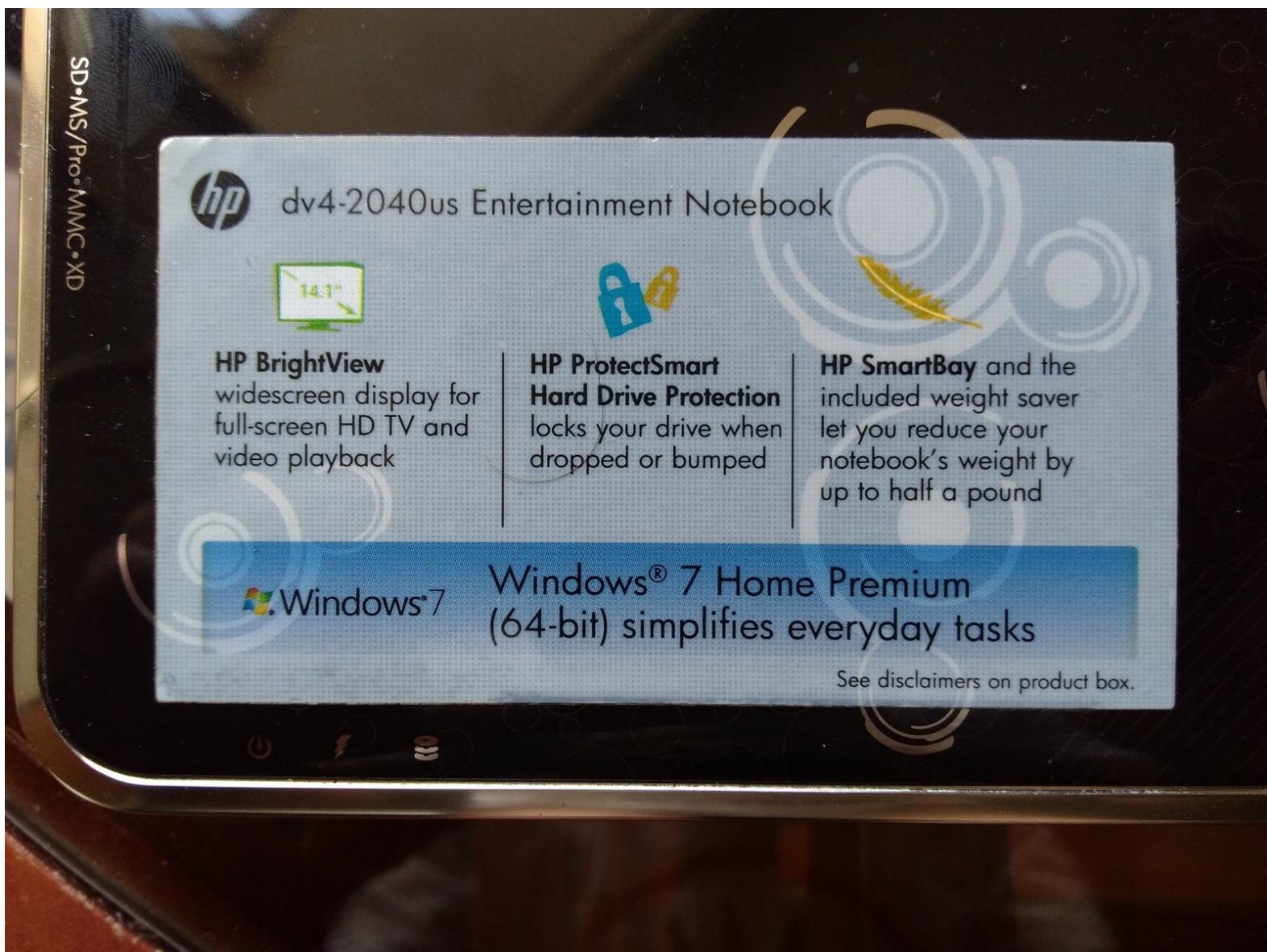




Dismantling HP Pavilion dv4-2040us laptop

A guide to disassemble HP Pavilion dv4-2040us in order to replace the processor thermal paste.

Written By: Marcos Mora



INTRODUCTION

This guide is for the replacement of components like: the memory, hard drive, and heat sink.

I replace the thermal paste between the CPU and heat sink or "fan cooler". It includes the cleaning of the internal components of the laptop. This prevents overheating.

TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [Phillips #000 Screwdriver](#) (1)
sólo para abrir la carcasa del ventilador
- [iFixit Opening Tools](#) (1)
- [Park Tool GSC-1 GearClean Brush](#) (1)

PARTS:

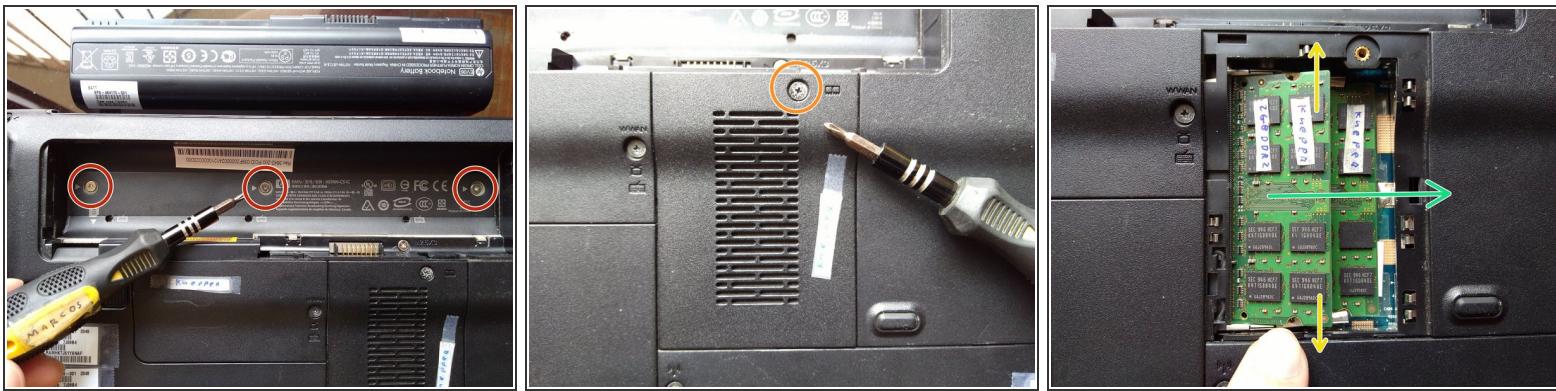
- [Thermal Paste](#) (1)

Step 1 — Remove the battery



- Place the laptop facing down with the battery upwards in your work area.
- Remove the battery sliding the safety latch to the left.

Step 2



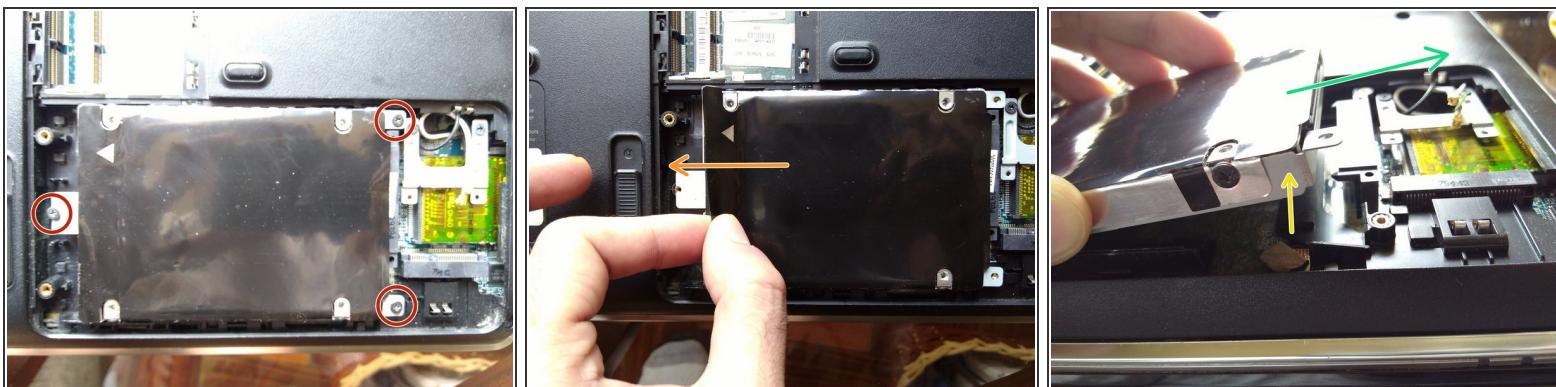
- Remove the **3, #00 Phillips screws located below the battery.**
- Loosen the **#00 Phillips screw** from the RAM compartment and remove the cover.
- Loosen the retainers.
- Remove the RAM modules.

Step 3



- Remove the **2, #00 Phillips screws** that secure the Hard Drive and the Wi-Fi card cover.
- Remove the cover and unplug the 2 plugs that connect the antenna to the Wi-Fi card.
- Remove the 2 screws and take the Wi-Fi card apart.

