



Asus Laptop K43SA A43SA Thermal compound Replacement

The purpose of this guide is to detail the change of the old thermal paste on the asus K43SA/A43SA components to prevent overheating of the laptop.

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INTRODUCTION

After many years of intensive use, most of laptops begin to heavily overheat and also to become noisy, mainly due to dust and to a dried up thermal paste.

Take your time to manage correctly the task, there are many ways to break some components while doing this.

However it's not as hard as it seems, in my mind everybody can manage successfully by taking a few simple precautions.

-Again, Take your time!

-Disconnect all power cables.

- Use a grounded wrist strap or touch a safely grounded object or a metal object, to avoid damaging the motherboard due to static electricity

-Be organized and do not mix the different types of screws. Reassembling a computer takes way more time. Feel free to take pictures when disassembling components which you don't feel being able to reassemble correctly on your own.

This guide can be applied more generally on the Asus K/A and X series (K43, K53, A43, A53, X43, X53).

In addition, opening your laptop voids the warranty. Be careful.



TOOLS:

- [Phillips #0 Screwdriver](#) (1)
- [iFixit Opening Picks](#) (1)
- [High Content Rubbing Alcohol](#) (1)
- [2.5 mm Flathead Screwdriver](#) (1)
- [Vacuum Cleaner](#) (1)
- [Toothbrush](#) (1)
- [iFixit Opening Tools](#) (1)




PARTS:

- [Thermal Paste](#) (1)

Step 1 — Thermal compound



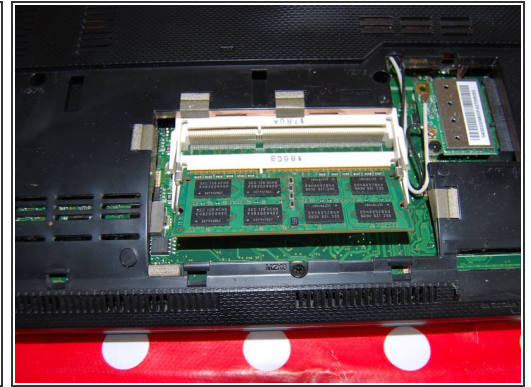
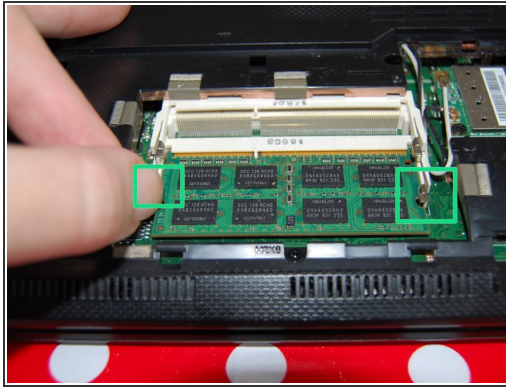
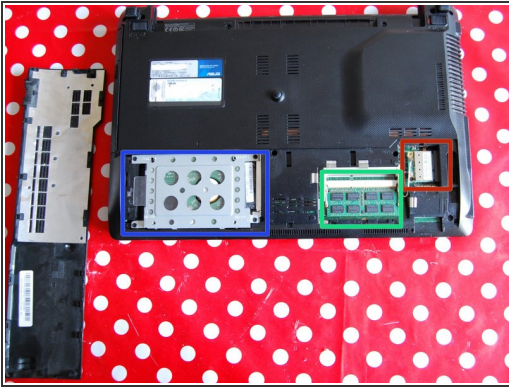
 Don't forget to remove the battery and back up your data before processing.

Step 2



- Remove the two philips screws from the cover.

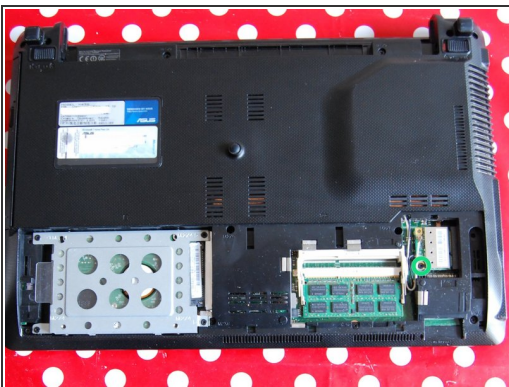
Step 3



 We can see different elements in here :

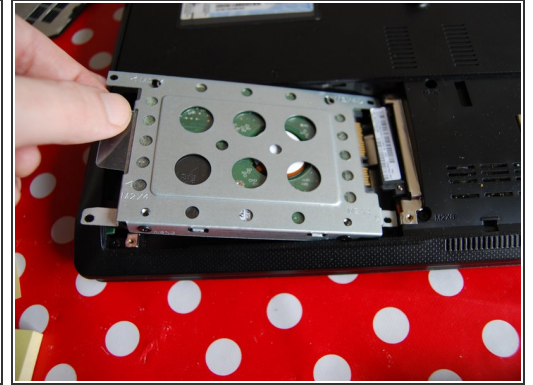
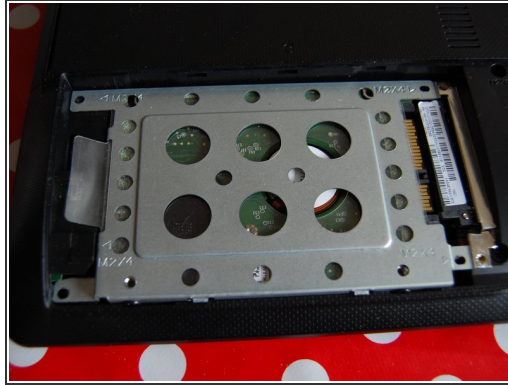
- Wifi card
- Hard drive
- Ram memory
- Release the tabs on each side of the chip by simultaneously pushing each tab away from the RAM.

