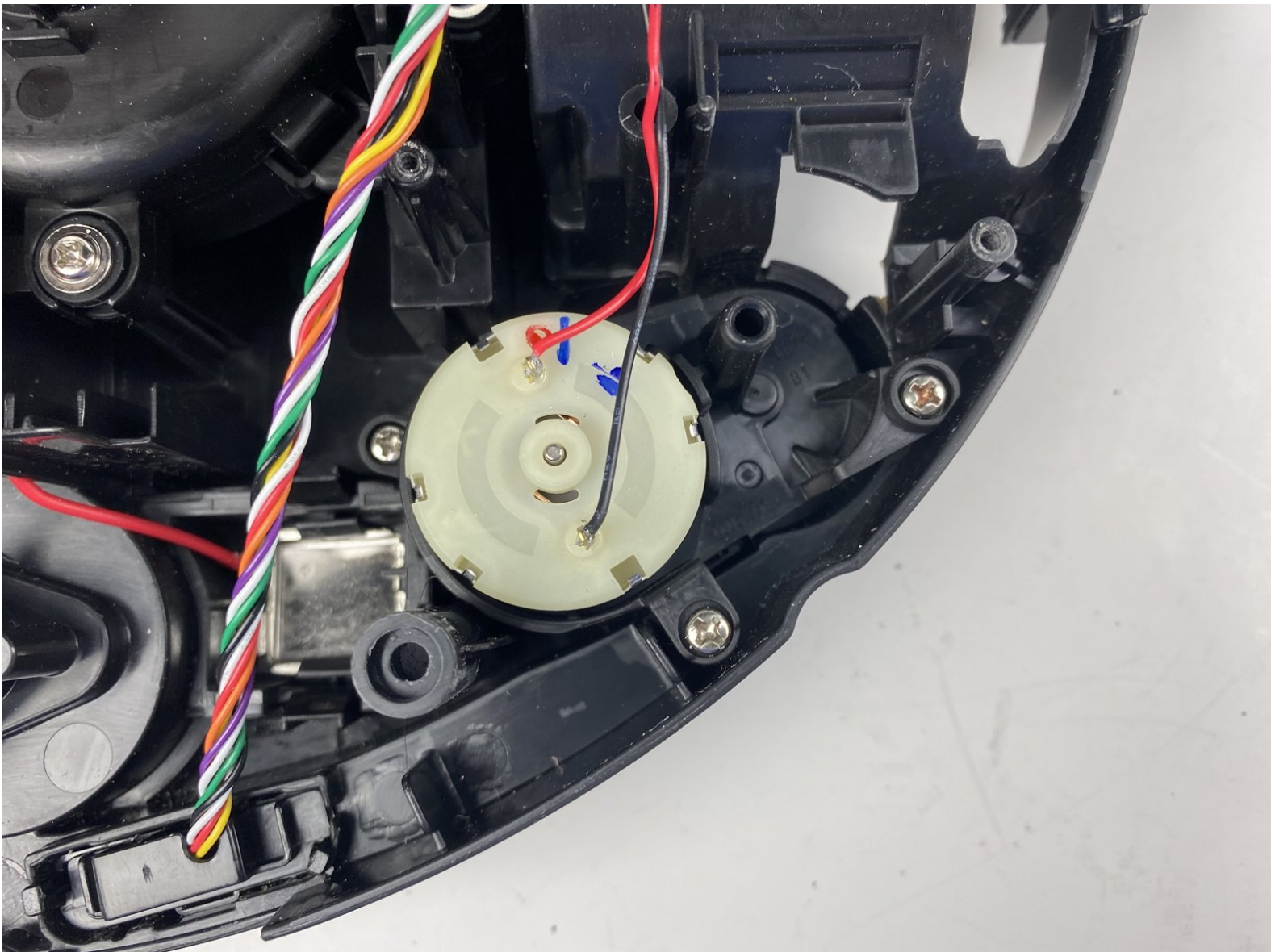




Shark ION Robot R75 Side Brush Motor Replacement

If the side brush motors on the Shark ION Robot R75 ever give out this guide will help you gain access to this area for replacement of the motors.

