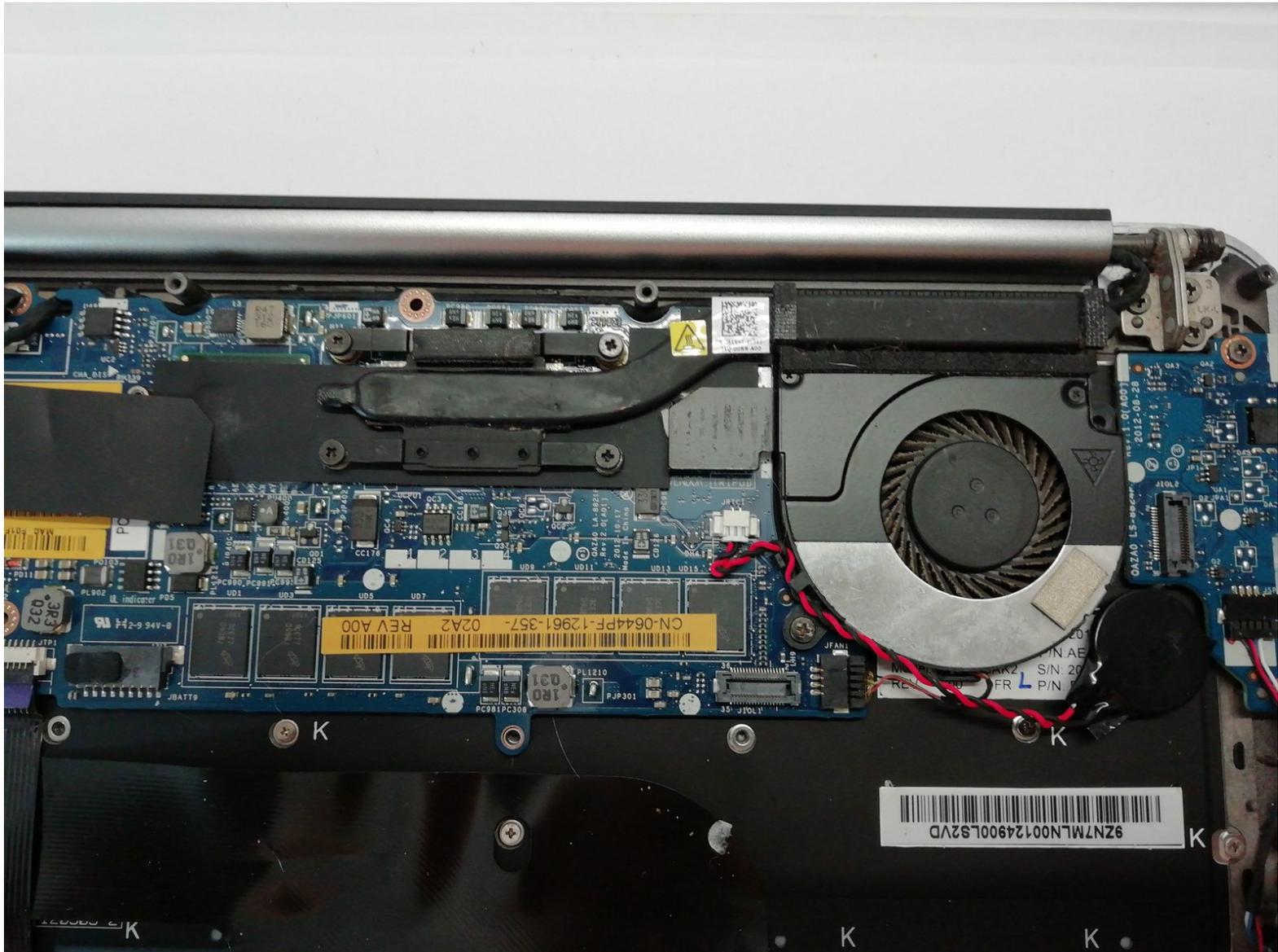




Replacement of the motherboard on a Dell XPS 12 9Q23

This guide shows the steps to follow when replacing the motherboard.

