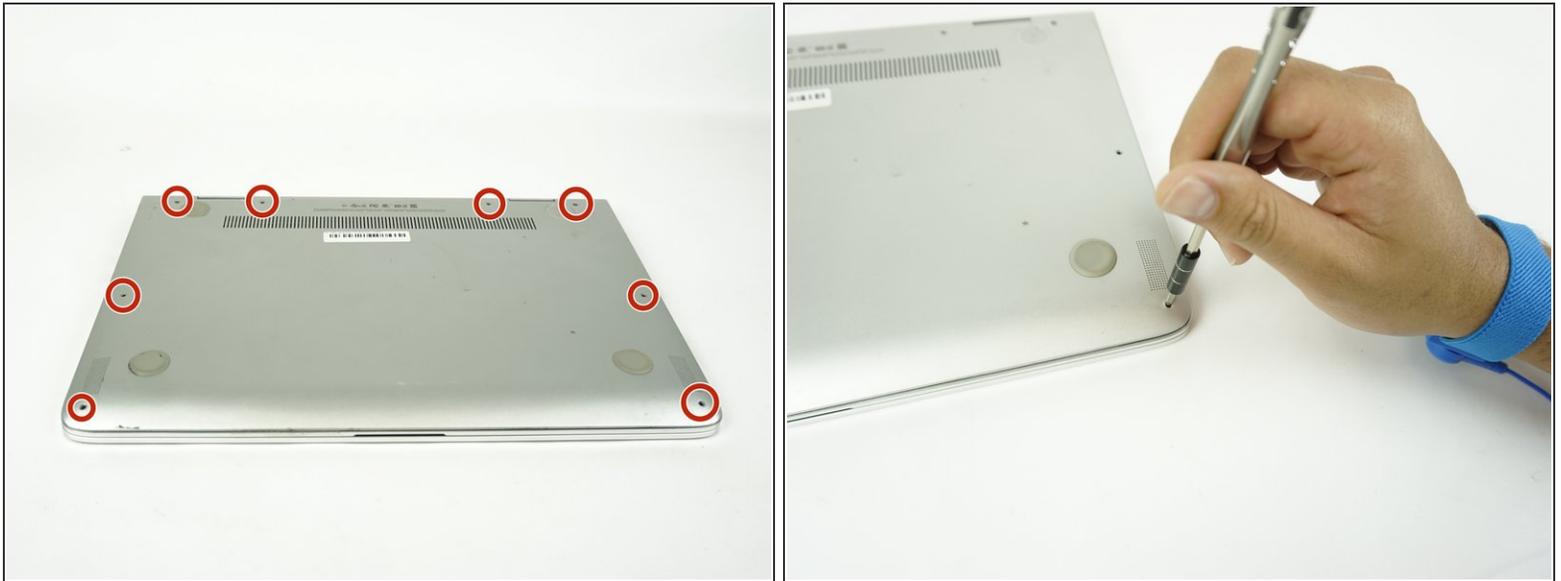

INTRODUCTION

This guide will give you step-by-step instructions on how to remove and replace a faulty motherboard. Make sure you have a clean, dry, uncluttered, and roomy work space that has good lighting before you start. Also, make sure that your motherboard actually needs to be replaced by consulting our troubleshooting guide [troubleshooting guide](#).

TOOLS:

- [Anti-Static Wrist Strap](#) (1)
 - [Phillips #00 Screwdriver](#) (1)
 - [Magnetic Project Mat](#) (1)
 - [T4 Torx Screwdriver](#) (1)
 - [iFixit Opening Tool](#) (1)
-