Written By: Andrew Lowy



INTRODUCTION

The side brush motors power the two side brushes on the Shark ION Robot R75. If your Shark ION Robot still functions without side brush movement and the brushes have already been replaced, this guide will show the process of replacing a burnt out or malfunctioning side brush motor. This guide is a bit more involved than some of the other simpler guides, so be patient and follow step by step. You will want to follow this guide in the event that either your brush motors fail, or in case your charging contacts need to be replaced.

TOOLS:

- [Phillips #1 Screwdriver](#) (1)
 - [Phillips #00 Screwdriver](#) (1)
 - [TR9 Torx Security Screwdriver](#) (1)
 - [Tweezers](#) (1)
 - [T15 Torx Screwdriver](#) (1)
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Step 1 — Battery



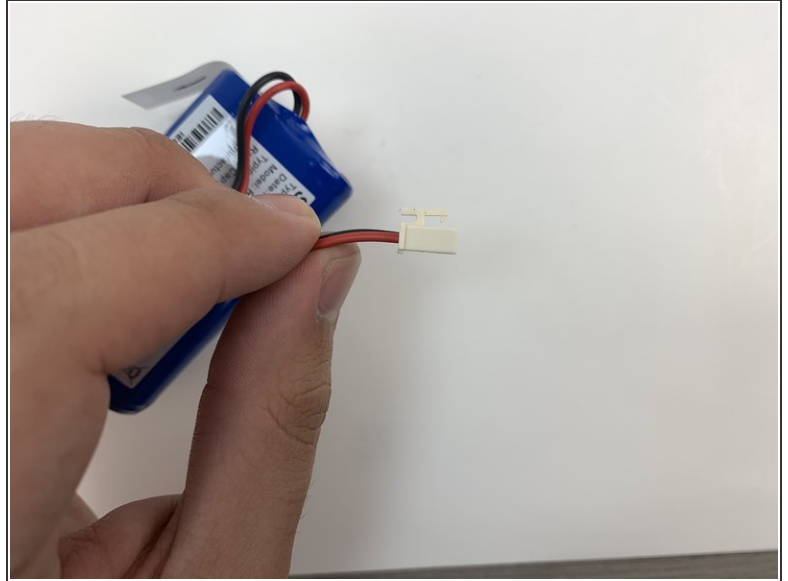
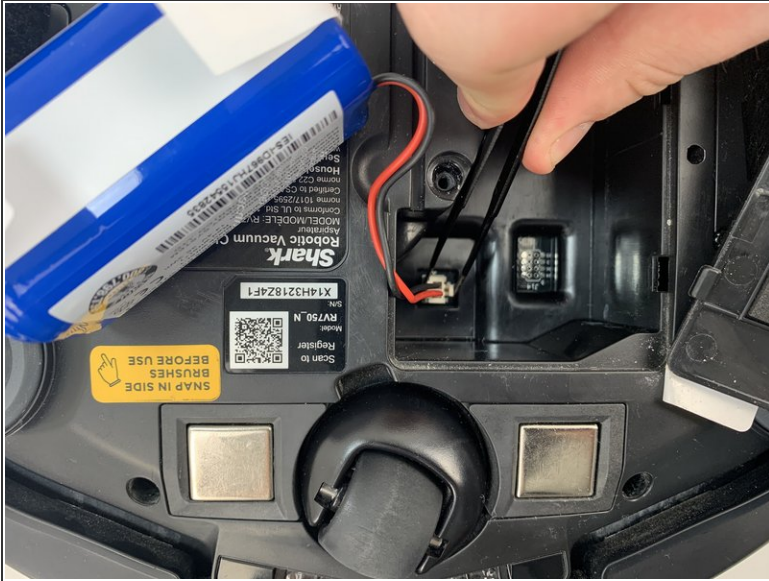
- ❗ Make sure the robot is shut off by pressing the power button on top.
- Flip the R75 over so that the underside is facing up.
- Using a Phillips #1 screwdriver, remove the 4mm screw in the battery cover.
- Remove the battery cover.


Step 2



- ❗ Be careful when removing the battery, as it will still be connected to a wire.
- Slowly pull the white tabs outward to remove the battery.

Step 3



 Be careful when removing the connector, as the part can break if too much force is used.

- Push down on the tab of the battery connector using a set of tweezers and pull the connector away from the robot to free the wire.
- Remove the battery from the device.

