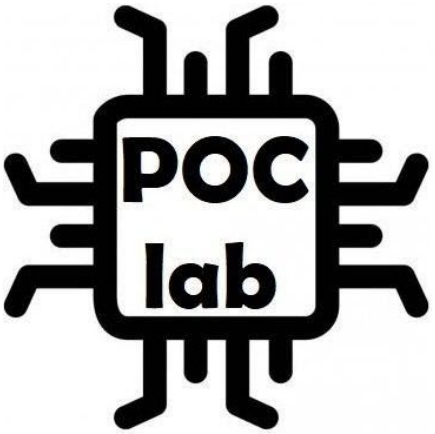


# User Manual by PoClab

## Main features list

1. Change strip LEDs colors mode
2. Show battery status
3. Charging mode
4. WEB mode
5. Synchronize data
6. Reset

## Secondary features list

1. Battery deep discharge protection
2. Dynamic rainbow mode
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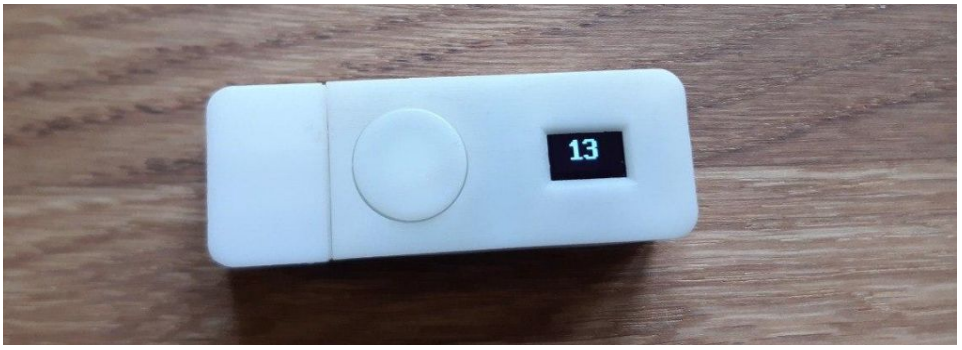
4. Fast mode scrolling
5. “WiFi”,  “Sent”, “Get” timeouts
6. Check battery status while LED strip is on
7. LED strip count and WiFi pass are limited
8. Automated closer device recognition

# Main functions description

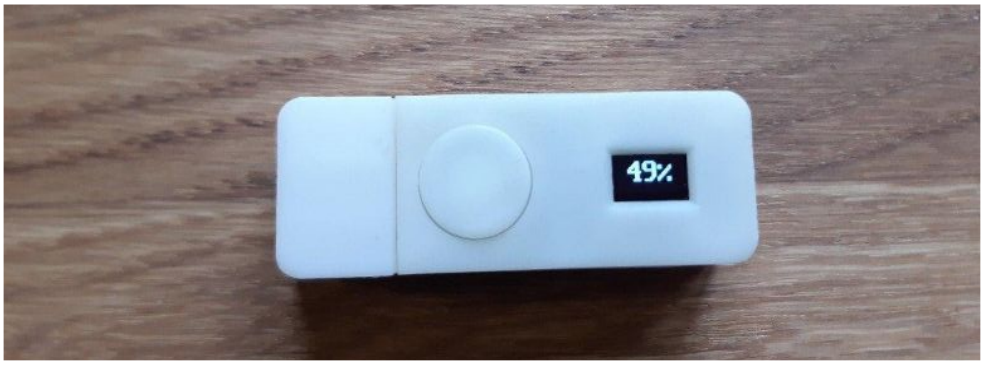
## Change LED strip mode

To change LED strip mode, you need to short press the button (press not more than 2 seconds). There 21 modes, 1 - 10 are predefined modes with constant colors, 11 - 20 are user modes that users can change on the WEB server, 0 mode - turn off all LEDs.




## Show battery status

Users will need to press and hold the button for not less than 2, and not more than 10 seconds. Then, for 3 seconds, on the device screen will appear the current battery status in percent. If the user chooses *battery status mode*, while the LED strip is working, this wouldn't make any impact on the LED strip or LED modes.