Step 4



- Unscrew the **3, #2 Phillips screws**.
- Now, use the plastic protector to pull the hard drive to the left.
- Tilt the hard drive raising its right side.
- Remove the hard drive.

Step 5 — Remove the DVD unit.



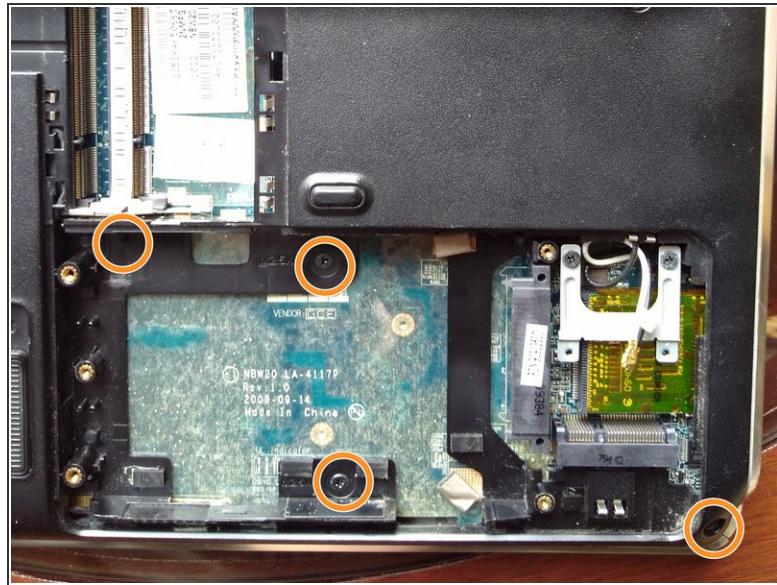
- Remove the WWAN card screw.
- Push upwards the DVD unit safety latch.
- The DVD unit should slide out. Remove it.

Step 6



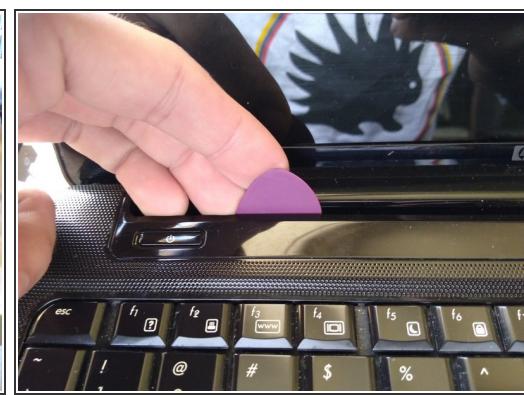
- Remove the 3 upper left corner screws.
- Now, remove the 2 lower left corner screws.

Step 7



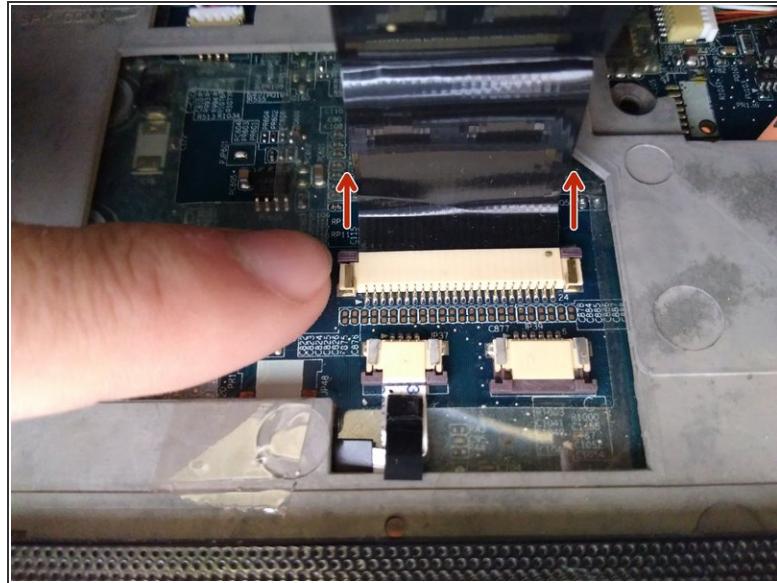
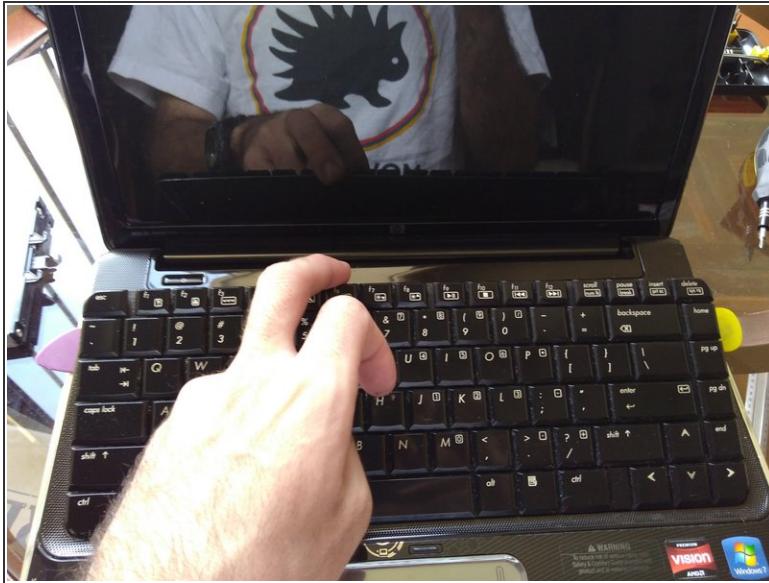
- Remove the 3 upper right corner screws.
- Remove the 4 lower right corner screws.

