![iFixit logo]
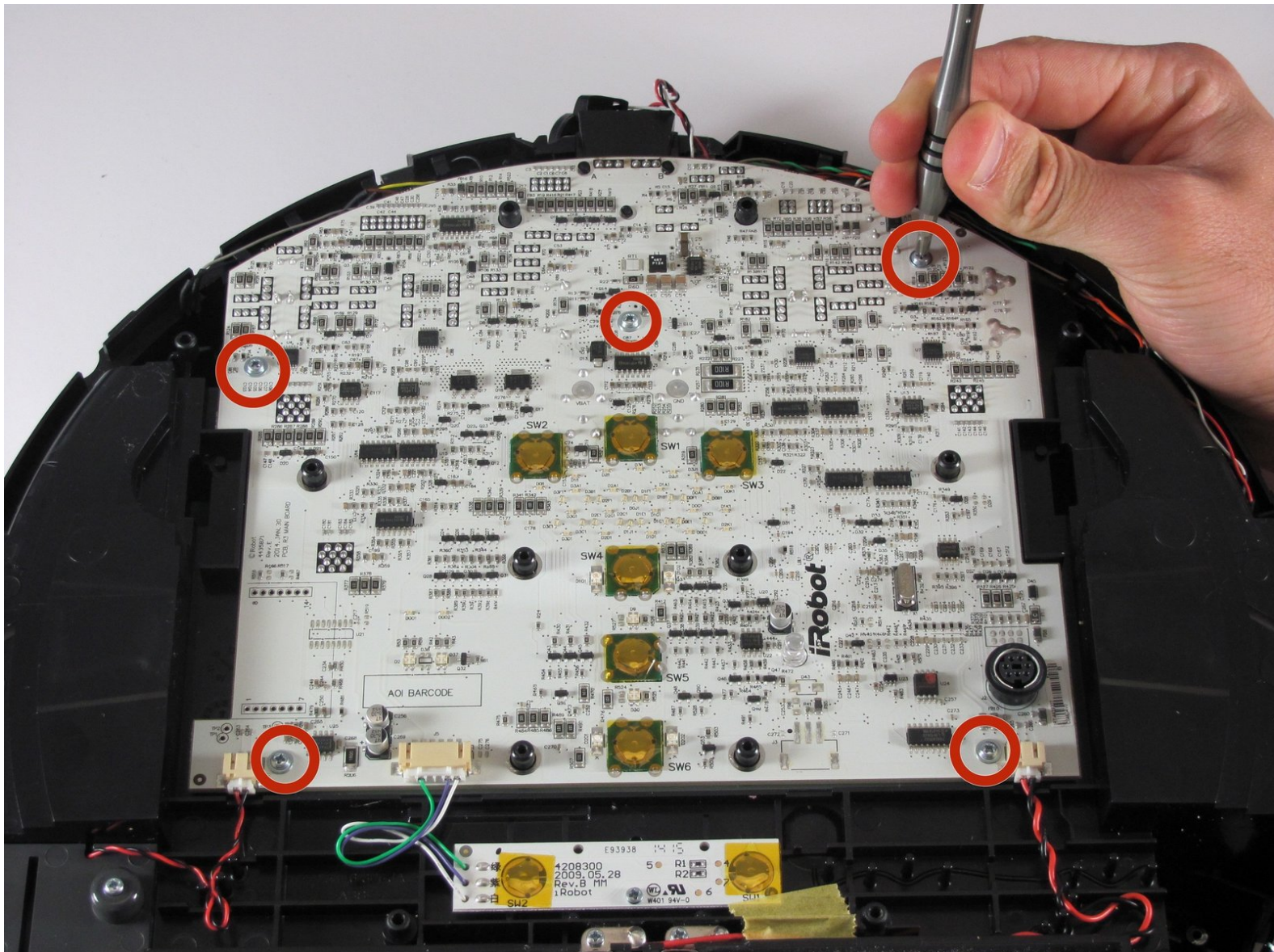
iRobot Roomba 655 Pet Series Motherboard Replacement

How to replace the motherboard on your Roomba.