Written By: Schwarzer



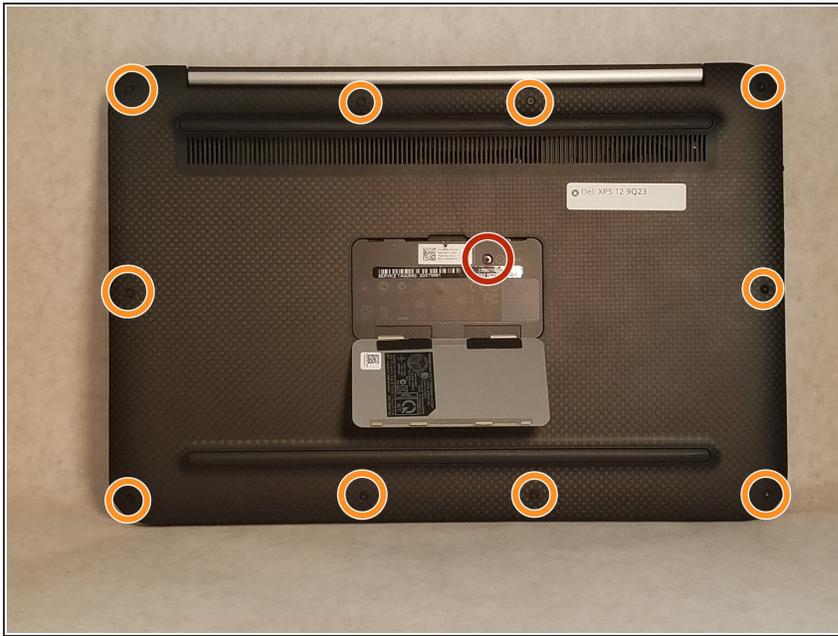
INTRODUCTION

Your motherboard is no longer working? This is a real shame, but you have the chance to be on this tutorial that will guide you through the process of replacing it.

TOOLS:

- [Mako Driver Kit - 64 Precision Bits](#) (1)
-

Step 1 — Battery



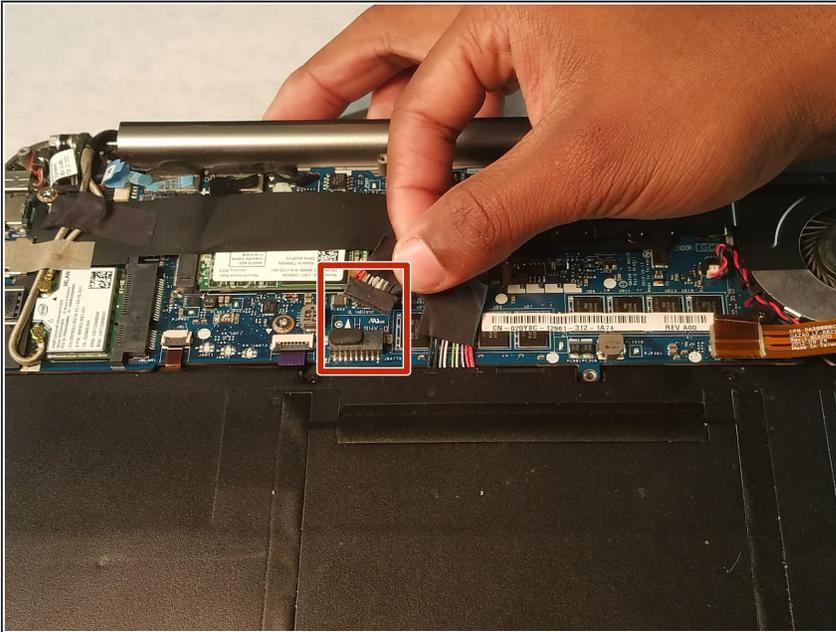
- Pop the center cover open on the bottom cover.
- Remove the center screw with a #00 Phillips screwdriver.
- Use a T5 Torx screwdriver for the remaining screws around the edge of the bottom cover.