Step 8



- Turn the laptop and open it.
- Use plastic picks to partially separate the plastic surrounding the keyboard.

Step 9



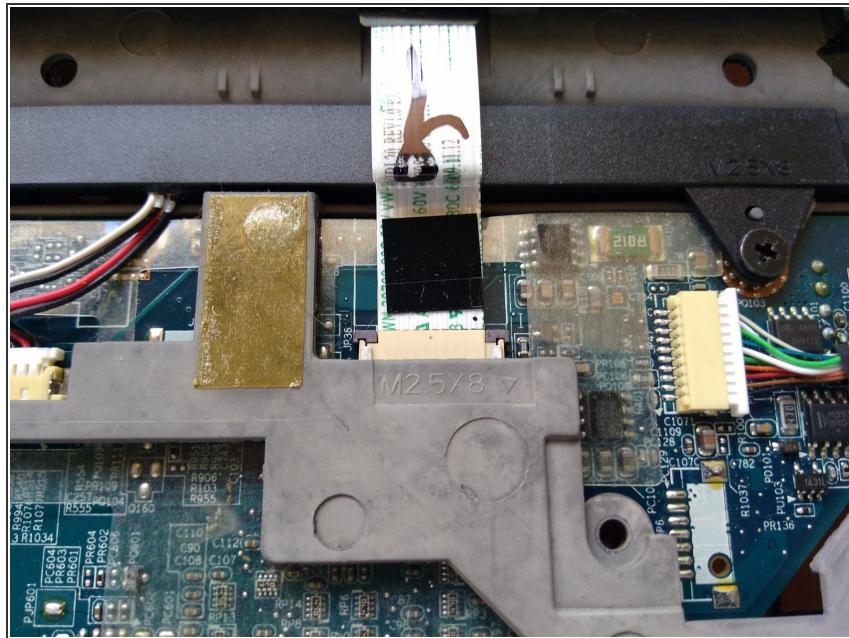
- Take the keyboard partially out of its place, first from the top, then from the bottom of the keyboard.
- Push both sides of the keyboard to free the ribbon cable retainers.

Step 10



- Remove the 2 screws under the keyboard, located in the lower left corner.
- Remove the 2 screws that were covered by the DVD unit.
- Remove the keyboard plastic cover completely.

Step 11



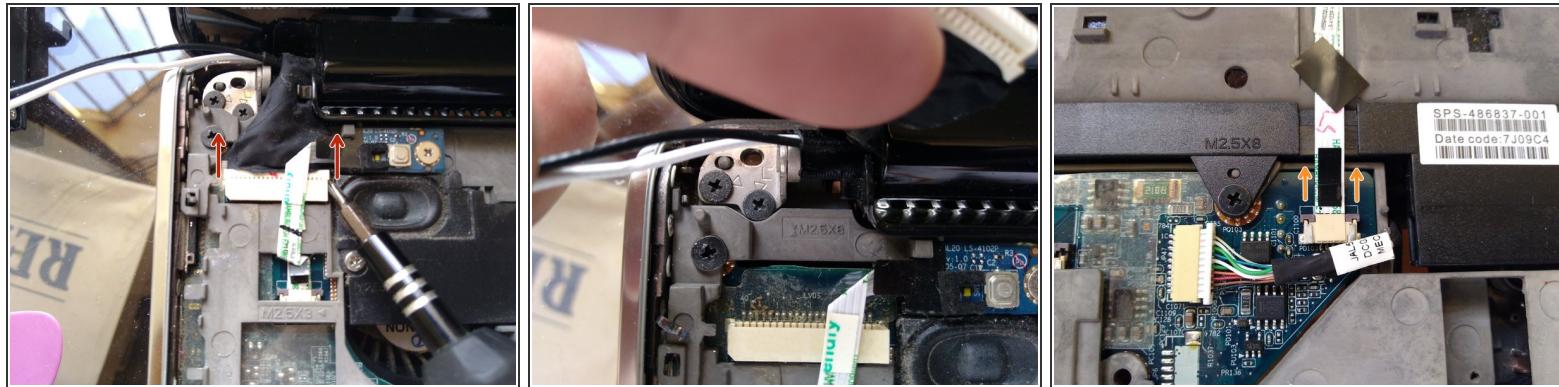
- Before tearing the plastic surrounding the keyboard, remove the ribbon cable holding it in place.

