

Reefbot Lab Upgrade

Removal

1. Remove water from lines by running the 'Prime' test from the app/dashboard



Choose a Device
Reefbot Lab

Choose a Parameter
Device Hardware Test

Choose a Brand
Priming(Remove Inlet Tubes First)

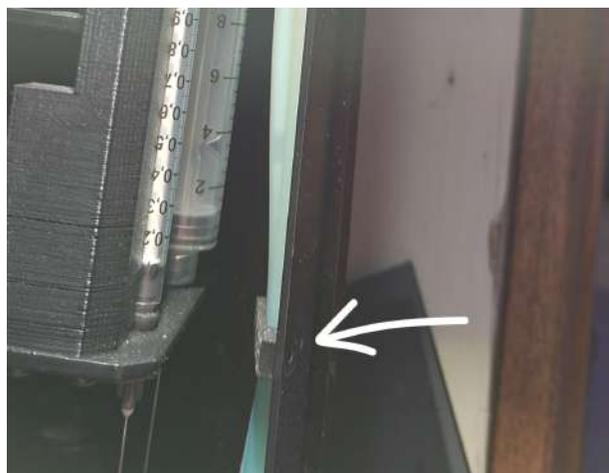
NOTE

Perform step 2 if you need to move the Bot to perform the upgrade

2. Unplug lab and disconnect RODI, Waste, and Tank lines from the Bot.
3. Remove the top by using allen wrench. Depending on the model, you will have 3 screws and 1 with a nut that must be held, or 6 with nuts.

DANGER

4. Either remove syringes and needles or spin mechanism around (to reagent #7 area) to prevent injury.
5. Remove one screw and loosen other enough to be able to carefully swing clamps from wire harness.



6. Carefully cut any zip ties. Be extra careful not to cut into wires or water lines.
7. Remove 4 screws from plate that secures dosing pumps.



8. Carefully swing plate open towards the hoses.



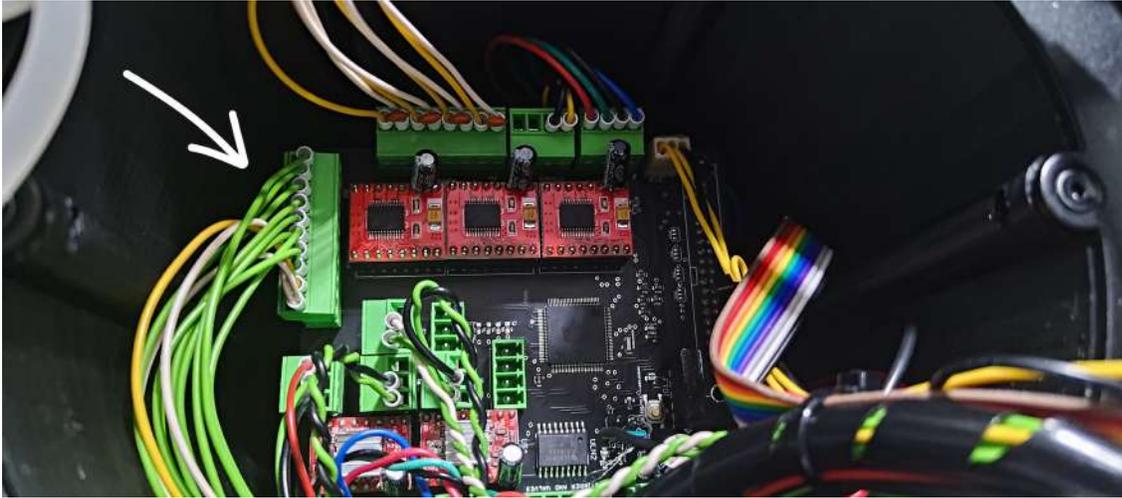
9. May need to remove Ethernet adapter. Loosen plastic nut closest to main board ~ 1 turn.

Remove other nut completely. Tilt and pull out slightly to lift out of the way.