Step 2



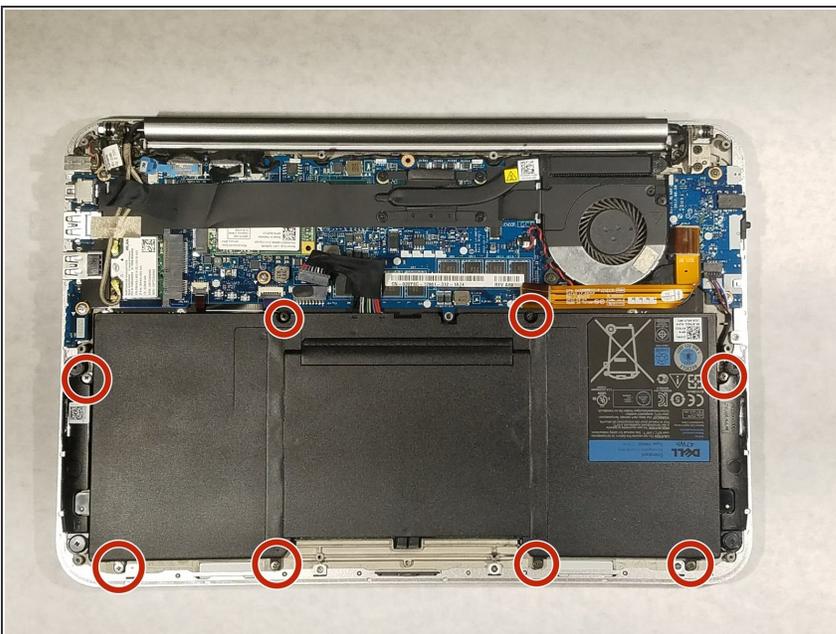
- Carefully remove back panel after all screws have been removed.

Step 3



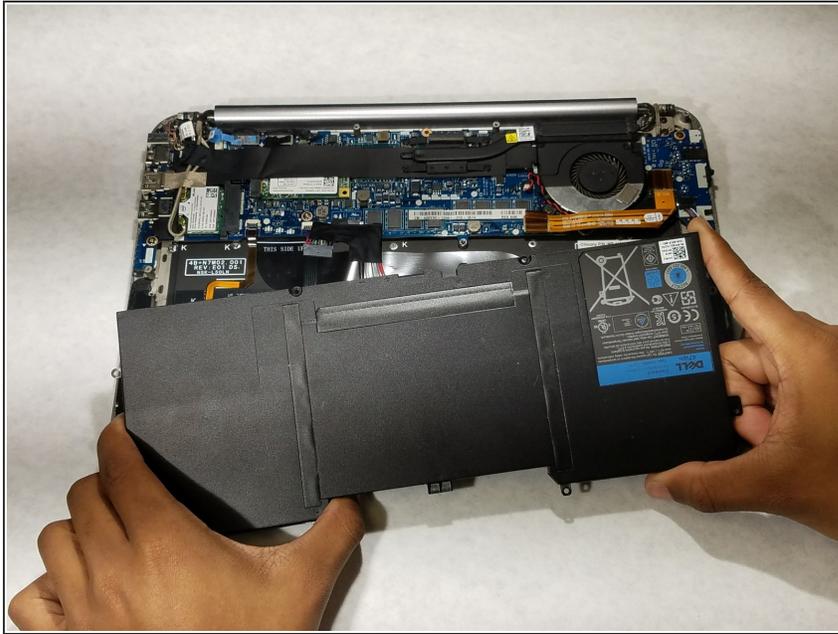
- After the back panel has been removed, disconnect the battery to prevent electrical shock

Step 4



- Use a Phillips #00 screwdriver to remove the 8 screws that secure the battery.

