FACK3D 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.

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)*
- **10ft braided micro USB cable**
- **Cable ties** for routing the USB cable/tidying excess wires

(USB cable exits through the on/off switch hole, so the switch must be removed)

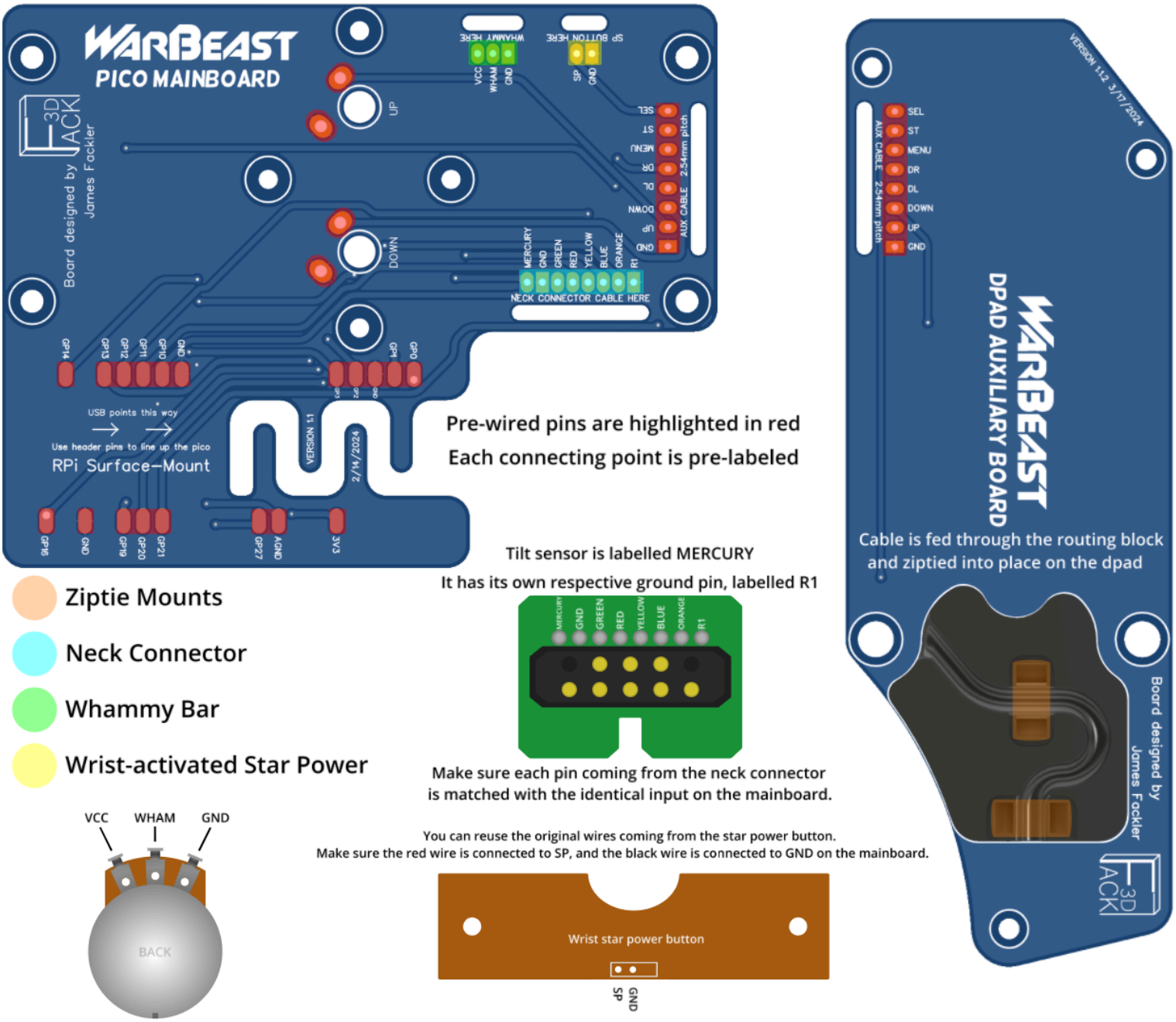
REQUIRED TOOLS:

- **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. *(tabs contacting the switches may need to be snipped or cut off with a rotary tool and the surfaces filed smooth)* I would recommend test-fitting first before doing any modifications.