Step 4



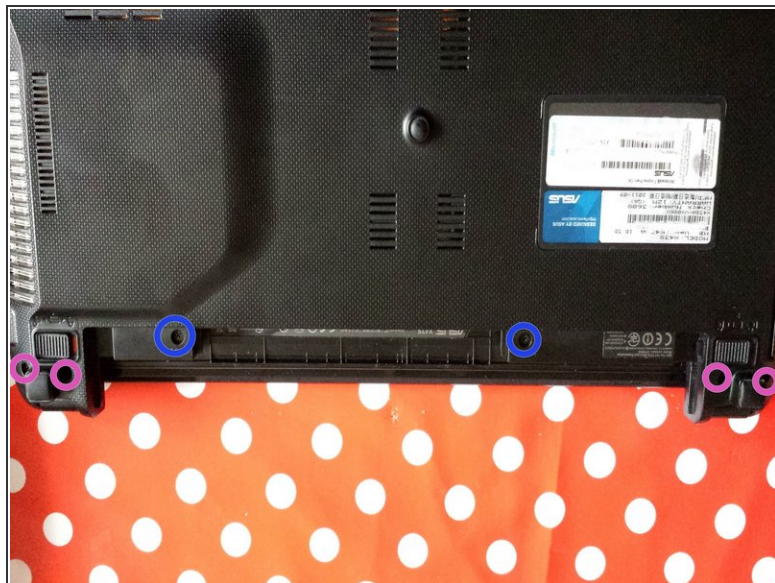
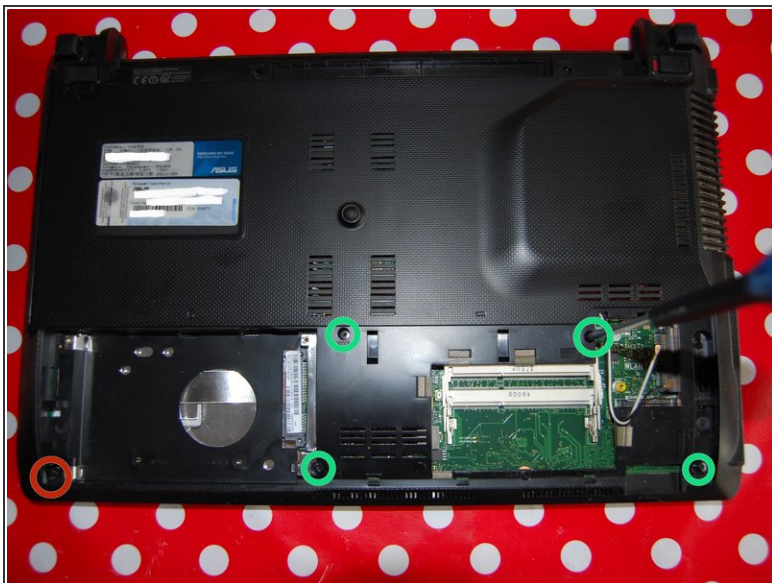
- Remove the single screw from the wireless card.
- Remember the position of the cables. Here the white cable is on the top of the wifi card.

Step 5



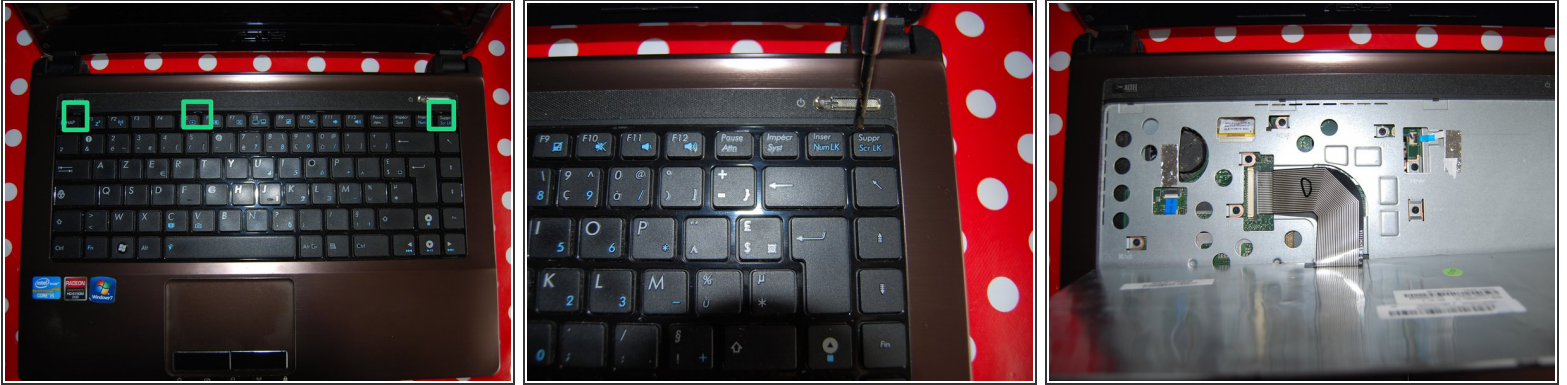
- Remove the four screws from the hard drive cage.
- Then slide the cage to the left.
- Finally, remove the hard drive.

