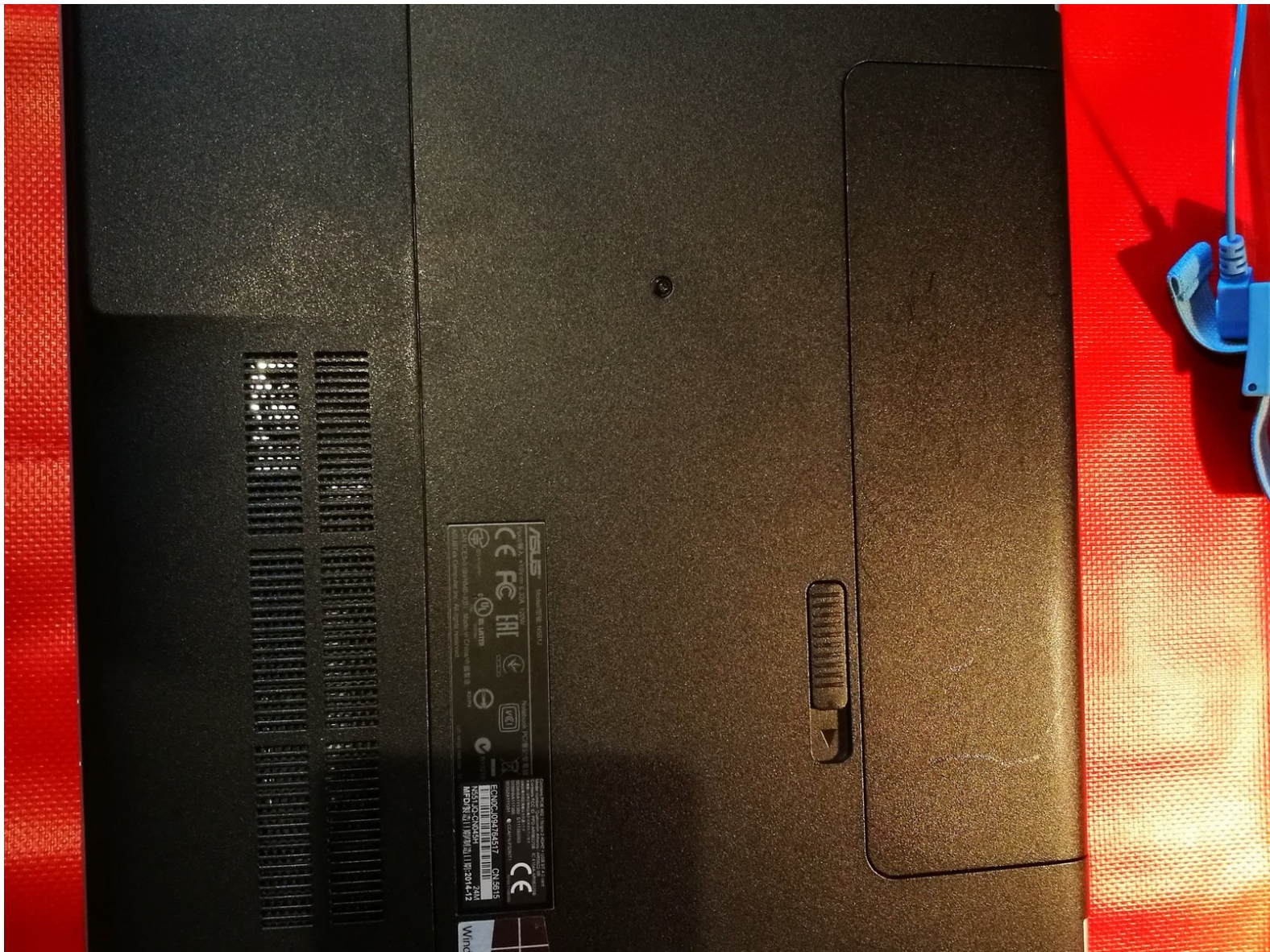




Asus N551JQ thermal paste replacement

When your laptop becomes too hot. Follow this guide, to replace your CPU's thermal paste and remove dust, for better performance.

Written By: Marvin Arets



INTRODUCTION

When your laptop becomes to hot. Follow this guide, to replace your CPU's thermal paste and remove dust, for better performance.

While following this guide, remove every dust you see, to optimize the performance of your laptop. Using a simple paint brush, or compressor/compressed air.

It's highly recommended to use anti static tools, to prevent damage!