## Charging mode

When the device is plugged into the power supply via USB connector on the board, the LED strip will be turned off, the battery will start charging, and on the device screen will be showing the current battery status in percent. After charging, when the user disconnects the power supply, the LED strip will start working in the same mode as before charging.


## WEB mode

To access the *WEB mode* to setup 11 - 20 user modes, LED count, WiFi SSID, and password (optional), look at predefined modes, the user will need to press and hold the button for 10 - 20 seconds.

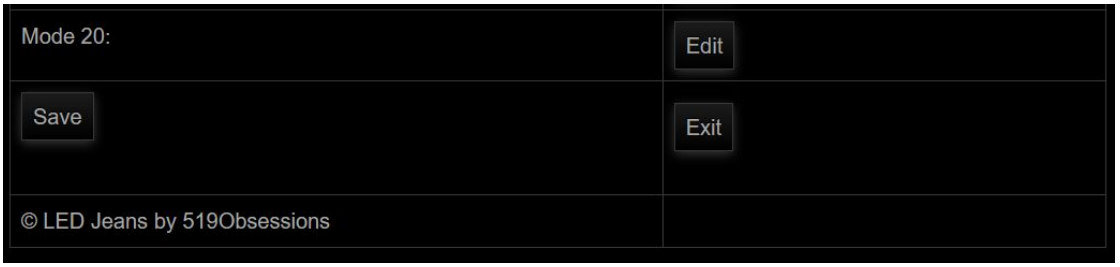

After that in WiFi settings in any smartphone or laptop will appear a WiFi network with name “***LED_Jeans_by_519Obsessions***”, user needs to connect to this network. After that in the browser automatically will be opened a new window with LED strip settings, where the user can edit LED count, WiFi SSID, password, and user modes.

To edit WiFi SSID need to edit cell content in the “Dev name (WiFi name):” line.

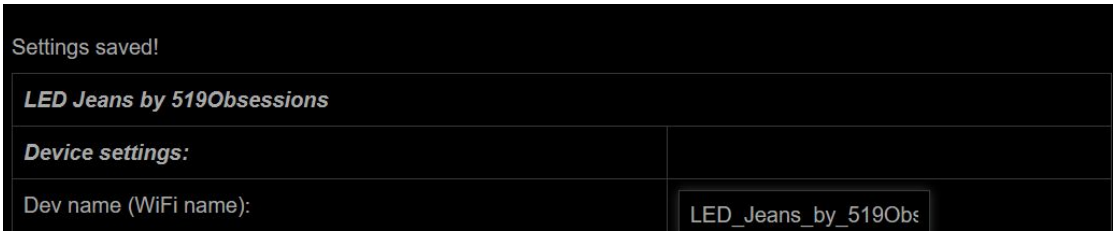
To edit WiFi passwords you need to edit cell content in “Dev pass (WiFi pass):” line, but it is important that the password must be at least 8 characters. If the user will add a password shorter than 8 characters, the new password wouldn't be saved.

To edit LED count need to edit cell content in “LEDs count in strip:” line, it can be any count of LEDs, that not more than 35 LEDs, if the user will choose LEDs count more than 35 LEDs, this value will be automatically corrected to 35, while the user will try to save incorrect data.

