SuperNode QuickStart RACITUP.COM

Thanks for purchasing a racitup.com SuperNode. Here are some simple steps to get you started:

- Plug your SuperNode into a legacy type USB power supply. As a rule of thumb, use a cable like this and compatible supply:
- Connect to the WiFi network with name beginning SuperNode - racitup.com, the default password is: 6hMbaXIqzneK
- 3. Either download the WLED smartphone app and perform discovery, or connect to the device through a browser by typing **4.3.2.1** in the address bar
- 4. Navigate to **Config -> LED Preferences** and configure the outputs according to the following table and your requirements:

Connection	Туре	TX/Data GPIO	Clk/Dir GPIO	RX GPIO	Notes
Status LEDs	WS281x	12	N/A	N/A	Color Order: GRB, Length: 3
Port A	3wire LED or DMX Out/In	1	5	3	DMX Out: Length is the number of fixtures. Fixture Spacing is the number of channels per fixture. Fixture Map Index must match the map configured later. Skip first LEDs ignores a number of channels
Port B	3wire LED or DMX Out	2	16	N/A	
Port C	4wire LED	13	14	N/A	MUST be configured on LED output number 1 if used

- 5. We also recommend configuring **Make a segment for each output** and **Default brightness** to **20**, then click **Save**
- 6. If using DMX Outputs, you must also configure at least one fixture map in **DMX Output**. Add a map, configure the **Length**, then configure what each channel is used for and click **Save**:
 - Static Number, configurable per channel
 - The Red, Green, Blue or White colour channel
 - Shutter (Brightness). If unused the brightness will be applied directly to each colour
- If using ArtNet/E1.31 sACN you must configure Sync Interfaces and reboot. Most configuration can be found at <u>https://kno.wled.ge/interfaces/e1.31-dmx/</u> but here are two custom additions:
 - a. Type **DMX In**: Can be used to operate your SuperNode from a physical controller. Or in **Passthrough** mode, the DMX data will be broadcast to ArtNet on the configured universe
 - b. Type **E1.31 / Art-Net Passthrough** mode: If DMX Output ports are configured, received DMX data will be passed directly to those ports.

If more than one DMX port is configured, they will each have a sequential universe number starting from the configured value.

WiFi Limitations: If using network data you must connect your SuperNode to a standard 2.4GHz 802.11b/g/n WiFi network. The Access Point mode suffers significant data loss. To connect to a 802.11n WiFi network reliably, you should switch to 20MHz channel bandwidth.



SuperNode LED Connections

- 1. Unscrew the single pozidrive self-tapping screw from the lid and remove
- Inside you will find two 3-pin cables marked LED A and B on the circuit board for ports A and B, and a single 4-pin cable for port C. The end of the box has three holes marked A, B and C
- 3. Pass the female LED strip JST SM type plugs through the relevant hole in the box from the outside with the catch facing up, until the strain relief clamps grip and the plugs are fully inserted
- 4. Then connect the chosen male sockets to the plugs and reattach the lid.



Powering LEDs

The board is only compatible with 5 volt LED strips without separate and external power supply circuitry. If you are supplying more than 850 mA to LEDs as determined by the builtin WLED automatic brightness limiter, you **must** supply the LEDs directly from your power supply and arrange for the board to be either backfed with 5V or supplied separately with a common ground.

Status LED Setup

Select the segment containing the three status LEDs and apply the **Bus Status** effect. Choose your colours: **Colour1**: DMX (Blue), **Colour2**: Digital LEDs (Green), **Colour3**: PWM LEDs (Magenta). The device status colours displayed on the LED closest to the USB port are: **Green**: WiFi connected, **Blue**: Access Point active, **Cyan**: MQTT Connected, **Red** component: Error value. This segment setup can then be saved as a preset and started on boot.

WLED Software - MIT License

Copyright (c) 2016 Christian Schwinne

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

A binary of our modified version of WLED can be found on our website: <u>https://www.racitup.com</u>