TOOLS:

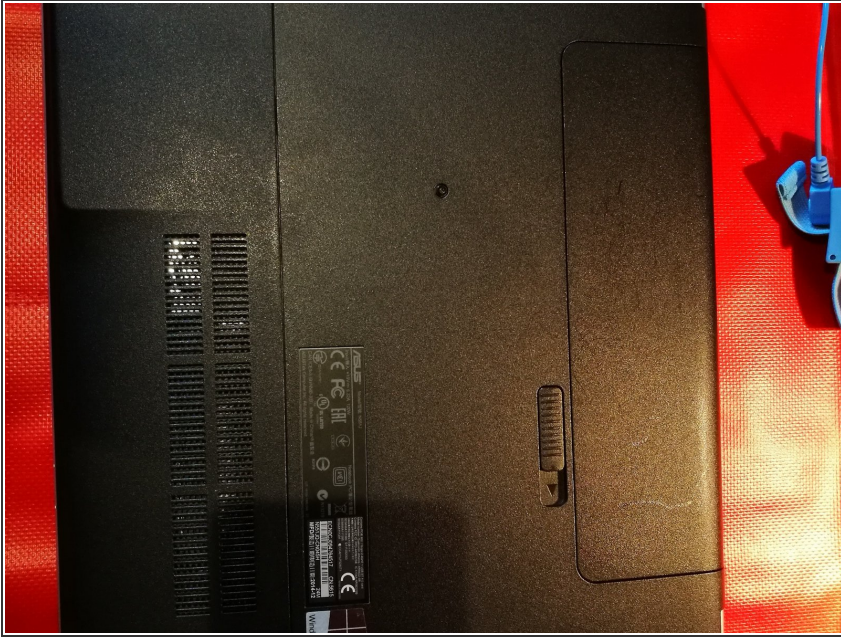
- [iOpener Kit](#) (1)
Optional
- [Some screw drivers](#) (1)
- [Anti-Static Brush](#) (1)
- [Compressed Air](#) (1)
- [Portable Anti-Static Mat](#) (1)



PARTS:

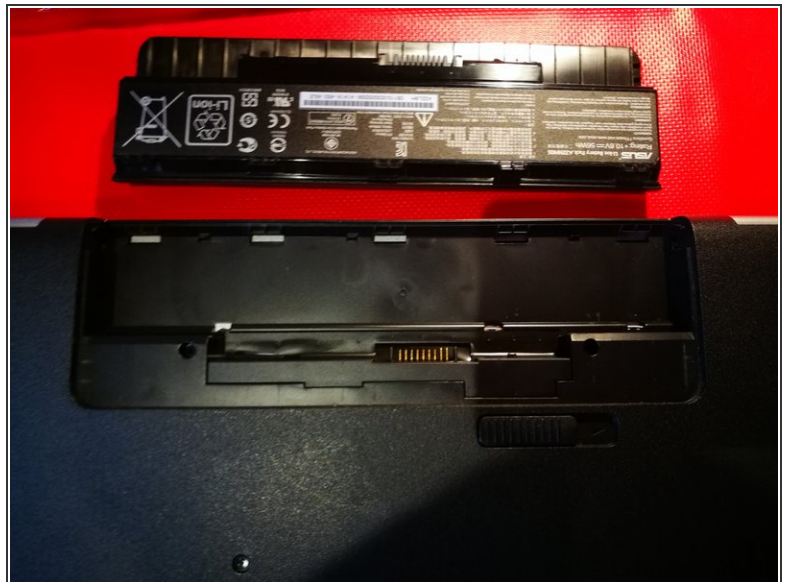
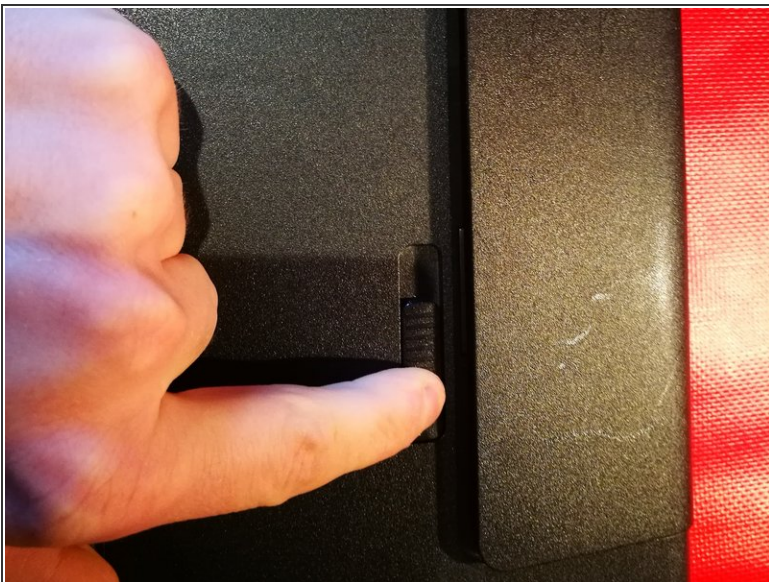
- [Thermal Paste](#) (1)