Step 6



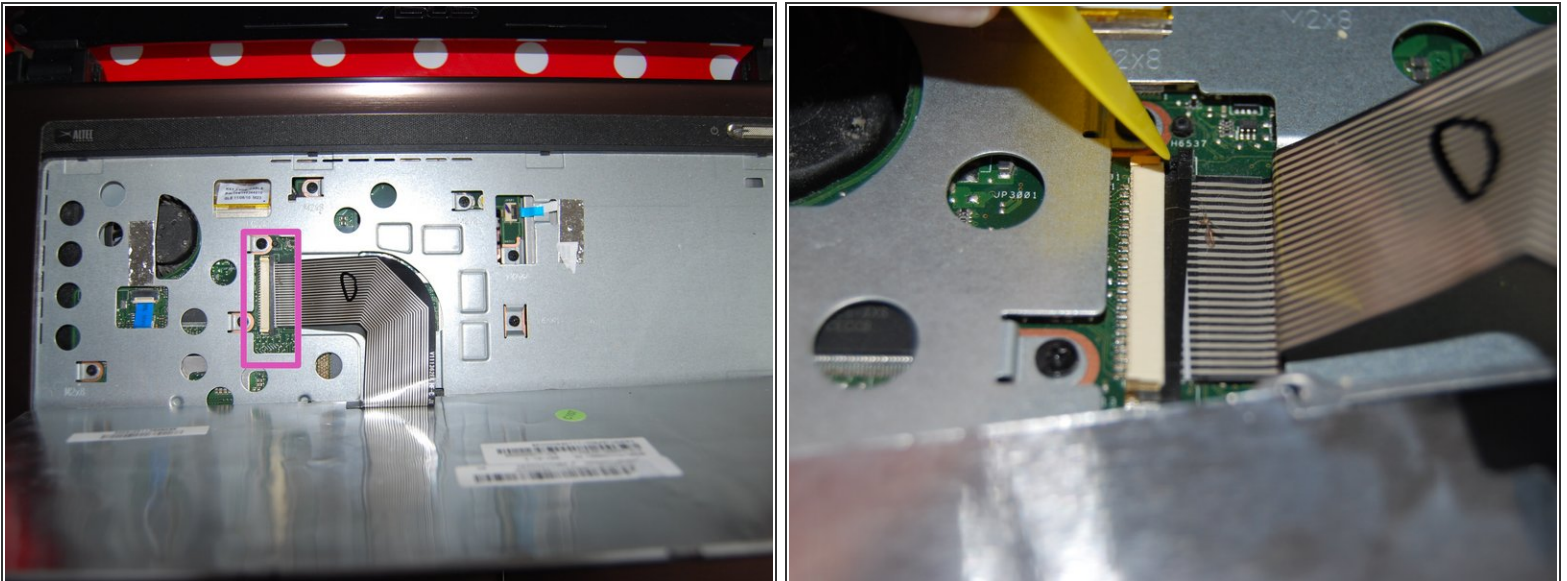
- Remove the four M2X8 screws.
- Remove the single M2X4 screw.
- Remove the two M2.5X12 screws just below the battery
- Remove the other four screws at each side, next to the battery.

Step 7



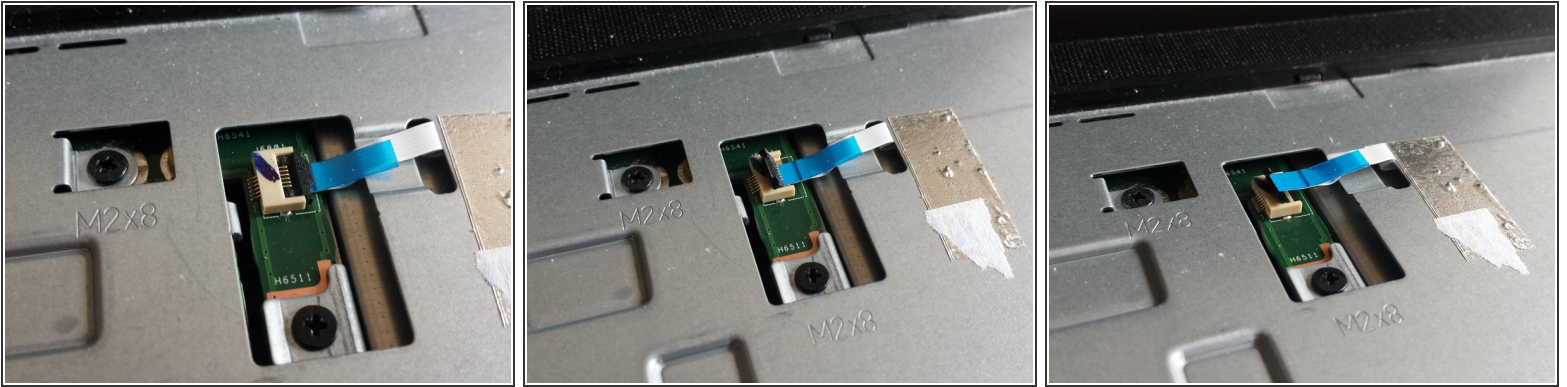
- With a flathead screwdriver, push the clips in order to release the keyboard.
- The keyboard is held by glue. Remove it carefully.
- The keyboard's cable is just below the keyboard. Gently Remove the keyboard by lifting its upper part.

