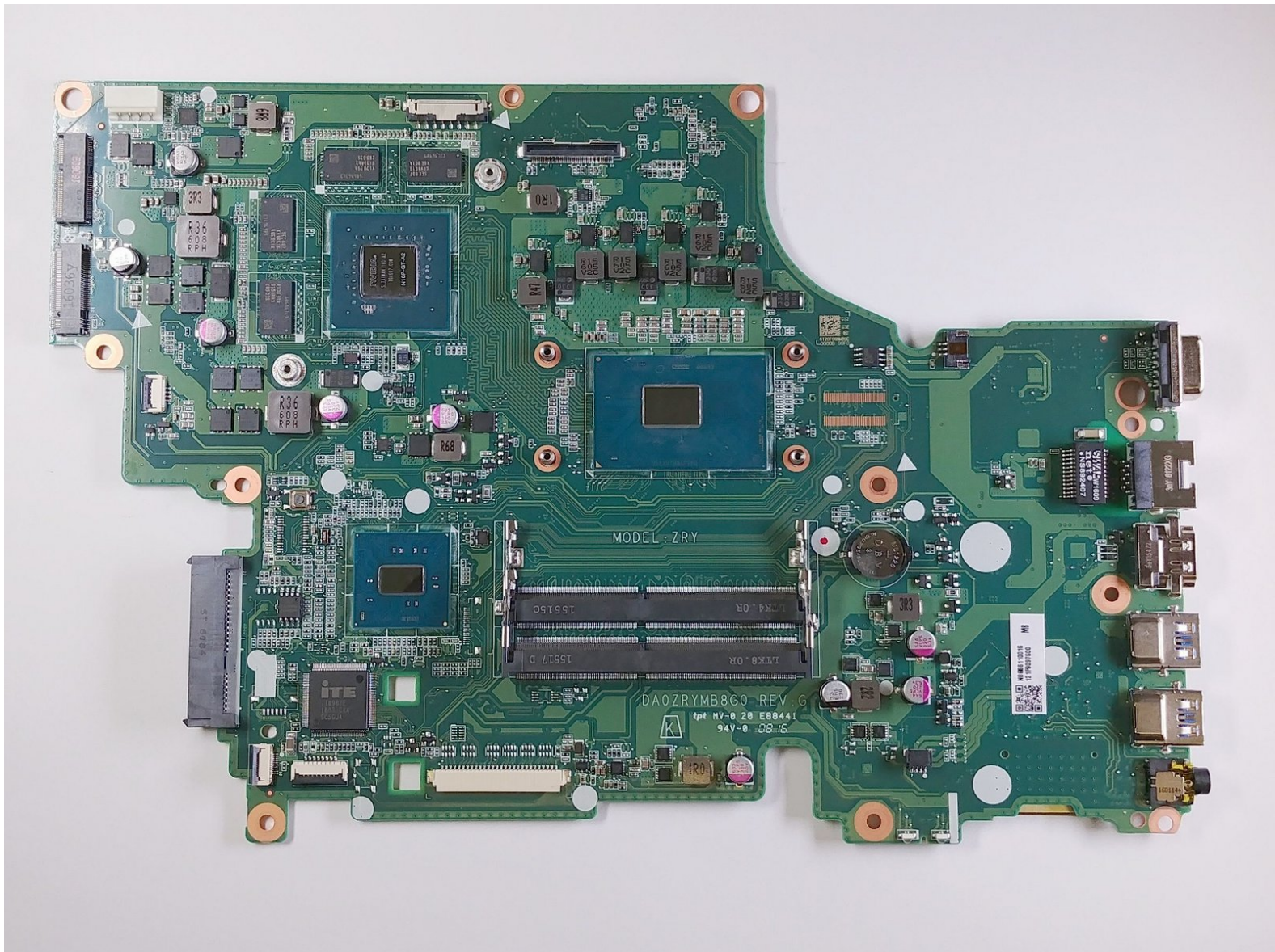




Acer Aspire V5-591G-75KE Motherboard Replacement

This guide will help you identify, remove, and possibly replace the motherboard component of the Acer Aspire V5-591G-75KE.

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INTRODUCTION

Do not proceed with this guide unless you are prepared to clean and re-apply thermal compound. For more information, please refer to the [How to Clean and Apply Thermal Compound](#) guide.



TOOLS:

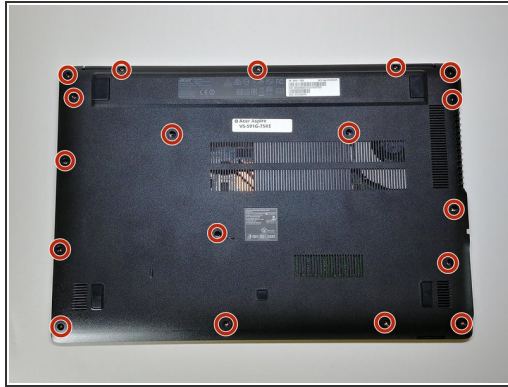
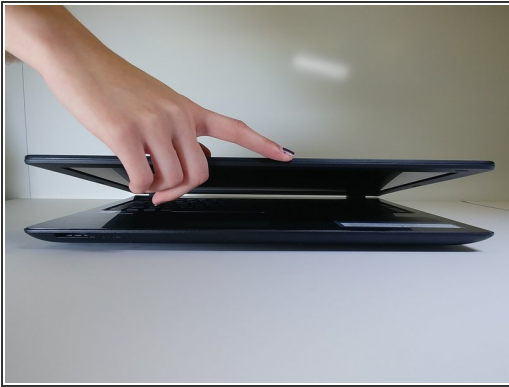
- [ESD Safe Tweezers Blunt Nose](#) (1)
- [Phillips #1 Screwdriver](#) (1)
- [Spudger](#) (1)
- [iFixit Opening Tools](#) (1)
- [Isopropyl Alcohol](#) (1)



