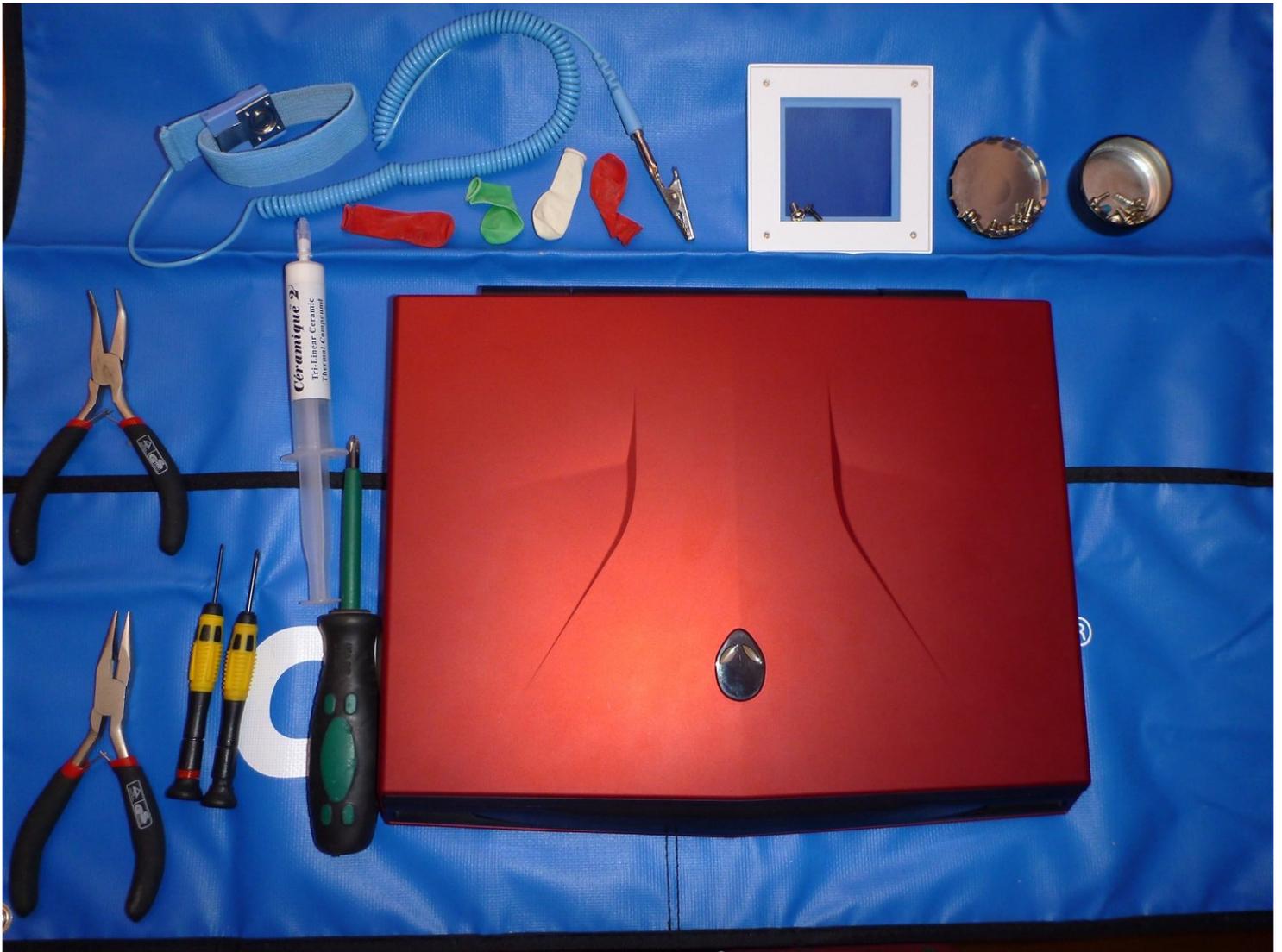




Alienware M11xR3 Disassembly and Cleaning

Here you can fix common problems like keyboard...

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INTRODUCTION

Here you can fix common problems like keyboard replacement, dirty vents, and thermal paste replacement.

I am not responsible for damages that may be caused. This is for informational purposes only. Follow at your own risk.

This is my first guide so please be kind.

TOOLS:

[Phillips #00 Screwdriver](#) (1)

[Phillips #1 Screwdriver](#) (1)

[Tweezers](#) (1)

[Arctic Silver Thermal Paste](#) (1)

[Portable Anti-Static Mat](#) (1)

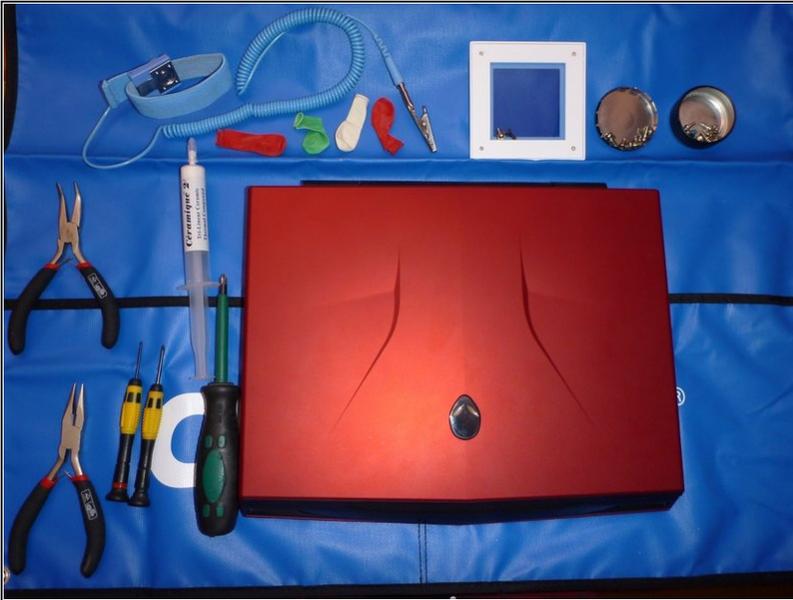
[Anti-Static Wrist Strap](#) (1)

[Large Needle Nose Pliers](#) (1)

[Finger Stalls](#) (1)

[Isopropyl Alcohol](#) (1)

Step 1 — Beginning (Parts, Tools and Laptop)



- Welcome to the Alienware M11xR3 disassembly. Below, I will describe the necessary tools and steps to disassemble the Alienware M11xR3. This disassembly applies to all M11x, including the R1, R2, and R3.
- Required tools:
 - 1x Phillips #1 and #00 Screwdriver
 - 1x Flathead Screwdriver
 - 1x Small Needle Nose Pliers or [Tweezers](#)
 - 1x Thermal Paste and Finger Stalls Optional: Small water balloons (to spread thermal paste without getting dirty)
 - 1x Anti-Static Mat
- ☑ I highly recommended reading about static electricity and how it can damage electronic components.

