BALDRICK BOARDS · MANUAL & DOCS

BaldrickAudio Manual

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

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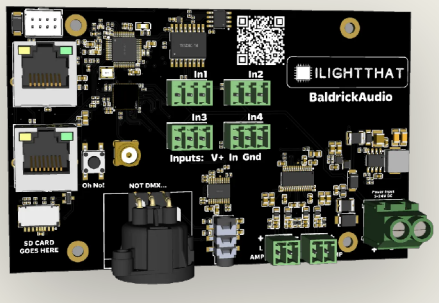

Getting started

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!

> **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 BaldrickAudio has a 2 port screw terminal marked **Power Input** which can handle 5v to 24v DC. 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://baldrickboard.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 things.

> **Tip**
>
> You must plug the board into your network with an Ethernet cable 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: Preparing Your SD Card

The BaldrickAudio plays sounds from the SD card in the slot marked **SD CARD GOES HERE**. For now, copy your files onto the card from your PC. Uploading through the web interface will come in a future firmware release.

- **Card:** formatted as **FAT32**. We've tested cards up to **32GB**.
- **Files: .wav**, 44.1kHz, 16-bit, stereo. Other file formats will come later.

> **Background audio with a louder sound on top**
>
> If you want a quieter background track playing with a louder sound over the top, set the volume difference in the audio files themselves for now (`Audacity` is great for this). A future firmware release will let you adjust the volume of each track in the web interface.

Step 4: Connecting Speakers

Using the Built-in Amp

The built-in 25W amp has two 2 port Phoenix connectors, marked **L AMP** and **R AMP**. Connect your left and right speakers to them, matching the **+** on the board to the positive wire of your speaker.

Using the Pre-amp Output

If you'd rather use your own amplifier or a powered speaker, use the pre-amp output on the **3 pin XLR** (the one marked **NOT DMX...**) or the **3.5mm jack**.

> **Volume**
>
> The pre-amp output is exactly that, a pre-amp output. **The volume control in the web interface does not affect the pre-amp volume**, so set the volume on whatever you plug into it.

Step 5: Connecting Inputs

The four inputs, **In1** to **In4**, are where your sensors and buttons go. Each one is marked **V+ - In - Gnd**.

- **Sensors** (motion sensors, beam breaks) take their power from **V+** and **Gnd** and send their signal to **In**.
- **Buttons** go across **In** and **Gnd**. If your button has a lamp, power it from **V+**.

Once they are connected, each input can be set to play a sound. You can also trigger sounds remotely from your phone with Busk Board, or from other Baldrick Boards over The Turnip Network.

Step 6: Adding More Boards

The two Ethernet ports are joined by a built-in switch. Plug your show network into one and run a cable from the other to your next board, instead of running a cable back to your network switch for each one.

Technical specifications

At a glance

Specification	Value
Inputs	4 x V+ / In / Gnd voor knoppen of sensoren
Versterker	Ingebouwd 25W, 2 x 2-pins Phoenix-speakerconnectors (L en R)
Lijnuitgang	Pre-amp via 3-pins XLR en 3,5mm-jack
Audiobestanden	44,1kHz 16-bit stereo .wav
Opslag	SD-kaart, FAT32, getest tot 32GB
Ethernet	2 x 100Mb-poorten met switch op het board om door te lussen
WiFi	Op het board met aansluiting voor externe antenne
Voedingsingang	`5-24V DC`
Montage	Medium formaat, past op Baldrick8-bases

Board components

1. **QR Code** — An easy to scan QR code which will take you to these docs for easy troubleshooting.
2. **Inputs (In1 to In4)** — Connect buttons and sensors to trigger your sounds. Ordered V+, In, Gnd.
3. **Pre-amp output, 3 pin XLR** — Line level audio for your own amp or powered speakers. It's marked **NOT DMX...** for a reason.
4. **Pre-amp output, 3.5mm jack** — The same pre-amp signal on a headphone-style jack.
5. **Speaker outputs (L AMP and R AMP)** — 2 port Phoenix connectors from the built-in 25W amp.
6. **Power Input** — 5v - 24v DC, steps down to power the components.
7. **Ethernet ports** — Two 100Mb ports joined by a built-in switch. Plug one into your show network and use the other to daisy-chain to your next board.
8. **Oh No! button** — Did you break our board? Press and hold this for 10 seconds on boot to reset to factory settings.
9. **WiFi antenna connector** — Screw on an external WiFi antenna for Busk Board, CunningFX and board control over WiFi.
0. **SD card slot** — Where your sound files live. FAT32, tested up to 32GB.