Step 1 — Thermal paste



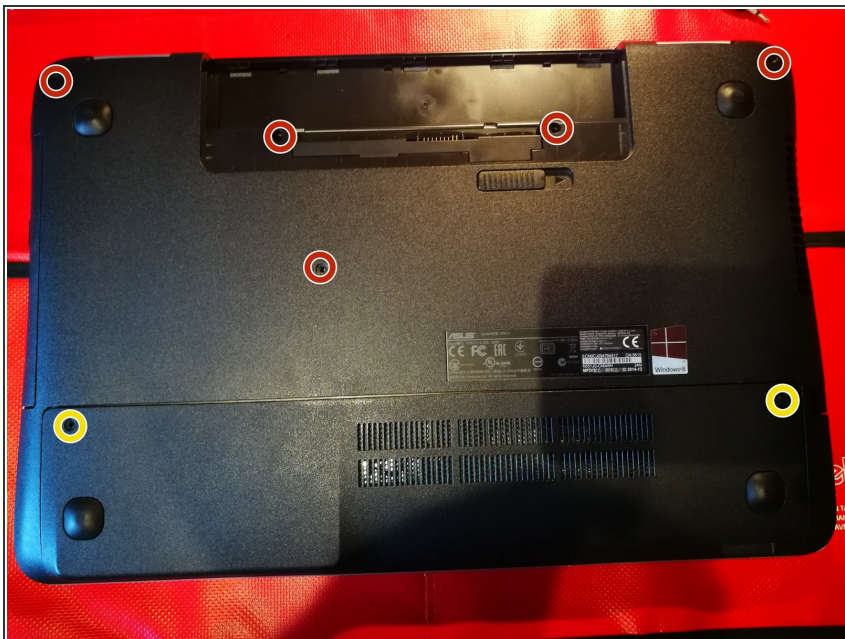
- Shut down your laptop.
- Turn your laptop upside down.

Step 2



- Remove the battery, by sliding the slide.
- Lift up the battery / pull it out.

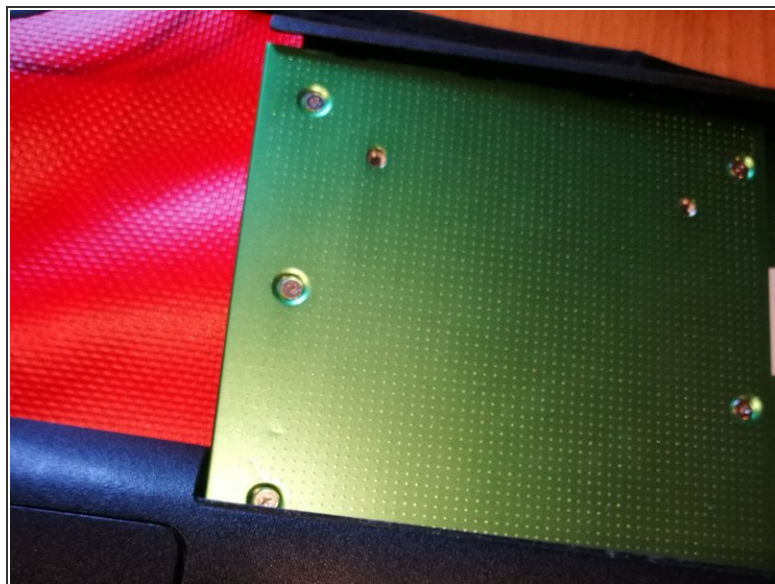
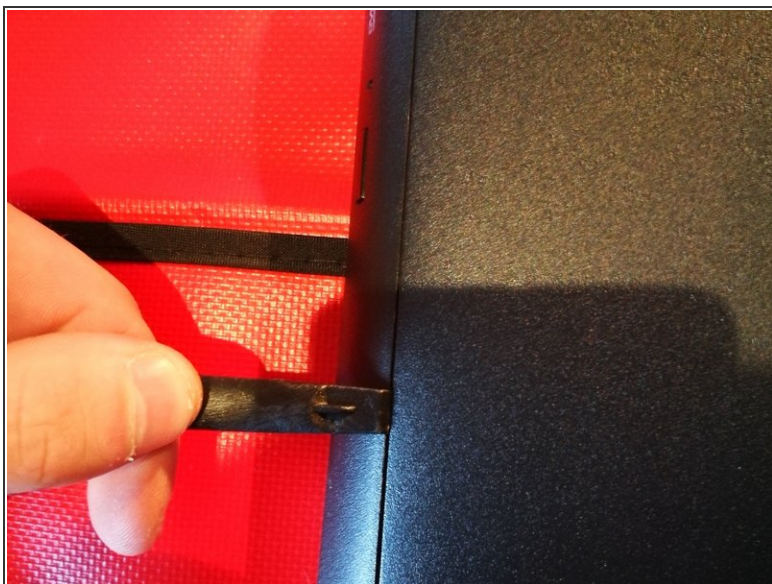
Step 3



- Remove all the screws.

⚠ Warning: the yellow screws are longer than the rest. Keep them part!

Step 4



- Remove the DVD drive.

i Mine is green, because it's an HDD caddy.

i Optionally use a tool.

Step 5



- Remove the two screws which were under the DVD drive.