Step 12



- Take out the Wi-Fi antenna cable and remove the label.

Step 13



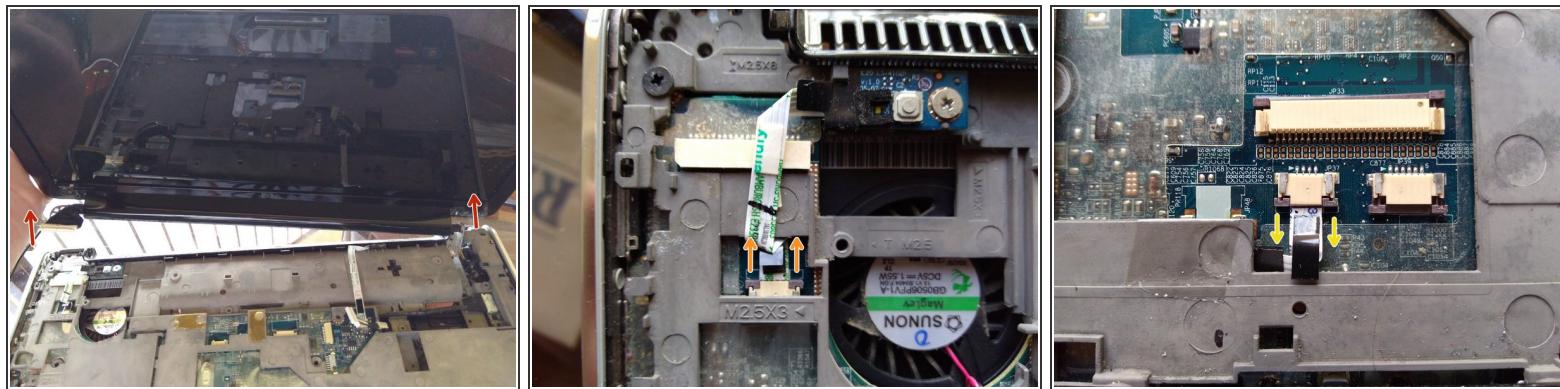
- Push both ends of the screen cable using a tool until it's disconnected.
- Do the same with the ribbon cable located in the far right side of the screen.

Step 14



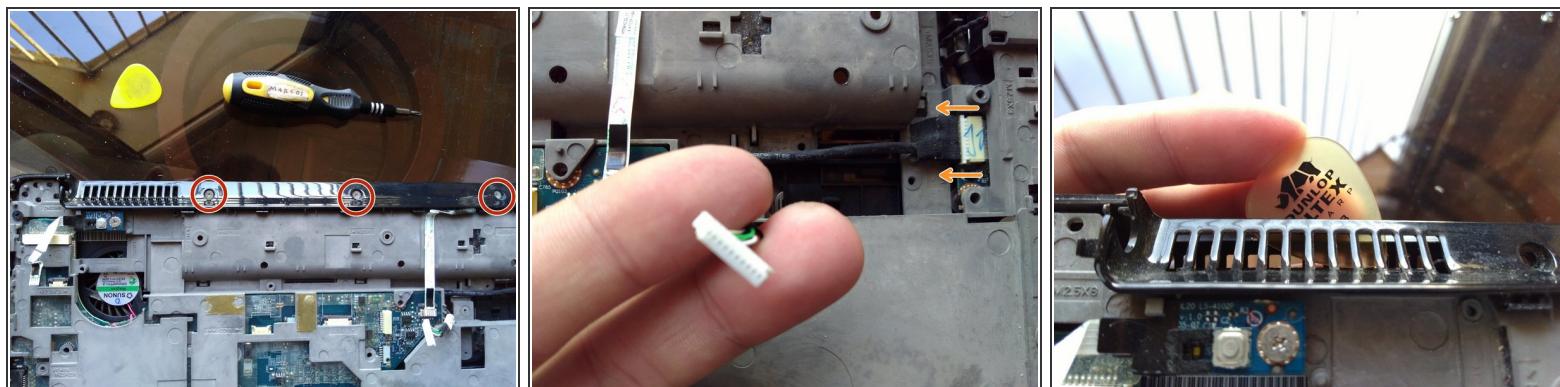
- Unplug the speakers power cable.
- Remove the 3 screws that secure the speakers.
- Remove the speakers and the 2 screws that hold the right side of the screen in place.

