

# Initial Setup

## PR270167 – iRGB-W Starterkit

### Prototype

fa system irgbw-starterkit

### Components

- fa led irgbw (LED module)
- fa control osp-said (control with firmware)
  
- power supply (5 V / 6 A) with adapter variations
- USB 3.0 cable, A to C



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## Prerequisites

Before setting up the prototype, ensure you have the following:

- Either a PC running **Windows 10** or **Windows 11**, or an **Apple Mac** with macOS.
- **MadMapper** (Demo Version, Rental or full version) installed from MadMapper's website (<https://madmapper.com/software>). Choose the appropriate installer for your system.

## Setting up the prototype

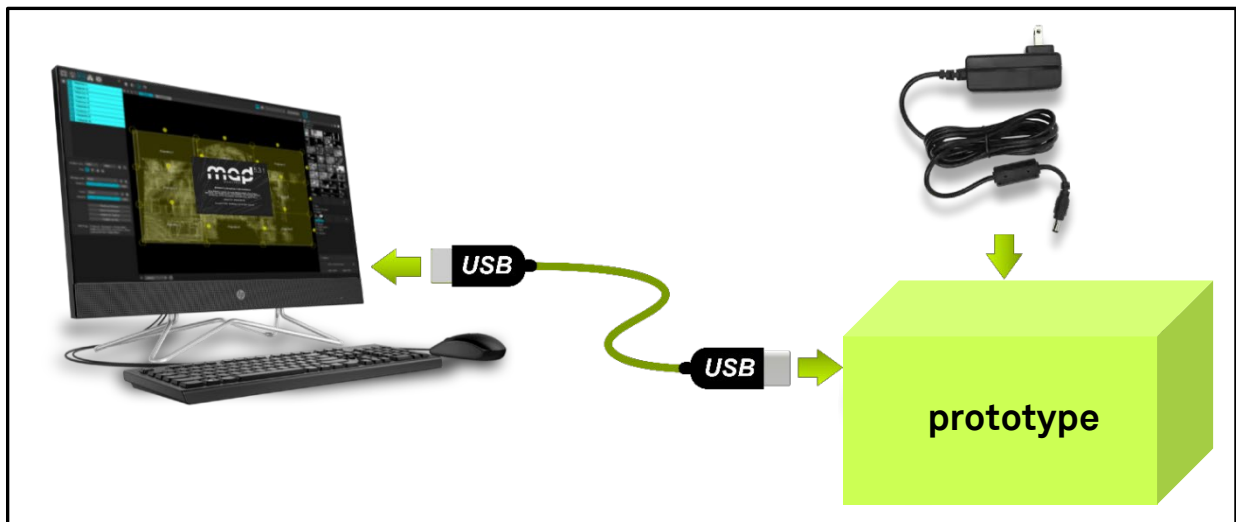


Image 1

1. Connect the prototype to your PC/Mac via USB. Since USB communication relies on standard drivers shipped with your host system, there's no need for additional software installation.
2. Plug the power supply into a wall socket. The supplied power adapter supports both 100 V AC and 220/240 V AC power lines.
3. Connect the 5 V barrel cable to the test system. The LED module should display light effects as part of a self-test.
4. Now, plug in the USB cable to your test PC. It doesn't matter if MadMapper is already running at this stage.



## Step 1: Discover the COM Port of the prototype

If you're using the prototype on your Windows PC for the first time, follow these steps:

1. Ensure the prototype is powered up.
2. Establish the USB connection between your test PC and the prototype using USB-cable.
3. On your Windows PC, press the "Windows key" to open the Windows menu. Start typing "Device Manager." Windows will suggest launching this system tool. Go ahead and click on it to open the Device Manager.

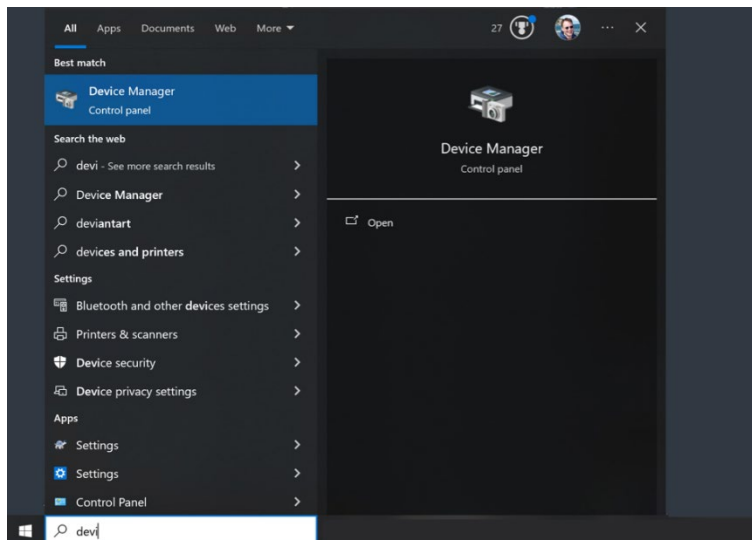


Image 2

4. In the list of all devices, locate the category "Ports (COM & LPT)" and expand it. You should see the COM port associated with our prototype.