Step 4 — Main Brush



- Push on the two tabs on the edge of the main brush cover and pull up to remove the cover.

Step 5



- Pull the main brush slightly to the right to remove it from the compartment.

Step 6



- Remove the rubber end cap indicated by the red circle.
- ✦ This step is not needed for a replacement. However, it is important for maintenance. Hair will build up in this area over time, and will cause error messages to pop up, as well as stopping the R75 from cleaning and moving.
- i Inspect this component at least every six months. This time may be less if you have animals.

Step 7 — Side Brush



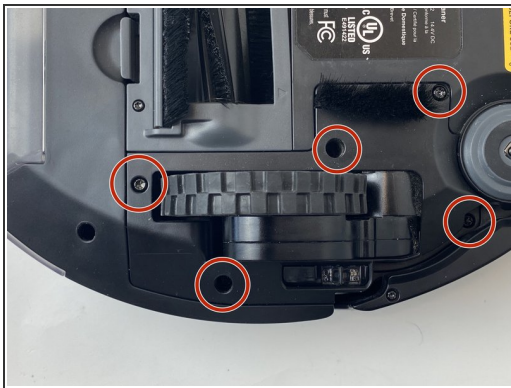
- Grab the side brushes by the plastic tab at the base of the bristles, and gently lift up.
- i It's recommended to clean the area with a dry microfiber cloth during replacement, as debris can collect beneath the brush during use.

Step 8 — Drive Wheel Assembly



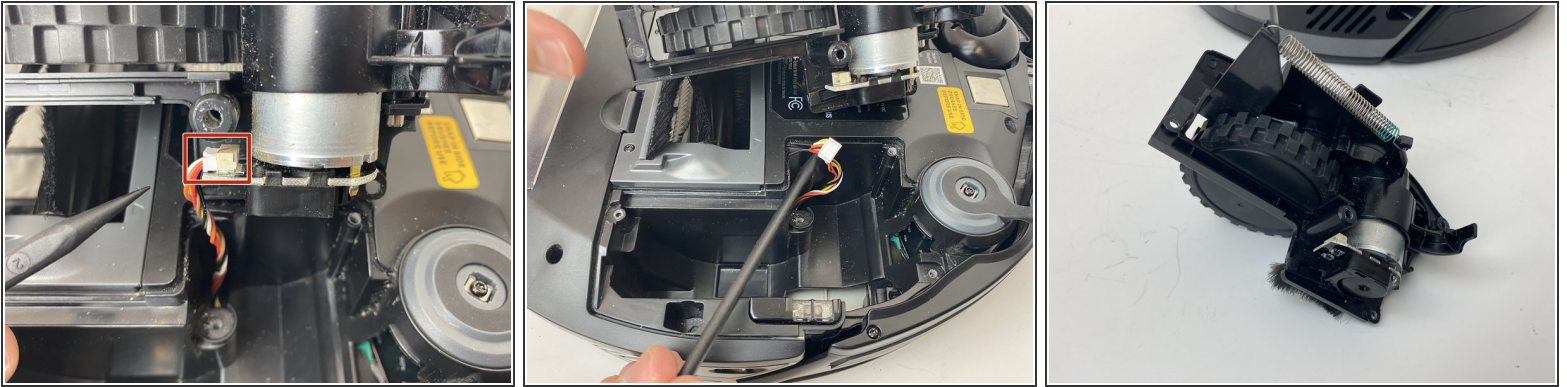
- Flip the R75 to its underside.
- Make sure the R75 is shut off.
- ⓘ For extra security, disconnect the battery by following the prerequisite guide.

Step 9



- Using a Torx T15 screwdriver, remove the five screws from the drive wheel assembly.
 - Carefully lift the drive wheel assembly from the wheel well by gently pulling up on the wheel.
- ⚠ The assembly will still be connected to the motherboard via a cable, so be sure not to pull so hard that the cable rips.

Step 10



- Flip the wheel assembly over and disconnect the cable connector on its underside.
- Remove the drive wheel assembly.
- ⓘ Repeat this process for the other side if necessary.

Step 11 — Shark ION Robot R75 Caster Wheel



- Orient the device with the bottom facing up.

