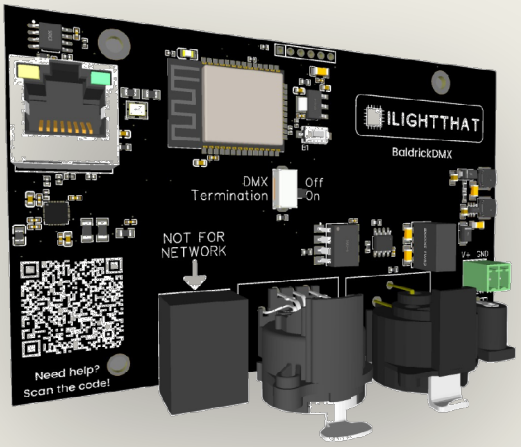
BALDRICK BOARDS · MANUAL & DOCS

BaldrickDMX Manual

Everything you need to wire, network and run your BaldrickDMX — from first power-up to your first show.

Last updated 4 Sep 2026

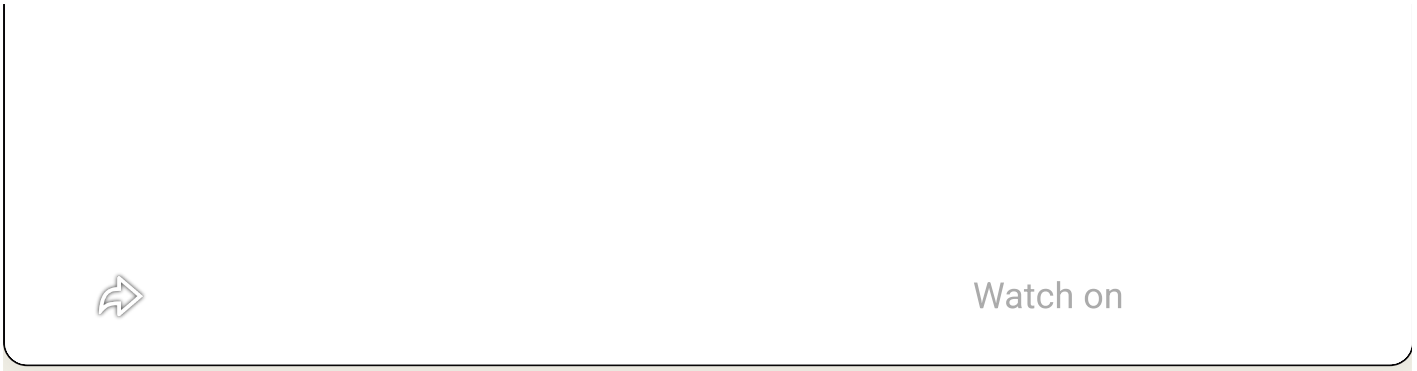


Getting started

You've just got your board through the post and you are really excited about getting started! WE KNOW, We've been there. These easy to follow steps will get you started in minutes!

Prefer watching? There's a **BaldrickDMX - Baldrick Basics** video that walks through the board.

BaldrickDMX - Baldrick Basics
ILightThat



Safety First

Always ensure your power supply is disconnected before making any connections. Double-check all wiring before powering on.

Step 1: Plugging in Your Controller

Always Use a Power Supply

WARNING

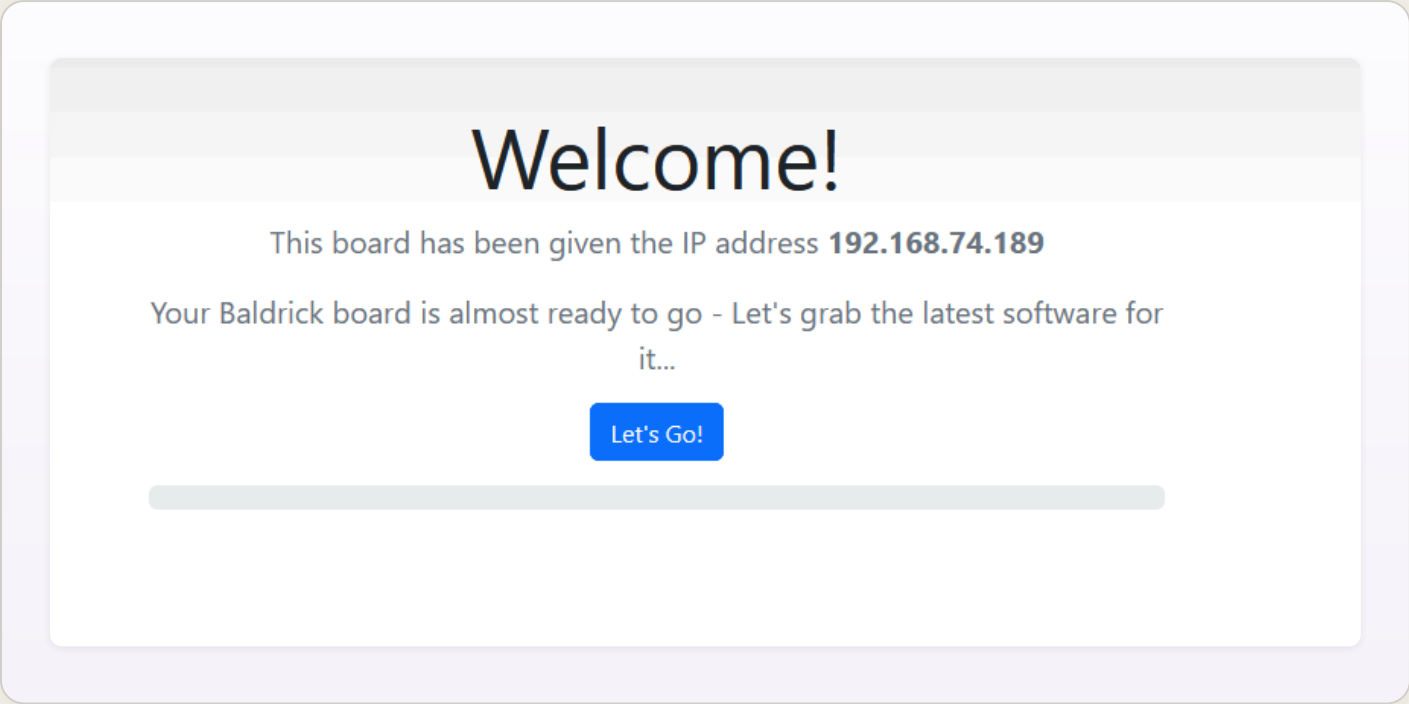
Never, ever EVER EVER plug your controller directly into the wall outlet, it will go bang and you'll have to buy another one and explain to your partner what that burn mark on the kitchen table is. The BaldrickDMX has a barrel jack connection and a 2 port phoenix connector, these can handle voltage from 5v to 24v, which should make it easier to match whatever you are plugging in. For technical users - barrel connector (centre positive) and we use 5.5x2.1mm barrel jacks. Please remember you are just powering the board not the devices so we don't need a tonne of amps. You'll notice that a British plug has three wires and our power jacks inputs only have two - that's because you need to put a power supply in between them. We recommend the use of `Meanwell Power Supplies`.