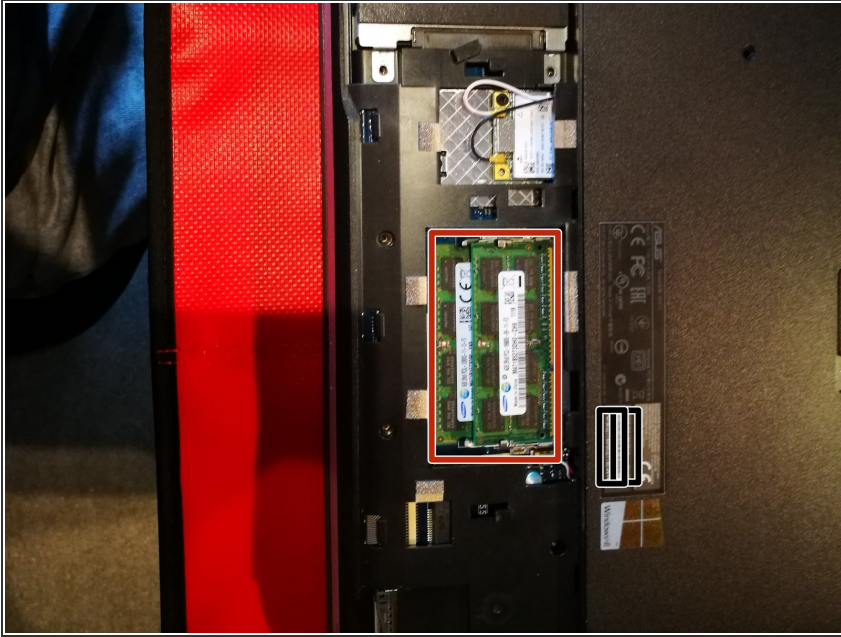
⚠ These are shorter than the rest.
Keep them part!

Step 6



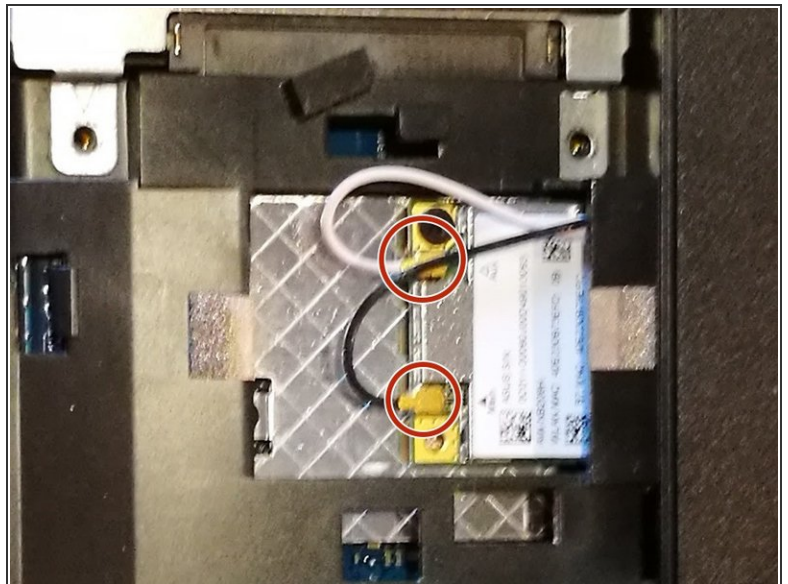
- Remove the bar at the bottom of the laptop, by sliding it downwards.

Step 7



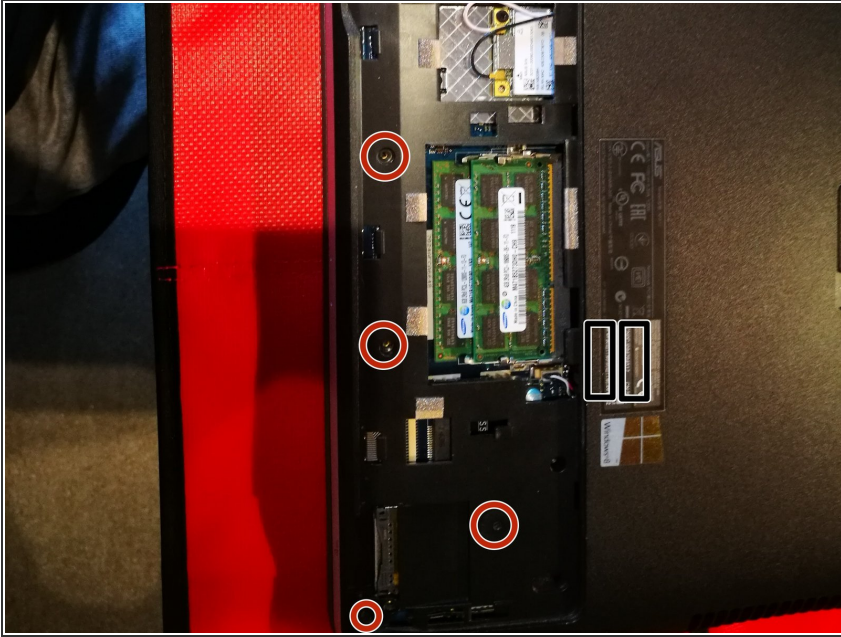
- To prevent damage, remove your memory.
- ❗ Your memory is probably just one, mine is extended.
- ❗ The black lines are to protect some data.