Step 2 — Remove back plate screws.



- Gently flip over the laptop so that the bottom side is facing up.
- Use a Phillips #1 screwdriver to remove the 8 screws securing the base-plate.

Step 3 — Remove back plate.



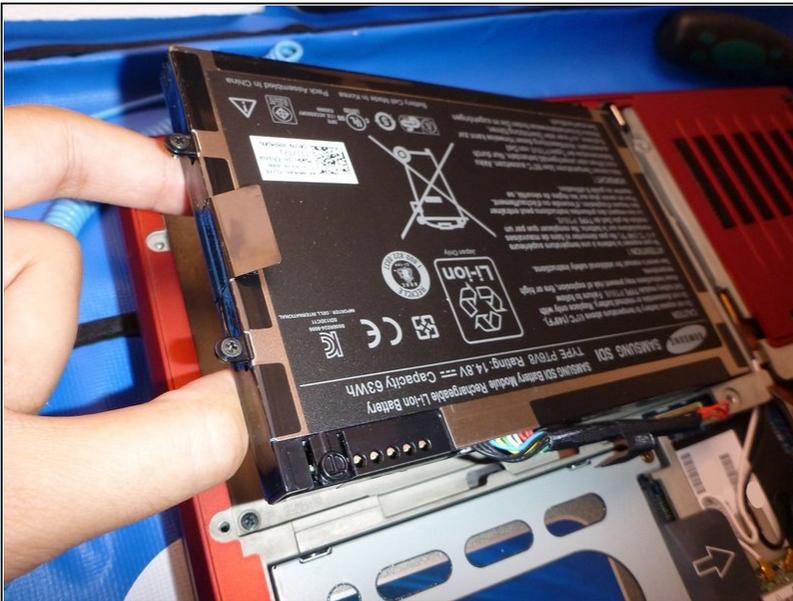
- Lift the bottom cover and remove it.

Step 4 — Unscrew and unplug battery.



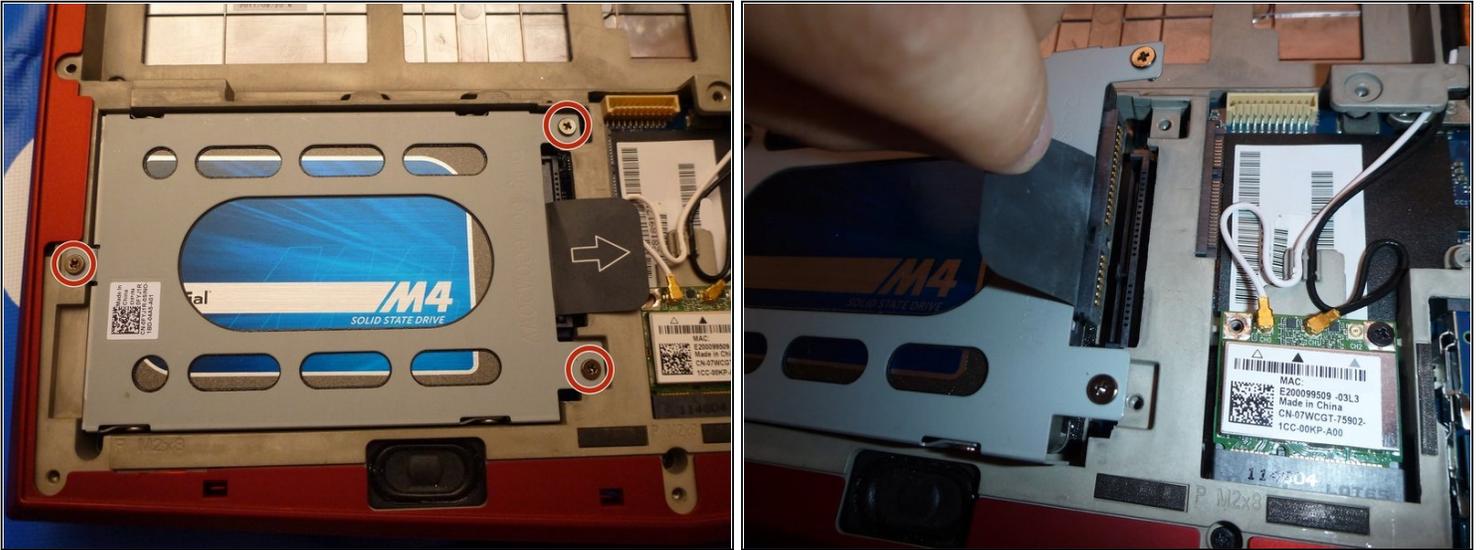
- Remove the battery cable on the plate by pulling vertically.
- Unscrew and remove the screws retaining the battery.

Step 5 — Remove Battery.



- Remove the battery.

Step 6 — Remove the HDD



- Remove the hard drive mounting bracket by removing the three screws with the Phillips #1 screwdriver.
- Pull out the hard drive by lifting up on the black tab.

Step 7 — (Optional) Replace HDD



- In order to remove the hard drive from the mounting bracket, remove the four screws at each corner with the Phillips #1 screwdriver.
- ☑ When installing a new hard drive, never forget to remove the SATA adapter before installation.