Step 12



- Using a plastic opening tool, pry first one side of the wheel, then the other out of the caster.
- Remove the wheel.

Step 13



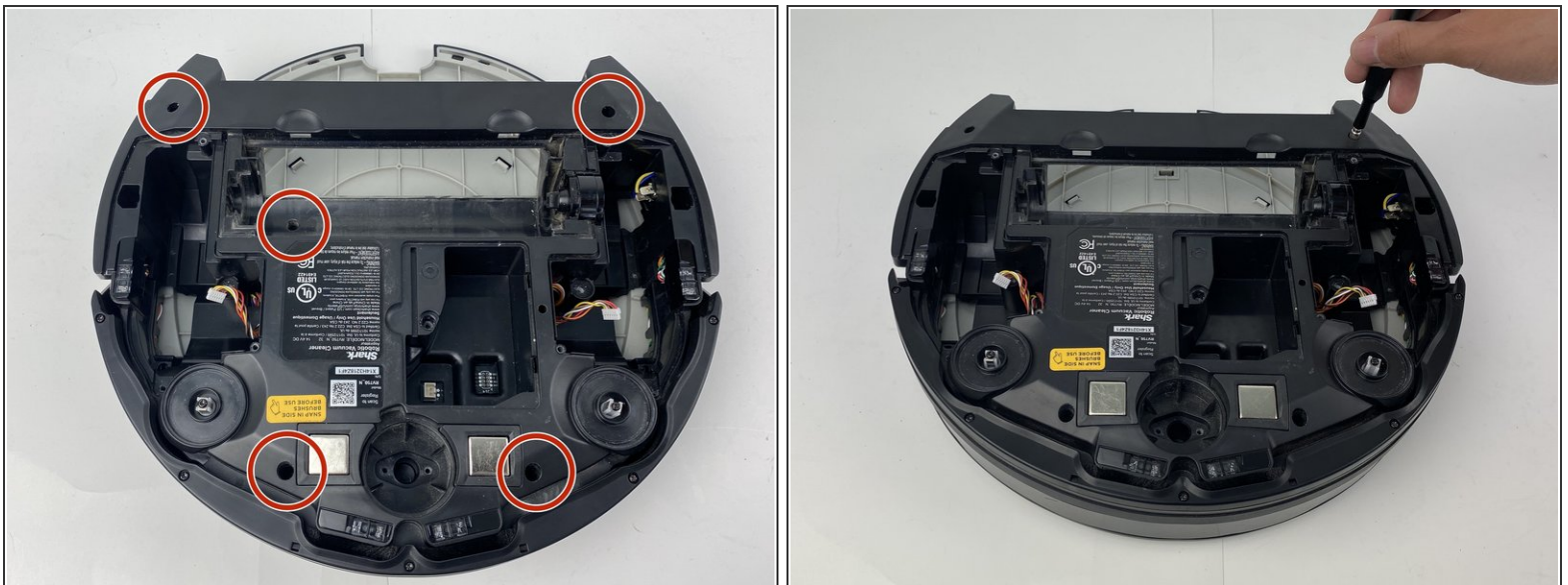
- Using a Torx TR9 screwdriver, remove both screws from the caster assembly beneath the wheel.
- Pull the caster assembly up from its slot in the device.