Step 8



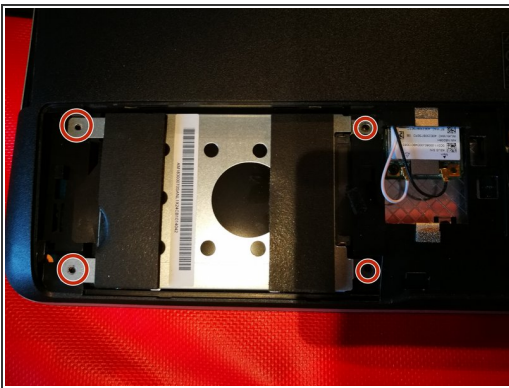
- Release the marked connector.
- Release the Wi-Fi antennas.

Step 9



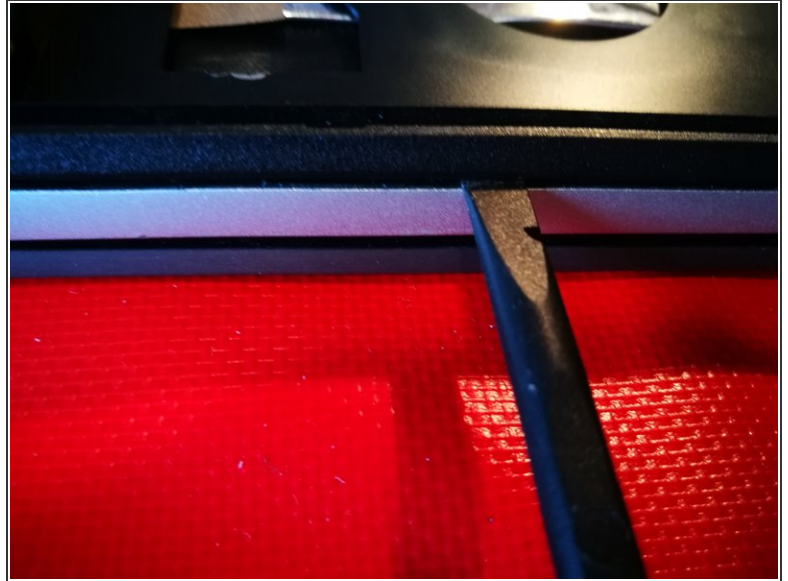
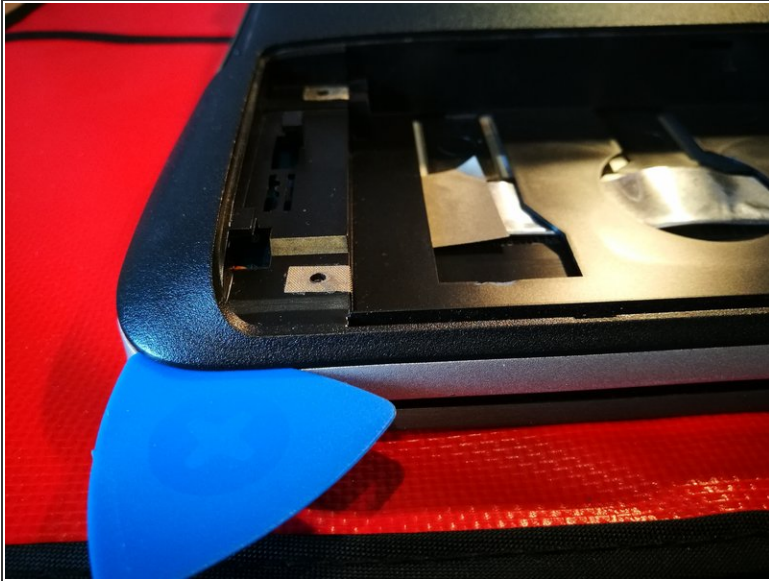
- Remove the marked screws.
- ⓘ The black lines are to protect some data.

Step 10



- Remove the marked screws.
- Carefully remove the HDD, by pulling the black plastic thing.

Step 11 — Opening case



- i** This step is for the bottom side of the laptop (where HDD and memory are). Using an opening pick, to not damage the case.
 - Starting in an edge, pull the pick in. Slide left-right/right-left, to create an opening.
- i** No problem when you hear a click-sound.
 - When there is an opening, use a spudger to separate the rest of the downside of the case. Slide it trough the whole downside.
 - Slide further with the spudger to the side where are the least ports (one USB port). Optionally use a opening pick, if necessary.