Step 1 — Battery



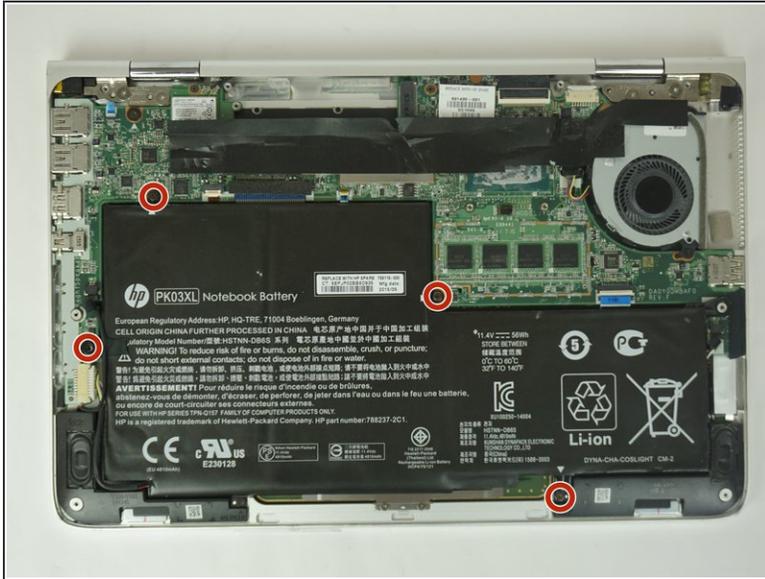
- ⓘ Before you begin, be sure to turn off your laptop and discharge the battery down to 25%.
 - Turn the computer upside down.
 - Use the T5 Torx Screwdriver to remove the eight 3.3 mm screws.
- ⓘ Make sure to use the [magnetic project mat](#) to help you keep track of the small screws.

Step 2



- Use an opening tool to pry up and loosen the back case from the laptop.
 - ⚠ If the back case doesn't loosen easily, there may be screws hidden underneath the rubber feet. Carefully pry a foot up and remove any hidden screws.
- Remove the back case.

Step 3



- Remove the four 2mm Phillips #00 screws securing the battery.
- ⓘ The screw locations are marked by small white arrows on the battery.

Step 4



- Peel off the adhesive on the left side of the battery holding the speaker wire down.
- Move the battery slightly to gain access to the battery plug, located on the left edge of the battery.
- Carefully unplug the battery by pulling the connector towards the battery.
- ⚠ Pull parallel to the battery, not straight up.
- Remove the battery.
- ⓘ It is normal for your battery to flex and bend a bit where the wider section meets the narrower section.

Step 5 — Motherboard



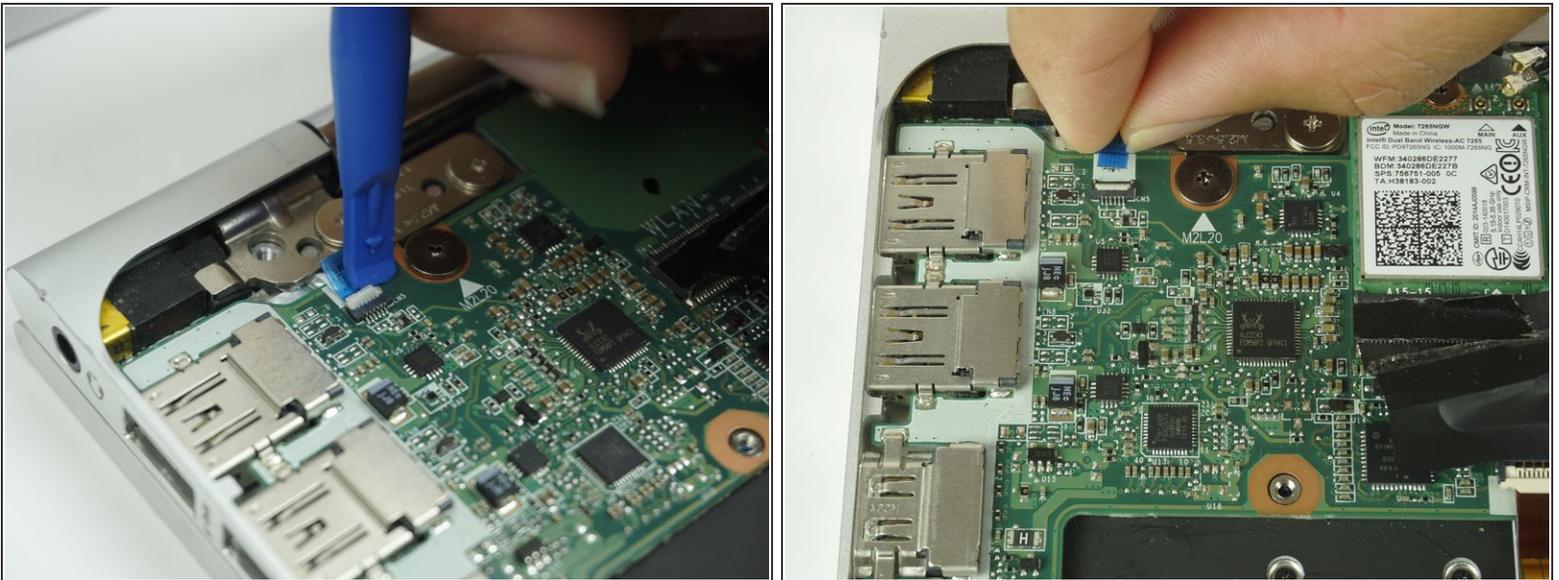
- Remove the two 2mm Phillips #00 screws from the fan.
- Disconnect the fan from the motherboard.

