FAQ Sheet
TURTLEBOT 4

Standard version:
https://www.generationrobots.com/en/404088-robot-mobile-turtlebot4-tb4-standard-version.html

Lite version:
https://www.generationrobots.com/en/404087-robot-mobile-turtlebot4-tb4-lite.html

User Manual and Tutorials:
https://turtlebot.github.io/turtlebot4-user-manual/setup/basic.html

Contact

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In case of issues with your robot: help@generationrobots.com

1) General instructions to be reproduced

1- Check the cables between the Rpi and the PCBA (black) and between the Rpi and the Create3 base.

- Instructions for the Create3 database
- Instructions for the Raspberry Pi

2- Switch off the robot by holding down the large button on the base for 7 seconds (music will play when the robot is switched off). Open the robot from the bottom and remove the battery. Wait a few minutes, then reinstall it. Restart the robot by placing it on its recharging base.

3- Check that the Rpi is powered by looking to see if a green LED is lit on the back of the robot. If this is not the case, make sure that the USB cable linking the base power adapter to the Rpi is properly connected (Instructions).
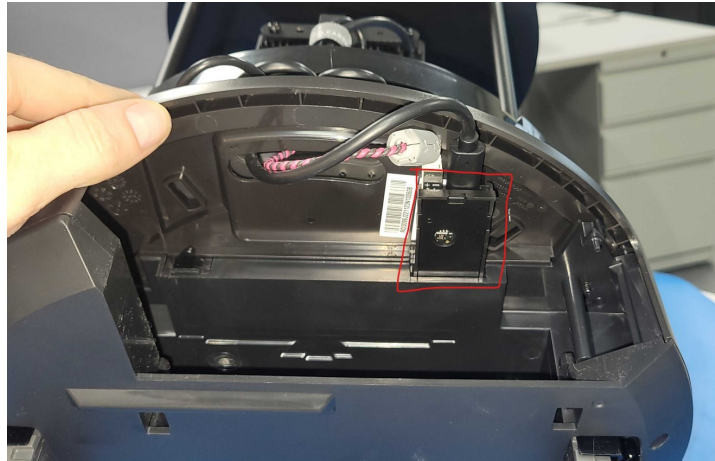
4- Reinstall the Rpi SD card by following this link to return the Raspberry Pi to factory defaults. Make sure you back up your data before reinstalling.
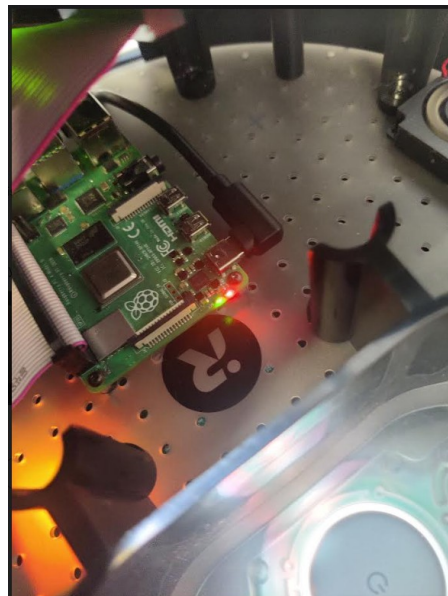
2) Troubleshoot

This section provides general answers to help solve common problems.

Is your robot not powering up correctly? Neither the screen nor the LEDs light up when the robot starts up?

If the base lights up on the dock but the rest of the robot doesn't respond, the power may not be reaching the Rpi card. To solve this problem, check that the USB-C cable between the Create3 base adapter and the Rpi is properly connected on both sides. Also make sure that the adapter is correctly connected to the base.

If the cable is correctly connected, you should see a green LED light up on the Rpi card.

Does the base of the robot only stay on when it is in the dock?

→ If your robot's base lights up white on the charging station but goes out when it is no longer there. Try a new USB-C cable or another adapter. If it still doesn't work, it's probably the battery that's completely discharged and refuses to charge on the dock.
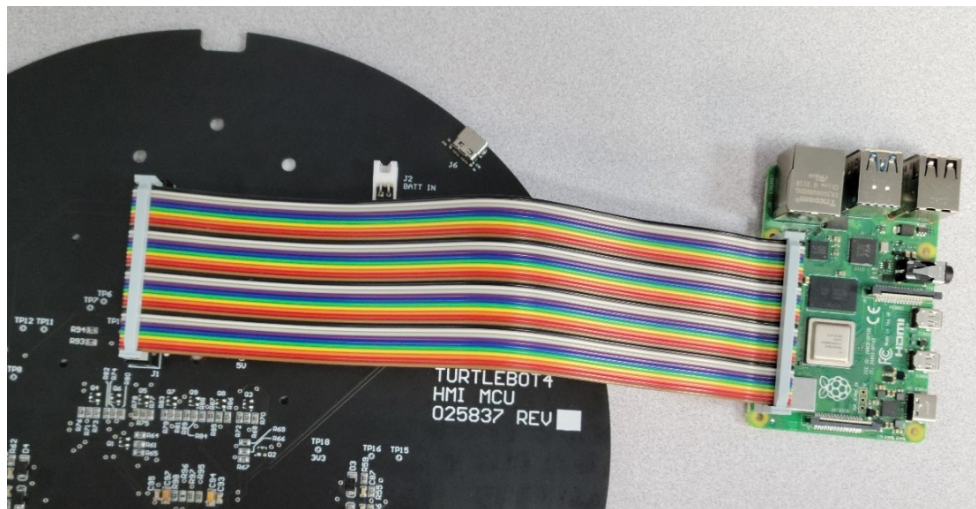
In this case:
- Remove the battery for 15 minutes.
- Remove the adapter.
- Replace the battery.

- Charge it without the adapter to discharge it.
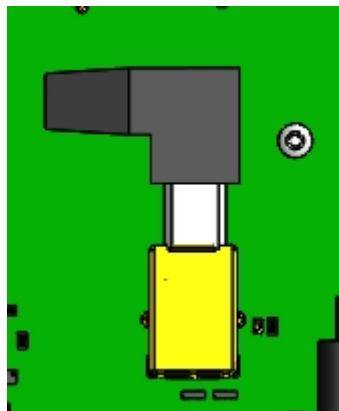- When this is done, replace the adaptor.

The screen and LEDs don't light up even if the Rpi is switched on?

→ It may be a wiring problem between the Rpi and the PCBA. To do this, check the following connections:

- The 40 braided cables must run in the following direction:

- The USB-B cable enables communication between the USB-C ports and not just the power supply:

If the connections are secure and this does not resolve the problem, try removing the battery from the Create3 base for several minutes and reinstalling it.

The robot won't move, even if the Raspberry Pi is properly configured.

→ This means that the Create3 base is probably not correctly connected to the Rpi. Normally, only 3 out of 5 LEDs are lit, like this:

To solve this problem, follow these instructions:

1. Check that the USB-C cable from the Create3 base unit is connected to the Rpi.

2. Check your network configuration (Discovery Server or Simple Discovery). If one doesn't work, try the other. You can find more information at this link

3. If this still doesn't work, reset the Create3 database, which will unlink all the associated networks. You can find out how to do this here

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After configuring my network to the robot, the IP address is generated incorrectly (not in the form 198.168.0.XXX) The Rpi cannot connect correctly to create3

→ Try reflashing the Rpi SD card image by following these instructions.

My controller won't connect to the robot

→ Put your controller in fitting mode and run the script downloaded upstream. You can find the instructions here