Step 12 — Opening case - network-side



- Use the spudger from the downside edge, until you reach the network port.
- Behind the network port, try to insert an opening pick, to create a new opening.
- When done, slide with the spudger to the rest of the network-side.

Step 13 — Opening case - battery side



- Use opening pick to create an opening at battery side. Try to open the battery side with opening pick only. Only when necessary use the spudger on this side.

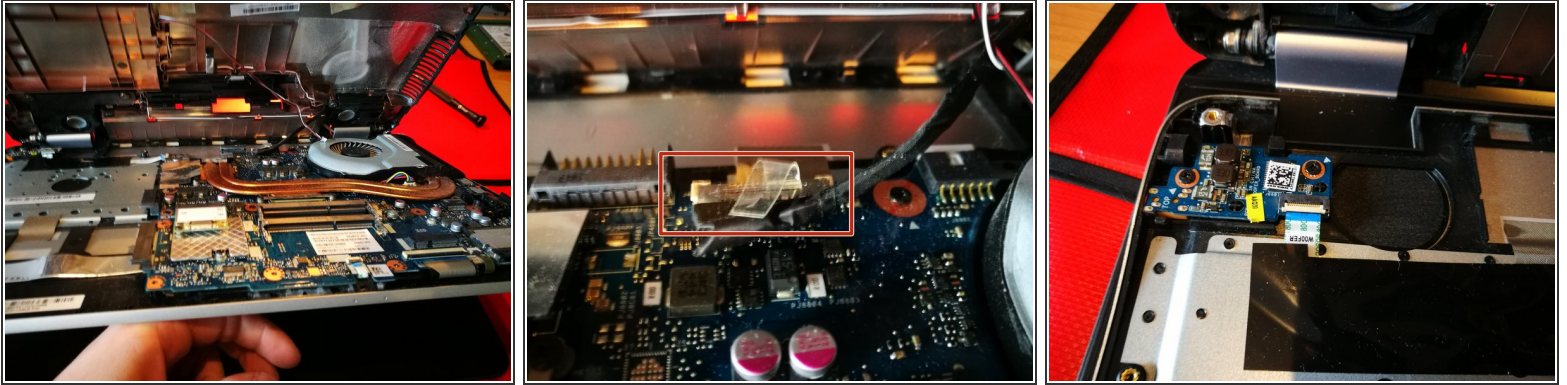
Step 14 — Removing the case



- Lift up the case (with finger/hand), so the whole case is released.
- Open the laptop. Turn the laptop upside down.

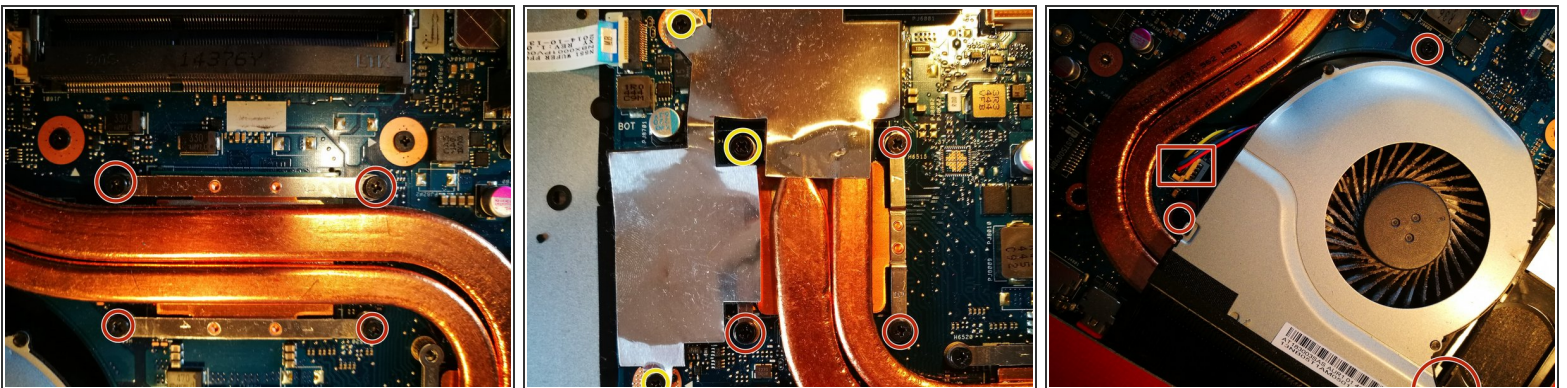
⚠ Don't try to remove the case, it's connected to the screen!