Step 2: Installing the Firmware

Initial Firmware Setup

When your controller arrives it will be in a 'sleeping state' - you just need to plug it into your network and head to `http://baldrickdmx.local` (if your DNS doesn't accept that then just look

for it on your network).



How to Install

To put it simply, press the button that says *Lets Go* then go and have a brew, the controller will connect to our server, download the latest firmware and automatically install it, once it's done the page will refresh and you can start connecting fixtures.

> **Tip**
>
> You must plug the board directly into your network for the initial firmware download (or make sure your computer can give it an IP address and internet access).

How Do I Update After That?

When you go to the Web interface and look at the stats section, you'll see the version number, if there is a new version, you can click that and it will automatically update in a similar interface to how this initial install works.

Step 3: Connecting Fixtures

It's Time to Connect the Fixtures

It's time to connect the fixture, choose a port:

- RJ45
- 3 PIN XLR
- 5 PIN XLR

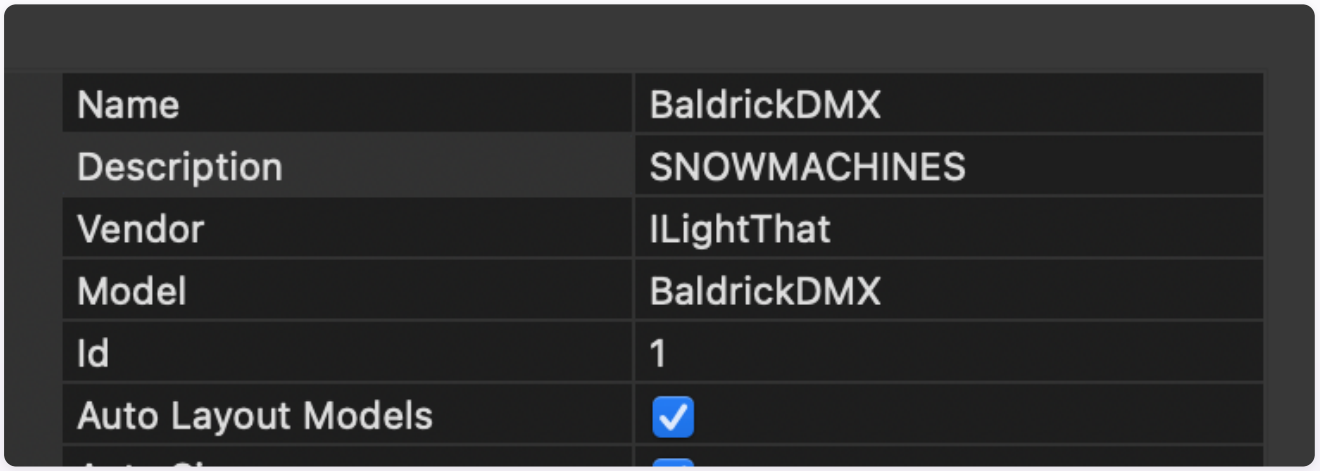
Then take your cable and plug it in. *Please don't make me have to record a video on how to do this.*

They all do the same thing so don't get too excited.

Step 4: xLights Connection

Connecting with xLights

You can connect directly with xLights, look for BaldrickDMX under ilightthat.



From here you can push your model settings directly to the controller and output to lights nice and easily!

You can either:

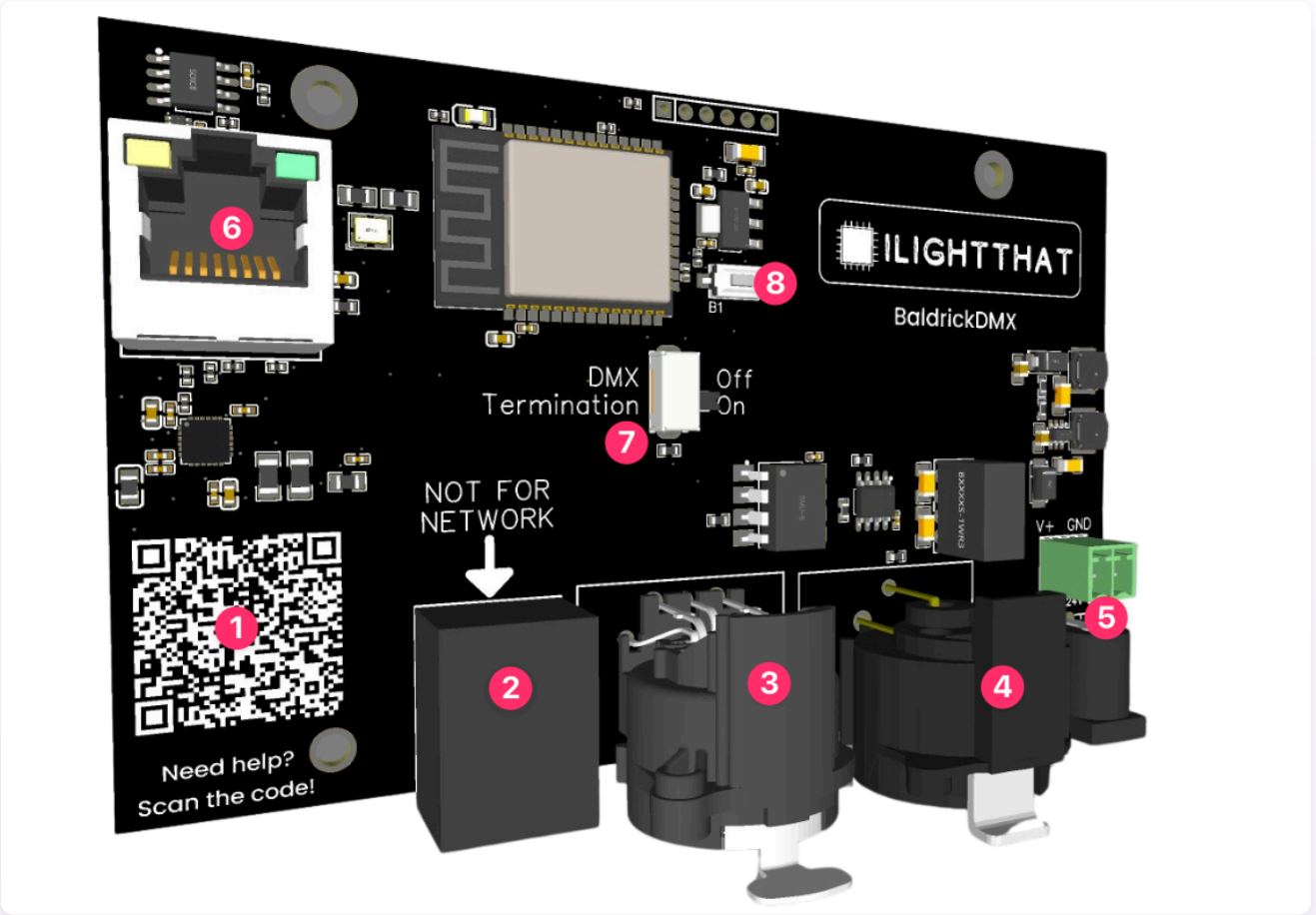
- Click **Discover** and xLights will automagically find the BaldrickDMX.
- Add the board manually by selecting *ILightThat* as a vendor and *BaldrickDMX* as the Model. You will then need to put the IP Address in manually.

Technical specifications

At a glance

Specification	Value
DMX output	Single universe on RJ45, 3-pin & 5-pin XLR
Protocols	DDP, Art-Net, E1.31, sACN
Power input	`5–48V DC` barrel or 2-pin connector
Presets	Button / Turnip activated
Integration	xLights push

Board components



1. **QR Code** — An easy to scan QR code which will take you to these docs for easy troubleshooting.
2. **DMX OUTPUT RJ45** — With a helpful reminder **NOT TO PLUG THIS PORT ON YOUR NETWORK**.
3. **DMX OUTPUT 3 PIN** — A fancy schmancy Neutrik XLR.
4. **DMX OUTPUT 5 PIN** — A fancy schmancy Neutrik XLR.
5. **Power input** — You've got the choice of a Phoenix connector or barrel jack **(DO NOT USE BOTH)**, these can take 5v to 24v (or up to 48v on version 1.1) and will automatically step down to power the components, no jumpers needed.
6. **Ethernet port** — Plug this into your show network.
7. **DMX Termination switch** — DMX cables need to have their ends properly terminated to prevent any issues with the signal. Sometimes, the cable plugs have this built-in, but if they don't, this switch lets you do it right there. *(On some boards this switch may be hard to*

shift due to the coating process, a quick push with a flat head screwdriver should move it easily, we've learned from this and will be revising this button placement in the next revision.)

8. **Button** — The BaldrickDMX comes with a button on the board for factory reset functionality. This button is in case you break the board and need to reset it to factory settings. When held for 5 seconds **during the board boot process**, the controller will reset to factory settings, everything will be removed including the latest firmware and it will be in the 'shipping state' where you click to update to the latest firmware.