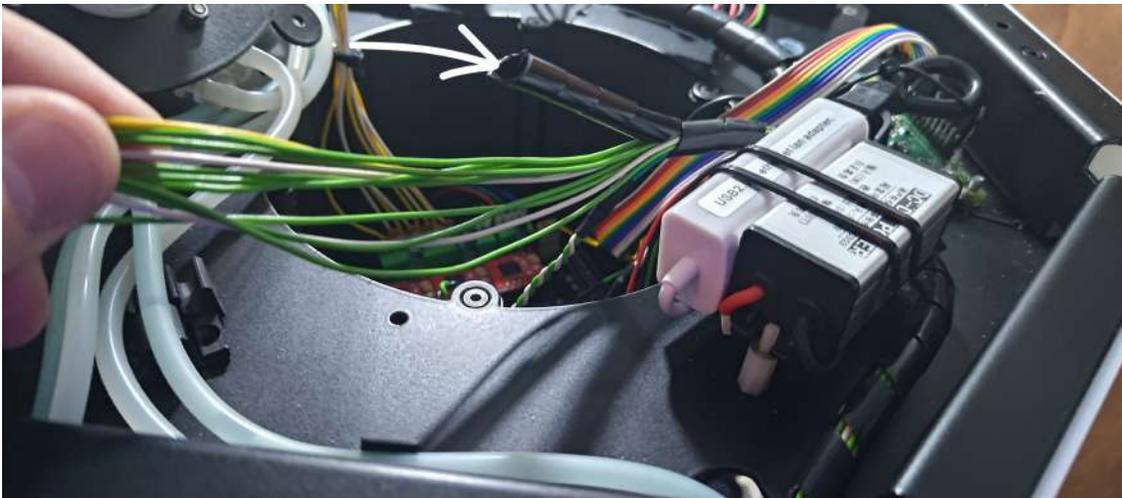


10. Remove any zip ties as required.

11. Unplug connector from motor control board.



12. Remove spiral chafe guard from harness.



13. Remove 2 screws from top of test chamber. Once removed, the plastic top and O-ring should be removable



NOTE

Take note of which water line goes to the top and bottom of the test chamber.
This is important to ensure the chamber drains properly when installing new test chamber.

14. Carefully remove old hoses from test chamber. These might tear instead of coming off, this is ok.



15. Feed connector and harness down and once enough slack is available set test chamber on surface.

16. Continue to feed harness and connector through the frame. The connector will need to be tilted vertically to pass through frame.



17. Remove stirrer and harness from Bot, set aside.

18. Carefully, lift magnetic stirrer head while supporting assembly. Ensure you lift straight up to prevent damage to mechanism or shaft.



Install

1. Feed the harness and connector through the frame. Be careful to prevent the harness from being drug across the edges in the frame unnecessarily to prevent cutting into the wire insulation. Additionally, the connector will need to be vertical in order to pass through the frame.



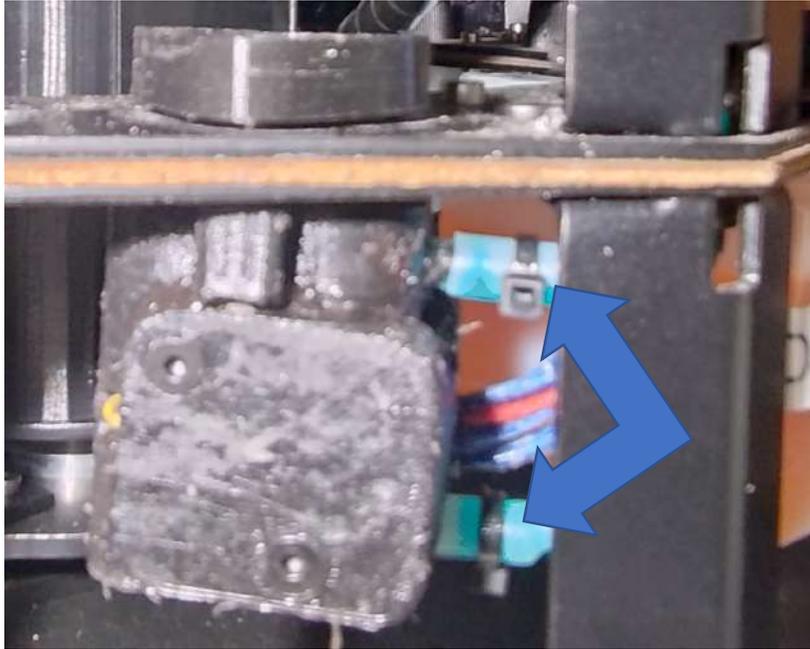
2. Route the harness to the right of the Ethernet adapter mount.



NOTE

It is important to ensure the tubes are connected correctly to ensure the chamber drains properly.

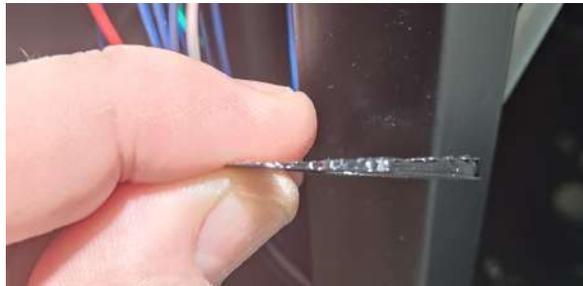
3. Connect water and drain tube's to test chamber. A small zip tie can be used to secure tubes onto test chamber. Ensure the drain is on the bottom, and fill is top.



NOTE

The spacer is tapered and improper installation can result in drain issues.

4. Place spacer on top of test chamber, thick side should be on the same side as inlet/outlet tubes. This will cause the chamber to tilt towards the drain.