Step 8




- Now we are going to remove the keyboard connector.
- Push gently each side of the black part of the connector with a pick.

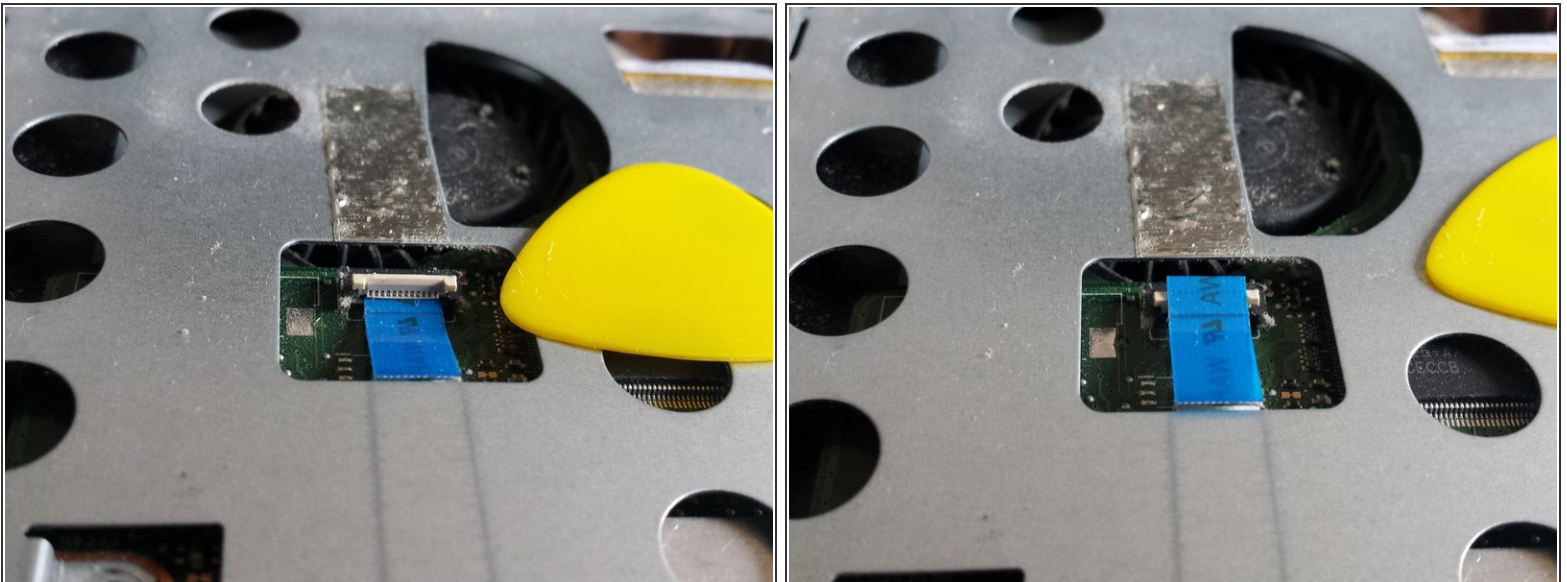
Step 9



- Then we are going to remove the other two cables.
- It's a bit different here. You will have to lift up the black part of the connector (with an opening pick) , and then pull the cable.

 **Be careful**, when you reconnect this kind of cables. You can see in the second picture that there is a marker. The black line on the cable is aligned with the white line on the motherboard. This indicates that the cable is properly inserted into the connector.

Step 10



- Proceed the same way for that one.

Step 11



- Then remove all the M2X8 screws.

Step 12



- Now you can easily remove the DVD/CD drive.
- Just below the DVD/CD drive, there are two little screws to remove.

Step 13



- You can now remove the brown metallic cover by inserting a pick underneath. You'll have to insert the pick all around the cover in order to remove it.
- We now have access to the motherboard.