Step 14 — Top Cover



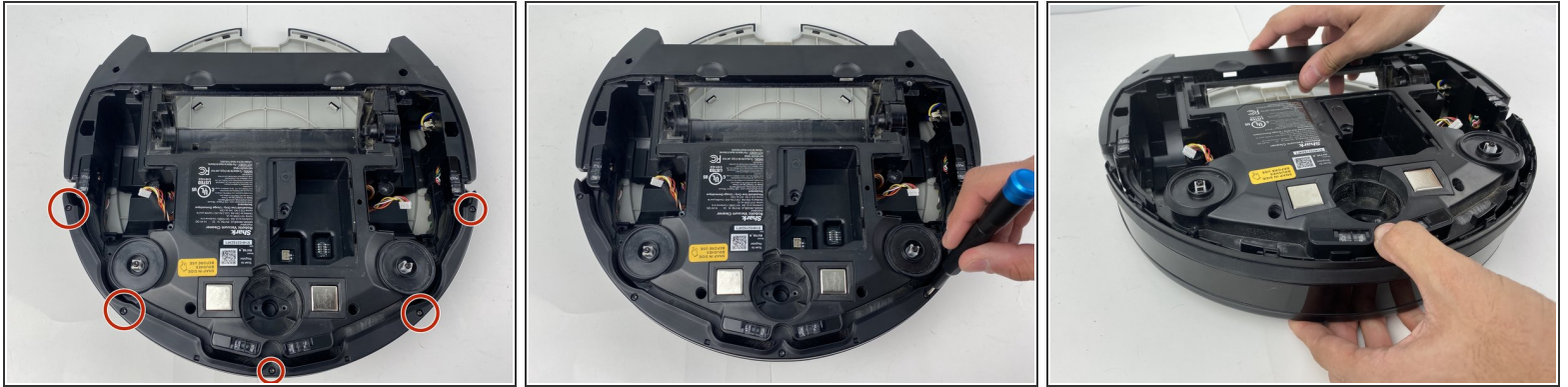
- Push down on the black tab and remove the dust bin

Step 15



- Using a Torx TR15 screwdriver, remove the five screws from the bottom cover.

Step 16



i Make sure the robot is facing rearward

- Using a Torx TR15 screwdriver, remove the five screws along the front edge of the device.
- Pull the bottom part of the bump guard away from the body of the device.

Step 17

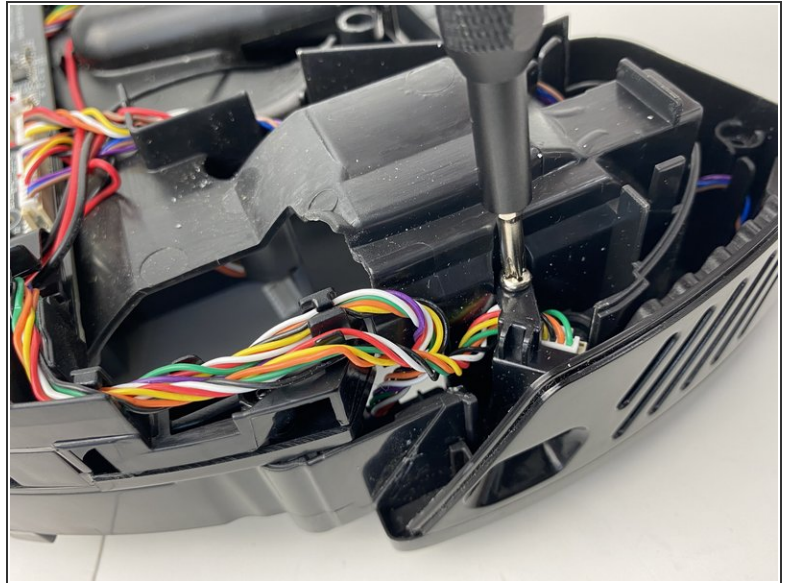
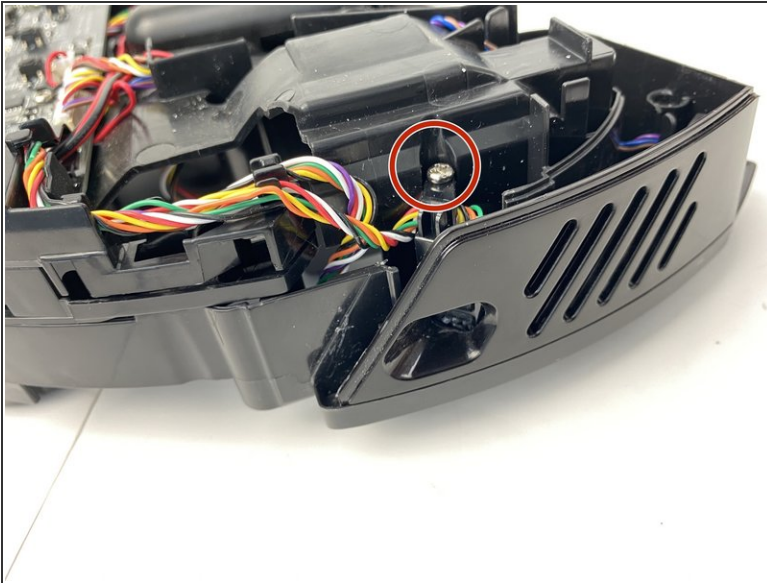


- Lift the top cover up from the rear of the robot to separate the top cover from the rest of the robot.

