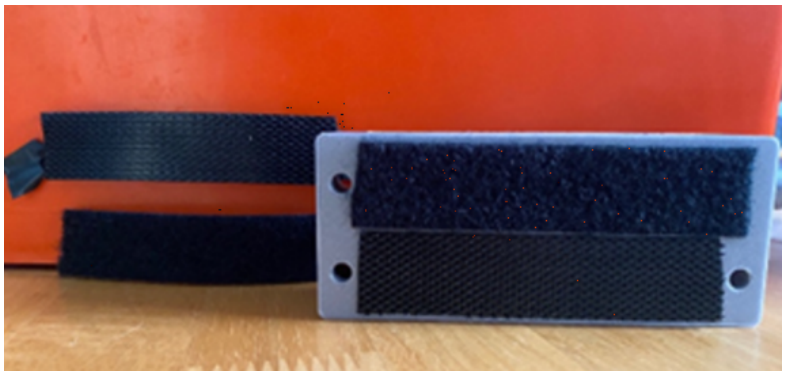
Installation guide: NEMO30/WIBL

1. Confirm that the NMEA network starts when the vessel is powered on.
2. F
3. C ard for data storage and that it’s clicked "in".

(disengaged)

(engaged)

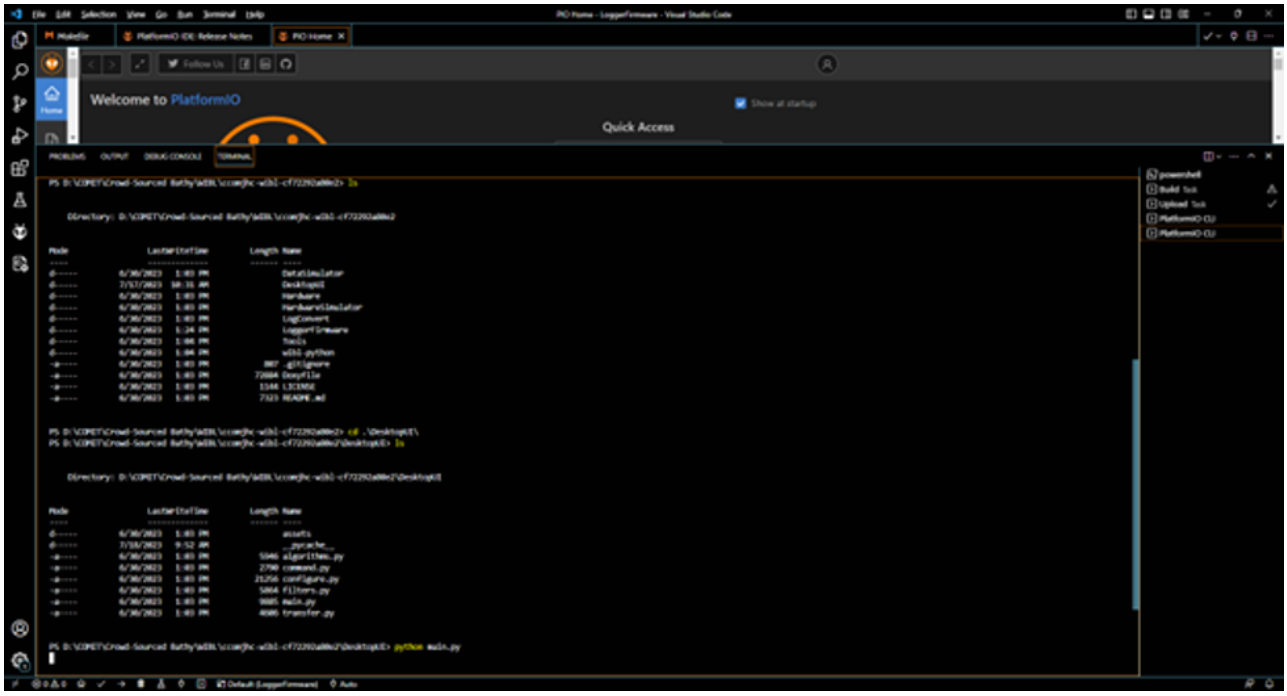
4. Place 1-3 desiccant packs into the logger. It’s okay for the packs to rest on the circuit board.
5. Put the cover back on the logger. Zip-tie the two opposite corners to secure the plate. [Note: when copying data, these zip ties will have to be cut and redone each time]
6. Locate the NMEA network hub. If there isn’t an empty port, swap in a T-splitter if needed.
7. Determine the best placement for the logger within 1- or 0.5-meters (depending on drop cable length) of the port.
8. Before placing the Velcro to mount the logger, ensure no pinching, blocking, or other clearance issues will happen when closing the console.
9. Use 2 strips of Velcro at the mounting site and on the backplate of the logger, alternating rough and smooth sides.



10. Connect the logger to the NMEA network with the drop cable. Make sure the locking threads are tightened on both sides.
11. Plan to let the WIBL run after installation, pull the SD card, and check for proper function using the appropriate python scripts.
12. After installation is complete, send participant a Box folder link and make sure they can upload to it. Ask them to not delete items.

Preparing a WIBL for field installation

1. Start Visual Studio Basic with PlatformIO.
2. Build the library (check mark at bottom of PlatformIO).
3. Open WIBL box to access board.
4. Connect USB to serial pin.
5. The board should indicate it's on with a green and blue light.
    - Attach a jumper cable on the "PROG" header pins.
    - Attach a jumper cable to one of the "RESET" header pins.
    - Touch the jumper cable to the other "RESET" header pin.
    - The lights on the board should go out.
    - Remove the jumper from one of the "RESET" header pins.
    - Remove the jumper from the "PROG" header pins.
6. You should now be in PROG mode to download new firmware and edit metadata – no lights will be on the board.
7. If updating firmware, select Upload and allow program to run.
8. After completing the download and/or metadata edits, touch the jumper to the other "RESET" header pin briefly again to reboot the logger.
9. Remove the jumper from the "RESET" header pins.
10. Open a new terminal window.



11. Connect the WIBL to Wi-Fi.
12. Run the following commands in the Serial Monitor window:
    - While attached to the logger, use the `configure` command to make sure that the webserver is configured on; you should see a line that says `webserver on` followed by three numbers. If this is not the case, configure it 'on' with `webserver on 20 5 5`.
    - Take note of the SSID and password for the Access Point (AP) WiFi network from the `configure` command output. Set them with commands `ssid ap name` and `password ap name` if they are not set (they will default to 'wibl-config' and 'wibl-config-password' otherwise).
    - Make sure that the WiFi is set to access point mode in the `configure` output. Use the `wireless accesspoint` command if this is not the case.
    - Reboot the logger with `restart`.
    - Connect your development computer to the SSID noted above, with the associated password. If you're monitoring the serial output of the logger, you should see information messages indicating that an IP address has been assigned to your computer. Typically, it's 192.168.4.2.
    - Start the desktop GUI with `python main.py` in the DesktopUI directory in the distribution, or through VSCode. Note that you may need some requirements beyond those installed for the main WIBL Python package to make this run.
        - Note that since firmware 1.4.0, the logger has a compiled-in configuration that will turn on web server by default with a well-known SSID and password; see LoggerFirmware/src/boot_config.json and the LoggerFirmware/src/json2cstring.py
13. Edit config/metadata as needed.
14. Make sure to Set Logger and Save Config.

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