

Wellvow - WLED Controller

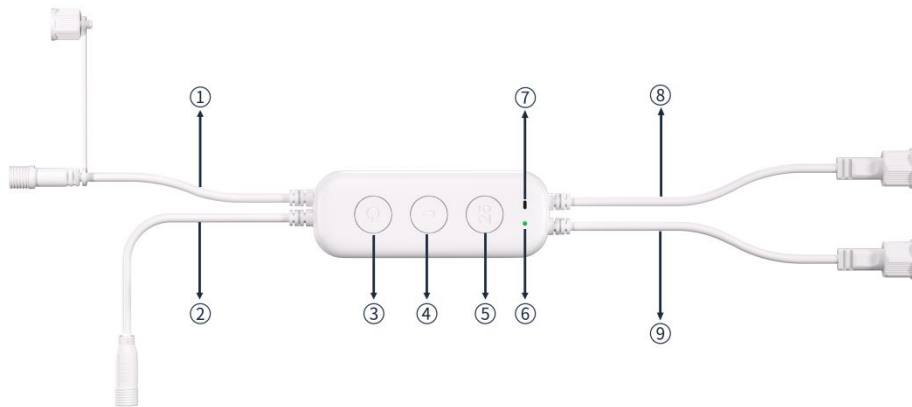
User Manual

Introduction

WLED powers addressable LEDs with instant control from your phone or browser.

Enjoy effects, presets, segments, multi-device sync, and MQTT/HTTP APIs.

At glance



- ①: Micro-USB Port
- ②: Adapter Input
- ③: Reset Button
- ④: Button 0(GPIO0)
- ⑤: Button 25(GPIO25)
- ⑥: Indicator LED

⑦: MIC

⑧: Output2

⑨: Output1

Parameter

Input	DC20~36V 5Amax
Wireless Module	ESP32-MINI-1-N4
Output&Button	Output1---GPIO15 Output2---GPIO2 Reset Button---ESP_RST Button 0---GPIO0 Button 25---GPIO25
Mic	Generic I2S PDM mic Pin I2S SD---GPIO35 Pin I2S WS---GPIO27
Operating Temperature	-20~50℃

Compatible Models

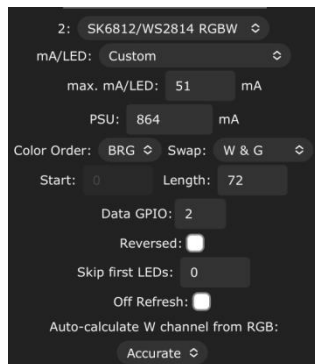
Type A	Govee permanent outdoor Lights 2 Govee permanent outdoor Lights Elite
Type B	Govee permanent outdoor Lights Pro

Indicator LED

Solid green	ESP32 module power OK
Green off	ESP32 module not powered

LED Preferences

Type A(for Govee permanent outdoor Lights 2/Elite)



Calculate PSU Value Use 18mA per LED as the base.

Length=Number of LEDs

PSU = Number of LEDs × 12mA Example:

Out1 with 72 LEDs → Length=72; $PSU = 72 \times 12 = 864mA$

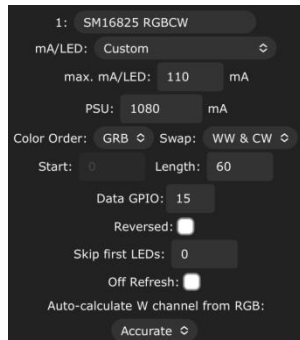
Out2 with 36 LEDs → Length=72; $PSU = 72 \times 12 = 432mA$

Set WLED Parameters In WLED channel settings:

Set max. mA/LED to **51mA**

Set PSU to your calculated value (e.g., 864mA / 432mA)

Type B(for Govee permanent outdoor Lights Pro)



Calculate PSU Value Use 18mA per LED as the base.

Length=Number of LEDs

PSU = Number of LEDs × 18mA Example:

Out1 with 60 LEDs → Length=60; PSU = 60 × 18 = 1080mA

Out2 with 30 LEDs → Length=60; PSU = 30 × 18 = 540mA

Set WLED Parameters In WLED channel settings:

Set max. mA/LED to **110mA**

Set PSU to your calculated value (e.g., 1080mA / 540mA)

Button

Button	Type	Function
Button0	Pushbutton	Single press: On/Off
Button25	Pushbutton	- In normal mode: Single press → Cycle through the 144 standard lighting effects. Double press → Switch to Music Mode. - In Music Mode: Single press → Cycle through the 23 music-reactive effects. Double press → Exit Music Mode and return to normal effect selection.