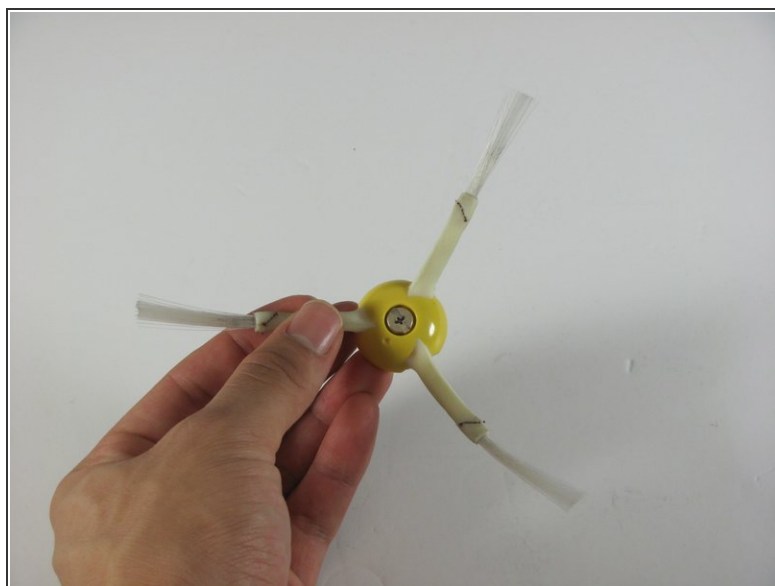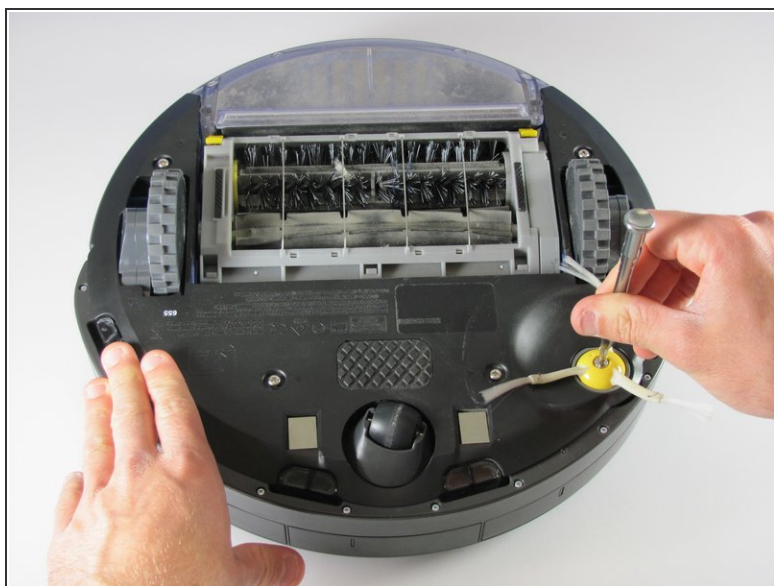Written By: Matt Davis

INTRODUCTION

Dealing with a motherboard is a very delicate process. Please make sure you are careful because you do not want to break your device. Make sure to stay away from magnets when dealing with this type of hardware and to not pull on the wires too hard.

TOOLS:

- Phillips #0 Screwdriver (1)
- Phillips #1 Screwdriver (1)
- Phillips #2 Screwdriver (1)

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Step 1 — Removing the Side Brush

- Flip the device over onto its back.

- Find the side brush, and unscrew the single screw that connects to brush motor by using the Phillips head #2 screwdriver.