Step 15



- Remove the screen.
- Remove the ribbon cable that connects to the on/off button.
- Remove the ribbon cable that connects the touchpad.

Step 16



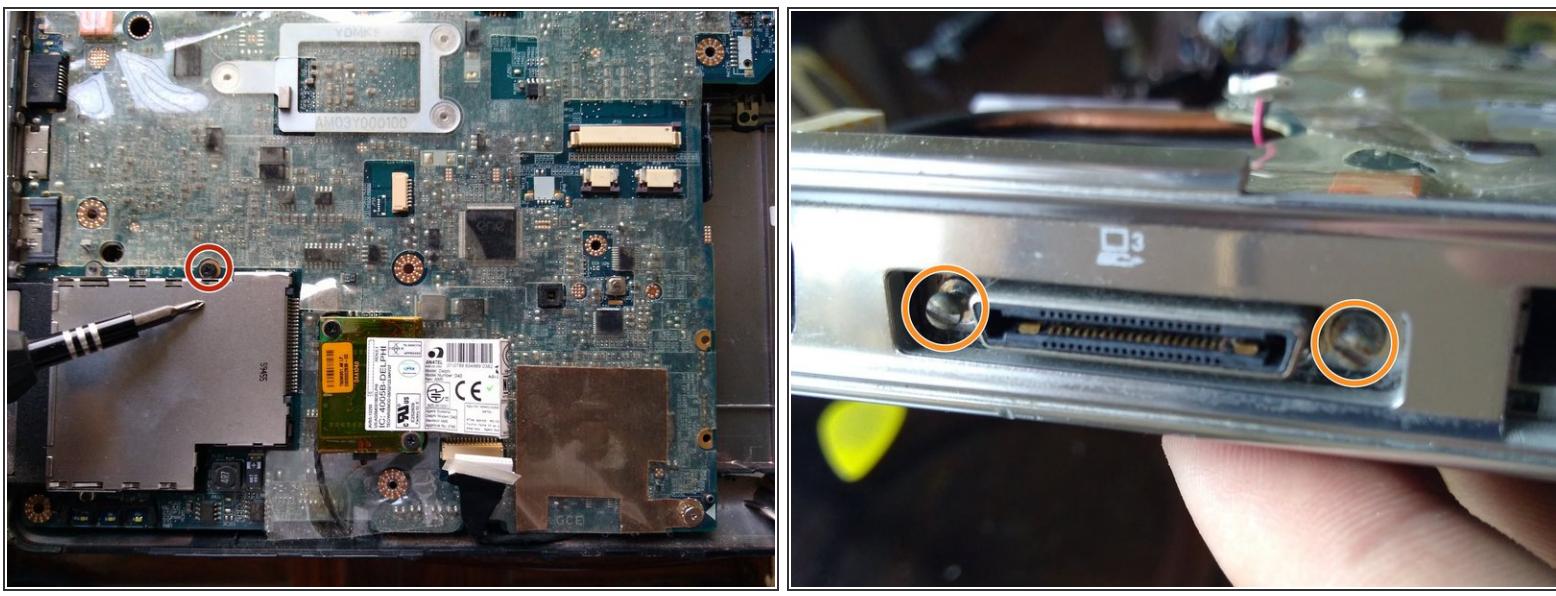
- Remove the 3 screws under the screen bezel.
- Remove the cable completely.
- Use a plastic pick to remove the plastic that wraps the side of the laptop.