Step 6



- Using a plastic opening tool, disconnect the antenna wires from the WiFi card.
- Remove the single Phillips #00 screw from the WiFi card.
- Slide the module up until it is completely removed.

Step 7



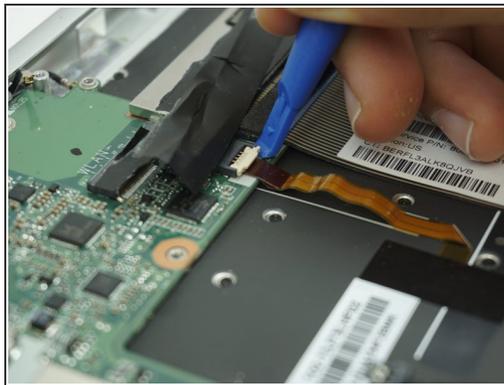
- Use a plastic opening tool to flip up the retaining flap on the ribbon cable [ZIF](#) socket.
- Pull the ribbon cable out of the ZIF connector.

Step 8



- Using two plastic opening tools, Disconnect the right speaker cable from the motherboard.

Step 9



- Identify the ZIF connector that connects the keyboard to the back light as shown in the image.
- Using a plastic opening tool, lift the locking bar on the ZIF connector that connects the keyboard back light to the motherboard.
- Gently pull the cable out.

Step 10



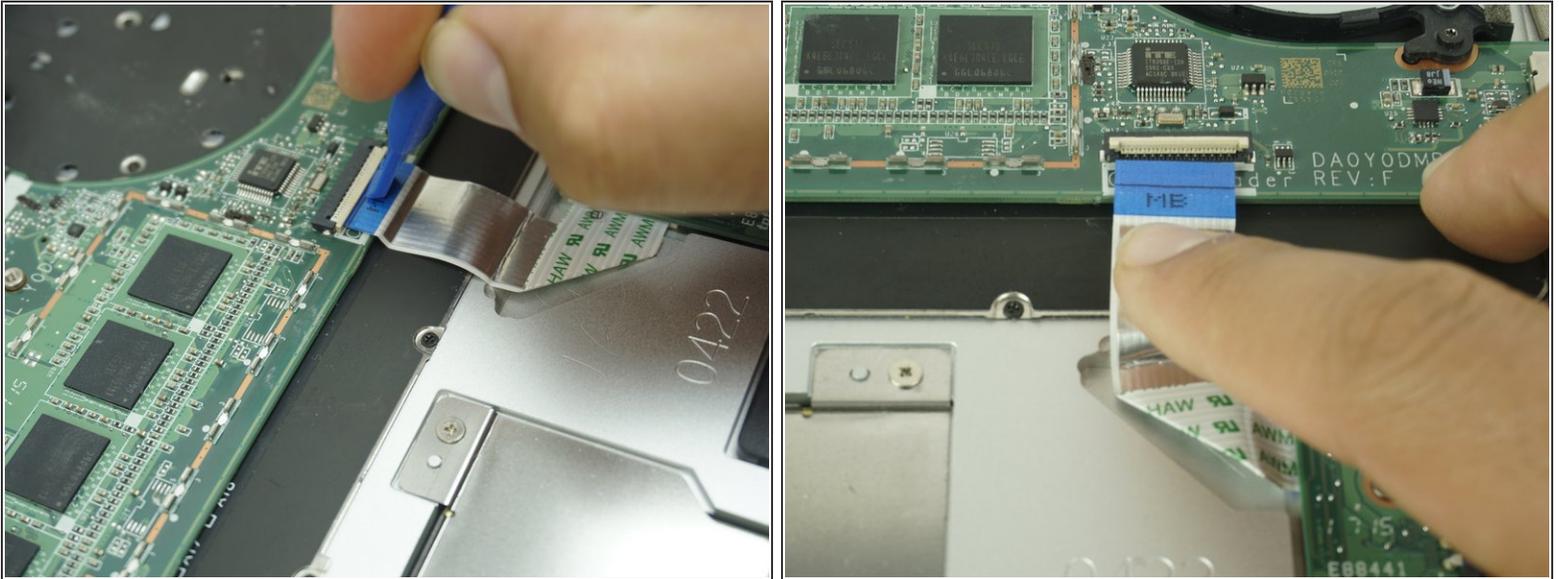
- Gently peel back the tape on the locking bar of the keyboard connector.
- Using a plastic opening tool, pull up on the locking bar.
- Gently pull the cable out.