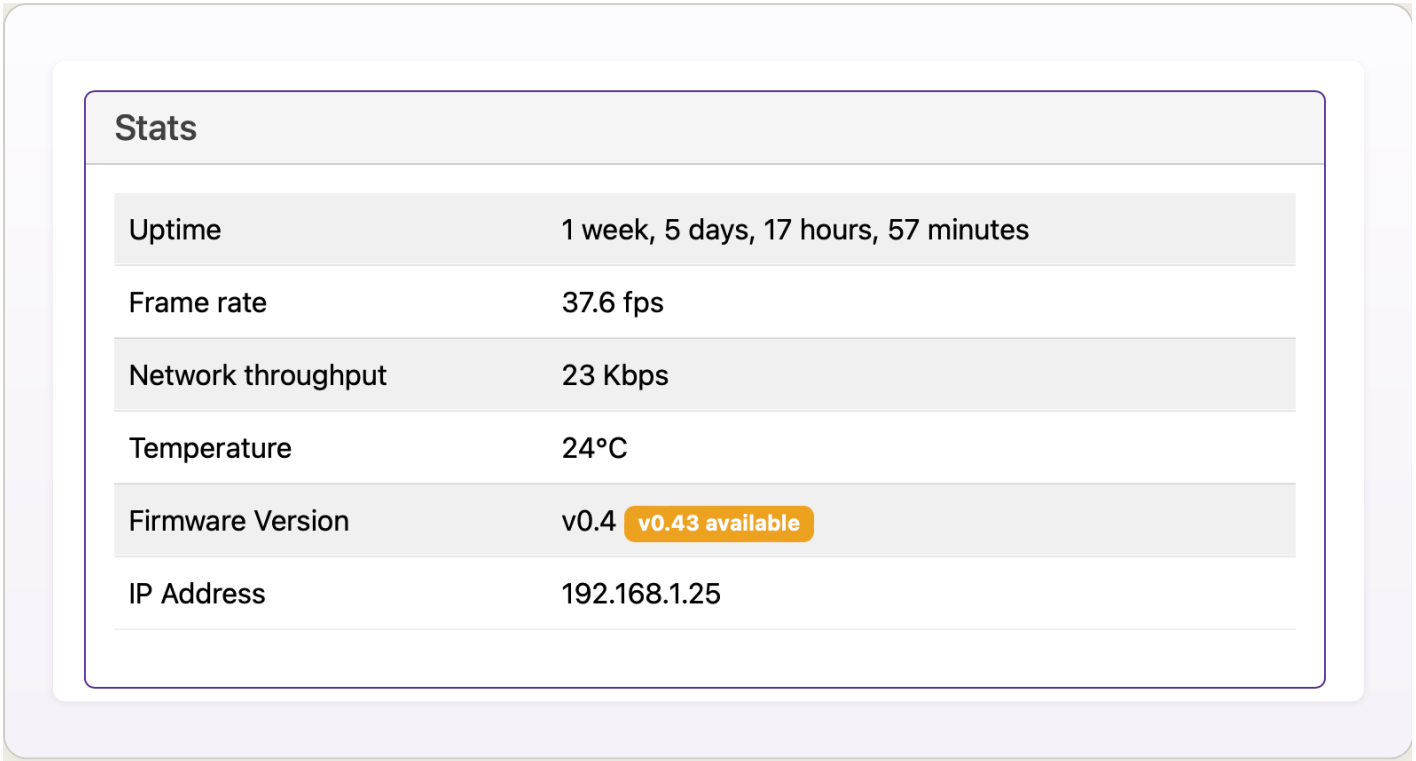
> ⚠ **Mounting holes**
>
> We've designed the BaldrickDMX to not only be as compact as possible, we've matched the mounting holes to other Baldrick boards so mounts can be reused. **DO NOT DRILL out** these holes to make them fit the screws you've got already, doing this will void any warranty.

Web interface

The BaldrickDMX includes a powerful web-based configuration interface that allows you to set up and control your board from any web browser. This comprehensive guide covers every aspect of the web interface.

Stats Dashboard

System Information



The Stats board gives you a heads up as to what's going on with your controller.

Uptime

Tells you how long your controller has been powered on *(this is useful in June to remind you that you forgot to turn it off over christmas)*

Frame Rate

This lets you know what the FPS (Frames Per Second) the controller is currently outputting.

Network Throughput

Like the FPS, this gives you an indication of the volume of network traffic passing through the controller, this should help with debugging.

Temperature

With a sensor next to the Ethernet connector, this gives you an indication of the board temperature *(in Celsius because water freezes at 0, not 32.. how does that make sense?)*

Generally, PCBs and components are good for -40 to +85°C. Anything below 60°C on this board is fine and nothing to worry about. If the temp is above that, try blowing on it like you would a hot chip out of the oven.

Firmware Version

The BaldrickDMX is pretty new in the world of controllers and we've got a LOT of features left to add, this will let you know your current version and if there is a version to upgrade to.

(clicking the new version will upgrade it in place then restart the controller)