Step 15



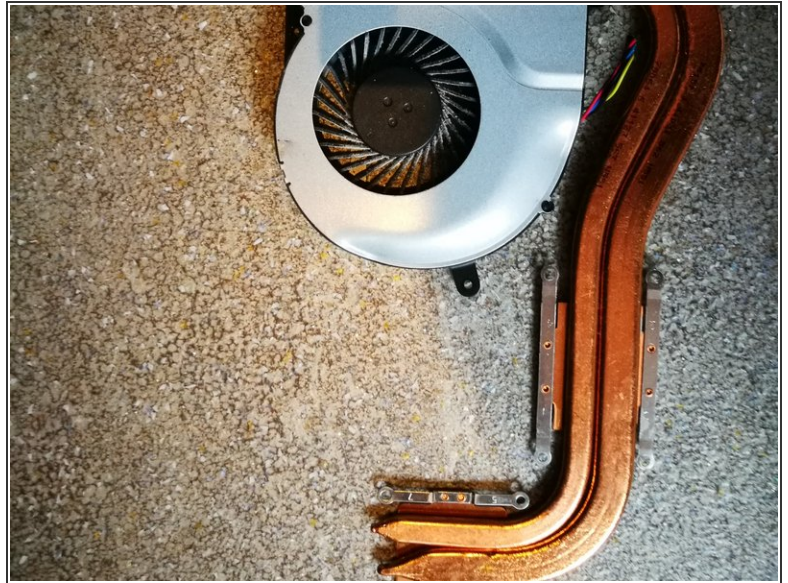
- Pull down the keyboard, but not too far.
 - Release the screen connector, by pulling the plastic thing (marked red).
 - Make the laptop in an 90 degree edge, then carefully pull out the case.
- ⚠ STOP when hearing some cracking sounds! Try pull out an other way (make small movements).
When something is blocking, check if released all connectors!

Step 16 — Remove the cooling unit



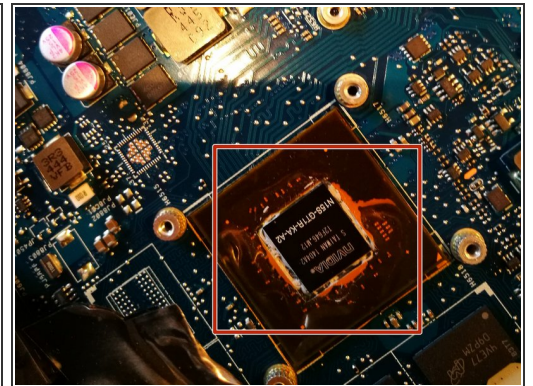
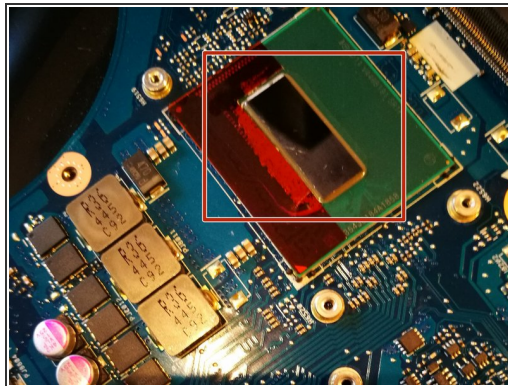
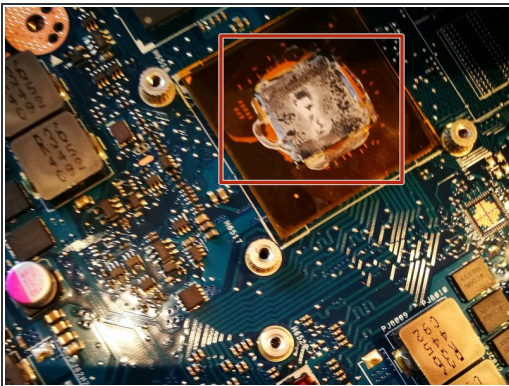
- Remove the red marked screws and the red marked connector.
- Optionally remove the yellow marked screws.

Step 17



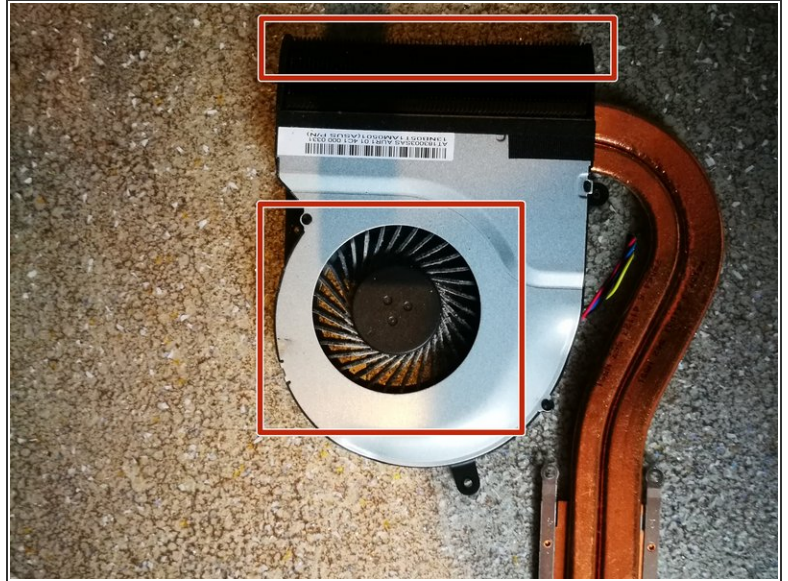
- Release the aluminum isolation layer a little bit, so it makes possible removing the cooling unit.
- Remove the full cooling unit (lift it up).