Step 17



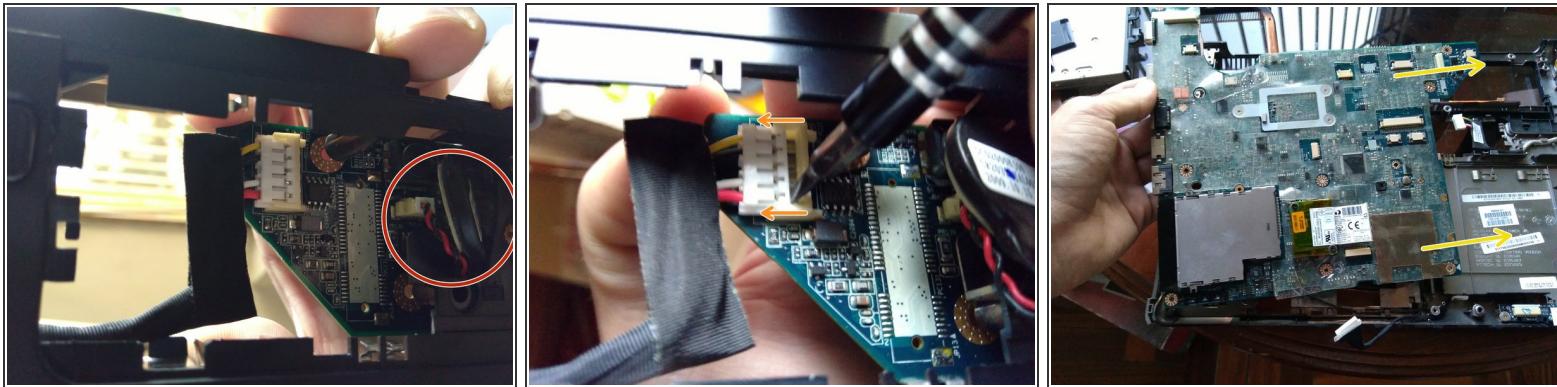
- Remove the lateral card.
- Remove the tape and the power cable from the fan cooler.
- Put away the cable.

Step 18



- Remove the screw that holds the motherboard in place.
- Now remove the 2 lateral screws, use a flat head screwdriver.
- Remove the cable located in lower right corner of the laptop.

Step 19



- Put the clock battery out of the way.
- With a flat head screwdriver, remove the power cable located at the upper left side of the motherboard.
- Remove the motherboard from it's place and turn it over.

Step 20



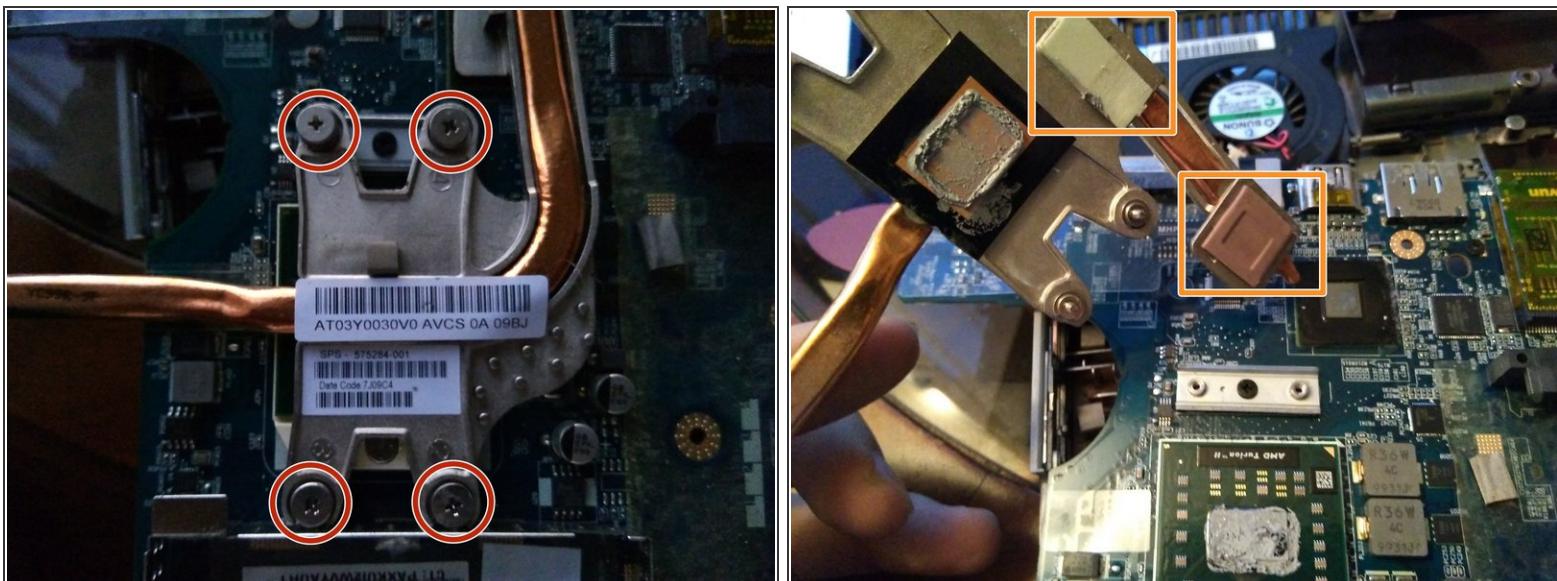
- Using your hand or a pair of pliers, remove the lint.
- Use a screwdriver to lock the fan and prevent it to move while you are cleaning it.
- Remove the 2 screws that hold the fan to the chassis of the laptop.