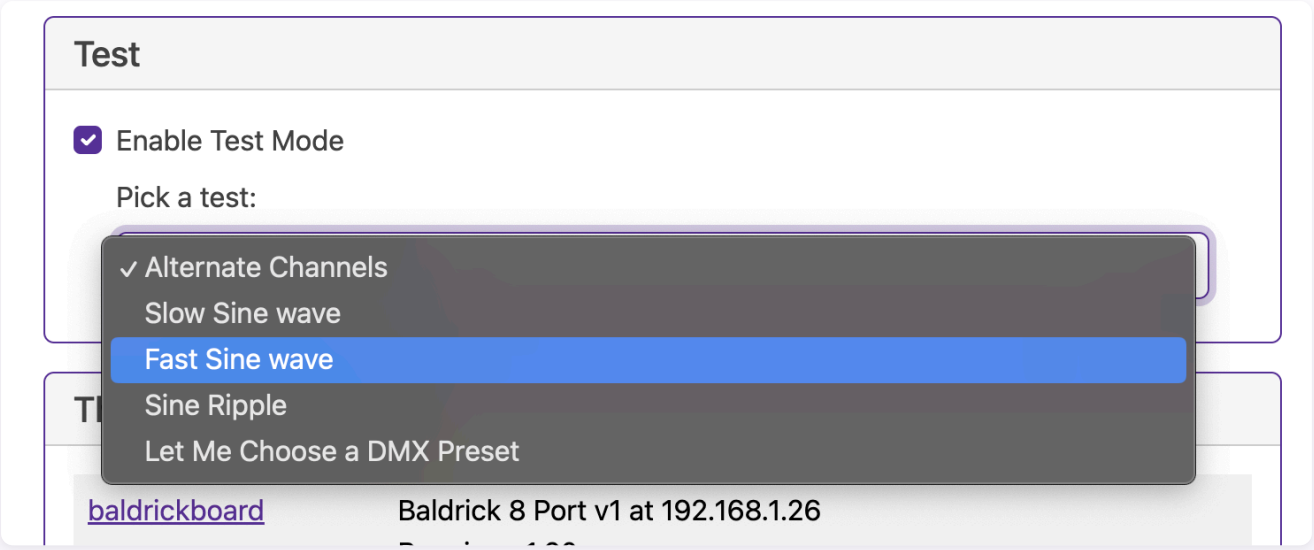
IP Address

It would be pretty silly to have a controller information box without showing you the IP Address of the controller wouldn't it? That would be like launching a controller without being able to manage the networking.

Test Mode

Quick Testing & Troubleshooting

Test Mode allows you to, well, test the board.



Test Patterns

Alternate Channels

Alternates between channels for testing individual DMX outputs.

Slow Sine Wave

All channels start at zero, go to 255, and back to zero in a slow sine wave pattern.

Fast Sine Wave

Same as slow sine wave but at a faster speed for more dynamic testing.

Sine Ripple

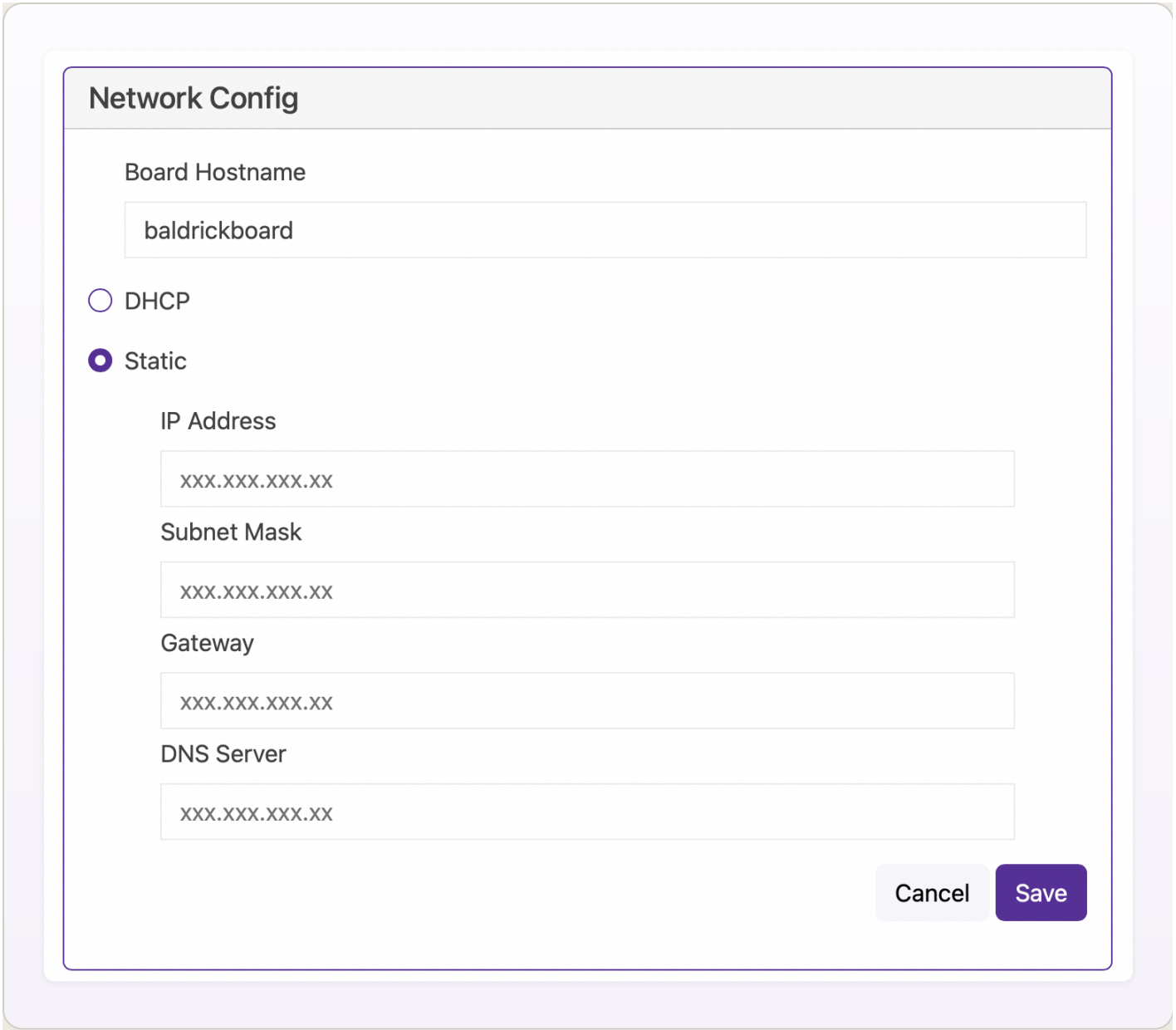
Creates a sine wave that moves across channels over time, each channel moving between 0 and 255.

DMX Preset

Allows you to select a DMX preset that you've created as a test mode.