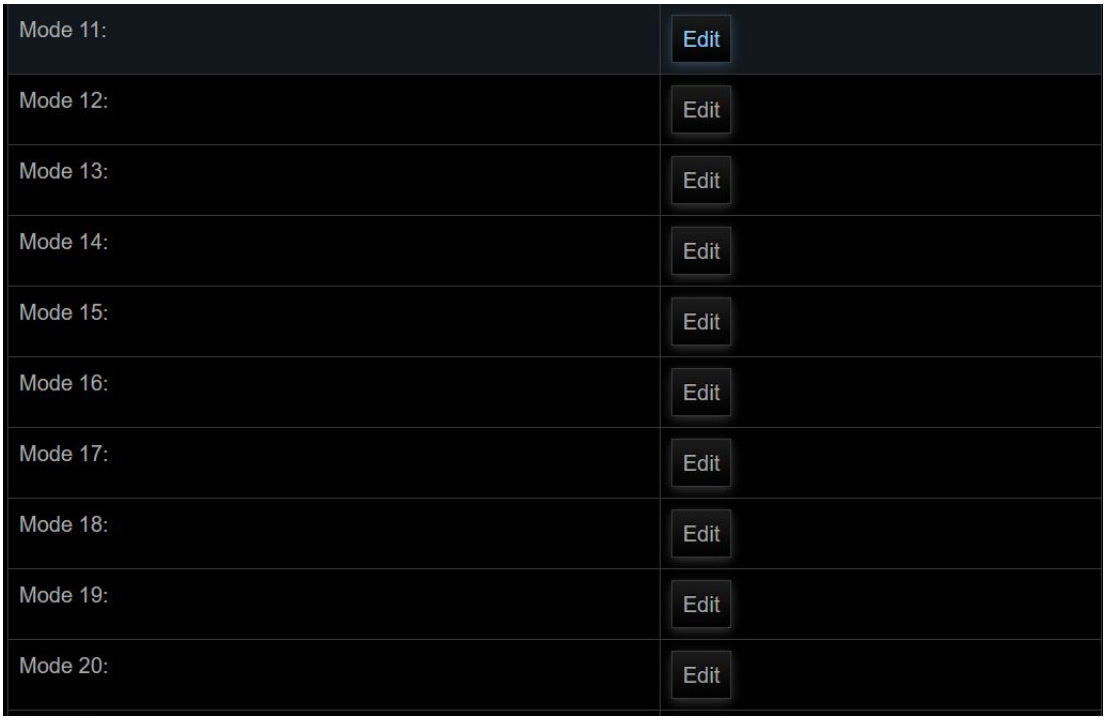

To save WiFi SSID and password data, you need to press button “Save”.