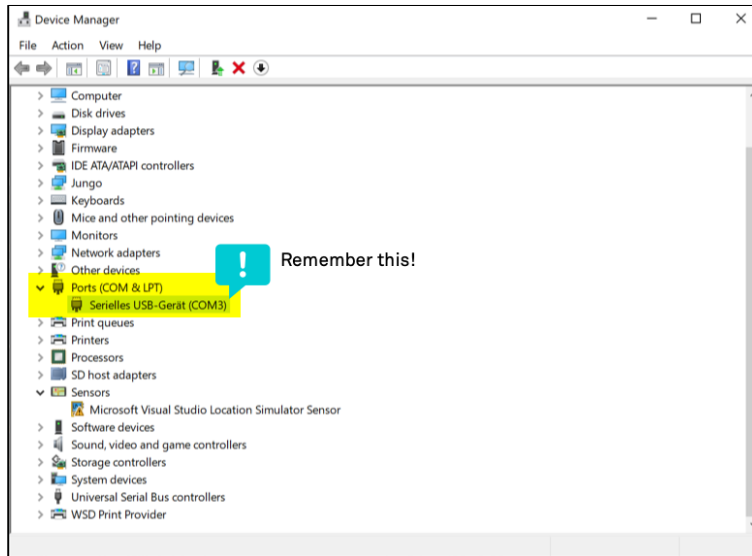


Image 3

5. Remember this COM number.

**ADVICE:** If you see more than one entry, unplug the USB cable and observe which entry disappears. When you plug it in again, you'll see the USB port of the prototype as it's the one that has now been added.



## Step 2: Configure MadMapper

### The communication properties

The prototype is designed to work with MadMapper. For its first use, some configuration needs to be applied. Note that these steps are required only once for a test PC!

1. Launch MadMapper.
2. Then select the menu “Tools > Preferences” (*image 4, step 1-2*).

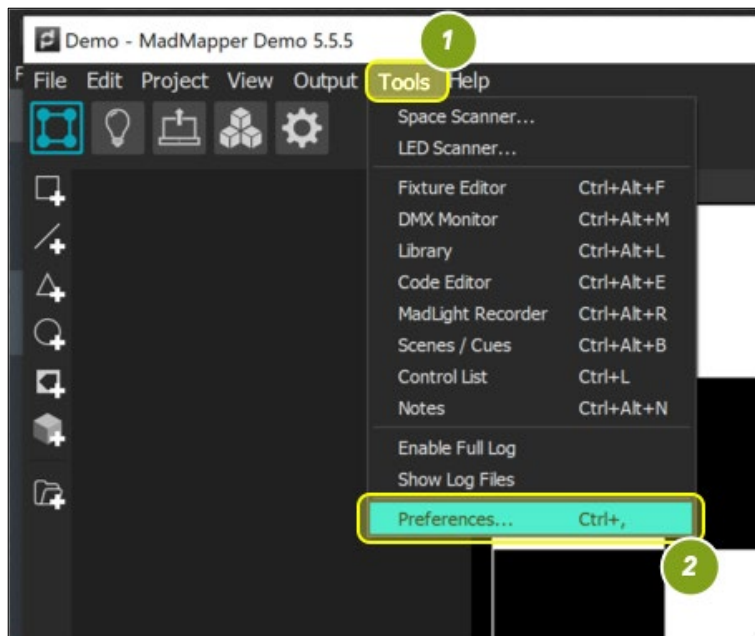


Image 4

In the preference panel, please choose the category “DMX” (*image 5, step 1*) and scroll down to the section “DMX Output” (*image 5, step 2*) as shown below.