Step 14



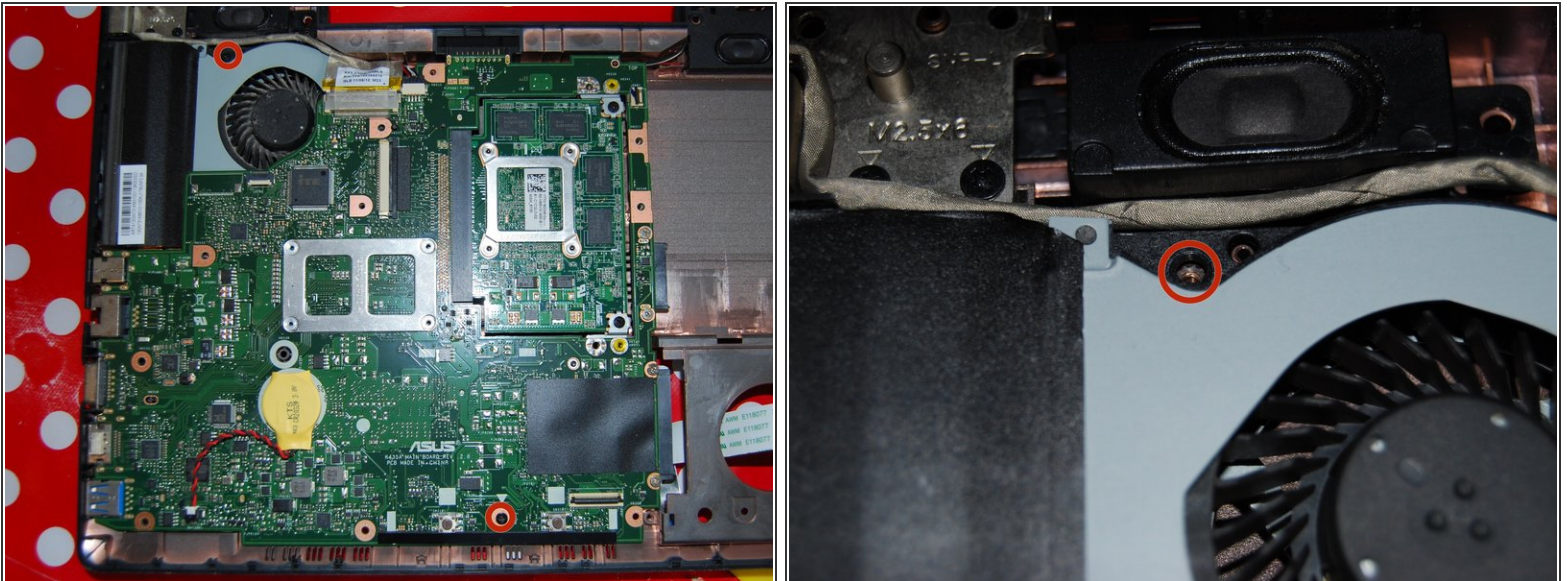
- Remove this cable the same way than the step 9 and 10.

Step 15



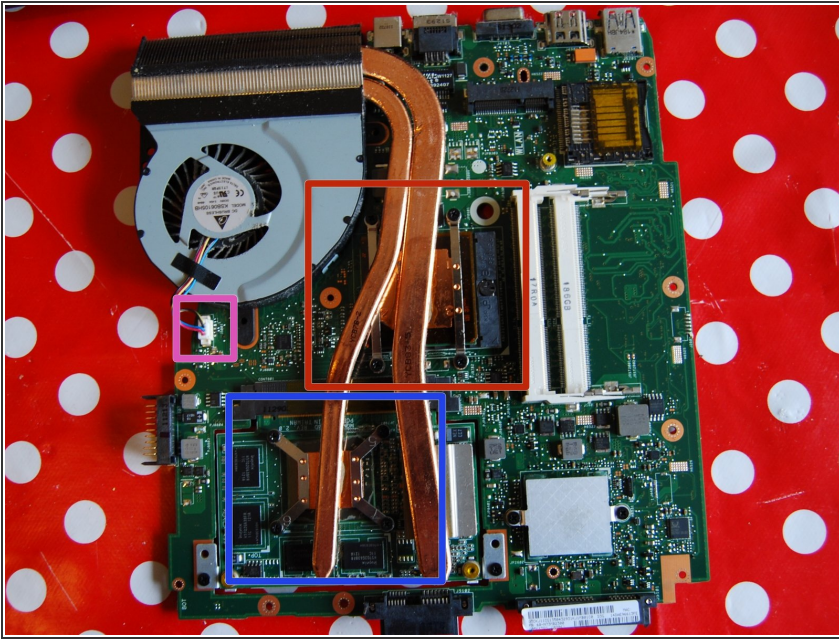
- For this screen's cable you will have to proceed the same way than the step 8 with the keyboard's cable. Push gently each side of this cable to release it.
- Then remove the little one.