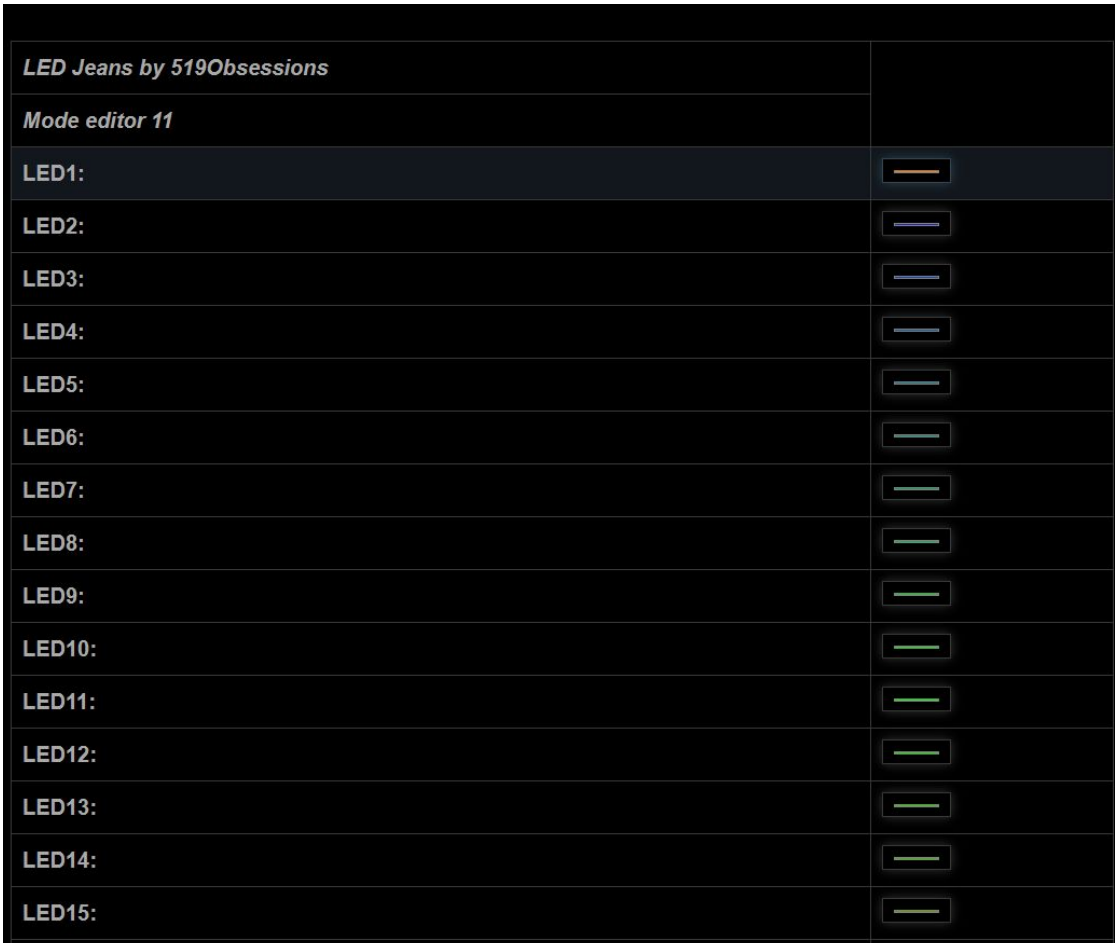

If saved was successful, in the top left corner “Settings saved!” message appears.




To edit one of 11 - 20 user modes, the user will need to press the “edit” button in the line with the mode that the user wants to change.