> ⚠ **Mounting holes**
>
> The BaldrickAudio has the same medium footprint as the Baldrick8, so you can reuse your Baldrick8 bases and mounts. **DO NOT DRILL out** these holes to make them fit the screws you've got already, doing this will void any warranty.

Web interface

Every BaldrickAudio has a web UI. This page is what the buttons and pages actually do.

Screenshots

The BaldrickAudio shares its web interface with the rest of the Baldrick family, so the screenshots on this page come from the BaldrickInput8.

Stats Dashboard

System Information

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

```
<h5>Uptime</h5>
<p>Tells you how long your controller has been powered on <em>(this is useful in June to remind you that you forgot to turn it off over
<h5>Temperature</h5>
<p>With an onboard sensor, this gives you an indication of the board temperature <em>(in Celsius because water freezes at 0, not 32.. h
<h5>Firmware Version</h5>
<p>The BaldrickAudio 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
<h5>IP Address</h5>
<p>It would be pretty silly to have a controller information box without showing you the IP Address of the controller wouldn't it? That
```

Audio Settings

Volume, Sound Files and Busk Board

Volume

Sets the volume of the built-in amp. **It does not change the pre-amp output** on the XLR and 3.5mm jack, so set the volume on whatever you've plugged into those.

Background Audio

The BaldrickAudio can play a track in the background with your triggered sounds over the top. For now, if you want the background quieter than the sounds on top, set the volume difference in the audio files themselves (`Audacity` is great for this). A future firmware release will let you set the volume of each track here.

Sound Files

Your sounds come from the SD card, as .wav files at 44.1kHz, 16-bit, stereo. For now, copy them onto the card from your PC. Uploading through the web interface will come in a future firmware release.

Busk Board

Trigger your sounds from your phone over WiFi with Busk Board.

Input Configuration

External Input Triggers

The BaldrickAudio comes with four inputs to attach external triggers (motion sensors, beam breaks, buttons). Set each one to play a sound when it's triggered, or to do any of the other actions below.

Available Actions

```
<h6 id="fpp-integration">FPP Integration</h6>
<p>Control FPP (Falcon Pi Player) instances, change volume, play songs/playlists, or call FPP API directly.</p>
<h6>Toggle Test Mode</h6>
<p>Quickly enable any test mode at a specific brightness for quick prop testing.</p>
<h6>BaldrickSwitchy Control</h6>
<p>Turn on/off BaldrickSwitchy ports for specific durations (bubble machines, snow machines, etc.).</p>
<h6>BaldrickDMX Presets</h6>
<p>Activate preset commands on your BaldrickDMX for moving heads, effects, etc.</p>
<h6 id="http-url-calls">HTTP URL Calls</h6>
<p>Call web APIs from simple triggers - perfect for custom integrations.</p>
<h6>Do Nothing</h6>
<p>Sometimes you set an input to do something and think "oh actually no, that's not what I want."</p>
```

Networking Configuration

Good Defaults, Easy Config

```
<b>Note</b> WiFi on the Input8 is currently in testing and will be released soon.
<h5>Hostname</h5>
<p>The default hostname is baldrickboard (hence baldrickboard.local). If you have one BaldrickAudio then it's c
<h5>DHCP / STATIC</h5>
<p>The default option is DHCP (which is Dynamic Host Configuration Protocol but you don't need to know that) wh
<h5>IP Address</h5>
<p>Set this to the IP address that you want the controller to be fixed to.</p>
<h5>Subnet Mask &amp; Gateway</h5>
<p>It is more than likely that you can copy the Subnet Mask (the size of your network) and the Default Gateway
<h5>DNS Server</h5>
<p>DNS wise, typically, your default gateway is your router IP, and that more often than not, can provide your
```

Turnip Network

The Turnip Network

The Baldrick family of boards have developed with *ease of use* as one of the core principles, this lead the creation of ‘The Turnip Network’.

The BaldrickBoards will find each other on the network, allowing you to easily switch between them when doing configuration.

Test Sync allows you to enable test mode on one Baldrick board and all the others in that series will follow (so when you turn Hodgical Test Mode on one Baldrick8, it will turn on the rest of them).

Some of the Baldrick boards have buttons (or Turniputs) and these allow integration with not only all the other boards in the family, but also FPP and web hooks!

::: note It’s what those people in business suits call ‘synergy’! :::