

# LilypadVR PCBA Secondary Processing Instructions

**TWO QUOTES SHOULD BE GIVEN TO THE CUSTOMER, ONE WITH ONLY PART 1 AND THE OTHER WITH BOTH PART 1 AND PART 2.**

## PART 1: FIRMWARE FLASHING

1. Plug in the device to a computer via USB. Make sure that, when this is done, the RGB LED on the device lights up green.
2. Press the button on the top right of the device to turn the device on. Make sure the blue LED lights up.
3. This link leads to an online firmware flasher with the required settings already preset. Use this online firmware flasher to flash firmware onto the device via USB.
  - a. <https://slimevr-firmware.bscotch.ca/?config=eyJib2FyZCI6eyJ0eXBlljoiQk9BUkRfV0VNT1NEMU1JTkkiLCJwaW5zIjp7ImltdVNEQSI6IkQyIiwiaW11U0NMljoIRDEiLCJsZWQiOiIyIn0sImVuYWJsZUxlZC l6dHJ1ZX0sImltdXMiOlt7InR5cGUiOiJJTVVfQk1JMTYwIiwicm90YXRpb24iOiIxODAiLCJpbX VJTIQiOiJENSIsImVuYWJsZWQiOnRydWV9LHsidHlwZSI6IklnVV9CTUkxNjAiLCJyb3Rh dGlvbiI6IjE4MCIslmltdUOVCI6IkQ2IiwiaW5hYm91ZCI6dHJ1ZX1dLCJiYXR0ZXJ5Ijp7InR5cGUiOiJ CQVRfRVhURVJOQUwiLCJyZXNpc3RhbmNlljoXODAsInBpbil6IkEwIn0sInN3YXBBZGRyZXN zZXMiOmZhbnNlcjZ2ZXJzaW9uIjoU2xpbWVWUi92MC40LjAifQ>
4. If the online firmware flasher is not available for you to use, the firmware must be flashed manually, as per the official SlimeVR Documentation, under section "Uploading the Tracker's Firmware".
  - a. <https://docs.slimevr.dev/firmware/index.html>

- b. Make sure these settings are used, either in the firmware generated by the documentation or by manually changing them in the "defines.h" file:

Microcontroller  
Wemos D1 Mini

Sensor  
BMI160

Auxiliary sensor  
BMI160

DEG_0	DEG_90	DEG_180	DEG_270

↑ Ceiling when on body (mounted)

\* v0.3.3 and higher

IMU rotation  
☒ DEG\_270 ☐ DEG\_180 ☐ DEG\_90 ☐ DEG\_0

Auxiliary IMU rotation  
☒ DEG\_270 ☐ DEG\_180 ☐ DEG\_90 ☐ DEG\_0

Wemos Battery Shield  
☒ I am using the Wemos Battery Shield product

- c. The blue LED next to the RGB LED should blink intermittently throughout the flashing process.
5. If firmware does not flash successfully, ensure the device is on and press the reset button on the bottom left of the device immediately after starting the firmware flashing on the website.

## PART 2: ADDITIONAL STEPS

1. The LED on the ESP-12F should be removed. One of the LEDs on the front edge of the board is meant to replace the LED that the ESP-12F comes with.
2. Extra solder should be added to the pins of the PJ-242 connector. Very frequently, the pins of this connector are lifted off the board and not properly connected. Manually adding extra solder ensures good electrical connections.