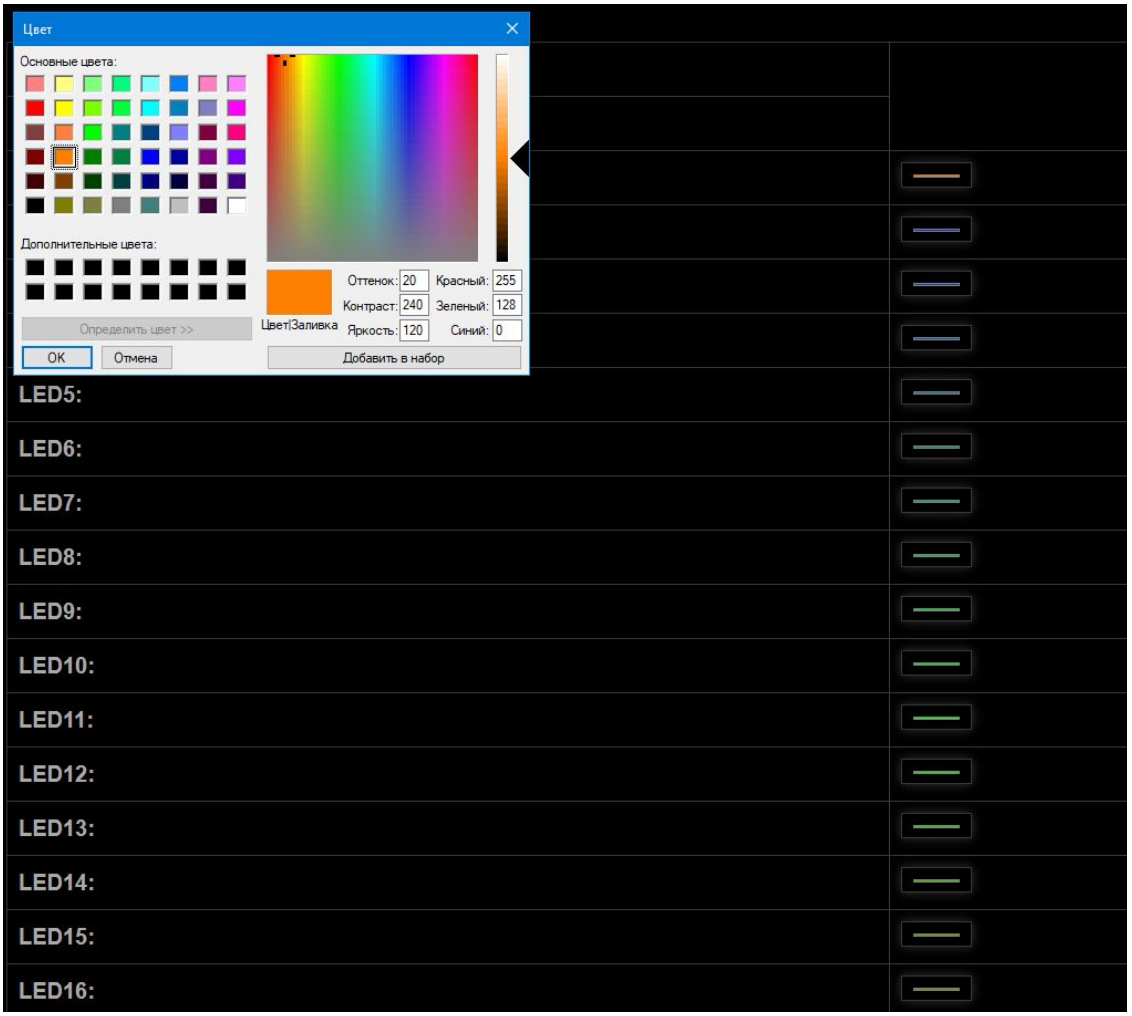


Than WEB screen will be updated:



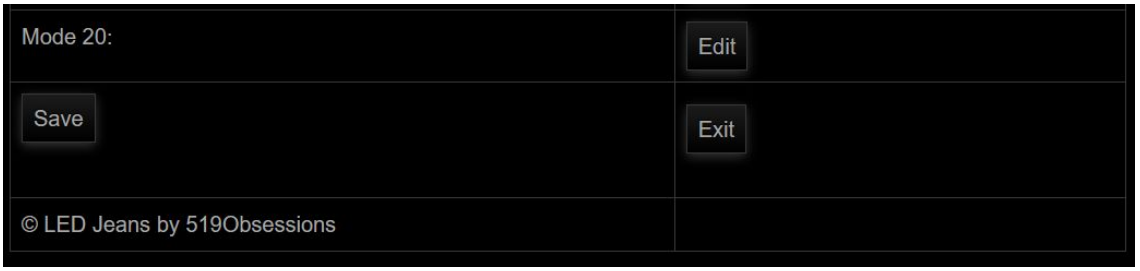

In the new window user can change the color of each LED, to do this, just need to press on the color picker (as shown on the image below) on the line with that LED, that you want to change, and do the same for each LED that needs to change.

And choose color.




After all changes, it needs to be saved, for this need to press the button “Save”, or if the user won’t save changes, press “Back”.


To exit from the WEB server you need to press the button “Exit”.