Networking Configuration

Good Defaults, Easy Config


Network Config
Board Hostname
baldrickboard
DHCP
Static
IP Address
xxx.xxx.xxx.xx
Subnet Mask
xxx.xxx.xxx.xx
Gateway
xxx.xxx.xxx.xx
DNS Server
xxx.xxx.xxx.xx
Cancel
Save

Hostname

The default hostname is baldrickdmx (hence baldrickdmx.local). If you have one BaldrickDMX then it's completely fine to keep this as it is, however if like us you want to collect a few of them, then we'd recommend you change this to something like *frontgarden* or *upstairsroof*

(Just a reminder that hostnames should be lowercase without spaces)

DHCP / STATIC

The default option is DHCP (which is Dynamic Host Configuration Protocol but you don't need to know that) which basically means your router or computer gives the board an I.P. address. This is great for initial setup but when you want to run a show it's best to switch it to STATIC, that's where your controller tells the router / computer "This is my IP".

IP Address

Set this to the IP address that you want the controller to be fixed to.

Subnet Mask & Gateway

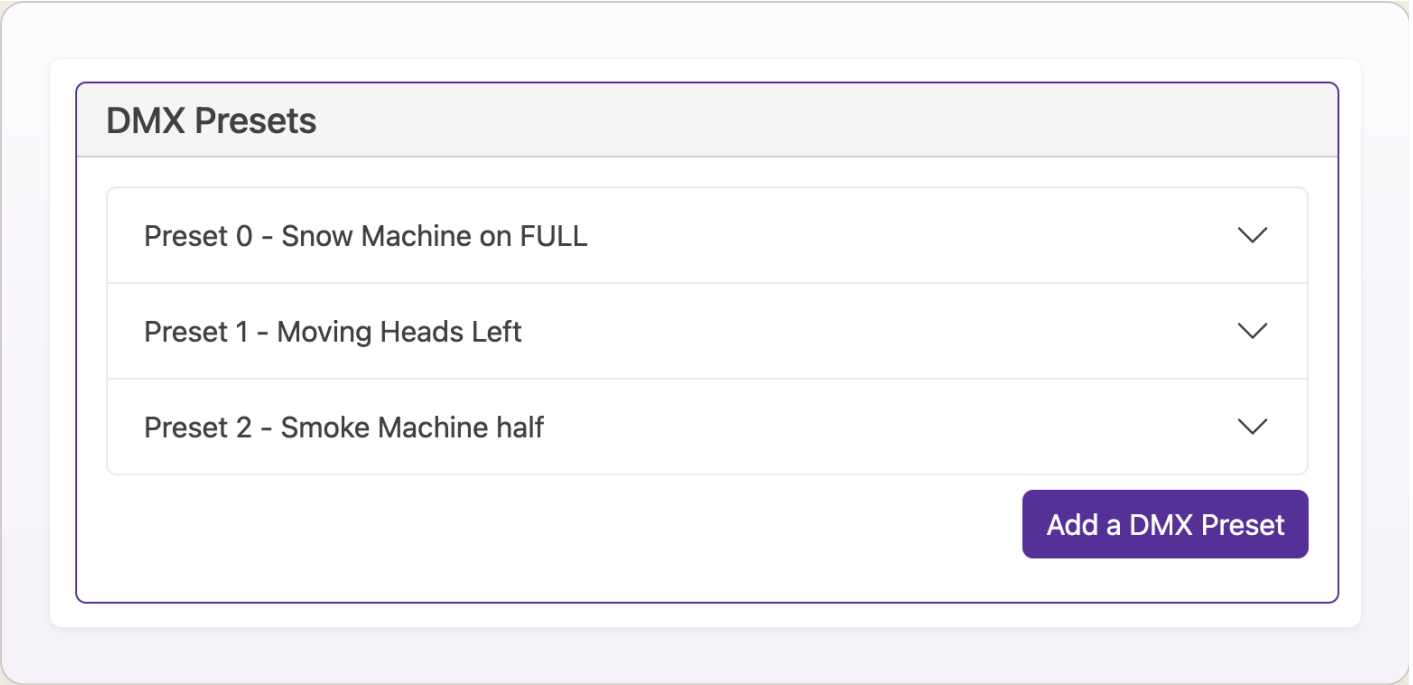
It is more than likely that you can copy the Subnet Mask (the size of your network) and the Default Gateway (the exit point of your network) from the output of an IPconfig check.

DNS Server

DNS wise, typically, your default gateway is your router IP, and that more often than not, can provide your network with DNS. However, some people like to use "outside 3rd parties" DNS like google or cloudflares DNS. If you don't know about this, its probably best just to stick to DHCP.