Step 5 — Remove the battery



- Once all the screws have been removed the battery is now safe to extract

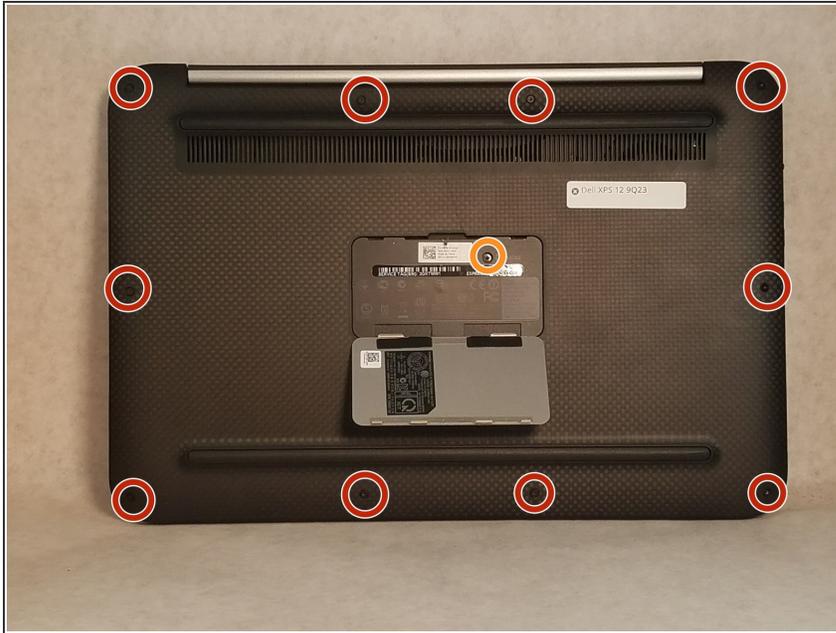
Step 6 — Fan



- Close the laptop, flip the laptop over, and pop off the back panel with a flathead screwdriver. The panel will

be hanging by the hinges once open.

Step 7



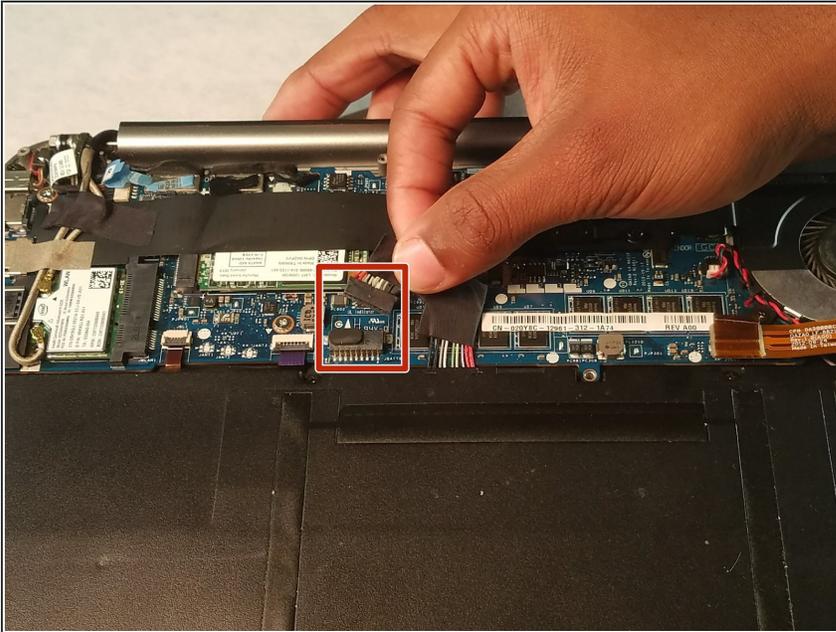
- Use a T5 Torx screwdriver to remove the screws along the edge of the bottom cover.
- ⓘ Use a magnetic board if possible to keep track of screws
- Open the center cover and use a Phillips #00 screwdriver to remove single screw.