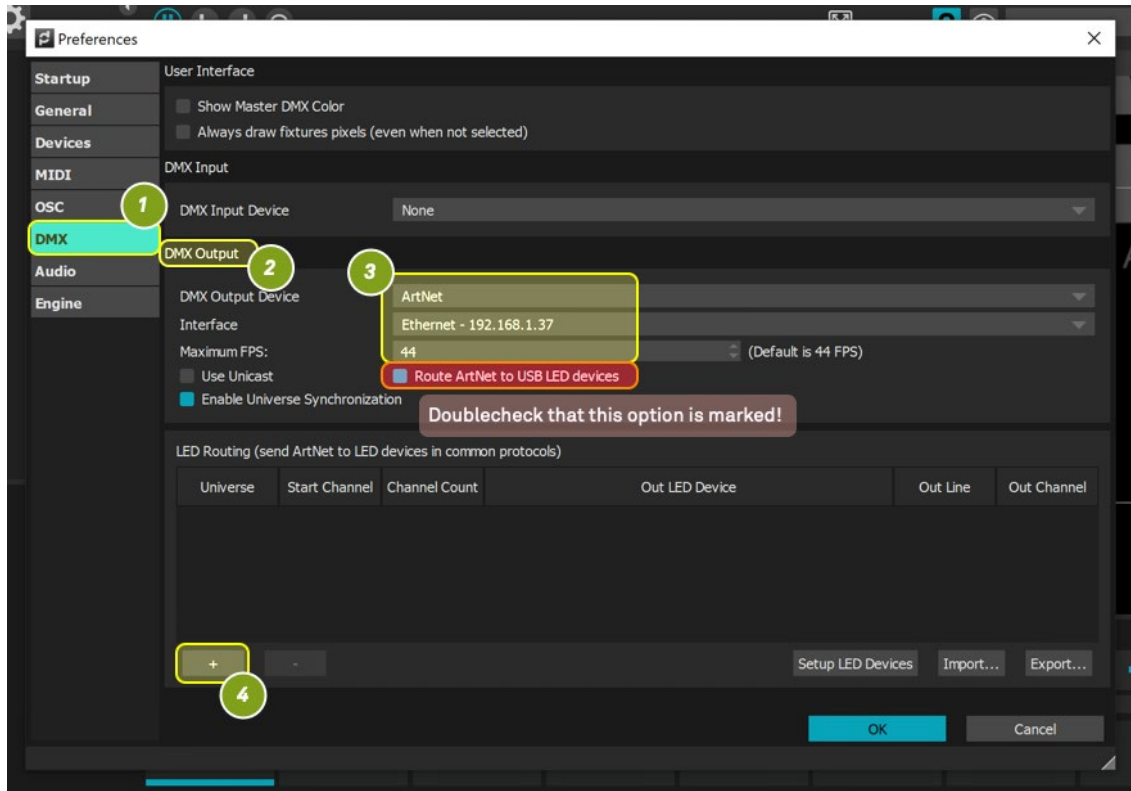


Image 5

## MadMapper settings

In this dialog, select the following options (*image 5, step 3*):

- **DMX Output Device:** ArtNet
- **Interface:** Ethernet
- **Maximum FPS:** Keep the value at 44 frames per second
- **Use Unicast:** UNCHECK
- **Route ArtNet to USB LED Device:** CHECK
- **Enable Universe Synchronization:** CHECK

Within the section “LED Routing (send ArtNet to LED devices in common protocols),” press the “+” button (*image 5, step 4*) to add a new device. This is the routing through the prototype.



**ADVICE:** If the “+” and “-” buttons are not visible, scroll down the section slightly using the scrollbar on the right-hand side.

The “+” button adds a new routing with the following properties:

- **Universe:** 0
- **Start Channel:** 1
- **Channel Count:** 512
- **Out Line:** 0
- **Out Channel:** 0 (*image 6, step 1 & 3*)

In the drop-down box labeled “Out LED Device,” select the entry that mentions the COM port you discovered in the “Device Manager” (*image 2*) (*image 6, step 2*).