Step 11



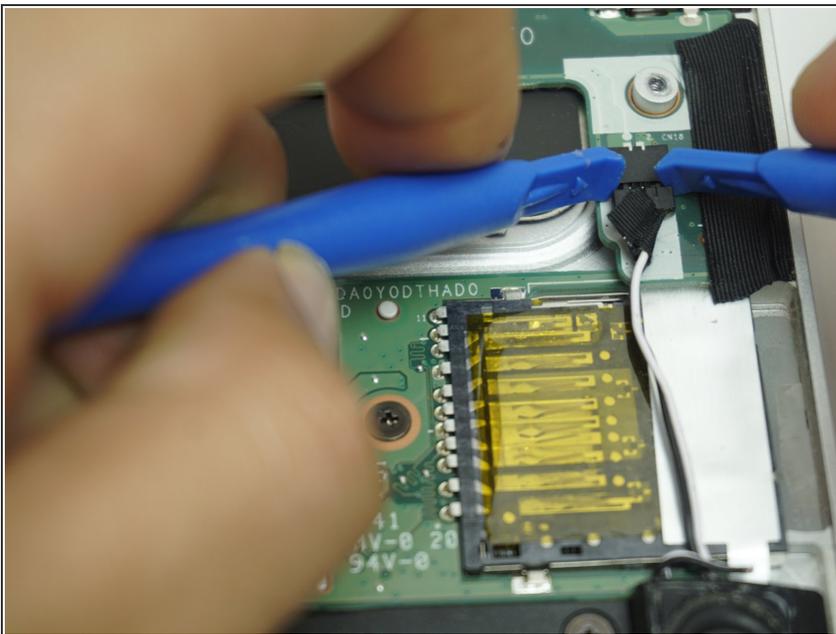
- Identify the touch pad ZIF cable as shown in the image.
- Using a plastic opening tool, Gently lift up the locking bar on the touch pad ZIF.
- Gently slide the cable out.