Step 8



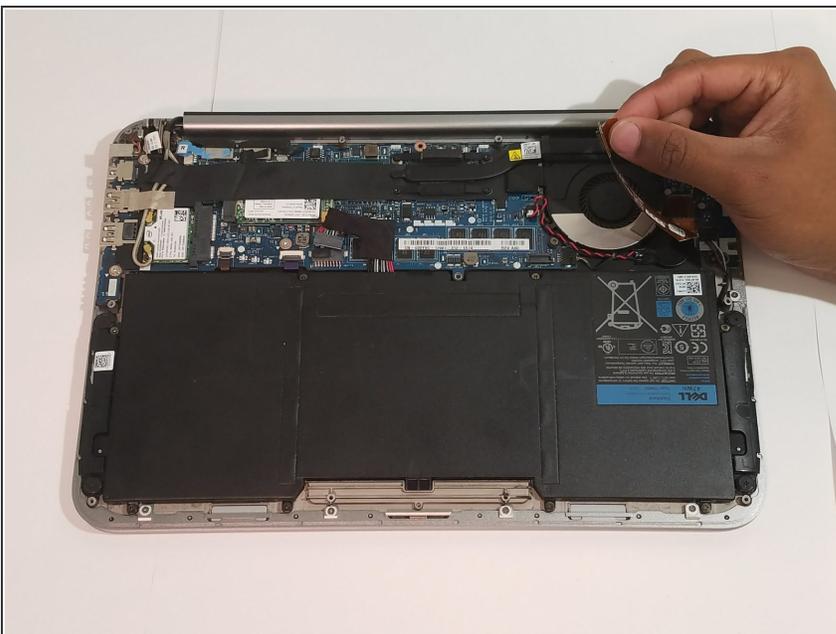
- Carefully remove back cover

Step 9



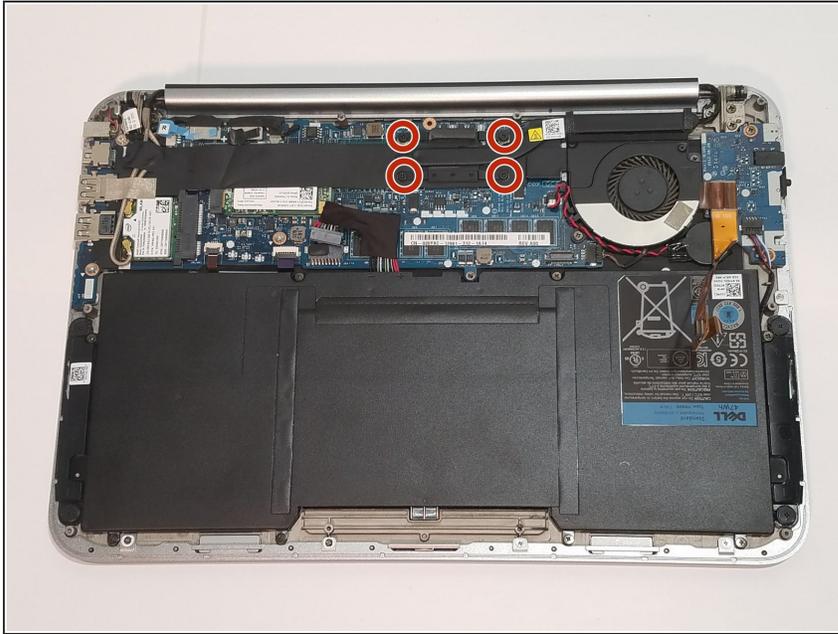
- Disconnect the battery to prevent electrical shock.

Step 10



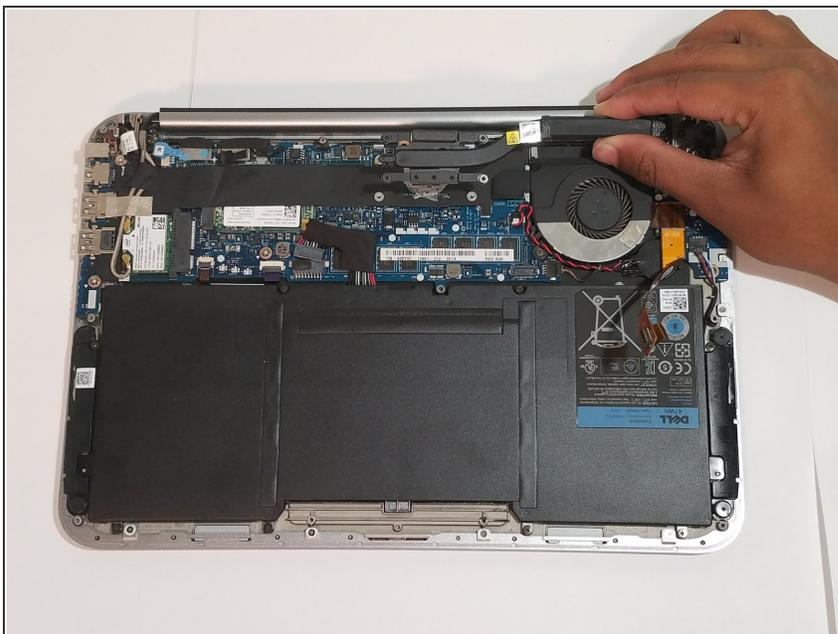
- Disconnect amber-colored daughter cable.

