

FAK3D 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 pcb 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:

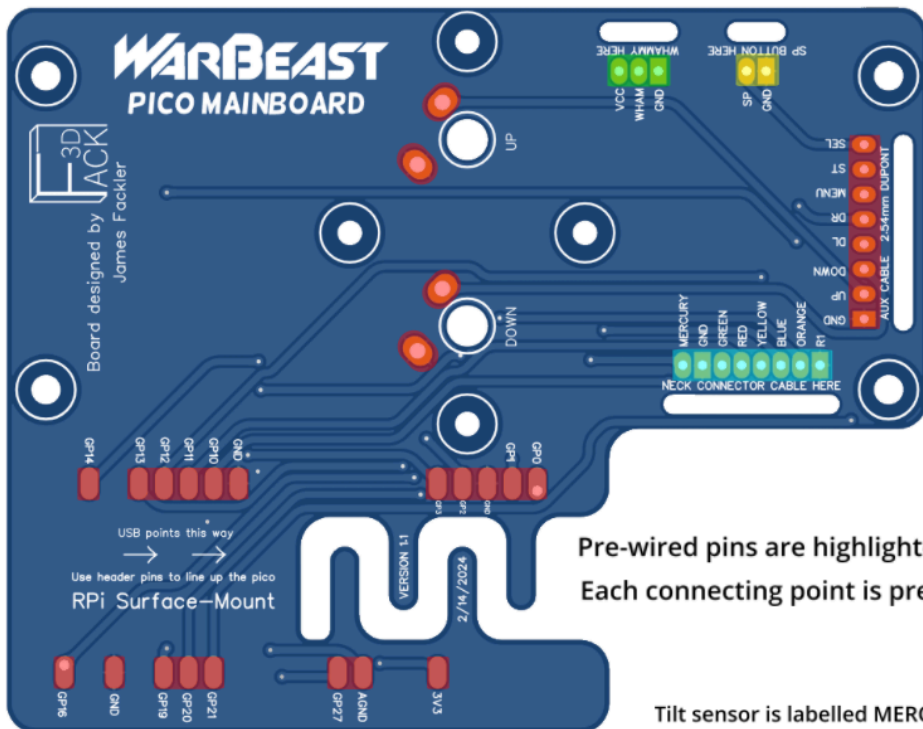
- **Mainboard & Dpad board** (Dpad connects to cable coming from mainboard)
- **10ft braided micro USB cable**
- **3D printed replacement strumbar** (optional, stock strumbar may still fit)
- **Zip ties** for use with USB routing piece located on Dpad board
(Sync button must be removed for the USB cable)

REQUIRED TOOLS:

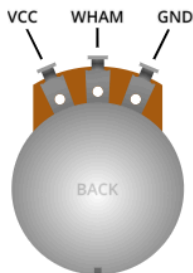
- **Wire strippers** (only if necessary)
- **Soldering iron**
- **T-10 Torx** for body screws and **PH1 Phillips** for internal screws

[MODELS ARE AVAILABLE TO DOWNLOAD AND PRINT ON MY GITHUB IF YOU MESS SOMETHING UP]
IF YOU DON'T HAVE A 3D PRINTER, CONTACT ME THROUGH ETSY AND I CAN SEND YOU A REPLACEMENT
— <https://github.com/JamesF302/OpenSource-Warbeast-Arduino-Project> —

WIRING DIAGRAM & DOCUMENTATION



- Ziptie Mounts
- Neck Connector
- Whammy Bar
- Wrist-activated Star Power



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 oval-shaped cutouts in front of the solder pads are for strain relief, the cable should be woven through the cutout in order to add extra reinforcement, and to prevent the cable from breaking at the solder joints if accidentally pulled.

