stay connected conditions, open the APP after a moment will pop up Bluetooth device and WiFi-Bluetooth Dual-mode device automatically which can be connected.



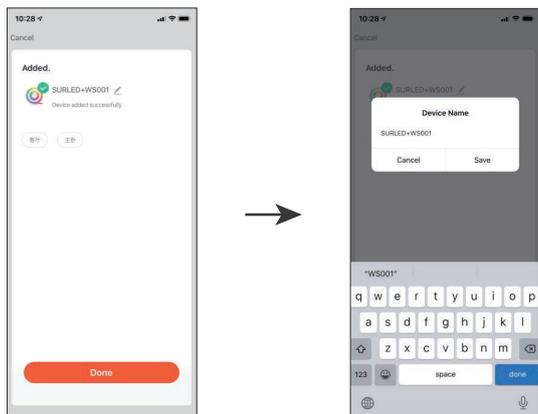
b) After click “add device”, turn to Wi-Fi setting page automatically, completed the connection after enter your password (The Wi-Fi connection network must be 2.4Ghz).



c) If you do not want to turn on Bluetooth function, you can connect with Wi-Fi directly. Select the corresponding Wi-Fi device, the indicator light need to be set to the flash status, follow the 3 steps as below picture.

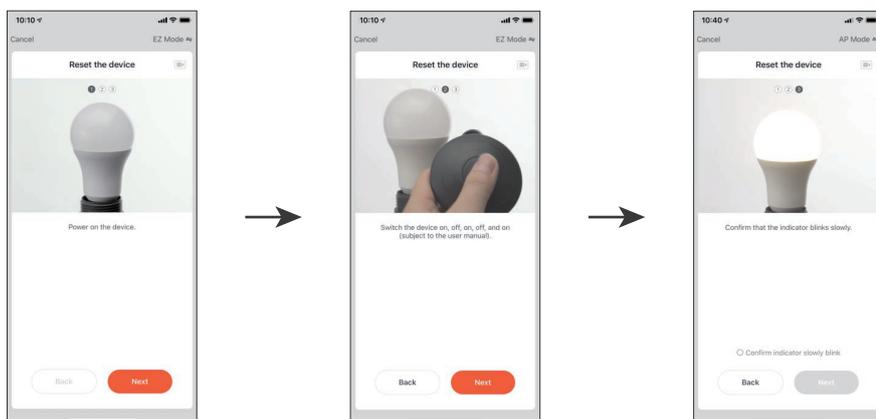


d) Waiting for the device connecting after 3 steps above. Device renamed and room classification available after successful connection.



e) If your family network is 2.4Ghz and 5Ghz mixed, you can use Hotspot connection mode (compatible mode) to match the network.

f) You need to set the device to a slow flashing status, follow the three steps to complete the settings.



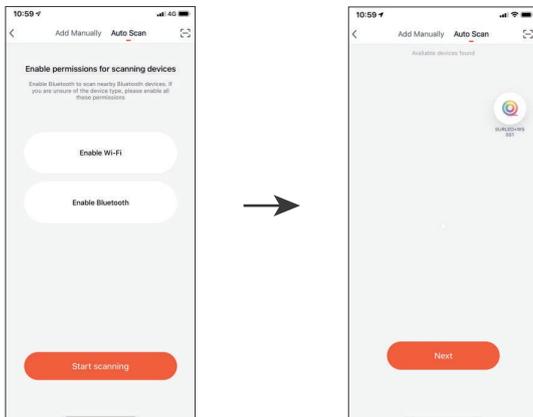
② Automatic Discovery

a) Auto-discovery mode enables multiple search modes to be triggered simultaneously. It includes Wi-Fi devices found without network matching, Bluetooth gateway devices, Bluetooth MESH devices, ZIGBEE gateway devices and ZIGBEE devices under the existing gateway. All found devices support one-touch addition.

b) If no devices is found during the search, you can follow the tips in the figure, or move to “Manual addition” mode.



- c) When start “Auto-discovery” mode, the permissions of Wi-Fi and Bluetooth of APP need to be allowed.
 If the Wi-Fi permission is not enabled, Wi-Fi device can not be found. If Bluetooth permission is not enabled, the nearby Bluetooth device can not be searched.



③ Scan Code Network Adaptation

- a) You can scan the QR code below then move to the network adaptation page directly if you need..



4. Smart Speaker

For access to smart speaker control devices like Amazon Echo, Google Assistant, please refer to the APP tutorial. The voice commands instructions as following (for lighting products only).

Voice commands instruction for Google Assistant:

- 1) Hey Google, turn on [The device name]
- 2) Hey Google, turn off [The device name]
- 3) Hey Google, [device name] on/off
- 4) Hey Google, set percentage [Brightness] of [device name]
- 5) Hey Google, turn up [device name]
- 6) Hey Google, turn down [device name]
- 7) Hey Google, turn down/up [device name] to 50%
- 8) Hey Google, set [device name] to [color name]—set device color
- 9) Hey Google, set [device name] to [temperature name]—set device temperature
- 10) Hey Google, turn on/off [device name]
- 11) Hey Google, turn on/off all devices
- 12) Hey Google, start [device name]

Voice commands instruction for Alexa Echo:

- 1) Hey Google, turn on [The device name]
- 2) Hey Google, turn off [The device name]
- 3) Hey Google, [device name] on/off
- 4) Hey Google, set percentage [Brightness] of [device name]
- 5) Hey Google, turn up [device name]
- 6) Hey Google, turn down [device name]
- 7) Hey Google, turn down/up [device name] to 50%
- 8) Hey Google, set [device name] to [color name]—set device color
- 9) Hey Google, set [device name] to [temperature name]—set device temperature
- 10) Hey Google, turn on/off [device name]
- 11) Hey Google, turn on/off all devices
- 12) Hey Google, start [device name]