How to Connect to WLED

Step 1 — Power & LED hookup

Based on the variant you purchased, connect the corresponding power supply and light(s) for your model.

(Ensure matching voltage, correct polarity, and common GND; data goes to LED DIN.)

Step 2: Connect to Device Hotspot

Open your phone **Settings** → **Wi-Fi (WLAN)**.

In the available networks list, find the hotspot named **WLED-AP**.

Tap the network to connect.

On your phone, connect to **WLED-AP** with password **wled1234**

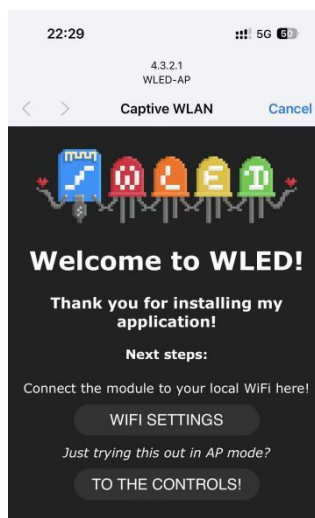
If the portal doesn't open, browse to **http://4.3.2.1** or

<http://192.168.4.1>



step 3: Open Setup Page

After connection, wait a few seconds. The **WLED Wi-Fi Setup Page** will automatically pop up. If it does not appear, open your browser and enter: 4.3.2.1 to access the setup page manually.



Step 4: Configure Home Wi-Fi

On the setup page, you can:

Manually enter your home Wi-Fi **SSID (name)** and **password**.

Or tap **Scan** to search for nearby Wi-Fi networks, select the one you want, and enter the password.

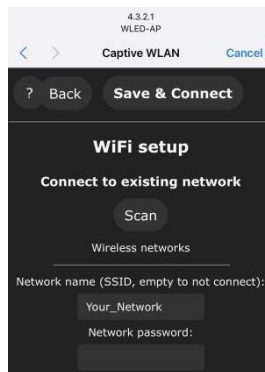
Tap **Save**, and the controller will reboot and try to connect to your home Wi-Fi network.

Alternative:

If you don't want to connect to a router, stay in **AP Mode**.

Simply click **To the controls** on the portal page.

You can control WLED directly over the WLED-AP hotspot.



Step 5: Use AP Mode (No Router Needed)

If you don't want to connect to a home Wi-Fi network, you can keep using **AP Mode**.

Open your phone **Settings** → **Wi-Fi**, connect to WLED-AP.

The default password is: wled1234

With AP Mode, you can control lights directly via the WLED app or the web interface, without an internet connection.

Step 6 — Open WLED on your network

Reconnect your phone to your home Wi-Fi.

Then open wled.local (mDNS-enabled devices) or the IP shown on your

router.

Step 7 — Control Your Lights

Once you have successfully connected to Wi-Fi **or** accessed the device through **AP Mode**, the **WLED control interface** will appear.

You can adjust colors, brightness, effects, and presets directly from this page.

Alternatively, you can also use the **WLED-Native App** for control.

Download: Search for “**wled-native**” in the **Apple App Store** (iOS) or the **Google Play Store** (Android).

Step 8 — First-time LED setup

In Config → LED Preferences set: LED Type, Color Order (often GRB), Data Pin, LED Count, and Max Current/Brightness Limiter. Save.

No light → recheck polarity, common ground, and DIN direction.

For detailed usage, see the official docs: <https://kno.wled.ge>

Open-Source Notice: This product uses WLED (licensed under EUPL-1.2).

WLED © Christian Schwinne (“Aircoookie”) and contributors.

Source & license: <https://github.com/Aircoookie/WLED>

Customer Support & Warranty

We're here to help! If you experience any issues or need assistance with this product, please don't hesitate to contact us.

Contact Channels:

Email: support@wellvow.com

Website: www.wellvow.com

Amazon Messenger: Search "wellvow" in your order history to message us directly

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.

FCC warning:

Any 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.

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 & your body.

IC warning

- English:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s).

Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

- French:

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- 1) L'appareil ne doit pas produire de brouillage;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.