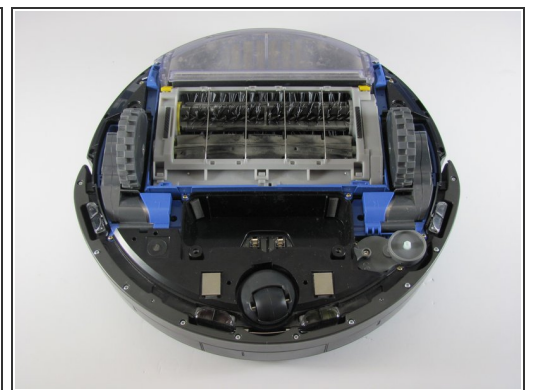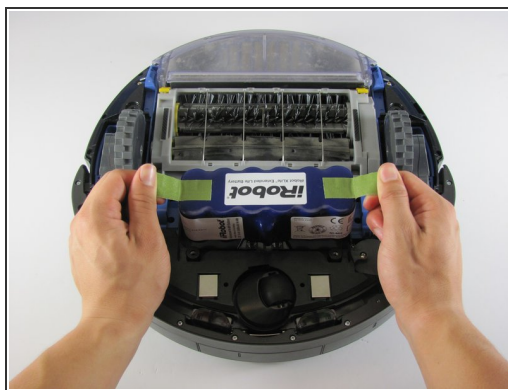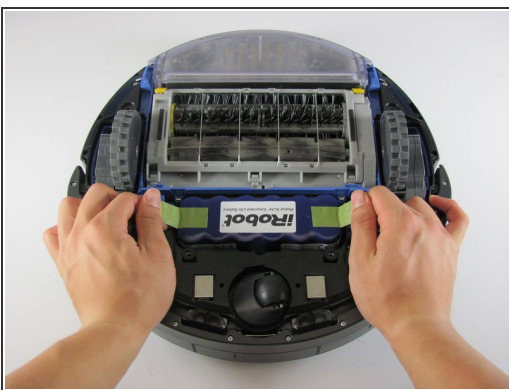*(i) This screw doesn't completely come out of the yellow side brush.*
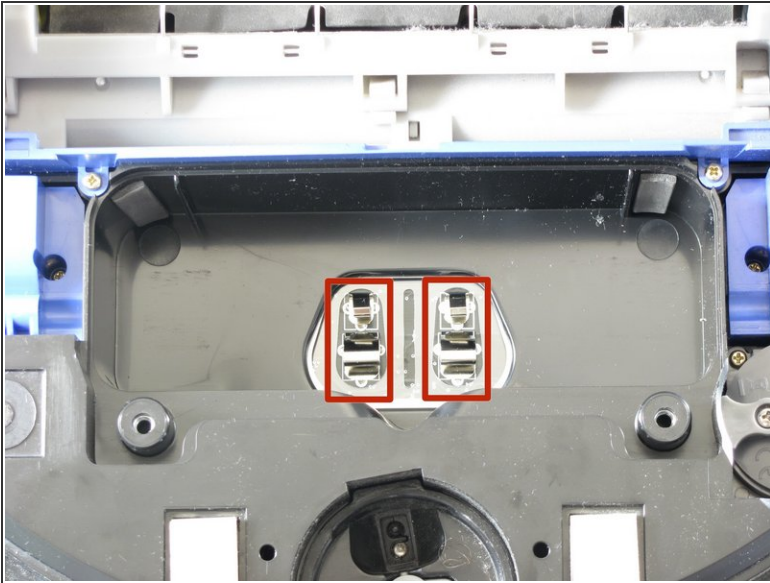
Step 2 — Removing the Back Panel

- Using a Phillips #1 screwdriver, remove the four screws on the back panel.

- Once the screws are loose gently pry the back plate away from the body by using the spudger tool.