Step 16



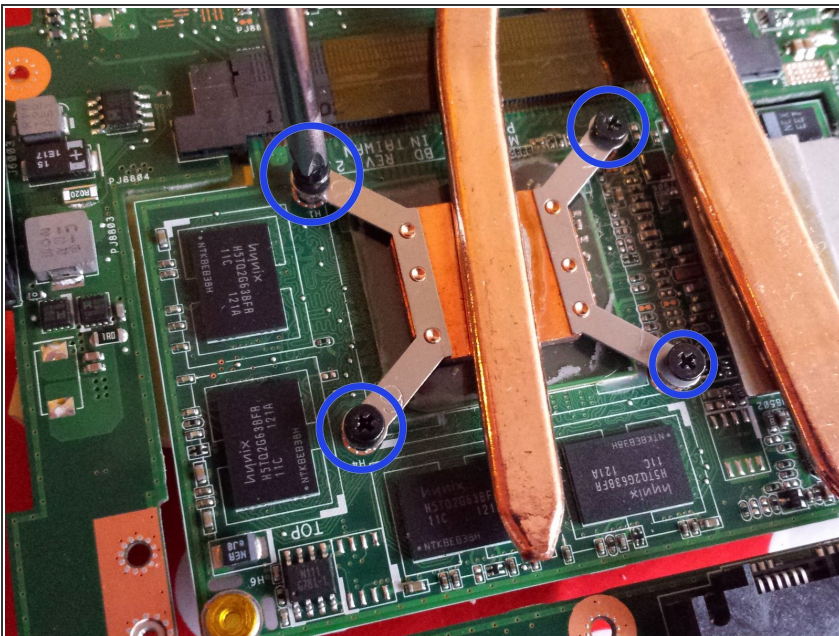
- To completely release the motherboard, remove this two screws.
- ① You will notice that there is a little arrow indicating the location of the screw to remove.
- You can now easily remove the motherboard from the case.

Step 17



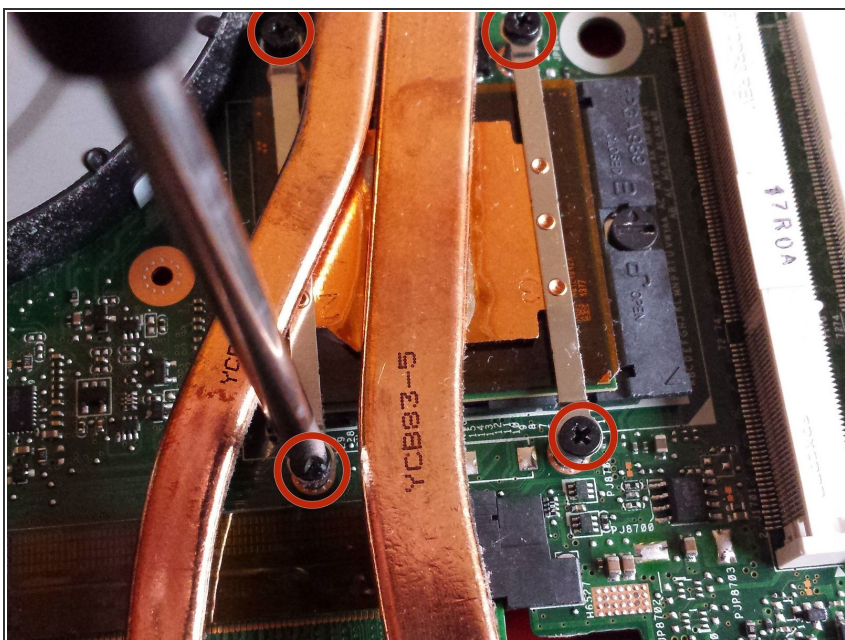
- Here we are ! The motherboard is now fully released.
- ⓘ There are two elements in here:
 - The CPU.
 - The GPU.
- Disconnect the fan cable.

Step 18



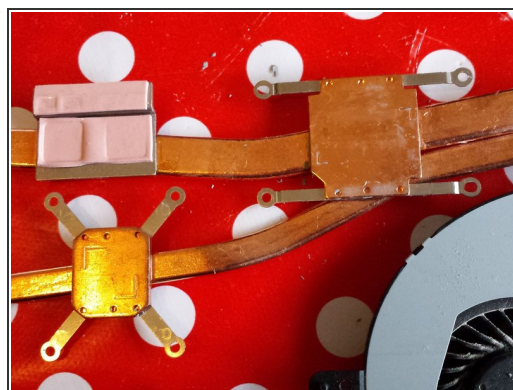
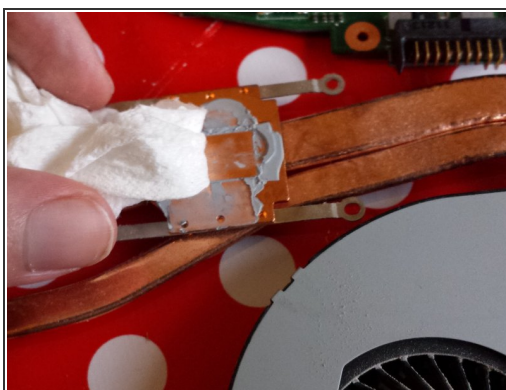
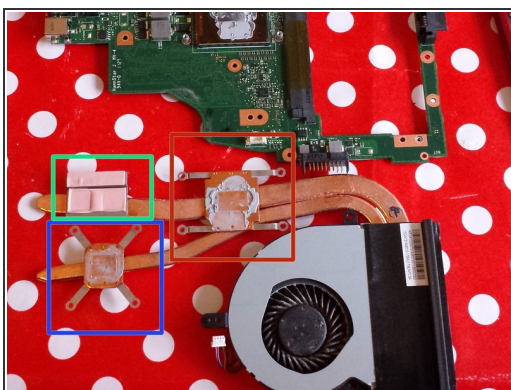
- Remove the four screws from the GPU.