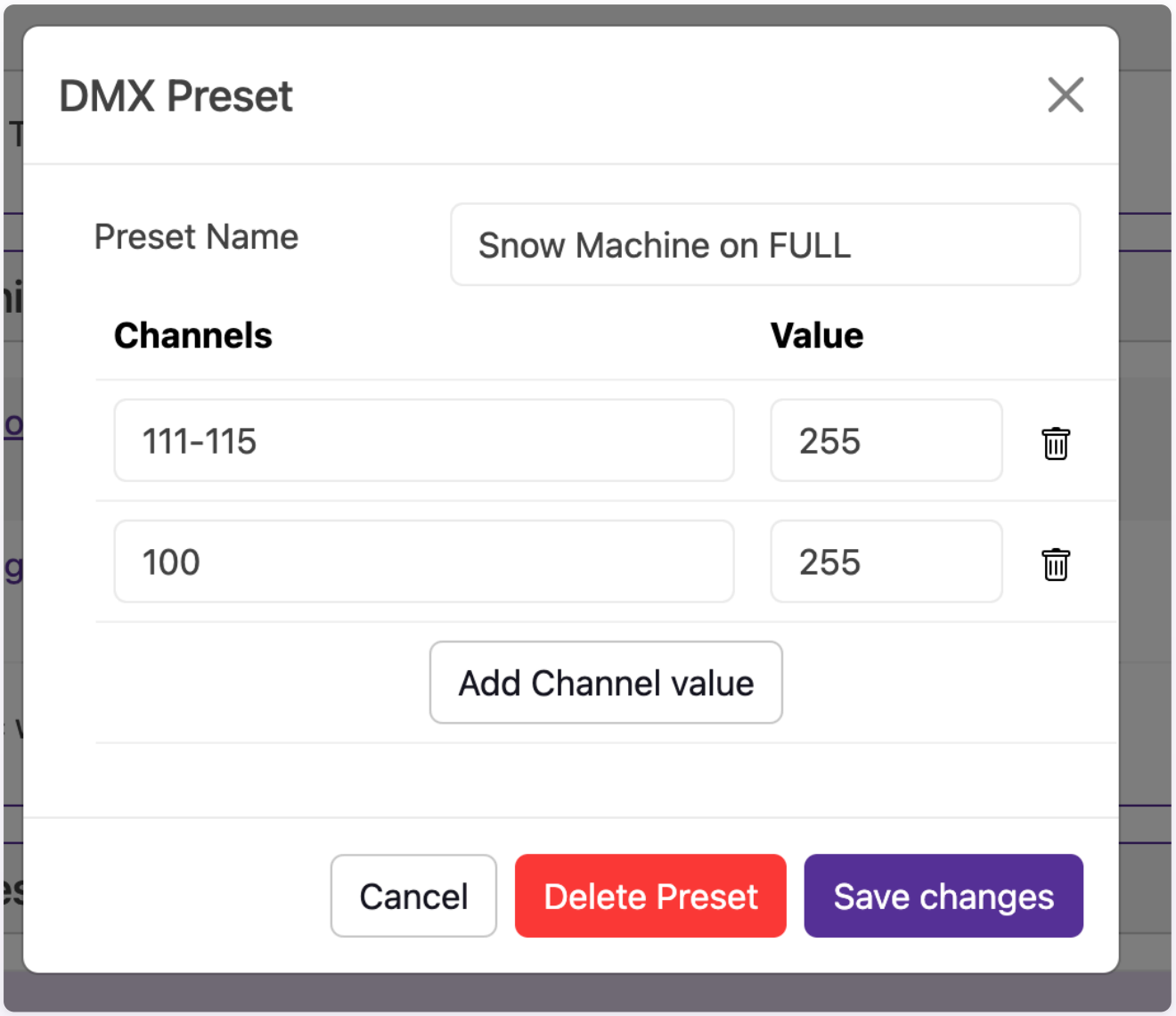
DMX Presets

Preset Management



The BaldrickDMX lets you define Presets of set channels and values that can be used either in a test mode or via an action over the Turnip Network.

Adding a Preset



When you add a preset, you are asked for the channels and a value, you can add as many channels and values as you like.

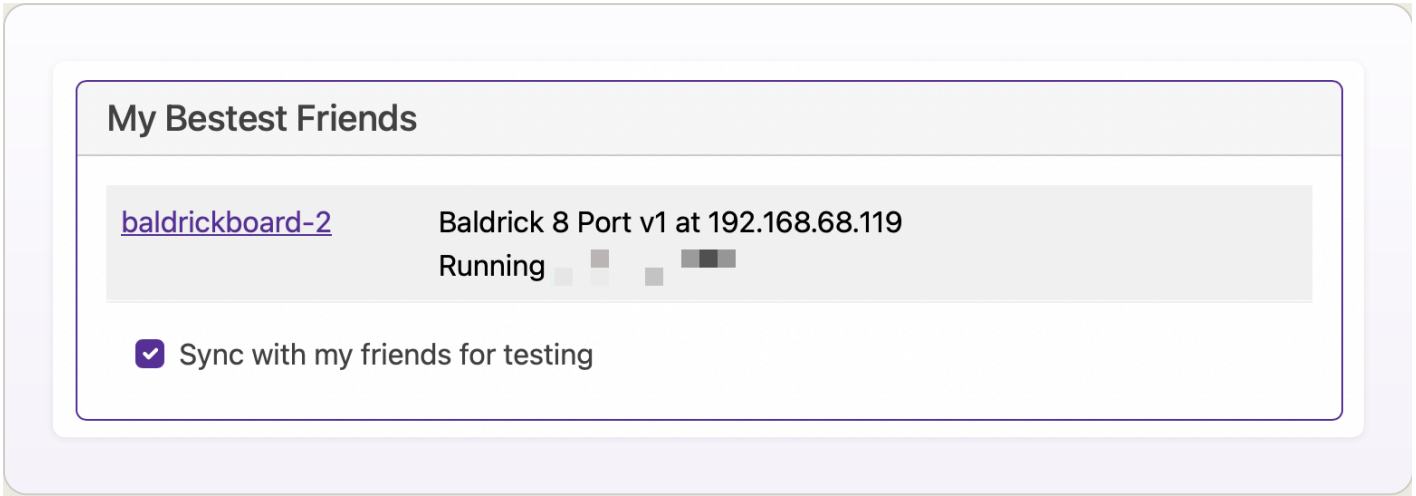
The channels input takes comma separated values such as *11,16,19,21* but also can take ranges such as *100-150* this will include all the numbers between 100 and 150 (including 100 and 150).

Mark Mode

Coming soon...