- *The screws don't completely come out of the panel, but it will still come apart once unscrewed.*
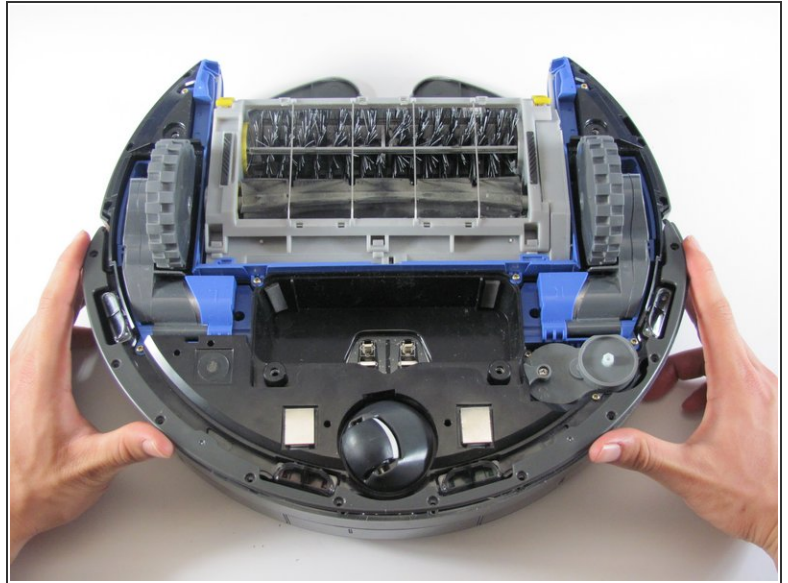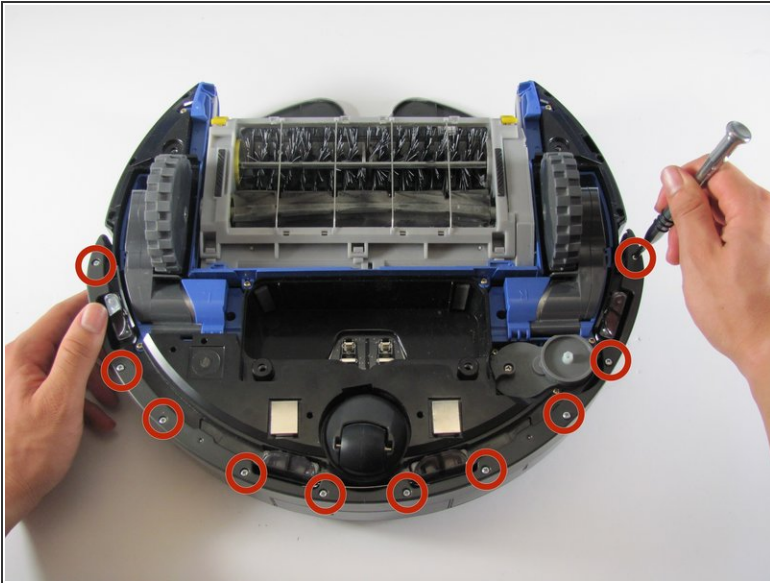
Step 3 — Removing the Battery

- Grab the two pieces of green tape with your thumb and index finger

- Pull up on the battery in an upwards direction to remove it

Step 4 — Battery Contact Points

- These are the contact points on the Roomba for the battery

- These are the contact points on the battery

- (i) If these contact points are dirty, they can be cleaned with a moist microfiber cloth (distilled water recommended)

Step 5 — Front Bumper

- Remove the ten 11mm screws that hold the front bumper to the plastic bumper protector with your Phillips #1 screwdriver.

- Pull the plastic bumper protector up and off of the bumper.

Step 6

- Flip the Roomba back over, so you are viewing the top.

- Pull up on the front bumper to remove it.

  ⚠ Be careful not to pull too hard because there is wiring attached to the bumper.

- Remove the two 7mm screws with your Phillips #1 screwdriver, holding the wire sensors in place to the front bumper.