Step 8 — Remove RAM



- Pull the tabs away from RAM.
 - Carefully pull the RAM module to remove.
 - Depending on the configuration that you have on your Alienware, there may be another RAM module.
- ⓘ If you want to upgrade your RAM please read the manual about which modules are compatible. Here are the RAM specs:
- Number of Sockets: 2
 - Max memory: 16384 MB (16GB)
 - Memory Comments: PC3-10600 1333Mhz DDR3 SDRAM SO-DIMM 204-pin

Step 9 — Remove WLAN module

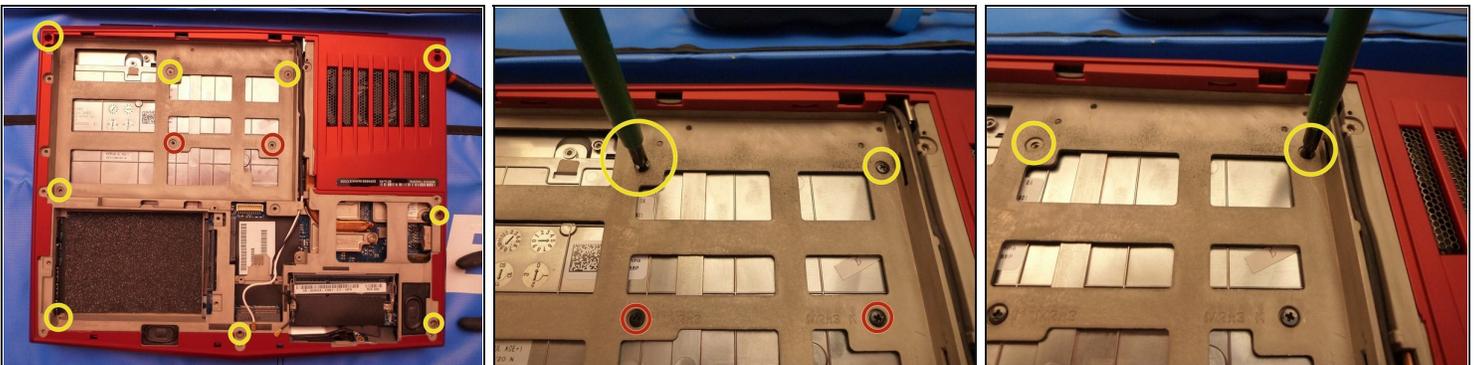


ⓘ Depending on your Alienware configuration, it can have up to 3 aerial cables.

- Remove the aerial cables vertically with Tweezers or Small Needle Nose Pliers.
- Once the aerial cables are removed, extract the screws.
- Remove the WLAN card.

ⓘ On USA models, a WWAN card may be located near the WLAN card. Use the same process to remove it.

Step 10 — Remove chassis and keyboard screws



- Remove the chassis screws using a Phillips #1 screwdriver.
- Remove the keyboard screws using a Phillips #1 screwdriver.

Step 11 — Remove the chassis screws



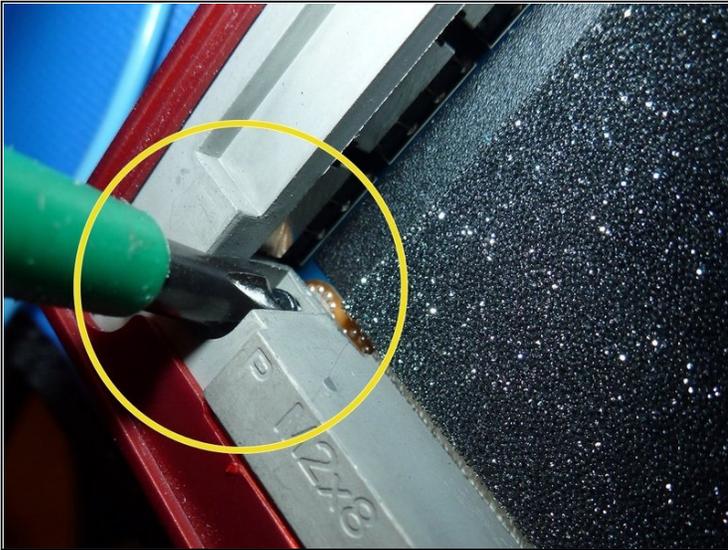
- Remove the chassis screws.

Step 12 — Remove the bottom chassis screws



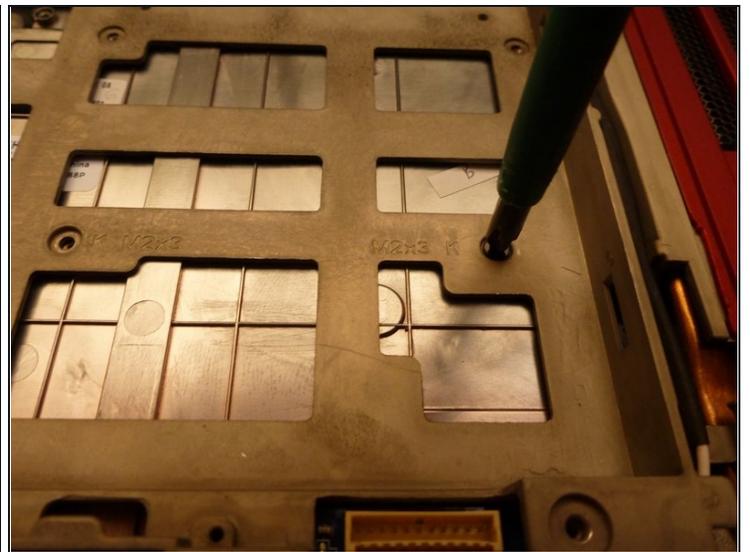
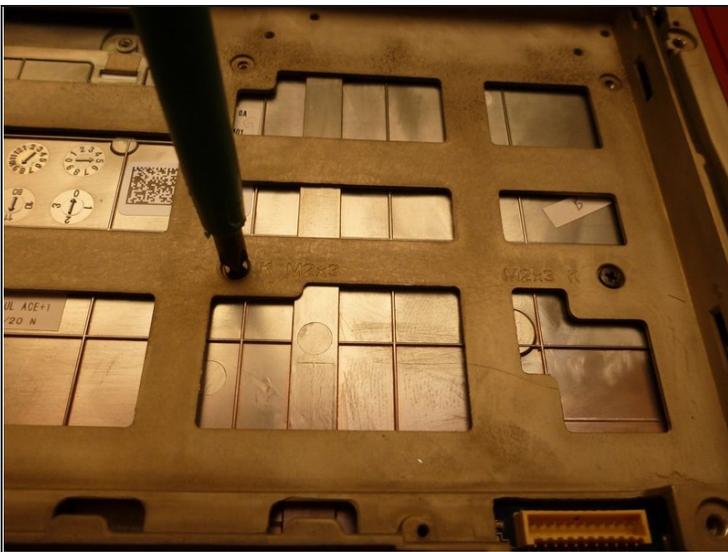
- Remove the bottom chassis screws.

Step 13



- The screw marked with a yellow circle is near the hard drive bay.

Step 14 — Remove the screws from the keyboard



- Remove the screws from the keyboard.