**ADVICE:** If the device is not visible, ensure that it is properly connected and powered on.

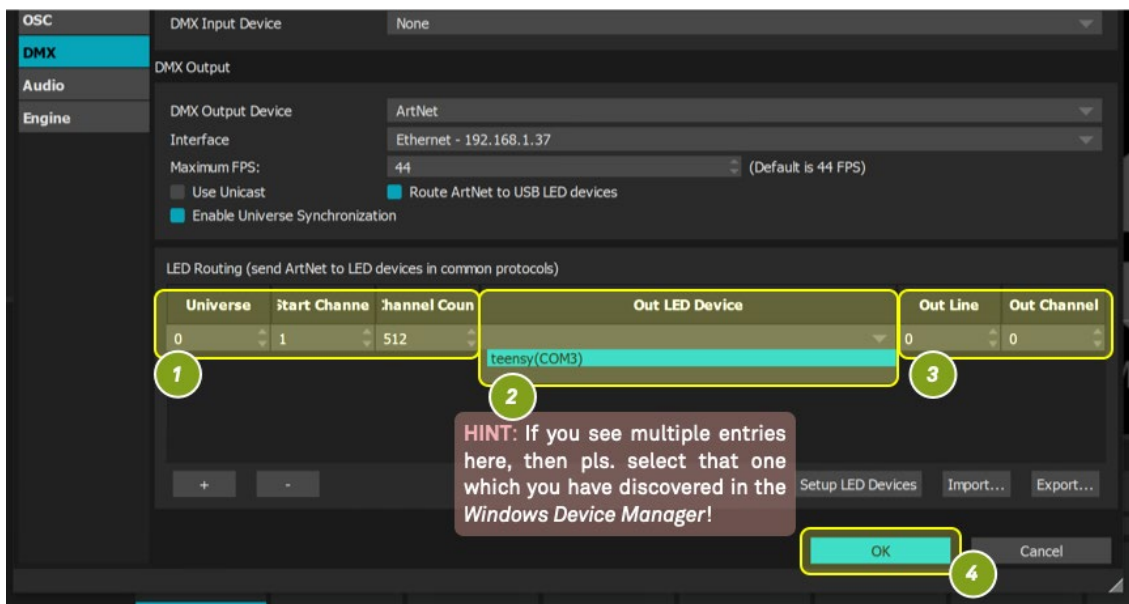


Image 6

**ADVICE:** If you change the prototype, your COM port setting for this new setup may change (please refer to how this is discovered using the Windows Device Manager above (*image 2*)).

Finally, confirm your settings by clicking “OK.” (*image 6, step 4*).





## Configuration of the LED module

In the next step, MadMapper needs to be informed about how to prepare its data for the attached LED module. The prototype contains an LED module consisting one row with 30 RGB-W LEDs.

To begin, add a fixture that logically represents the LED module in MadMapper. Locate the “Bulb”-like icon (*image 7, step 1*) at the upper left-hand corner. Clicking on this icon reveals a submenu that allows for fixture configuration. Next click the “DMX+” (*image 7, step 2*) button to create a new fixture — our LED module.

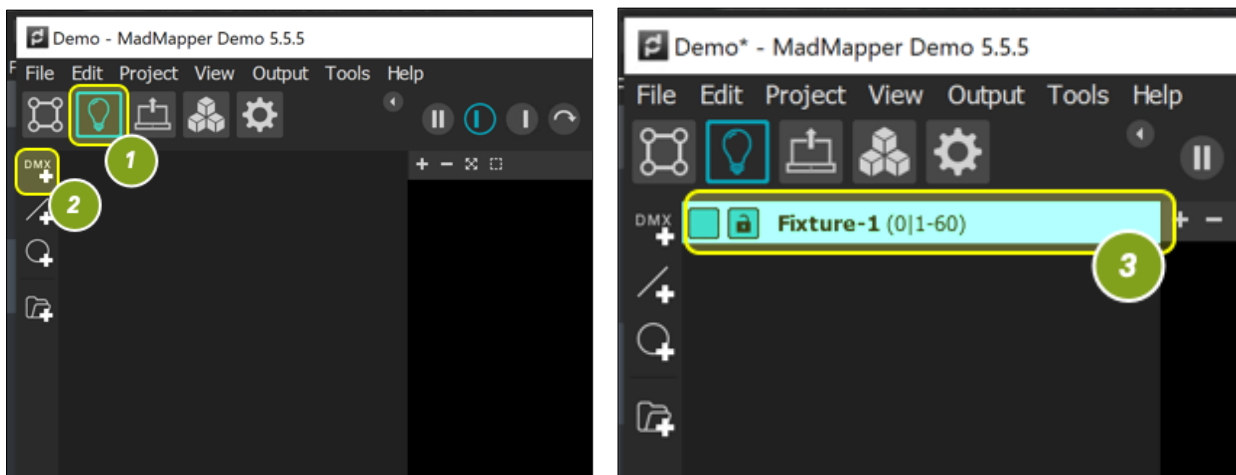


Image 7

You can optionally name the new fixture (*image 7, step 3*).

Afterwards configure this fixture according to the specifications of the LED module.