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Step 7 — Front Face Plate

- Remove the dust bin by pushing on the button for the dust bin removal
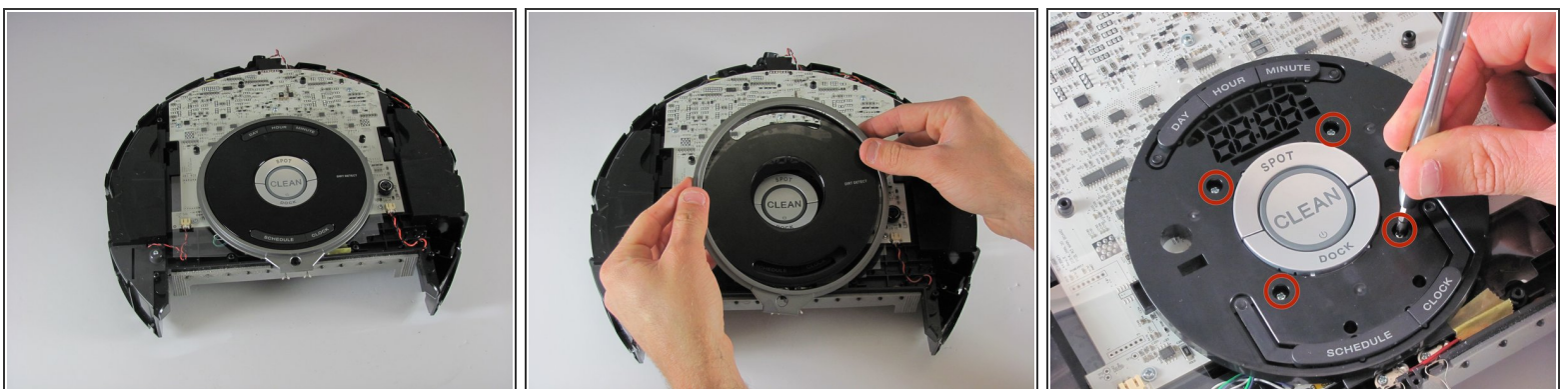
- Pull the dust bin out

Step 8

- Pull up on the silver handle to release the top protectant plastic

- Remove the top plastic carefully

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Step 9 — Internal Faceplate

- The outside six - 10mm screws and the inside set of four - 10mm screws are the same here, use your Phillips head #2 to remove them

- Use your Phillips head #0 to remove the one - 7mm bottom center screw

- Use your Phillips head #2 to remove the two - 8mm screws by the handle

- Push down the two release points to pull the plastic piece up

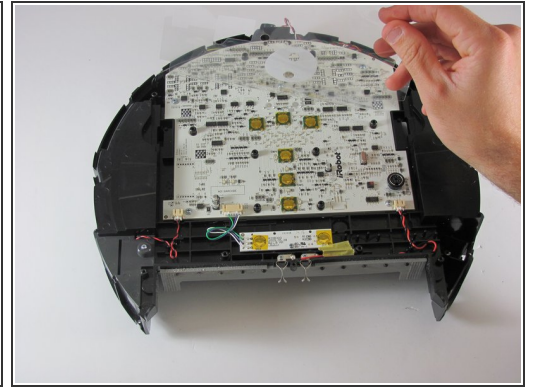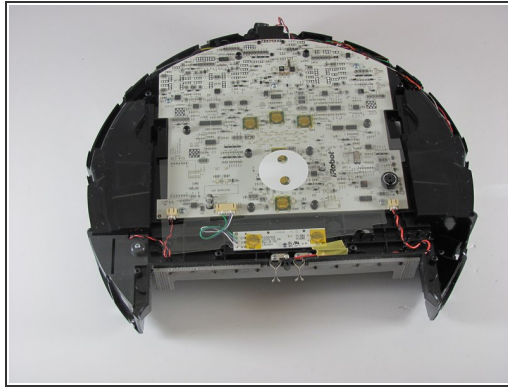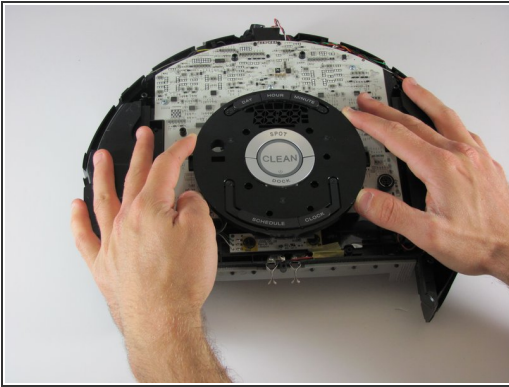- Pull the plastic piece up