Step 15 — Remove the cover



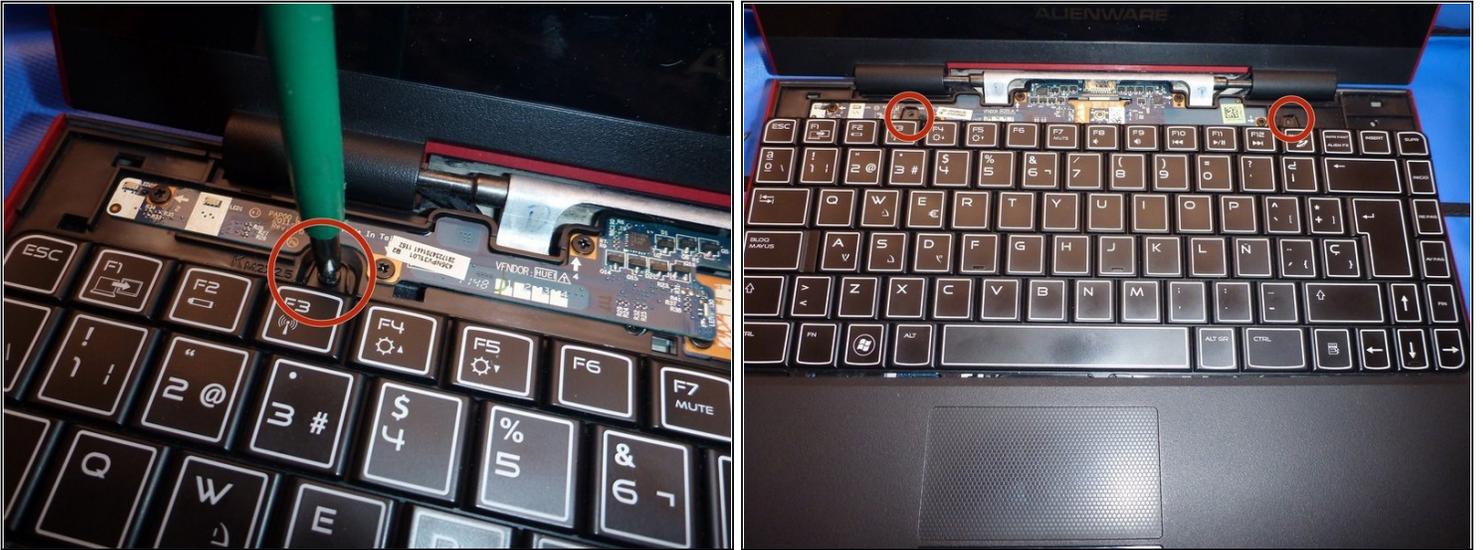
- Use a small flat screwdriver to carefully pry the cover from the chassis.
- Next, use your finger as a lever to extract the cover. The cover has tabs that attach it to the chassis.
 - ① In the next step, I'll show you tab locations.

Step 16 — Tab locations



- Clamping tabs

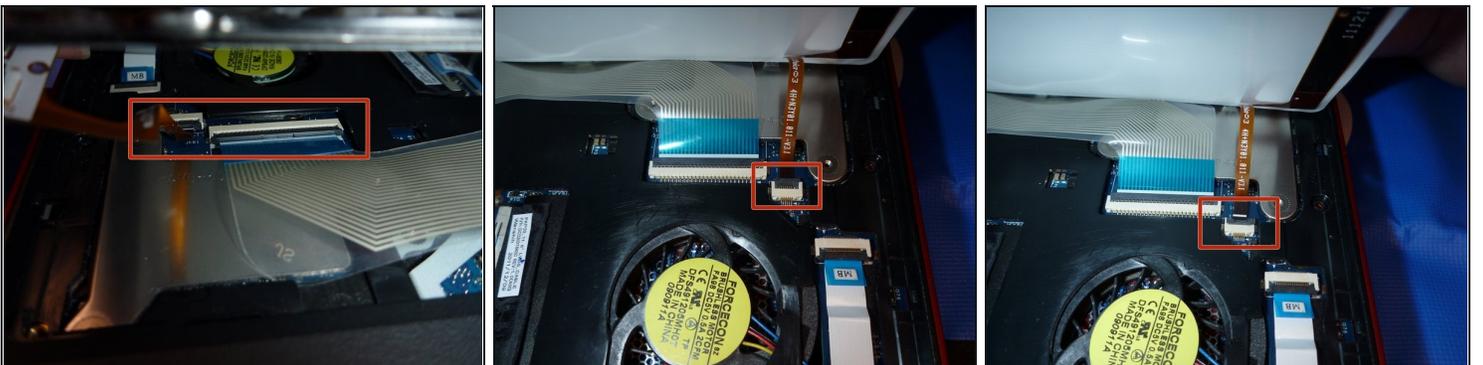
Step 17



- Remove the two screws to release the keyboard.

⚠ Wait for the next step to remove the keyboard; there are bus data cables underneath the keyboard that must be removed first.

Step 18 — Remove bus data cables (part 1)



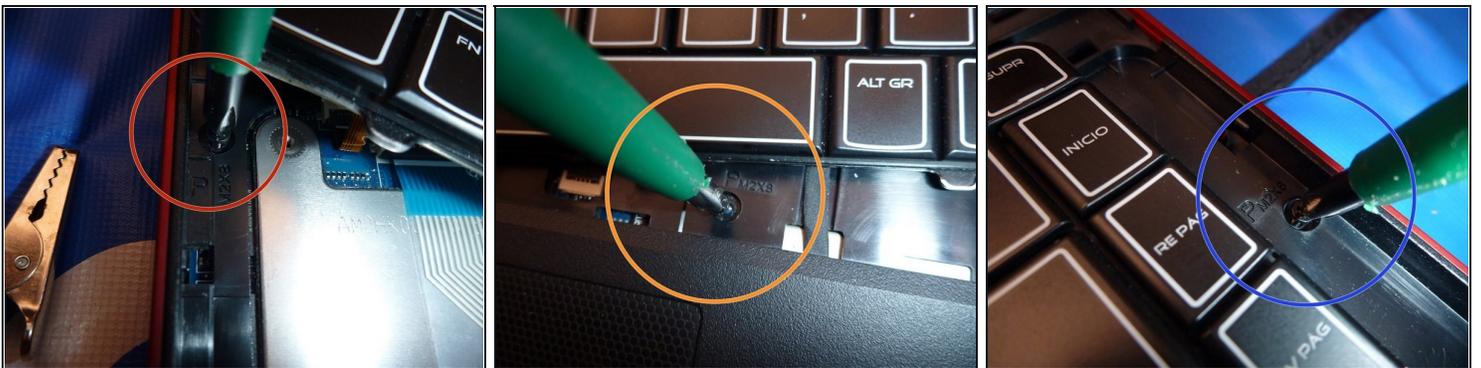
- ☑ There are 2 bus data cables.
- ⓘ The thin orange cable is the RGB led keyboard retro illumination.
- Lift the tab to a vertical position to free the bus cable as shown.