! Be careful when separating the top from the rest of the robot, as the plastic clips can break if excessive force is applied.

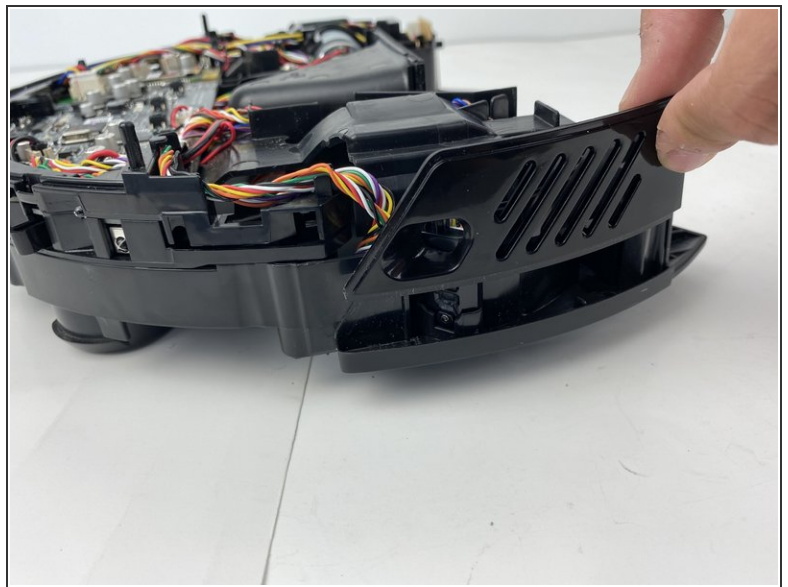
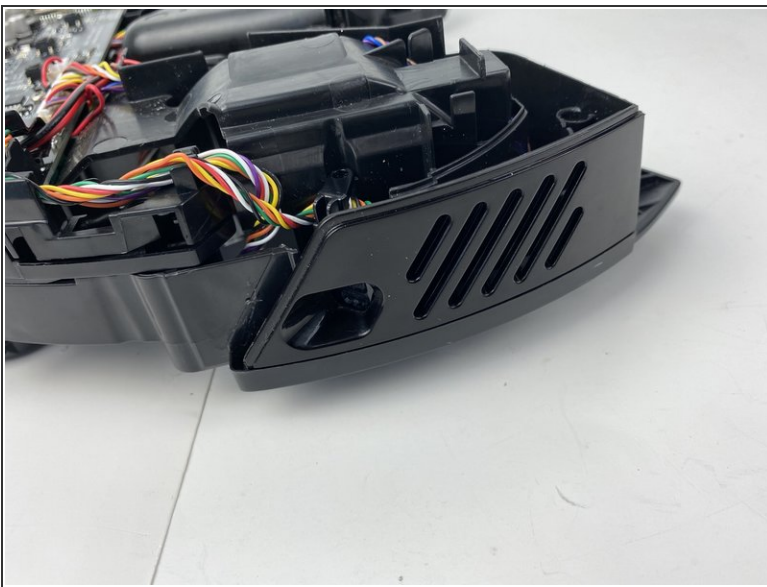
i From here, easy access to all sensors, the main brush motor, and the fan are all granted.

Step 18 — Side Sensor



- Using a Phillips #00 screwdriver, remove the screw holding down the diagonally vented side cover.
- Slide the sensor out from the base of the robot