WIRING DIAGRAM & DOCUMENTATION

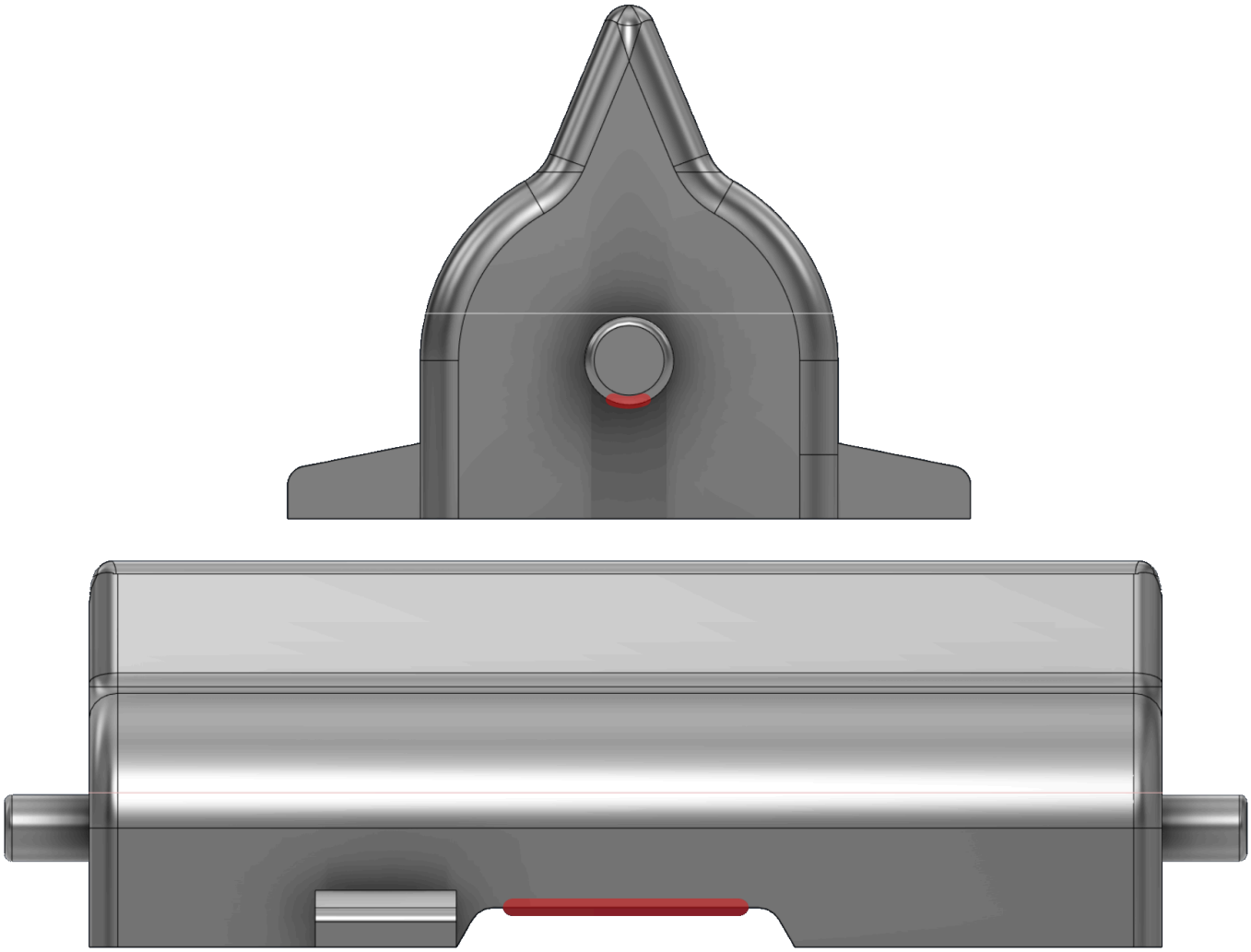


The slots in front of the solder pads are for strain relief, the cable should be woven through the slot in order to add extra reinforcement, and to prevent the cable from breaking at the solder joints if accidentally pulled. It's not completely necessary to do this, but I would recommend it. The tone 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.

ADJUSTING & FITTING THE STRUMBAR

If you decide to print the replacement strumbar model located in the github repository, it may require light filing on the **areas highlighted in red** for proper fitment as 3D printed parts are not always perfect. The pins on the strumbar should fit fine without any work, but if the bushings don't rotate smoothly, you will have to file off a small bit of material on the underside of the pin. After everything fits, I would recommend applying grease to the pins to reduce friction against the bushings and to cut down on noise from loose tolerances.



The part of the strumbar that contacts the switches may have to be lightly filed until the switches neither depress nor space away from the switches. You will need to put on/take off the mainboard a few times in order to get the switch distance right. Be **very** careful, as taking too much material off will add play in the strumbar!

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.

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

If you are looking to build this yourself, you can find info and parts at this link.
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– https://github.com/JamesF302/OpenSource-Warbeast-Arduino-Project –

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