Step 19 — Remove bus data cables (part 2)



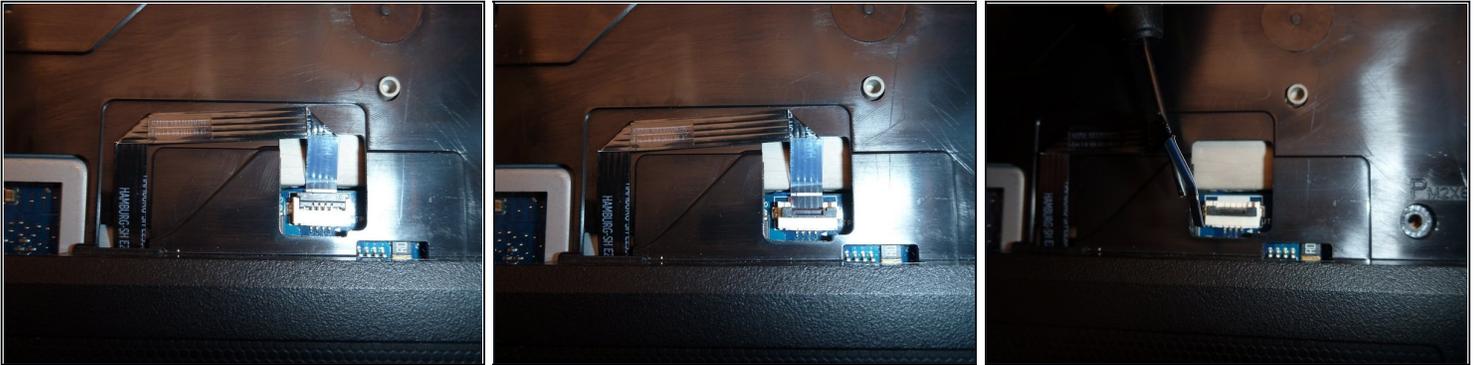
- Free the keyboard bus data cable as you did for the RGB bus data cable.
- Remove the keyboard to replace it; it has pressure points like the previous cover.
- If the keyboard fails, the best option is to replace it for a new one.

Step 20 — Remove more chassis screws



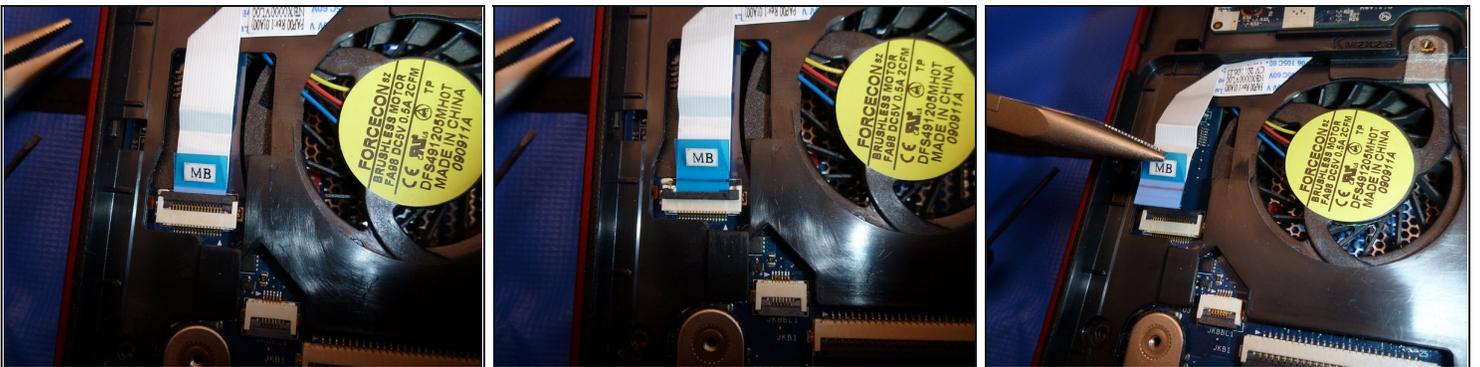
- Continue taking out the chassis by unscrewing the 3 shown screws.
 - First one to the left of the RGB bus data cable.
 - Second one at bottom near the touchpad.
 - Third one on the right edge of the laptop.

Step 21 — Remove touchpad data bus cable



- Lift the tab to disconnect the touchpad data bus cable.

Step 22 — Remove bus cable to Motherboard.



- Extract the bus cable with needle nose pliers by lifting the tab and pulling it away.

⚠ If your computer doesn't power on, then check to make sure this cable is plugged in.

☑ Always lift tabs vertically to free cables.

Step 23



- Lift the case with your fingers, as shown in the pictures.

⚠ Don't remove the case yet. There is another cable on the upper left corner that must be removed to fully remove the case.