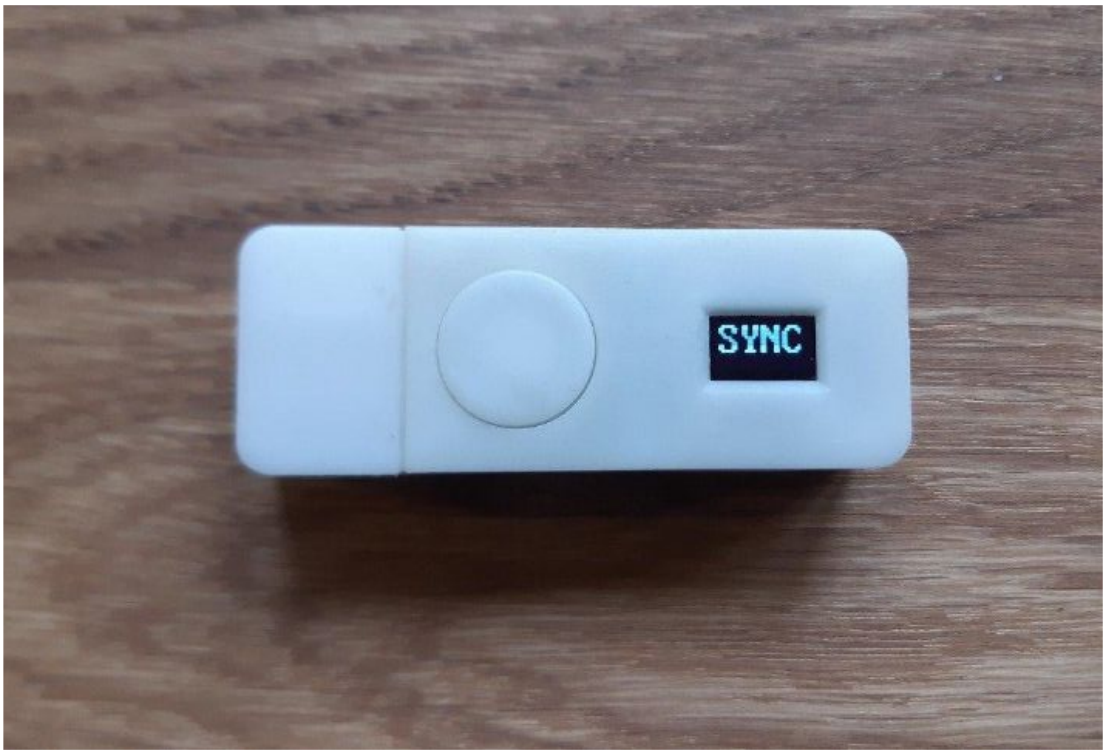
## Synchronize data

To access the synchronize modes between two devices, the user needs to press and hold the button for 10 - 20 seconds (the same as for WEB mode setup). Once device screen will show “WiFi” (the same as for WEB mode setup), then user will need to short press button (if hold button, this does not matter), and screen text will be updated to “Sent”, this mean that this device is ready to send mode settings to another device. If you press button one more time, screen will be updated to “Get”, this means that device is ready to receive user modes from another one with active “Sent”. Important that synchronization occurs automatically between two boards with better RSSI (closer devices), so devices must be closer as possible.


SENT


GET

After that devices will show “Sync”




While boards synchronize, on both screens will blink “Sync”, until synchronization finishes and devices will turn off. After that, they are ready to work.

## Reset

To reset WiFi SSID and password to default values (SSID: “*LED_Jeans_by_519Obsessions*”, password “”), user need to press and hold the button for not less than 20 seconds.

# Secondary functions

## Battery deep discharge protection

While the user presses the button on the device, first of all, the device will check battery status, and if there will be less than 5%, on-screen will thrice blinking “0%” and the board will come back in deep sleep. That means that the user needs to charge the device before using it.
When device is running with turned on LED strip, battery level checking continuously to protect device from over-discharge.

## Dynamic rainbow mode

In the new device, there are two different rainbow modes (1 and 11). 1 mode user can’t change, because it is a static mode, but if the user will change LEDs count in the WEB mode setup, 1 mode will automatically adjust to new LEDs count and rainbow wouldn’t crop, it will be adapted, which means that the gradient will always be the same.
11 user mode will be rainbow with 35 LEDs, this mode user will be able to edit.

## Turn on last mode after charging

When the device is plugged into the power supply via a USB connector on the board, the LED strip will be turned off, the battery will start charging, and on the device screen will be showing the current battery status in percent. After charging, when the user disconnects the power supply, LED strip starts working in the same mode as before charging.

## **“WiFi”, “Sent”, “Get” timeouts**

If the user simply forgot about the device or did not log out correctly from WiFi mode setup (don’t press “Exit” button), there exists the different timeouts: for WiFi mode, Sent, and Get. That means that if the device hasn't activity for (3 minutes per WiFi and, 1 minute per Sent or Get), the timeout timer will turn it off.