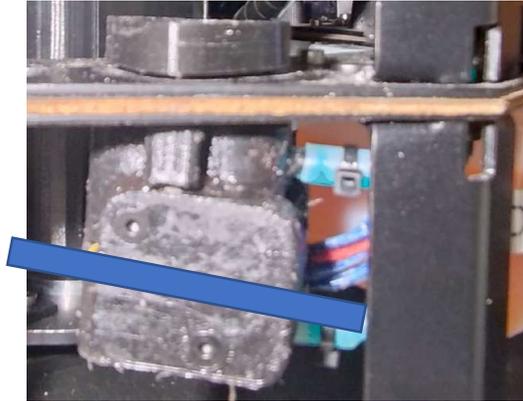


NOTE

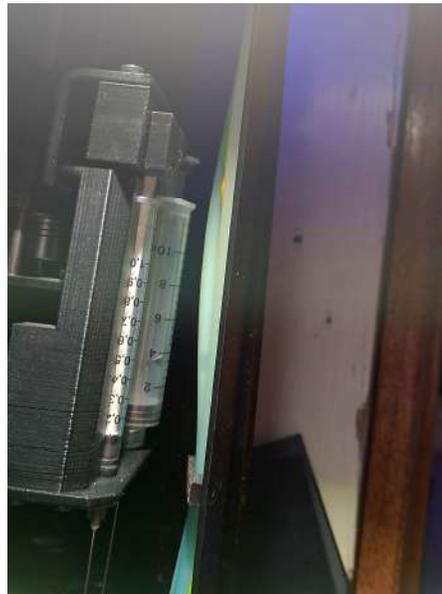
The kits comes with new screws there are slightly smaller than original.



5. Feed test chamber through bottom of frame. Install O-ring, cover and 2 new screws.
6. Verify the test chamber leans in the correction direction. If not, go back to step 4.



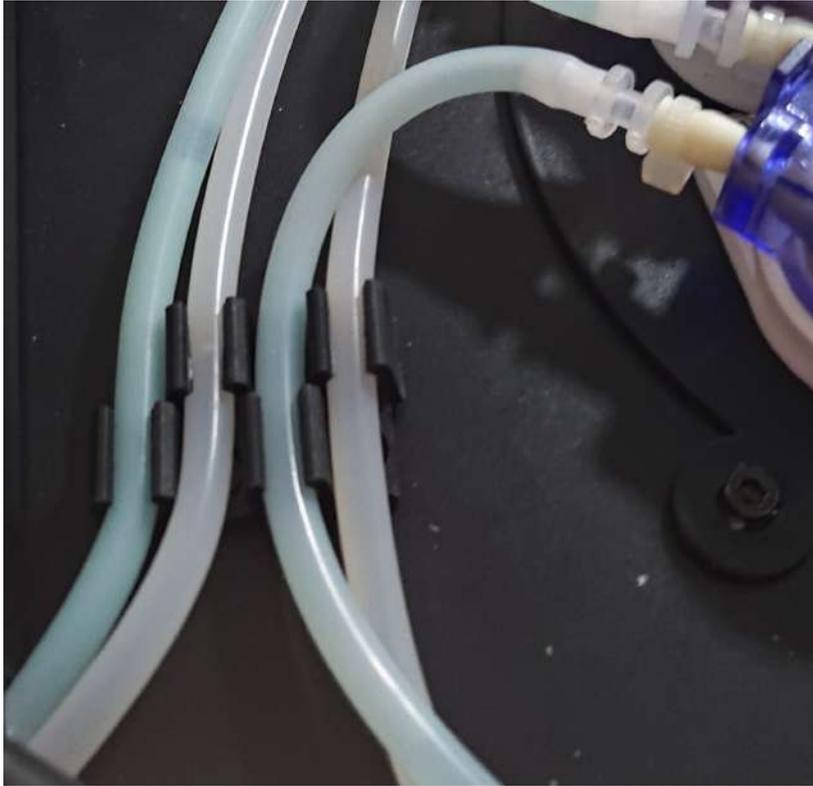
7. Install spiral chafe guard.
8. Install clamps on inside frame. Ensure no wires or tubes are pinched.



9. Install zip ties to wire harness in order to prevent syringe mechanism from snagging during operation.

Do NOT zip tie water tubes to harness this could cause a pinch to the tubes and block flow.

10. Gently pull any excess wire or tubes into top of machine. Secure wires with zip ties. Tubes can be pulled in their channels to help with slack.



11. Connect harness to motor control board.
12. Replace doser panel into place. Verify all wires go through pass through and are not pinched.
13. Re-install Ethernet adapter. Correct installation on top of each standoff should be washer, adapter, washer, nut.

NOTE

Before installing top panel double check all hoses and harnesses.

14. Manually spin syringe mechanism around to ensure the harness and tubes will touch or snag.
15. Reinstall top of Reefbot
15. Add 2 small magnetic pills to the test chamber.



16. Install new magnetic stirrer head onto motor spindle.



17. If syringes were removed in step 4 of the removal, re-install.

18. Reconnect RODI, tank, and drain tubes to back of machine.

19. Plgs Bot back in and wait for blue light.

20. Run the 'Prime' test from the app/dashboard.

21. Recommend running test and verify results with manual test.