Step 21



- Using a **#000 Phillips screwdriver**, remove the 4 screws that close the fan housing.
- With a small brush or a toothbrush, remove the dust. **BE CAREFUL:** the fan blades are VERY fragile, do not apply too much force with your fingers.
- Close and screw the cooling fan housing. You can see the fan requires 5 volts, 1.55 watts and a 2 pin cable in order to work.

Step 22



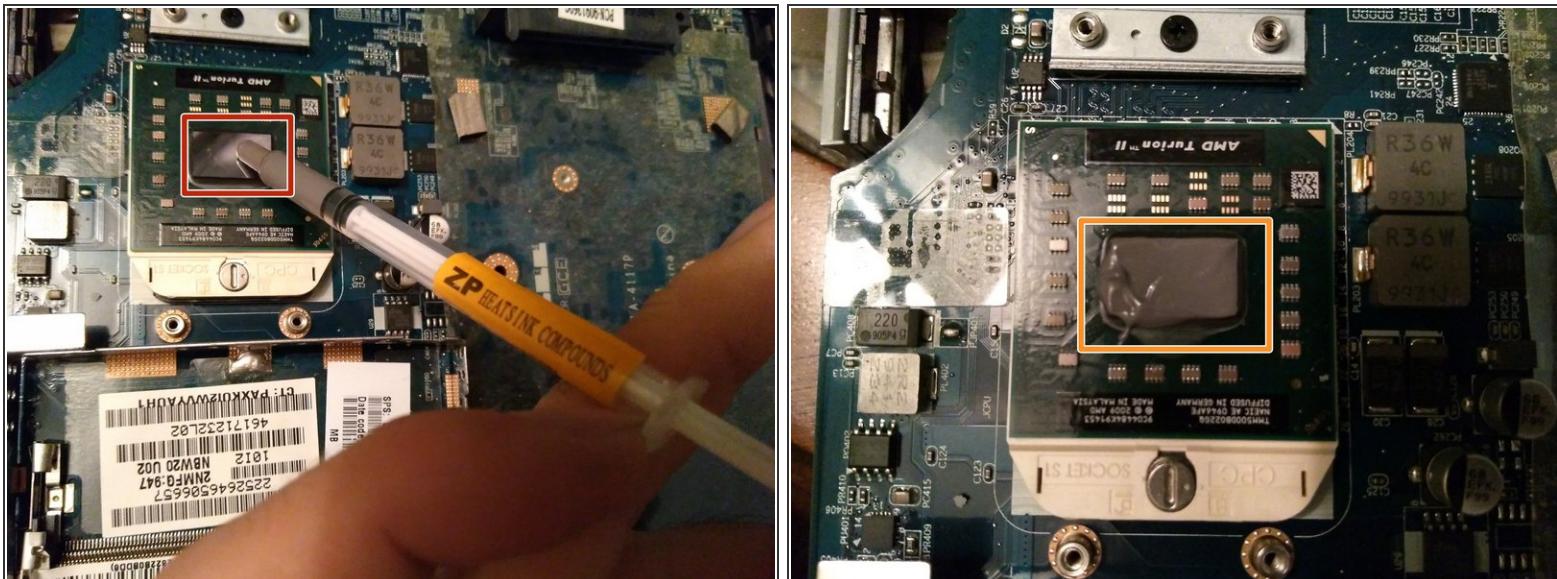
- Loosen the 4 screws that hold the heat sink in place.
- Remove the heat sink. **DO NOT** remove the thermal pads.

Step 23



- Use **70% or higher isopropyl alcohol** and cotton or absorbent paper to damp.
- With the damp cotton or paper, remove the old thermal paste from the CPU and wait to completely dry for 10 minutes.
- Remove the thermal paste from the heat sink as well.

Step 24



- Place a small amount of new thermal paste on the metallic part of the CPU.
- Use your finger to evenly spread the exposed metal on the processor.

To reassemble your device, follow the instructions from the last to first step.