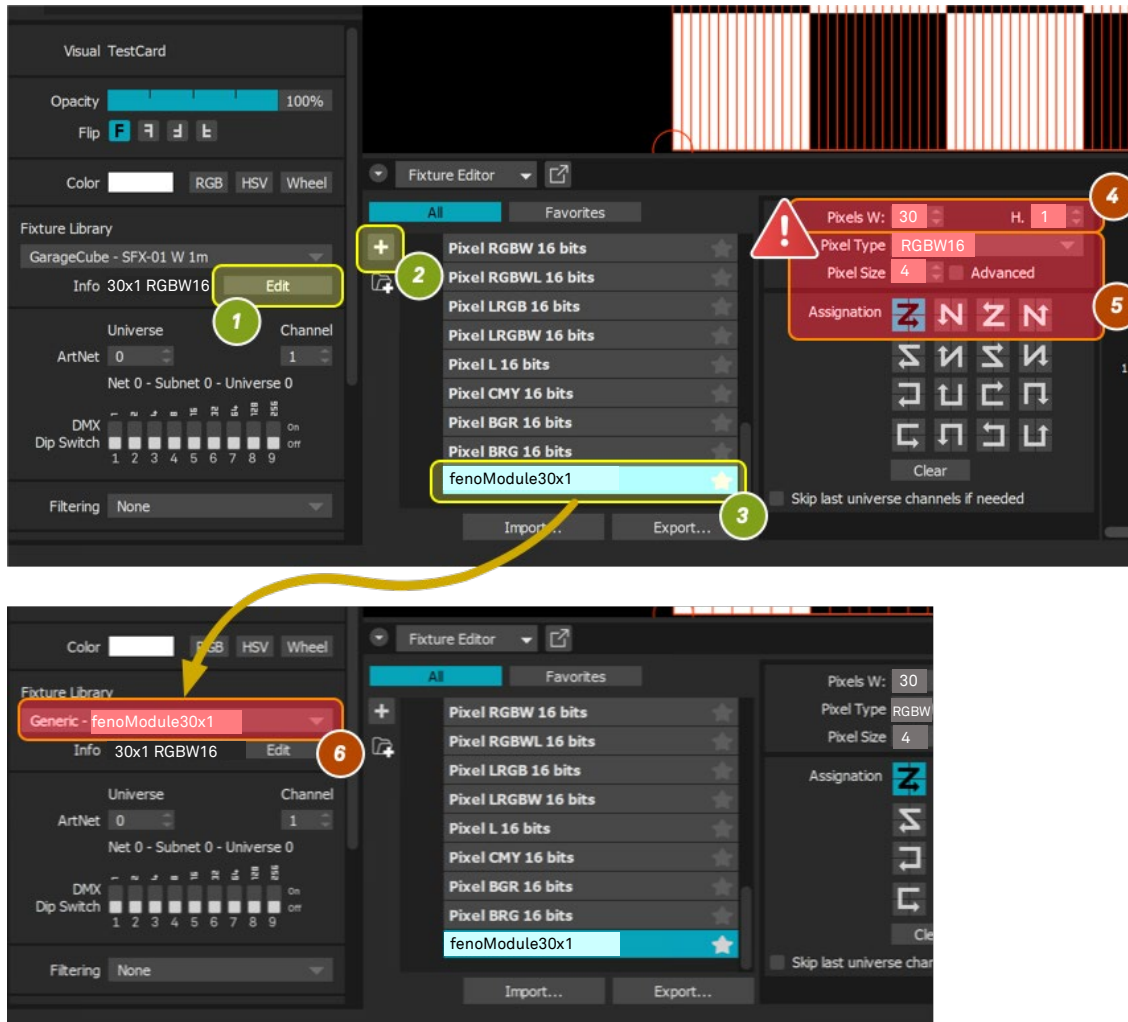


Image 8

Follow these steps:

1. Select the newly created fixture.
2. Below, under “Fixture Library,” click “Edit” (*image 8, step 1*). This opens the editor, allowing you to define how MadMapper should organize data for the LED module.
3. Press the “+” button (*image 8, step 2*) to create a new model. Name the model—for example, “fenoModule30x1” (*image 8, step 3*). You can also add it to your favorites by clicking the star icon.



4. Set the geometry and data arrangement for this module. Specify that the module is 30 LEDs wide and 1 LED high (*image 8, step 4*). Choose the data model as RGBW16 and set the aggregation according to (*image 8, step 5*).
5. Finally, ensure that your new module fixture is selected in the Fixture Library (*image 8, step 6*). Don't forget this last step.

With these settings, the initial device configuration is complete and MadMapper is now ready to work with the prototype. If you add visual patterns to MadMapper and position your fixture (the red meshed area) over them, you should see the pattern reflected in the prototype.

Note that you typically won't need to repeat these steps.