Step 11



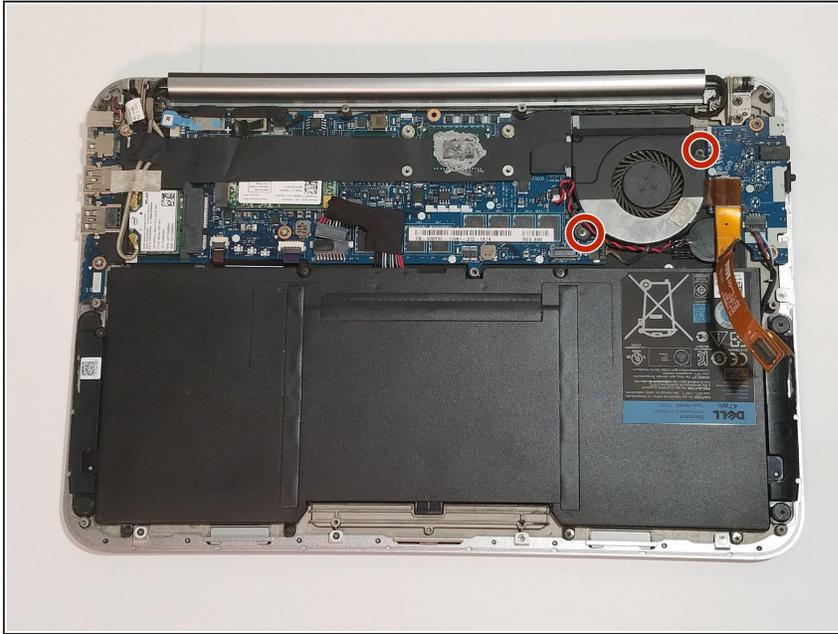
- Use a Phillips #00 screwdriver to loosen the screws that secure the heatsink.
- ⓘ Screws cannot be fully removed from heatsink.

Step 12



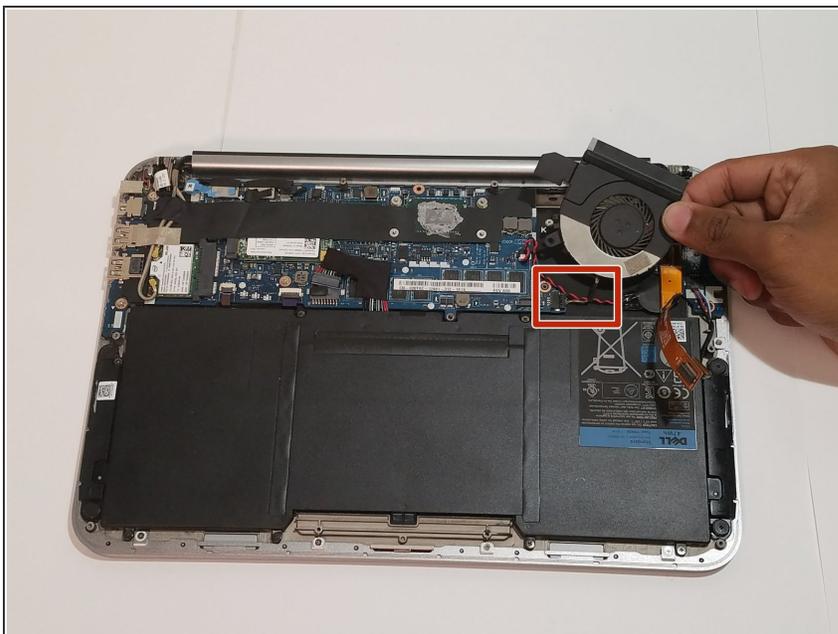
- Remove the heatsink.
- ⓘ Heatsink is a device used for absorbing heat and necessary to remove to reach the fan.