Step 19



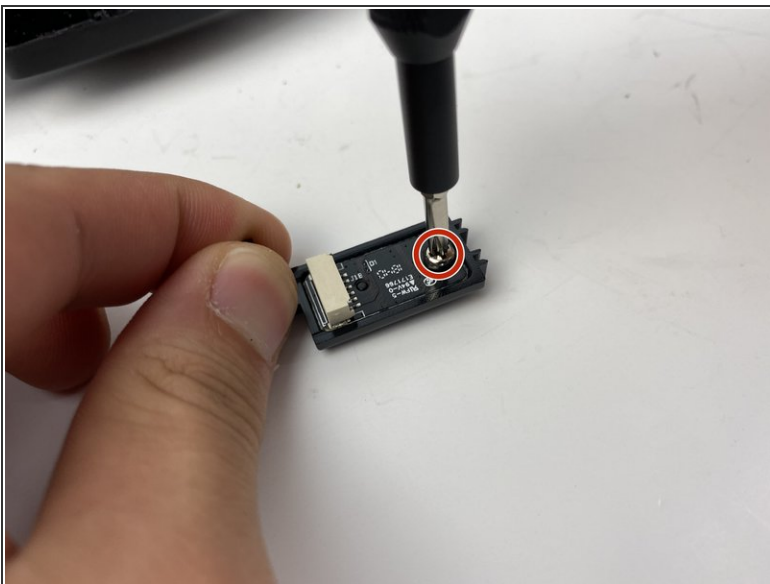
- Lift up the diagonally vented cover on the side of the robot containing the side sensor.

Step 20



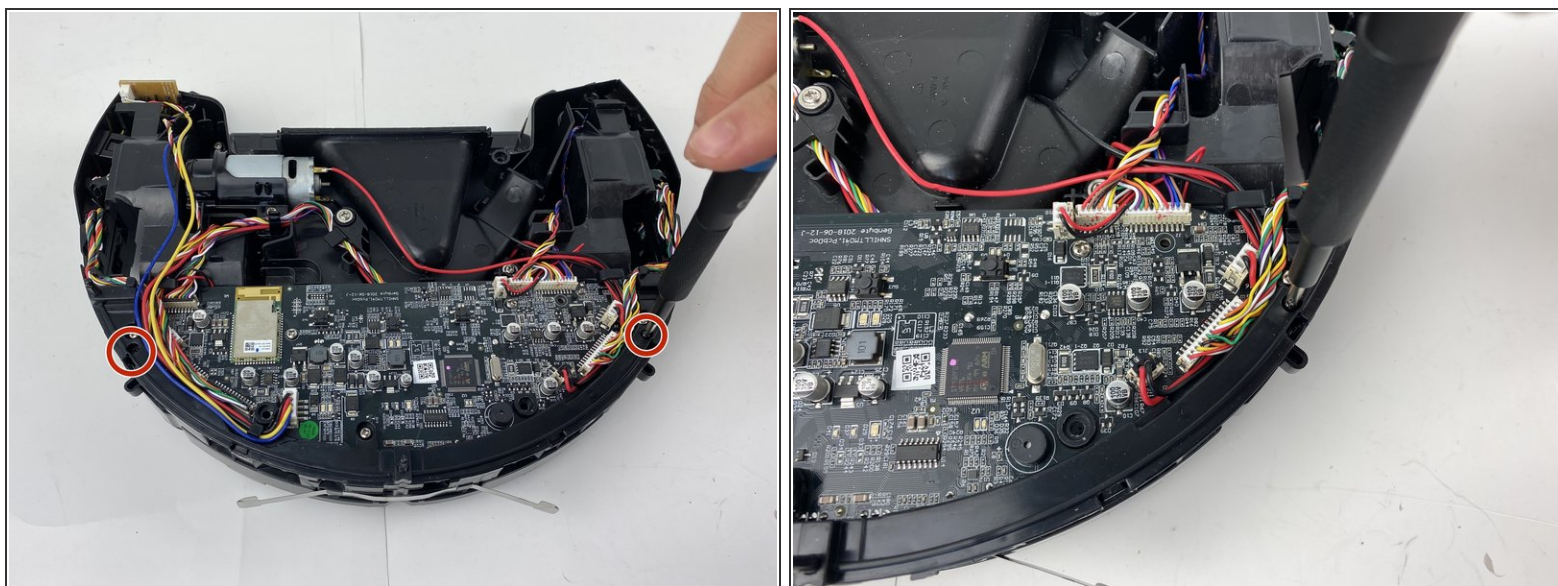
- Disconnect the white connector from the sensor.

Step 21



- Using a Phillips #00 screwdriver, remove the screw on the sensor.
- Remove the sensor from its mount.