Step 19



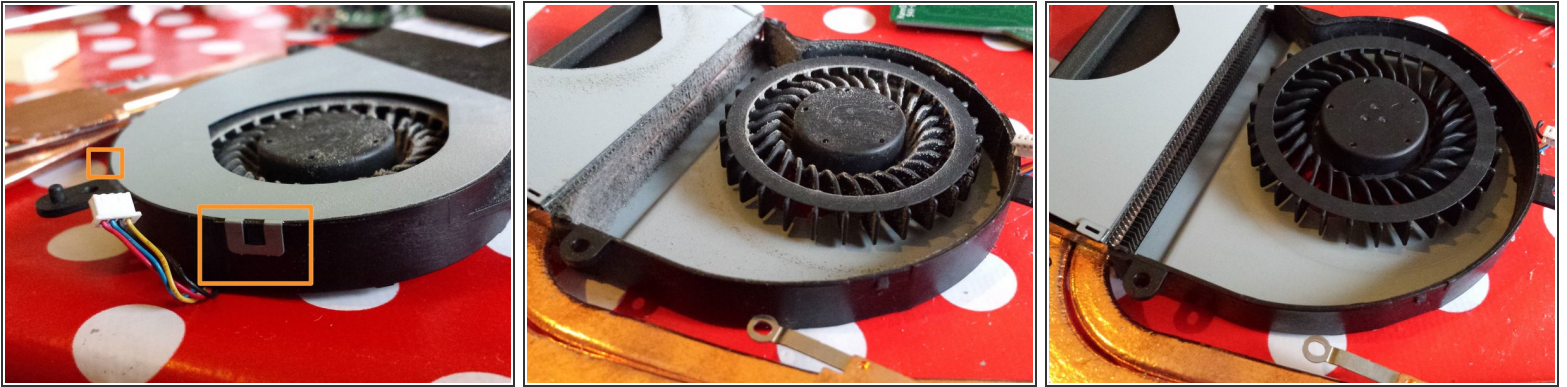
- Remove the four screws from the CPU.

Step 20



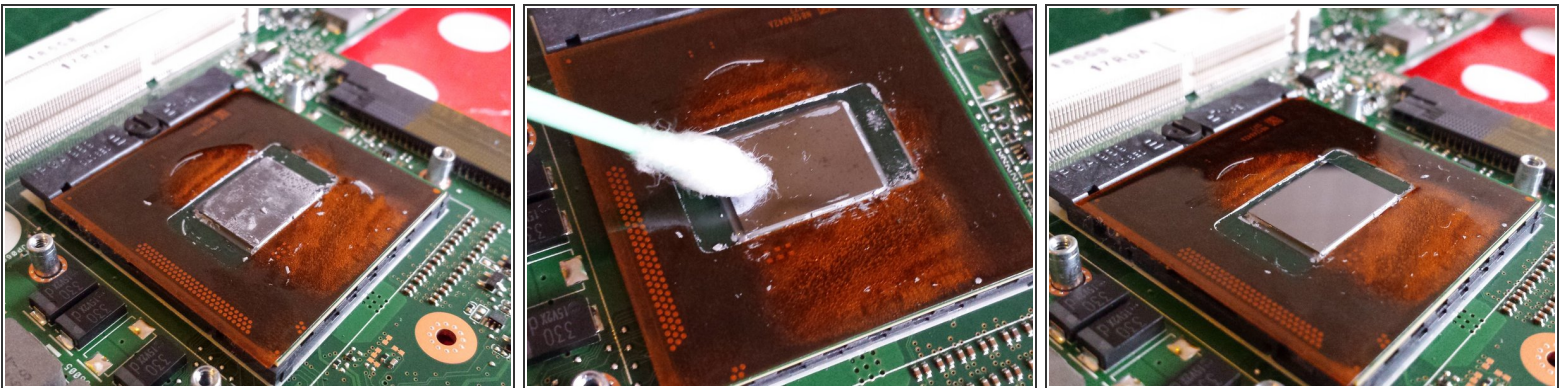
- ❗ When the cooler is removed from the motherboard you can notice the dried up thermal paste.
 - Clean both surfaces with alcohol and paper towels.
 - Do not remove the pink thermal pads.

Step 21



- We are now going to clean the fan.
 - Use a flathead screwdriver to unclip the grey part of the fan.
- (i) And...you will notice a disastrous amount of dust stuck into the cooler.
- (i) This dust is largely responsible for the overheating and excessive noise from the laptop.
 - Take a vacuum cleaner and a brush and clean everything.

Step 22



- Scratch the old thermal paste from the surface of the CPU with a pick or a plastic opening tool .
- Use alcohol, q-tips and paper towel to completely remove the residual traces of thermal paste on the CPU.