Step 13



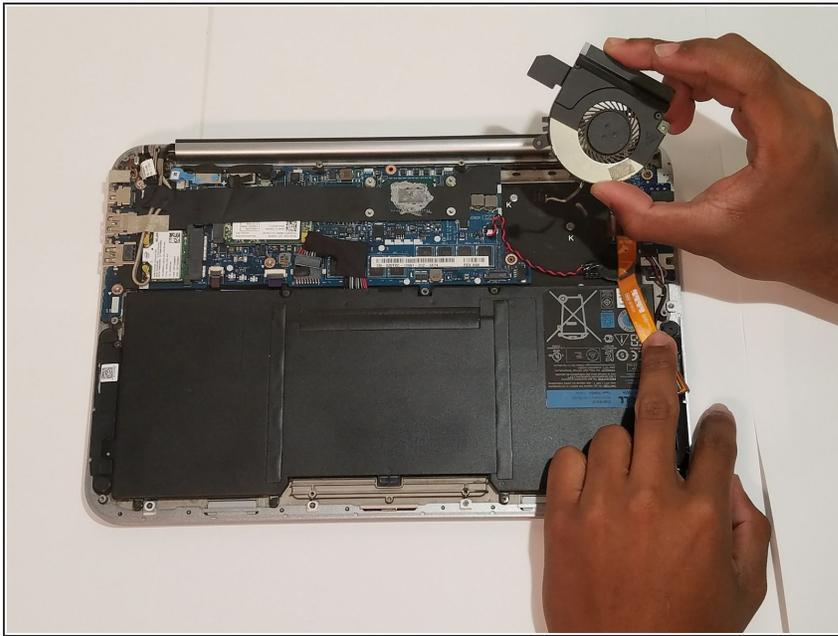
- Use Phillips screwdriver to remove cooling fan screws.

Step 14



- Unplug fan cable.

Step 15



- Fan can now be removed and a new one can be installed.

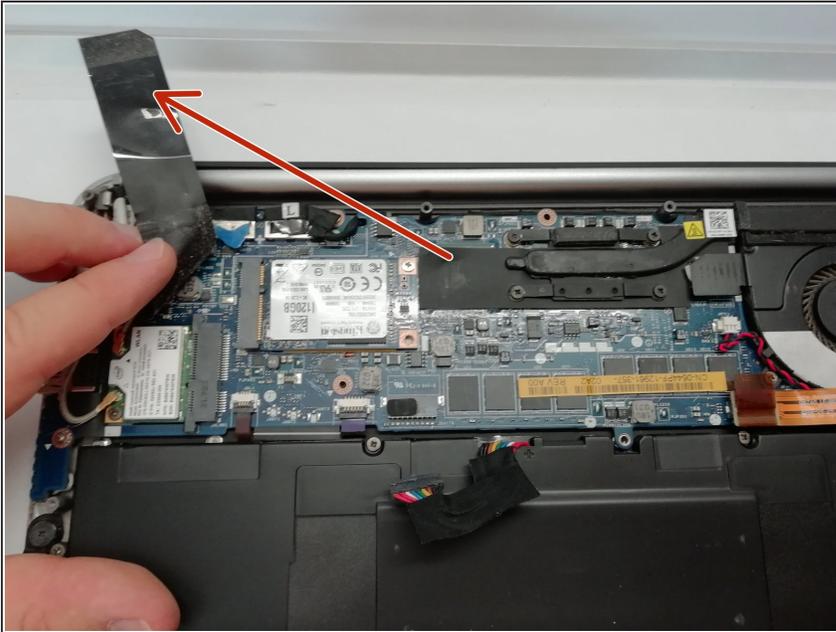
Step 16 — Remove the WiFi card



✦ We removed the battery to avoid electric shocks.

- Disconnect the two wires from the WiFi card. You can do this with a pair of pliers or your fingernail.
- Remove the screw with a #00 Phillips screwdriver.
- Now remove your WiFi card to replace it.

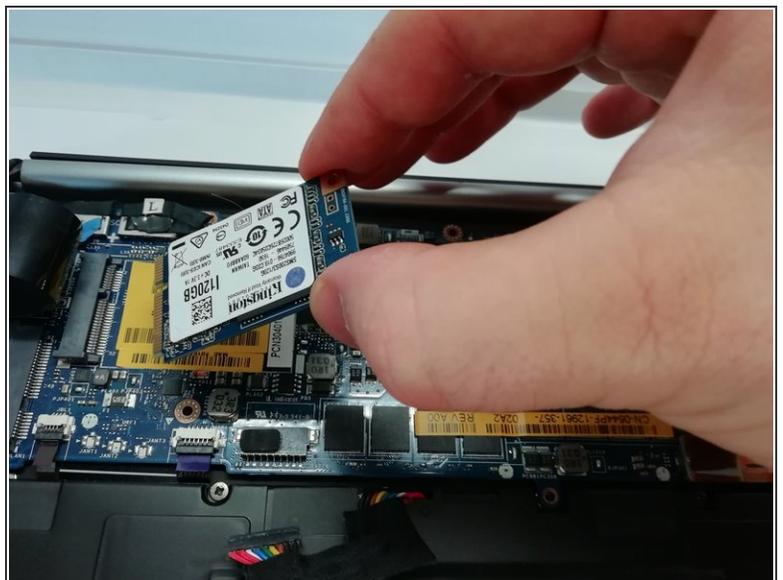
Step 17 — Adhesive tape



We removed the battery to avoid electric shocks.