Step 18 — Cleaning chips




- Clean the processor and videocard chip, so the thermal paste will be removed.
- i** If the paste is dried out, use some water or alcohol, not to much! Make sure to dry both.

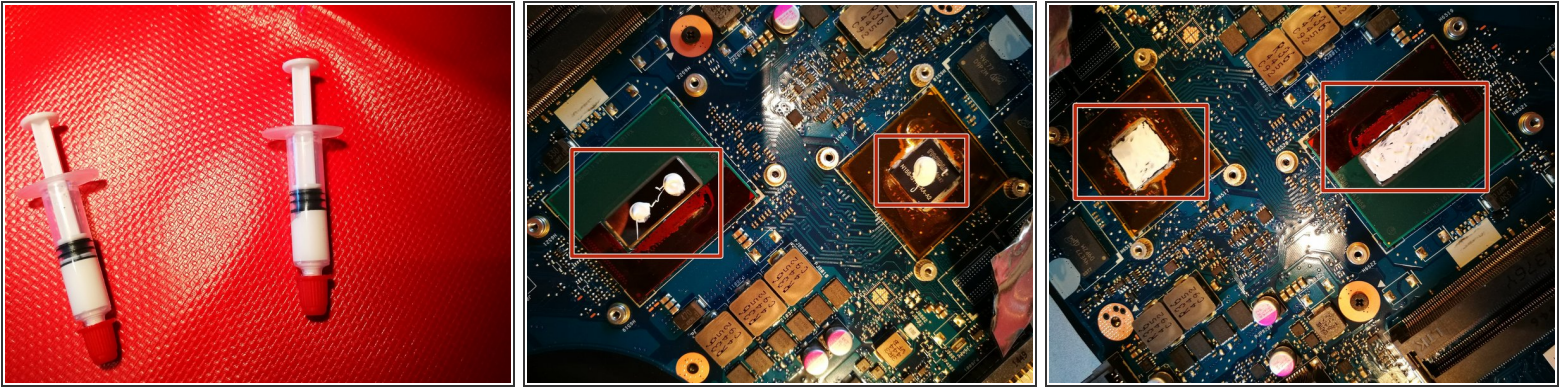
Step 19 — Cleaning cooling unit



- Remove the (dried) thermal paste of the cooling unit.
- Clean the dust, by using compressed air, or an paint brush.

 When using an compressor/compressed air, block the fan, so it can not spin/rotate. Else it will damage!

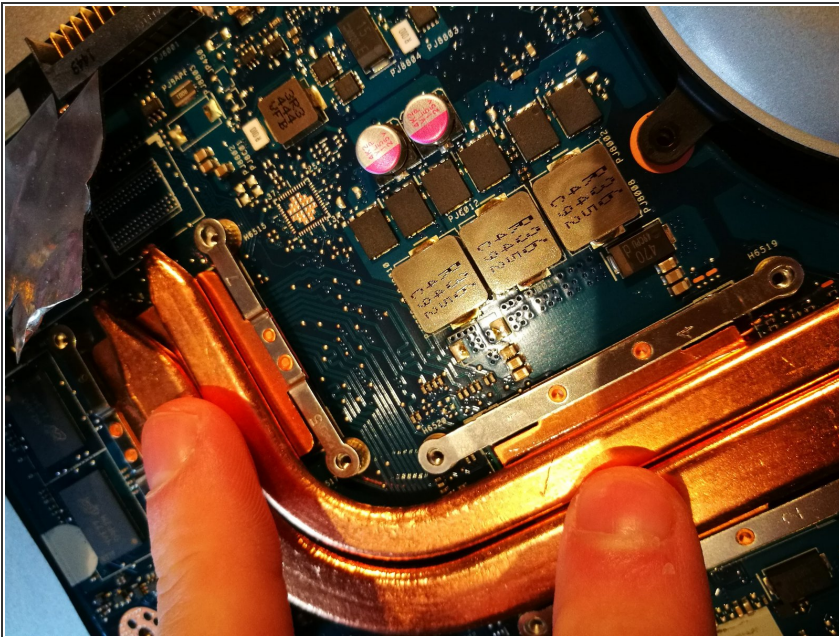
Step 20 — Apply new thermal paste



i Thermal paste is available in different versions.

- Put one drop on the processor, two on the videocard. Use not to much (could counteract the cooling process).
- Gently divide the thermal paste like on the picture, over the whole "metal" part of the chips.

Step 21



- Pull back the cooling unit, and gently move it with two fingers, so the cooling paste will divide better.
- When done, remove the unit and check if the paste is divided well.

i Repeat if necessary.

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

While disassemble and reassemble, remove every dust you see, for better performance.

Let me know if this guide helped you!