Step 12



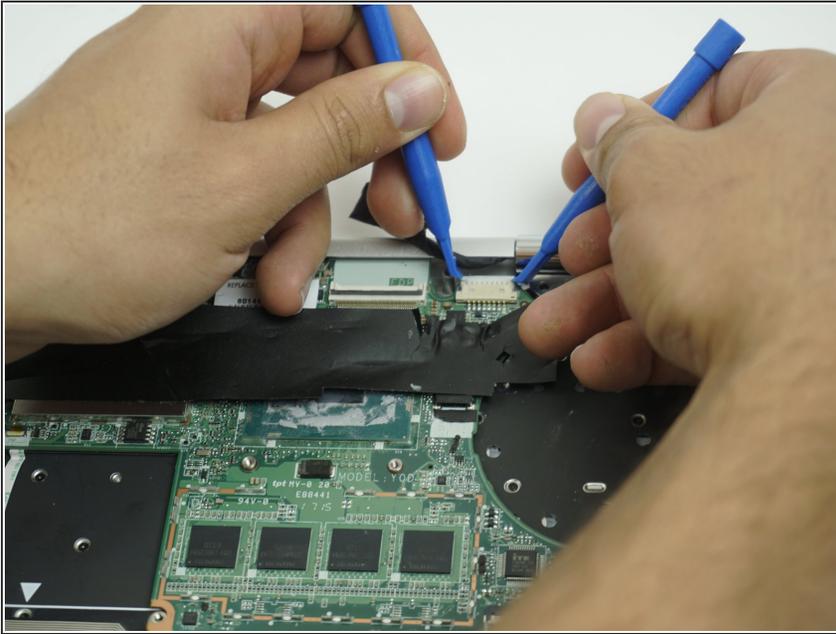
- Using a plastic opening tool, Lift the locking bar on the card reader ZIF connector.
- Gently slide the cable out.

Step 13



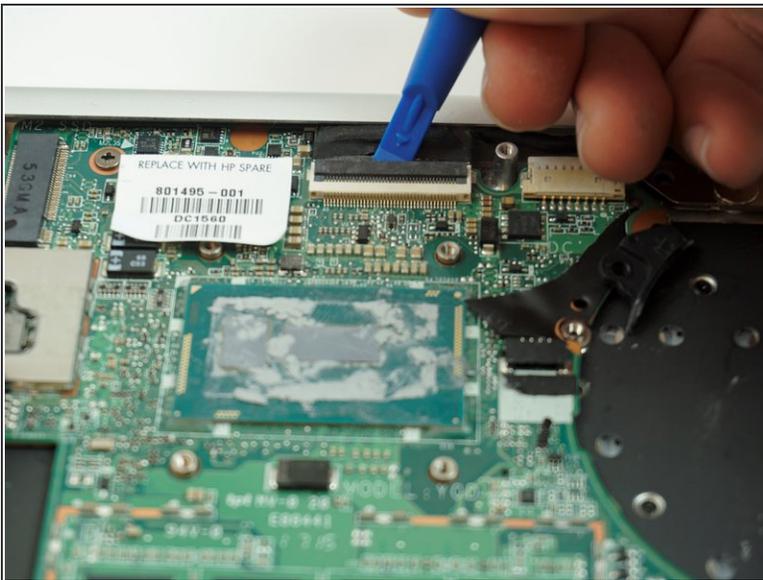
- Using two plastic opening tools, Disconnect the left speaker cable.

Step 14



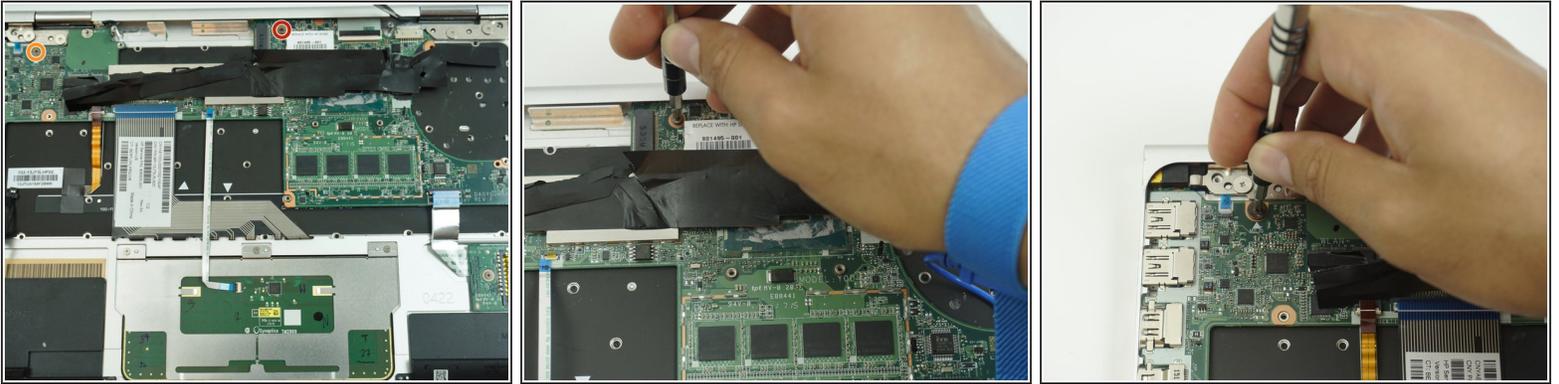
- Using two plastic opening tools, Unplug the power cable connector.

