

WarBeast Arduino Kit Installation Guide

This guide will add a little more detail in terms of wiring and some other tips for installing your new kit, or if you are building from scratch with the gerber files and 3D models provided on my github. (releasing at a later date)

PLEASE READ THIS GUIDE CAREFULLY, AS THERE ARE A FEW IMPORTANT PARTS TO THE INSTALLATION PROCESS!

KIT INCLUDES:

- **Mainboard with pre-installed pico and strum switches**
- **D-pad start/select board** (*Connects to plug coming from the mainboard*)
- **3D printed strumbar** (if selected as an add-on)
- **10ft braided micro USB cable**
- **Two-piece 3D printed cable grommet for the sync button**
- **Cable ties** for routing the USB cable/tidying excess wires

(USB cable exits through the sync button hole, so button + housing must be removed)

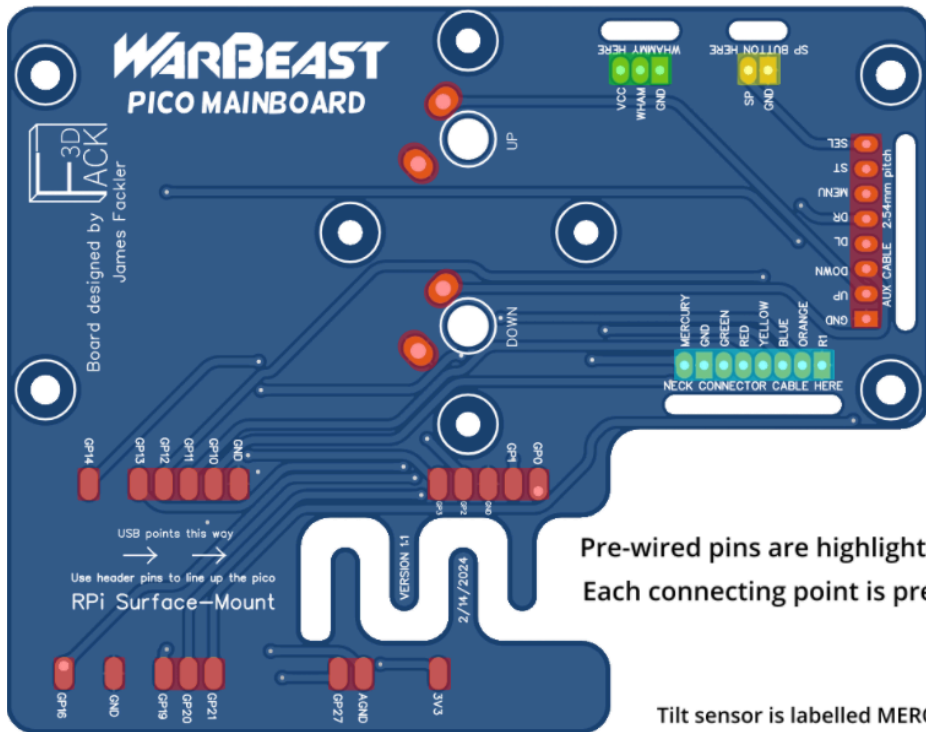
REQUIRED TOOLS:

- **Basic soldering skills**
- **Soldering iron**
- **Wire strippers**
- **T-10 Torx** for body screws and **PH1 Phillips** for internal screws

IF YOUR FACTORY STRUMBOARD HAS MICRO SWITCHES INSTEAD OF ALPS

There are two versions of the WarBeast. One has micro switches, and one ALPS switches. Please check which version you have before installing. If you have the micro switch version, the strumbar might have to be slightly modified OR you can select the add-on 3D printed strumbar on my listing. You will also be able to buy this separately if you forgot to order one with the kit.

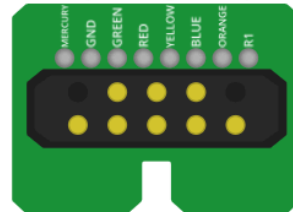
PT1: WIRING DIAGRAM & DOCUMENTATION



Pre-wired pins are highlighted in red
Each connecting point is pre-labeled

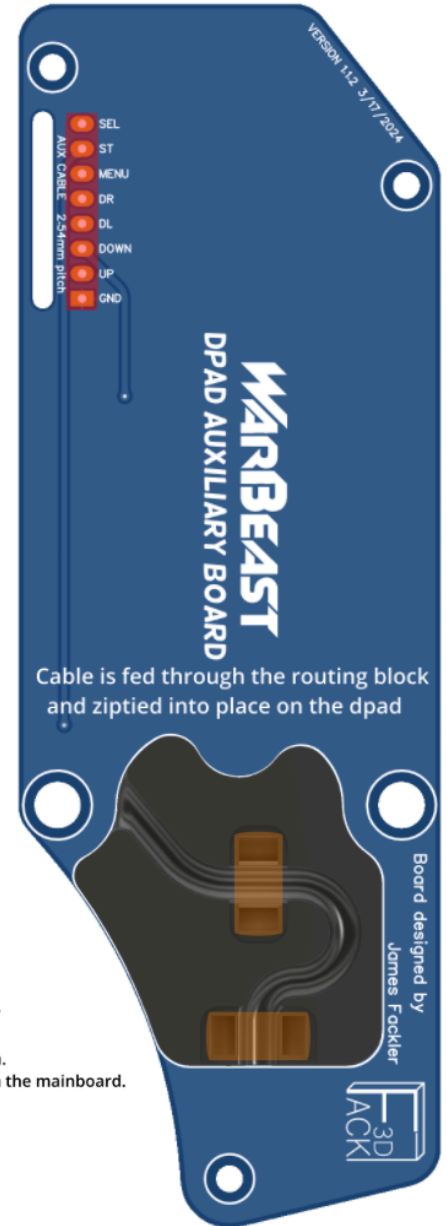
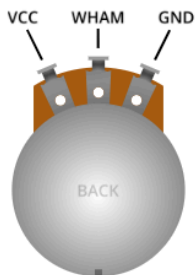
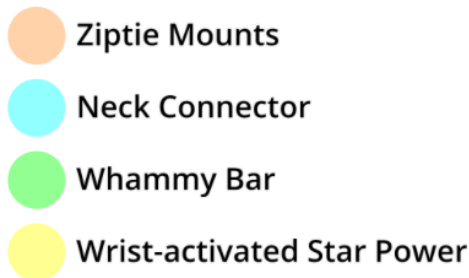
Tilt sensor is labelled MERCURY