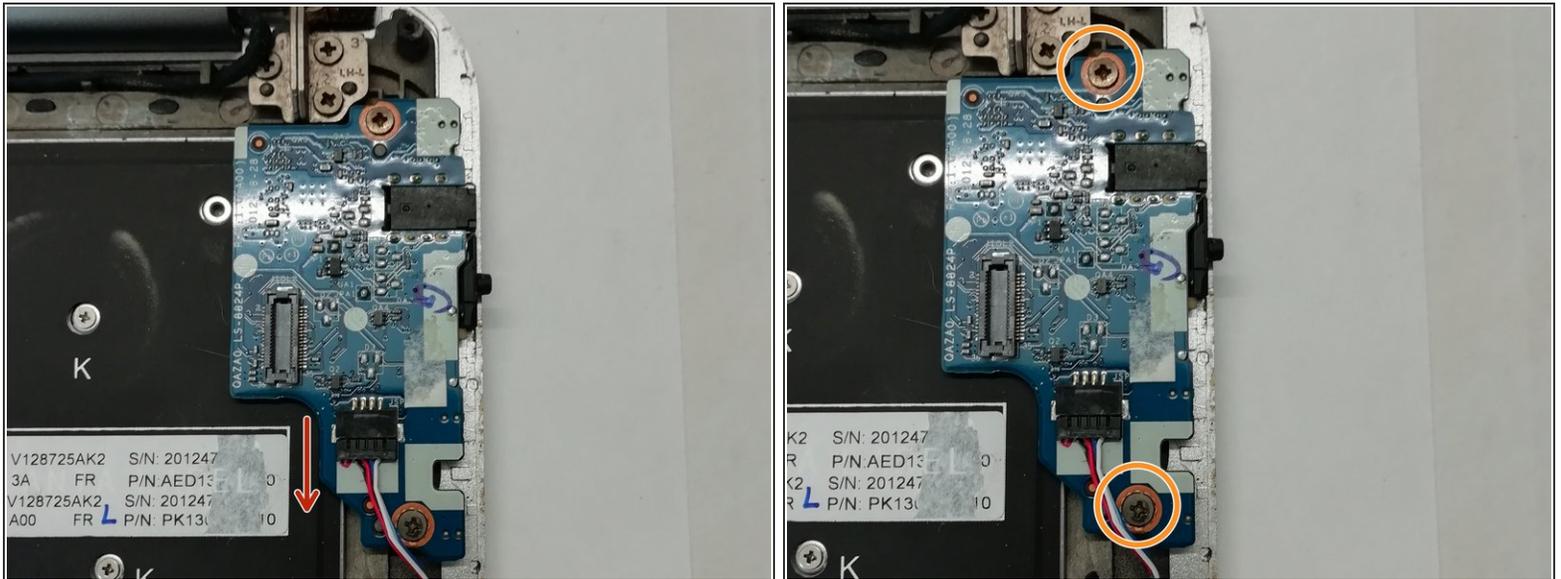
- Remove the adhesive tape.

Step 18 — Remove the hard disk drive



- Remove the screw with a #00 Phillips screwdriver.
- Remove the hard disk from its location.

Step 19 — Remove the operating button



We removed the battery to avoid electric shocks. The hard disk, WiFi card and fan have also been removed.

- Remove the connector with a pair of pliers or your fingernail.
- Remove the screws with a #00 Phillips screwdriver.
- Remove the card afterwards.

Step 20 — Remove the motherboard



- Disconnect the various connections from the motherboard.
- Remove the screws with a #00 Phillips screwdriver.
 - Carefully turn the motherboard over to disconnect the tablecloth from the keyboard.
 - You can now replace the motherboard.

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