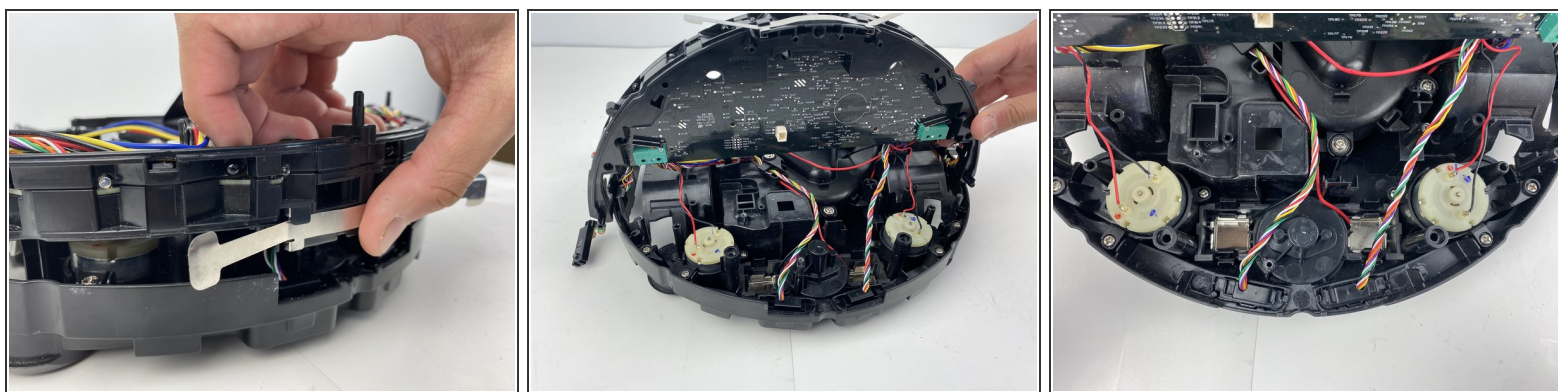
Step 22 — Side Brush Motor



i Make sure that both the left and right side sensors have been removed from their compartments.

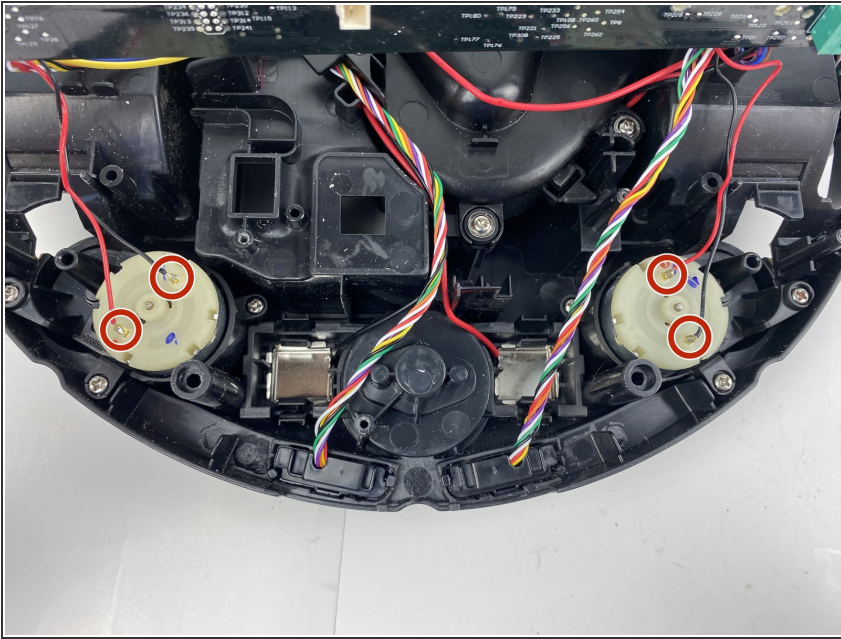
- Using a Phillips #0 screwdriver, remove the two screws on either side of the motherboard.

Step 23



- Place your fingers in the groove right above the bump sensor.
- Carefully lift the motherboard and plastic assembly up to expose the motors and charging contacts.

Step 24



- Lift the malfunctioning motor from its slot in the device.
- Desolder the two connections on the faulty motor.
- ⓘ If you're unfamiliar with soldering techniques and best practices, check out our [How to Solder and Desolder Connections guide](#)!

To reassemble your device, follow these instructions in reverse order.