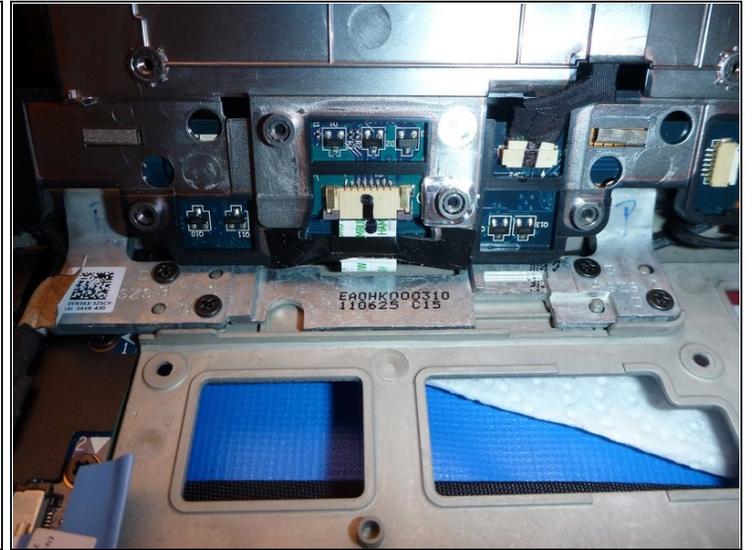
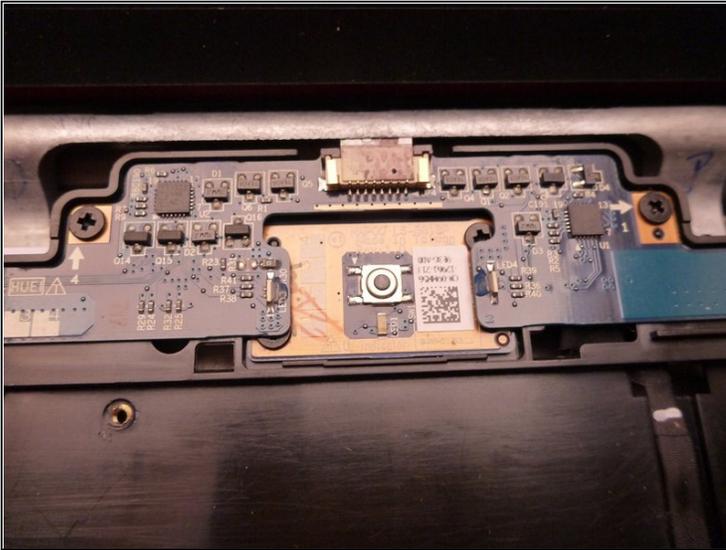
Step 24



ⓘ This is the cable that I mentioned in the previous step.

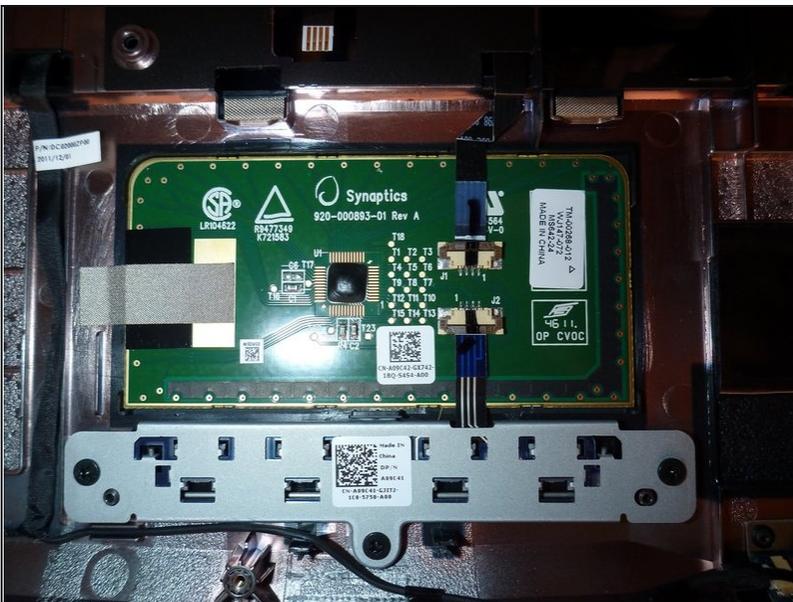
- Pull the cable out to the right to remove it.

Step 25



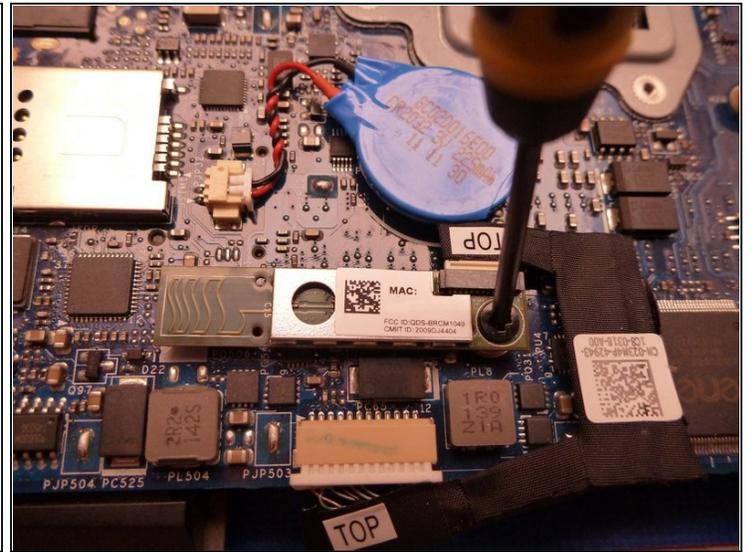
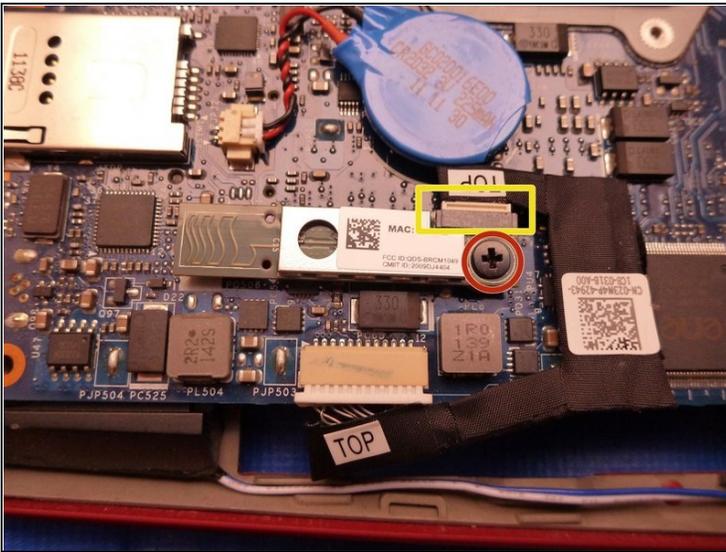
① Here's a top and bottom view of the board with the power on switch and LED status.