Step 23



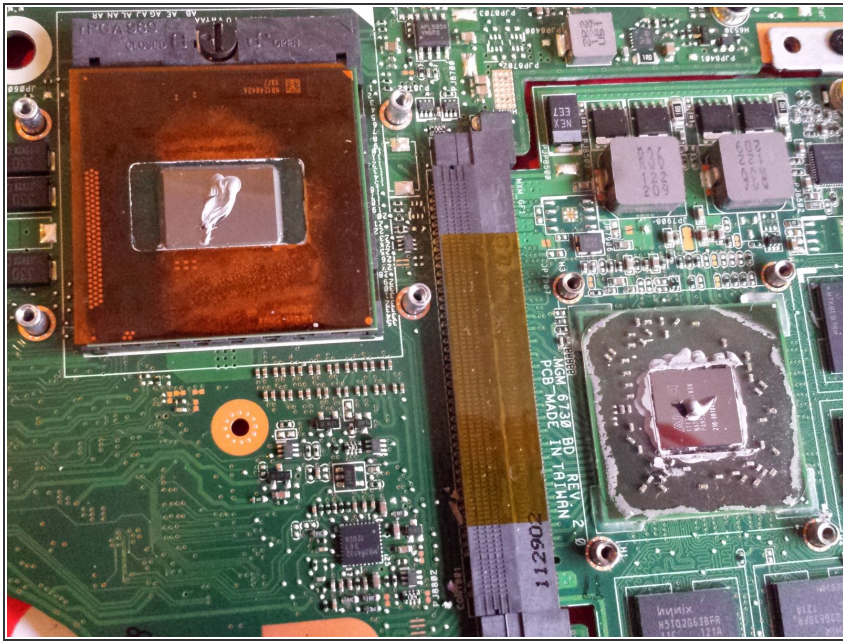
- Proceed the same way for the GPU.

Step 24



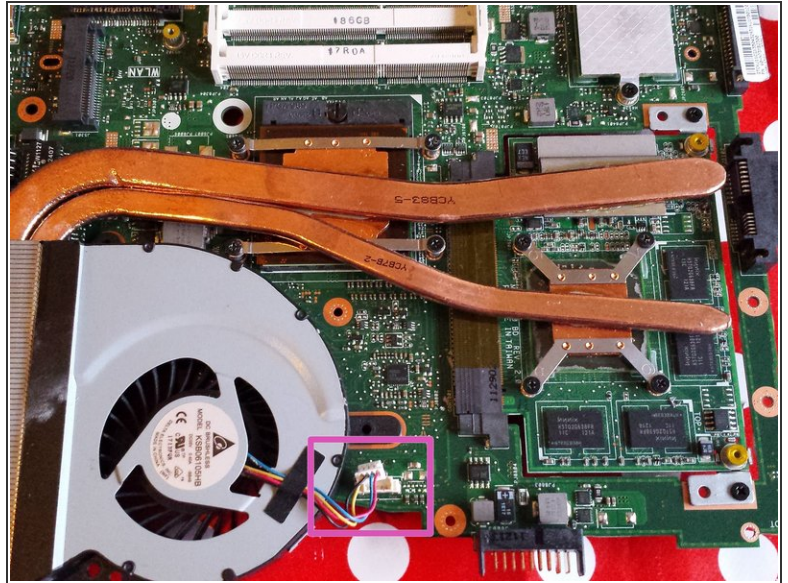
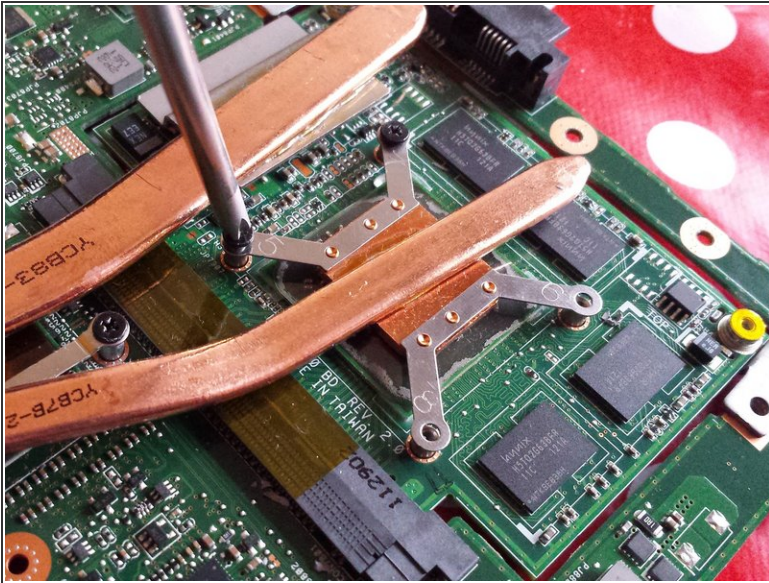
- This is time to replace the old paste with a new one. Buy a good quality paste to ensure a proper heat dissipation.

Step 25



- "Put a small drop (4-5 mm diameter) of thermal paste onto the centre of the heat-spreader."
- ⓘ This is actually the usage instructions from Noctua.

Step 26



- It's almost done!
- Replace the cooler on the CPU and GPU by slightly moving in all directions to spread the thermal paste.
- Screw the cooler.
- Do not forget to reconnect the fan cable.
- Reassemble the laptop and.... enjoy the silence of the computer!

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