The Turnip Network

Network Discovery



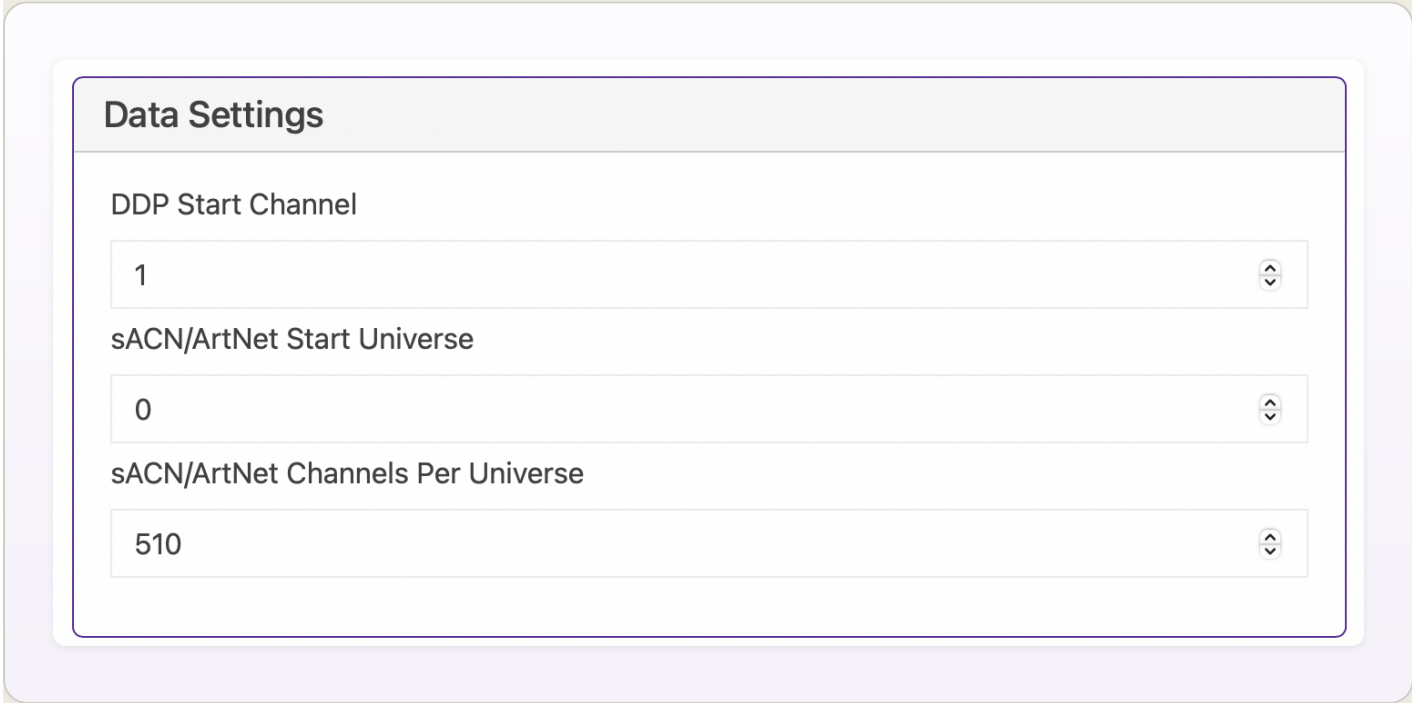
The BaldrickDMX will keep an eye out on the network for other Baldricks and let you know how they are doing (this is helpful as we don't put an LCD screen on the board).

Test Sync

Ticking this box will sync the test mode between all compatible boards, meaning if you are doing something on the house and want all your baldricks in Test Mode, it's very easy to do!

Data Settings

Protocol Configuration



DDP Start Channel

Configure the starting channel for DDP (Distributed Display Protocol) communication.

sACN/ArtNet Start Universe

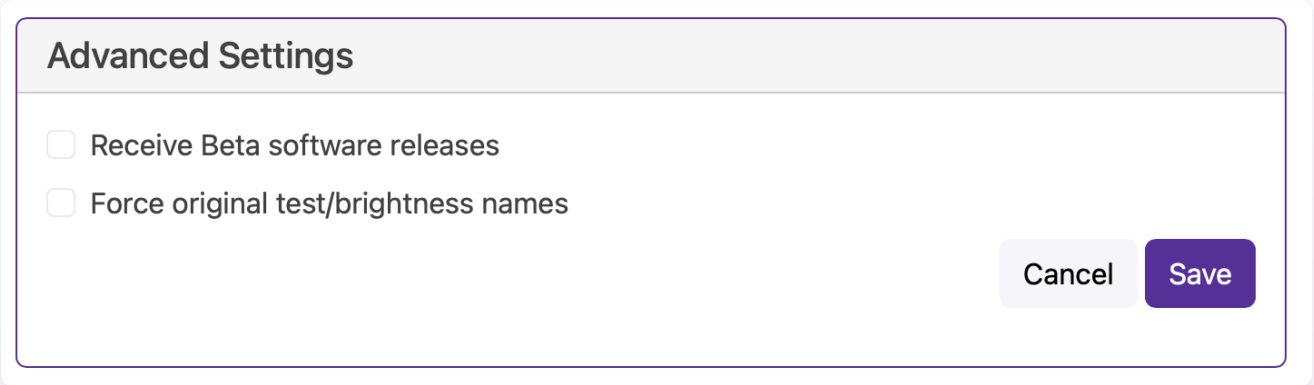
Set the starting universe for sACN (Streaming ACN) and ArtNet protocols.

sACN/ArtNet Channels Per Universe

Configure how many channels are used per universe for sACN and ArtNet protocols.

Advanced Settings

Advanced Configuration Options



We avoided it for so long but it's finally time to have a "box to stick stuff that doesn't fit in the other categories" and here it is, Advanced Settings.

Launch Preset at Boot

This allows you to select a preset to be loaded by default when the board is loaded, if a signal is detected from the network then this preset is overridden.