Step 10 — Display

- Pull the silver tab, and clear tinted display off

- Remove the 4 - 9mm screws holding the display with your Phillips head #0

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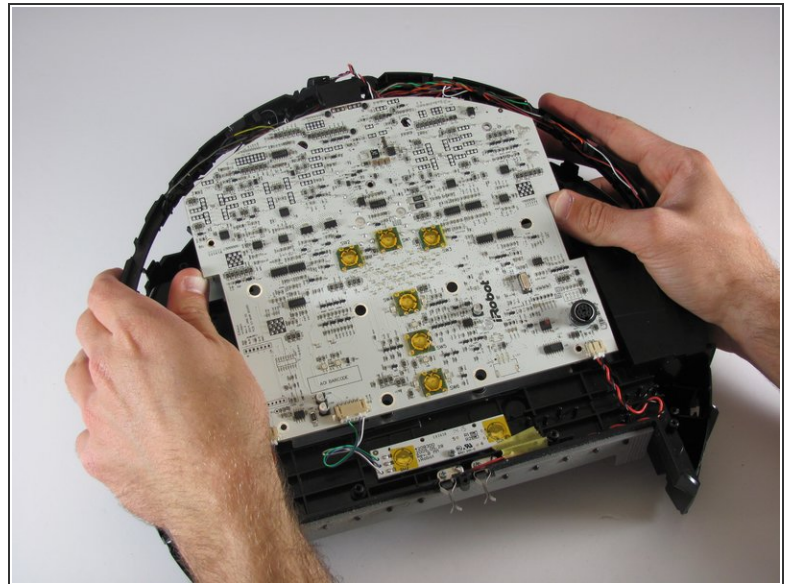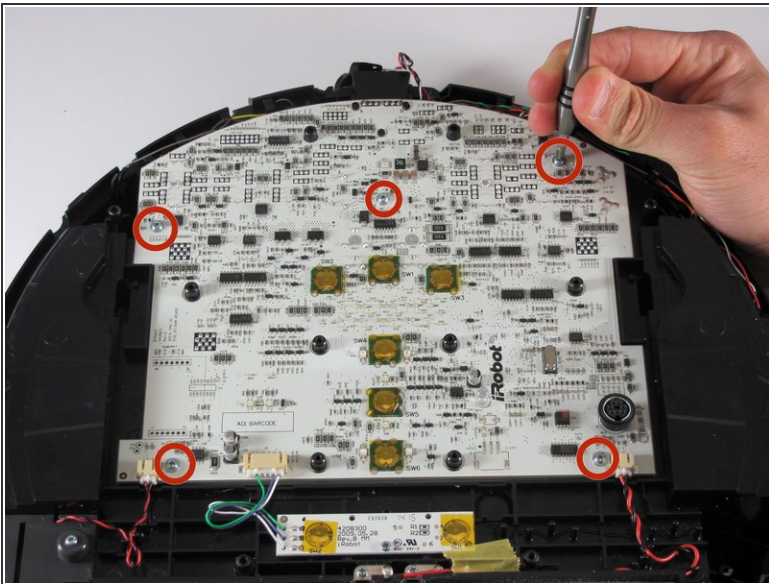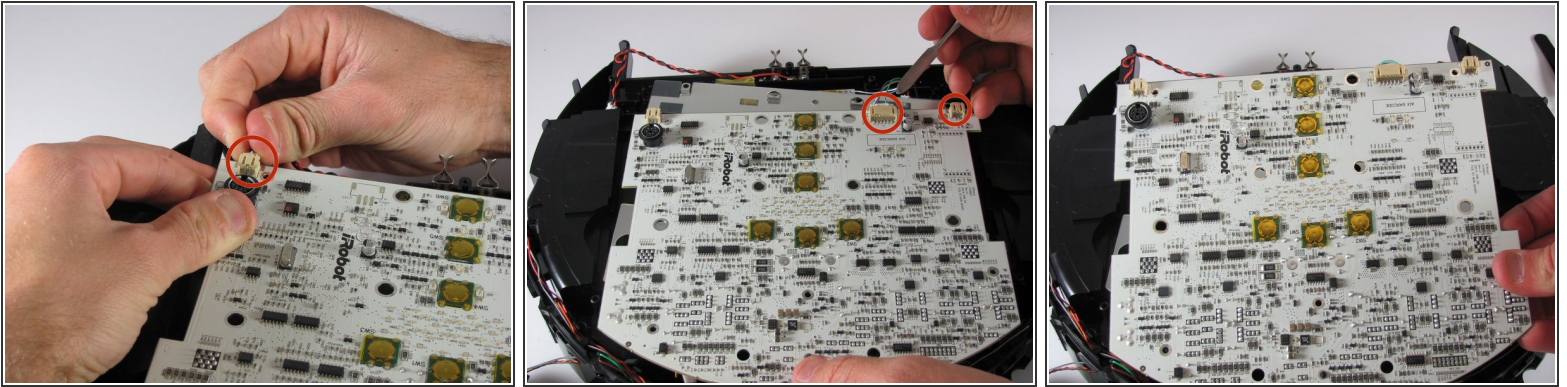© iFixit — CC BY-NC-SA   www.iFixit.com   Page 8 of 10