Step 26



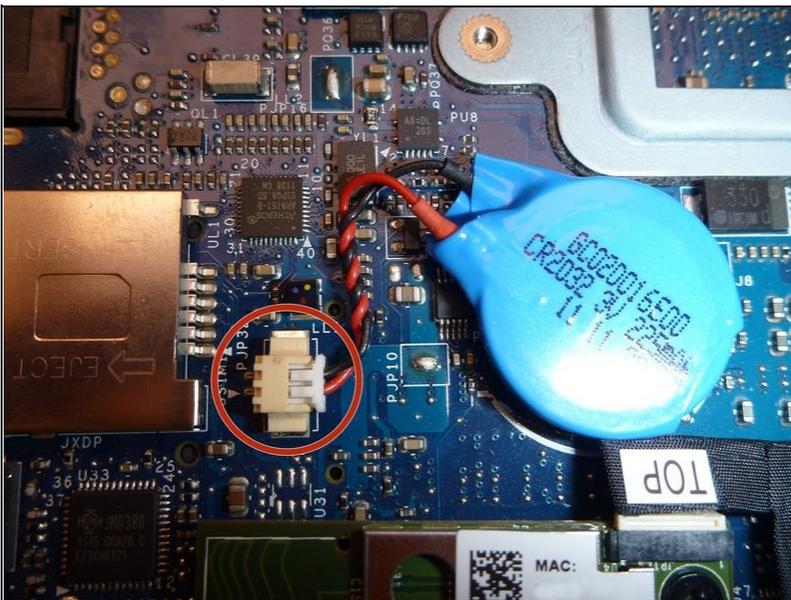
① And here's a bottom view of the touchpad.

Step 27 — Removing the bluetooth card.



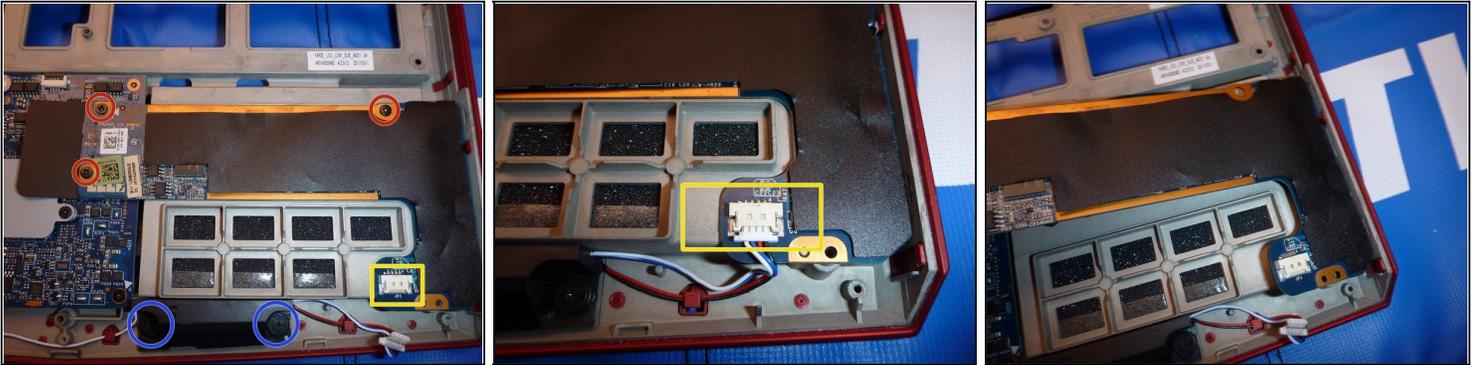
- Remove the shown screw.
- Pull the cable off.

Step 28 — (Optional) Remove the BIOS battery



- ① This is the BIOS battery for internal configuration and clock. If you have problems with it, remove it by disconnecting it from the motherboard.

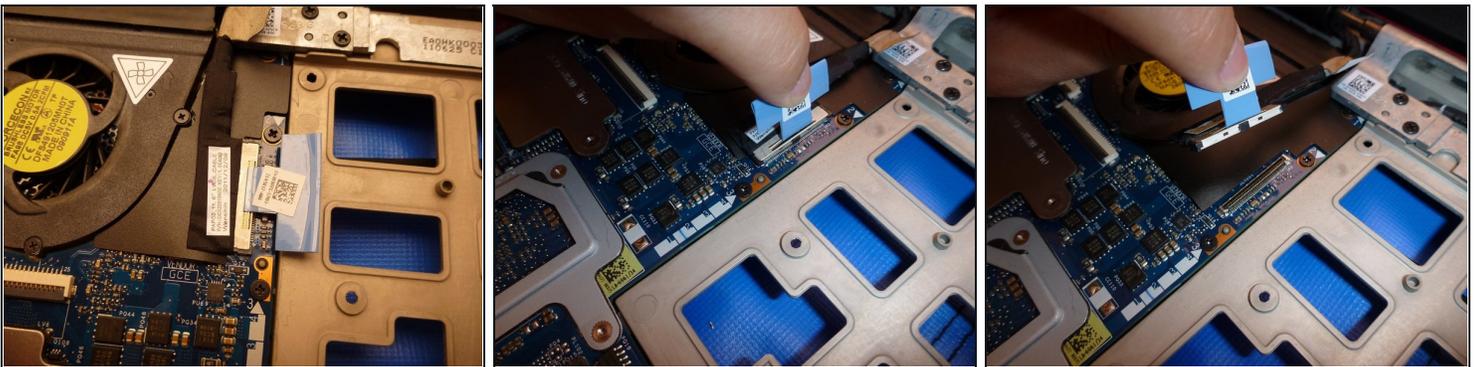
Step 29



- Pull the speakers connector towards you and away from the I/O board, marked by a yellow square.
- Remove the 3 screws and lift as you see in the picture

⚠ Move the board a little to the left while lifting to prevent damaging the two attached USB 3.0 ports.

Step 30 — Removing the display connector.



- Remove the display connector by pulling vertically.
- ☑ Lift using the plastic tab. See the image provided in this step.