It has its own respective ground pin, labelled R1



Make sure each pin coming from the neck connector is matched with the identical input on the mainboard.

You can reuse the original wires coming from the star power button. Make sure the red wire is connected to SP, and the black wire is connected to GND on the mainboard.

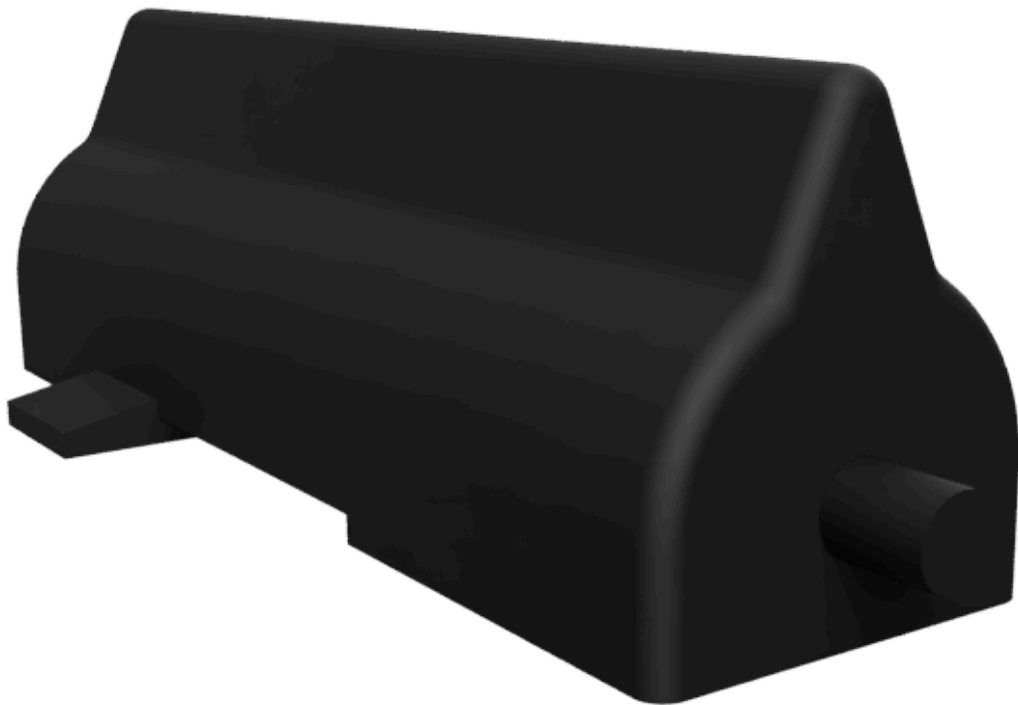


The slots in front of the solder pads are for strain relief. The cable should be woven through the slot in order to add extra reinforcement, and to prevent the cable from breaking at the solder joints if accidentally pulled. It's not completely necessary to do this, but it's there if you want it. The tone switch will be left out, as it's only used for Rock Band.

There are two variants of neck connectors I know about. If your connector is different from the one pictured, look for the pinout on the connector pcb or the original mainboard and connect the wires as they are labeled on your new mainboard.

PT2: FITTING THE STRUMBAR

If you requested the replacement strumbar in your kit, be it your strumboard has microswitches or if you just don't like the stock one, installation will be a breeze. Simply remove your old strumbar and the bushings, fit the bushings on your new strumbar, and insert your new strumbar into place. If the bushings don't rotate smoothly, you may have to sand or file a bit off of the underside of the pins. This strumbar is designed to fit perfectly without extra modification, so you most likely will not have this problem. **Keep in mind you will have to set strum debounce in the firmware to prevent overstrumming, preferably anywhere from 17-20.** Make sure combine strum debounce is also enabled, this is very easy to overlook.



PT3: PROGRAMMING YOUR GUITAR

Once everything is installed properly, it's time to program your guitar.

Download and run Sanjay900's Guitar Configurator to map all of your inputs.

Link: <https://github.com/Santroller/guitar-configurator/releases>

Once you've mapped everything, test it in your five-fret game of choice. If everything works properly, congratulations, you're all done!

If you have issues with sustain dropping/flickering, I would suggest folding up a small piece of paper and wedging it into the neck slot as you're inserting the neck. I've found that since the neck is so long it tends to wiggle a bit, so this may fix that issue if it's happening to you. You can also hardwire the neck if you don't care about keeping it detachable.

Please contact me if you have any problems with your kit. Thank you, and enjoy your new and improved WarBeast!