Step 11

- Remove the display

- Remove the plastic protectant film from the motherboard
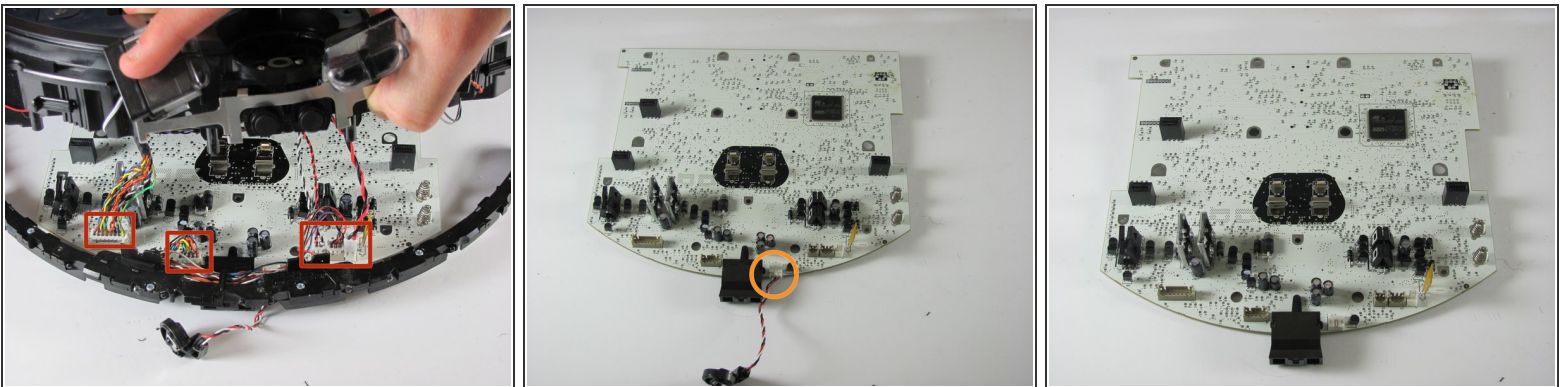
Step 12 — Removing the Motherboard

- Remove the five - 8mm screws with your Phillips head #1, holding the mother board in place to the Roomba

- Pull the mother board up off the Roomba

  ⚠️ Be careful not to pull hard because there are a lot of wires attached to the motherboard

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Step 13 — Unclipping the Wires

- Remove the three sets of wires plugged into the back of the motherboard
  - ⓘ Some of these can be difficult to remove, and you may need the help of the metal spudger

Step 14 — Unclip the Cliff Sensor Wires

- Flip the motherboard over

- Remove the five wire connections using the same method as the previous two

- Lastly, remove the bumper sensor wires from the motherboard

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