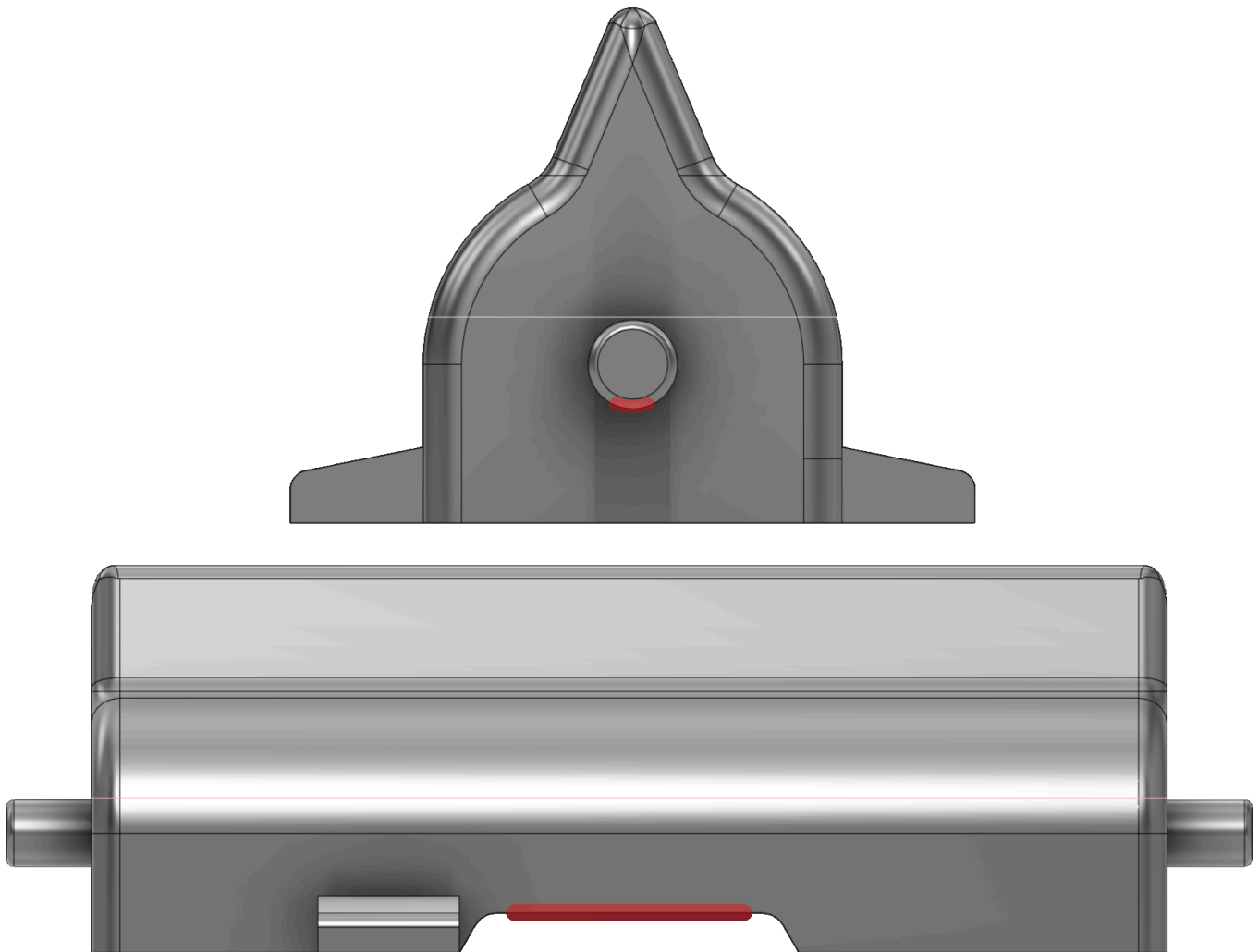
It's not completely necessary to do this, but I would recommend it.

The tone switch will be left out, as it's only used for Rock Band.

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

ADJUSTING & FITTING THE STRUMBAR

The strumbar 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 and feels good, 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!

NOTE: You are only eligible for a re-printed strumbar if you have purchased the kit!