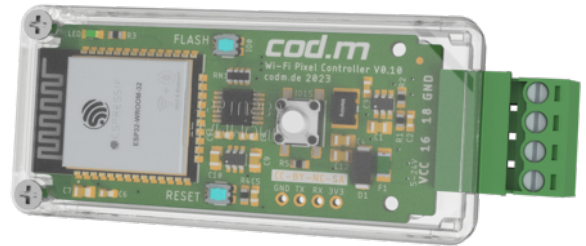


# cod.m WLED Controller V0.10

## Quick Start Guide

- 2.4 GHz WiFi module for controlling addressable
- Designed for the control of WS281x, SK6812, APA102, WS2801, LPD8806, etc.
- Suitable for 5V, 12V **and** 24V installations without additional voltage converter or configuration
- Designed for use with the awesome WLED  
<https://github.com/Aircoookie/WLED>
- Based on the ESP32 microcontroller (4MB) with integrated 74AHCT125D level shifter
- Over 150 effects thanks to WLED  
see: <https://kno.wled.ge/features/effects/>
- Freely programmable push-button (IO15)  
see <https://kno.wled.ge/features/macros/>
- Up to four lines of 1000 LEDs each possible  
see <https://kno.wled.ge/features/multi-strip/>



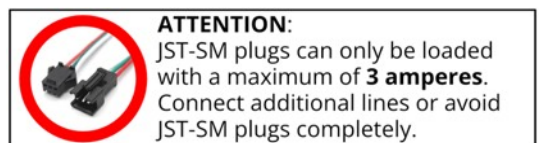
## Commissioning

1. Connect the pixel strips to the plug according to the connection diagram and screw tight. Depending on the number of pixels, an additional power supply may be required.  
We recommend the *cod.m WLED Fused Power Capacitor Board V0.4*, item no. 90062 (1000µF, max. 35V/10A) for each power supply.
2. Connect the plug with the Pixel-Strips and the socket of the WLED controller
3. Switch on, configure and use the power supply.

The IO16/IO18 connections (5V, max. 8mA) on the connector can be used as required. Either one DATA line each from two strips (WS281x, SK6812, etc.) can be connected to the pins or DATA and CLOCK from one strip (WS2801). It can also be used as a relay output, taking into account the current consumption.

## Configuration WLED

1. When the device starts for the first time, a temporary access point is opened with the Wi-Fi network name (SSID) `WLED-AP` and the password `wled1234` for the initial setup. You must connect to this Wi-Fi network with a WiFi-enabled device (e.g. smartphone, PC, etc.).  
The QR code on the right can be scanned for easy connection.
2. Once you are connected to the access point, the configuration page typically opens automatically. Alternatively, you can access it in your Internet browser at the address `4.3.2.1`.
3. You can now establish a connection to the local WLAN network under `WiFi settings`.
4. If you want to assign a static IP address to the device, this configuration can be carried out in the same menu. If you want to use DHCP, `Static IP` must be set to `0.0.0.0`. This is the default selection.
5. The settings are saved and applied via `Save & Connect`. The device then restarts and connects to the local Wi-Fi network.



If a connection is not possible, for example because incorrect entries have been made, the temporary set-up access point will open again and you have the option of correcting the configuration.

6. Once a connection to the local WLAN has been established, the device can be reached via its IP address (assigned by the DHCP server) and via "hostname".local using Avahi/mDNS.
7. Finally, configure the type and length of the pixel strip in the configuration menu under LED Preferences - set pins 16 or 18 according to the connection.
8. The button on the device is connected via IO15. Store this accordingly in the configuration as "Button 0". The flash button on the circuit board is connected via IO0 and can optionally be used for switching tasks.
9. The device can then be controlled via the web interface, the WLED app or the various interfaces.

See also <https://kno.wled.ge/basics/getting-started/>

## WLED control via interfaces

WLED has an HTTP request API (also UDP) and a JSON API. A detailed structure of the respective interfaces can be found under the following links:

<https://kno.wled.ge/interfaces/http-api/>, <https://kno.wled.ge/interfaces/json-api/>

## Factory reset

A factory reset can be carried out by holding the button on the housing (button 0, IO15) for ten seconds. The configuration must then be carried out again.

## Firmware update

A firmware update can be carried out in the web interface (Config, gear icon) under Security & Updates. With Manual OTA Update, a firmware file can be uploaded and applied with Update! Select the WLED update file according to the version/revision of the controller.

## Intended use

This module is designed to control addressable LED strips. These must be connected in accordance with the wiring diagram. Only the specified intended use is permitted. Any other use will invalidate the warranty and liability.

## Notes

Hereby, cod.m GmbH declares that the radio equipment type WLED Controller V0.10 is in compliance with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: <https://lnk.codm.de/wled-90060-ce>.

Keep the module away from heat and sunlight. Avoid contact with dust and the influence of liquids. Only use the module indoors. Protect the module from electrostatic discharge.

## Technical data

<b>Short description:</b>	cod.m Pixel Controller, 90060 V0.10	<b>Dimension:</b>	72 x 30 x 16mm
<b>Supply voltage:</b>	5V, 12V or 24V, <1W	<b>Weight:</b>	20g incl. housing
<b>Surroundings:</b>	IP20, +5 to +45°C	<b>Transmission power:</b>	Max. 19.68dBm, IEEE 802.11

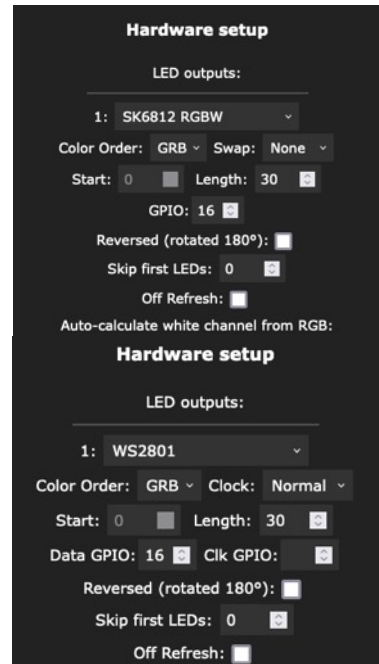
Open source project: Support via support@codm.de, no telephone support!

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WEEE-Reg.-No.: DE78677954



GPIO	Function
IO15	Button
IO5	Status LED
IO16/IO18	Outputs