Step 31 — Removing the monitor mount

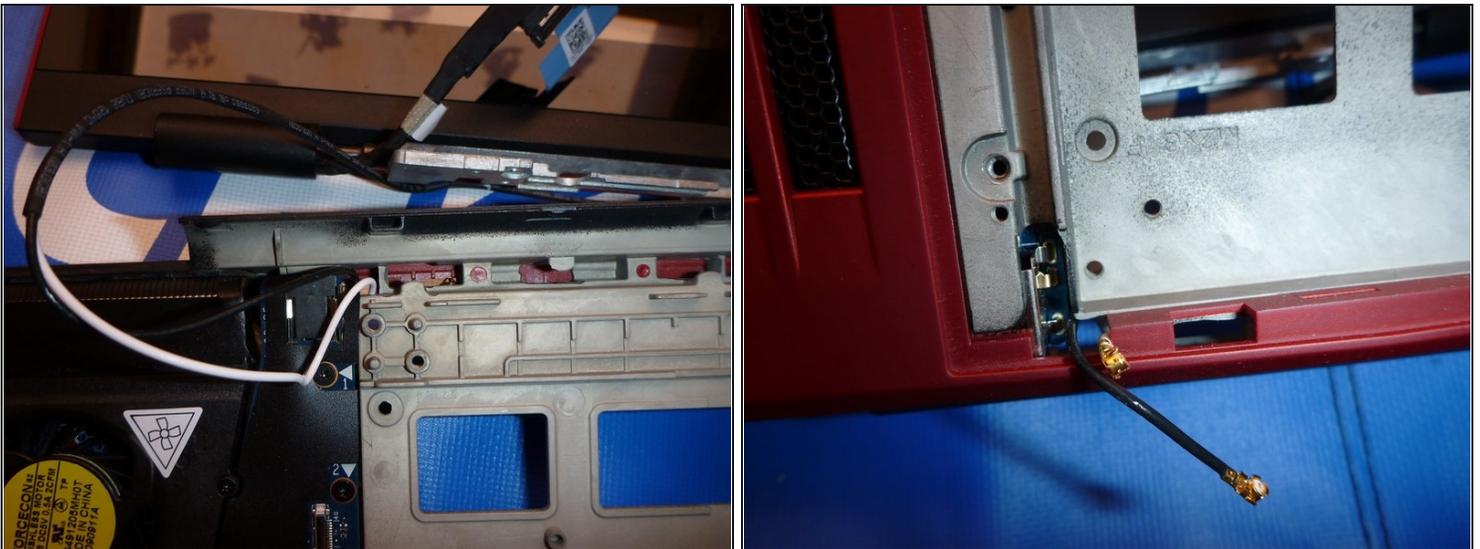


- Unscrew the screws in the correct order by using the numbers near the holes.

⚠ Make sure you are holding the monitor while unscrewing to prevent dropping and damaging the screen.

⚠ After that, you must see the next step to remove the WLAN aerials.

Step 32 — Pull WLAN cable away with monitor



☑ The WLAN cable is the same as in step 9.

- Pass the cable from the bottom of the laptop through the hole carefully.

☑ Remember, depending on your Alienware configuration you may have 2 or 3 aerials. USA customers may also have the WWAN aerials

Step 33 — Removing the motherboard.

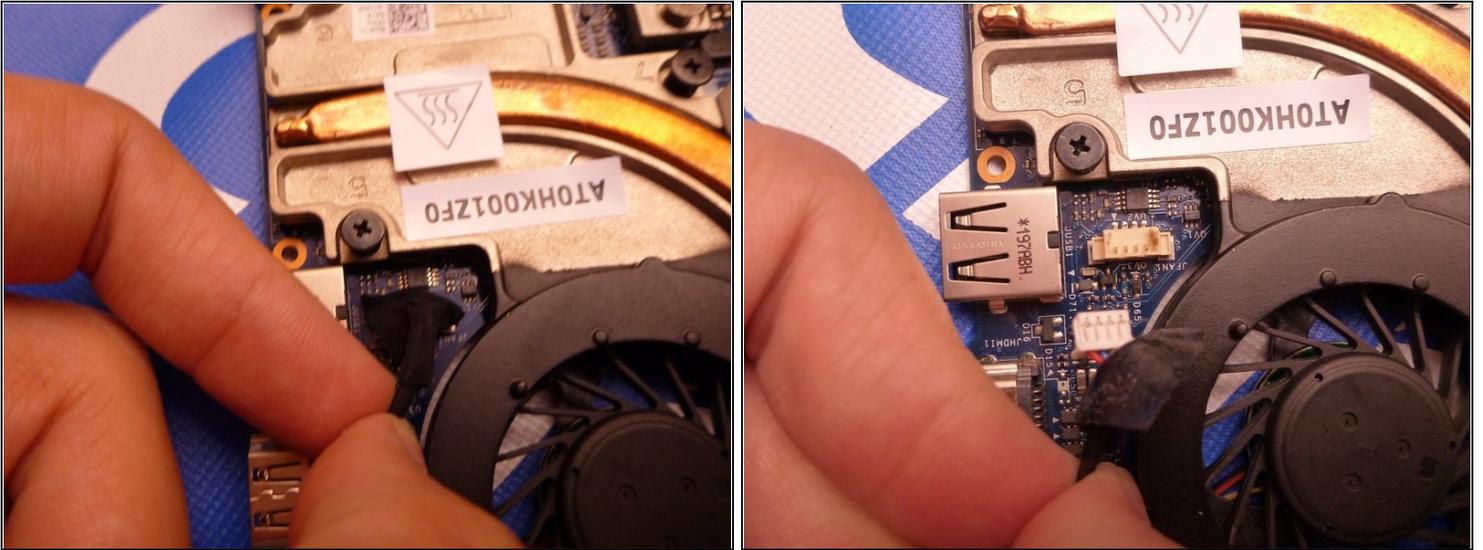


- Remove the four screws, marked by red circles, to remove the motherboard.

⚠ Now lift the motherboard slowly up while moving it to the right. Removing it this way prevents damage to your ports.

- ☑ As you see in the picture, the I/O board and screen connector wasn't here. They must be disconnected before removing the motherboard, not like the bluetooth board or coin-cell battery.

Step 34



- Disconnect the vent connector.
- ① You must disconnect it to remove the heatsink.
- ① To replace the vent, it is not necessary to remove the heatsink. You must do this step and in the next step I have marked in green the 3 screws that you need to remove.
- ① To maintain good ventilation, clean the vent with compressed air.

Step 35 — Remove heat sink and apply thermal paste



ⓘ If this is your first time applying thermal paste, I recommend using a quality thermal paste brand like Arctic Silver and reading a [guide](#) here on iFixit.

⚠ With the motherboard out, turn it upside down on a static free surface.

- To remove the heatsink and replace thermal paste, remove the screws in the correct order (marked with a number on the heatsink).

⚠ Clean old thermal paste with isopropyl alcohol. Ensure that after applying thermal paste it doesn't leak onto the motherboard (if it's on the green square, it's fine).

⚠ When putting the heat sink back on, try to have the screw holes align on your first try. This is to maintain an even spread of the thermal paste.

- Rescrew in the correct order (refer to the numbers on the heat sink).

ⓘ Tighten each screw one at a time to end up with good heat dissipation.