Step 15



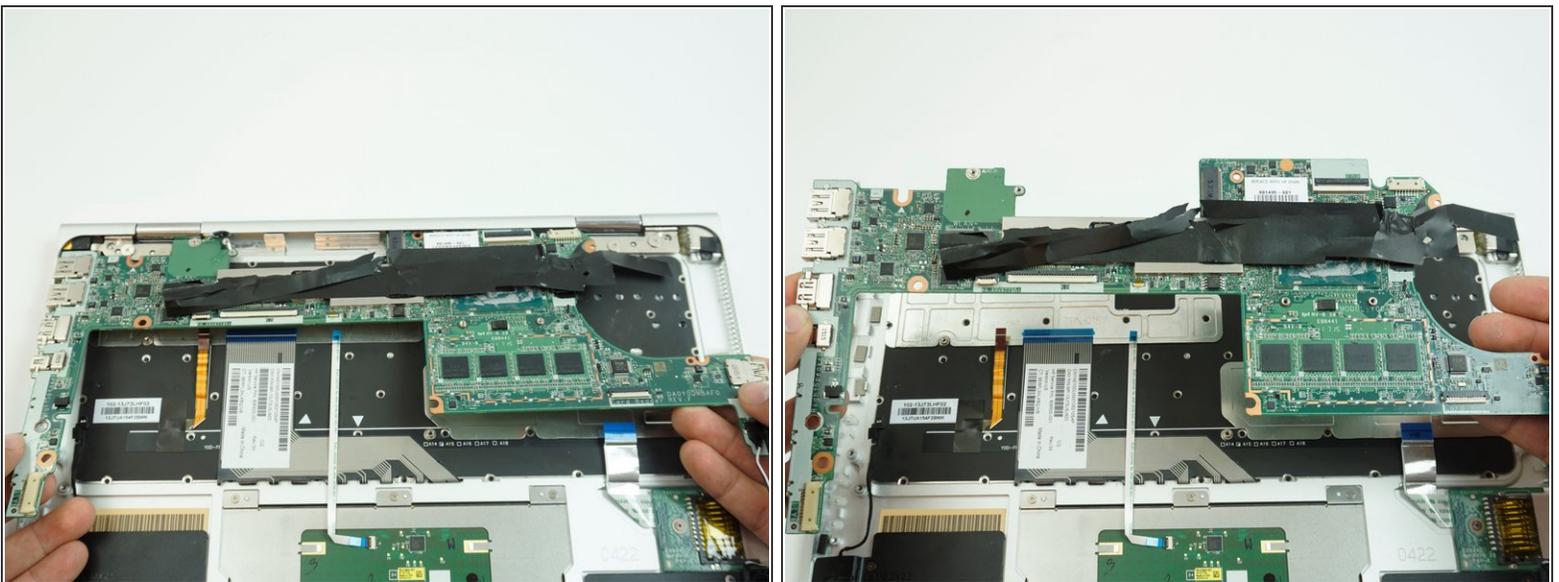
- Using a plastic opening tool, Lift the locking bar on the display connector.
- Grip the black tape and pull up to unplug.

Step 16



- Remove the 3.5mm Phillips #00 screw securing the motherboard to the top cover.
- Remove the 2mm Phillips #00 screw securing the motherboard to the top cover.

Step 17



- Remove the motherboard from the alignment pins on the top cover.

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