PARTS:

- [Seagate Momentus Hard Drive](#) (1)
- [8GB DDR4 SDRAM](#) (2)
- [Atheros Qualcomm Wireless AC Wi-Fi QCNFA344A NFA344A](#) (1)
- [Q-Tips](#) (1)
- [Arctic Silver Thermal Paste](#) (1)
- [Plastic Cards](#) (1)

Step 1 — Acer Aspire V5-591G-75KE Disassembly




- Close down the display and flip the device upside down.
- Use a **Phillips #1 screwdriver** to remove 18 black **10mm Phillips Head screws** in order to loosen up the protective bottom casing.

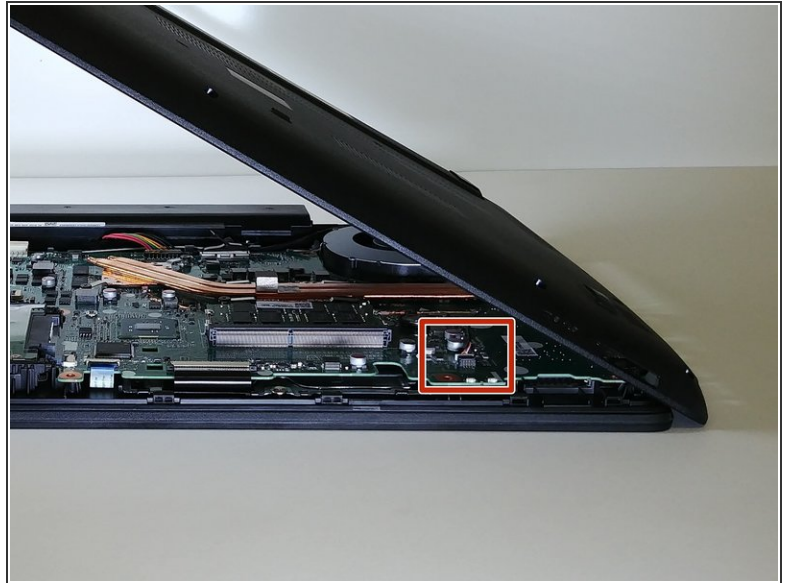
Step 2




- With the screws removed, flip the device right-side up and open up the display.
- Run a **plastic spudger** tool along the seam of the face-plate in order to loosen up the protective bottom casing.

 *Popping sounds are normal, but forceful prying can damage delicate components. Be especially careful near the USB and HDMI ports.*

Step 3



- Close the display down once more, and flip the laptop upside down, with the hinge facing away from you.

 *Do not yank the bottom casing off. There is a small speaker wire that connects it to the motherboard.*

- Taking note of the small speaker wire, gently **lift only the left side** of the bottom casing.

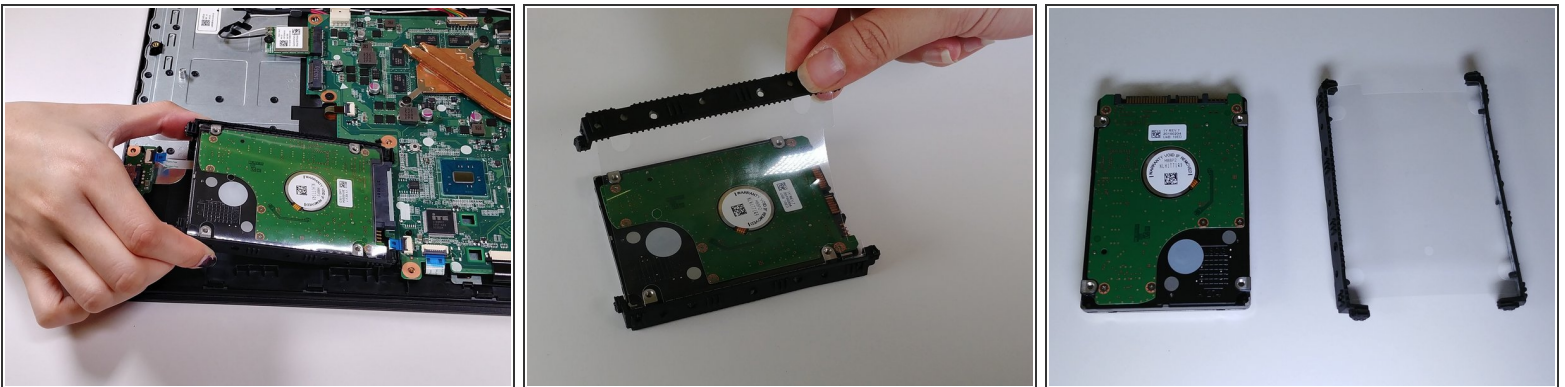
Step 4



- Using a pair of **blunt tweezers**, push on the tabs of the small white connector to separate it from the motherboard.

***i** The entire bottom casing should lift with no resistance. If there is too much resistance, verify you removed all the screws, and run the plastic spudger tool around the face-plate again.*

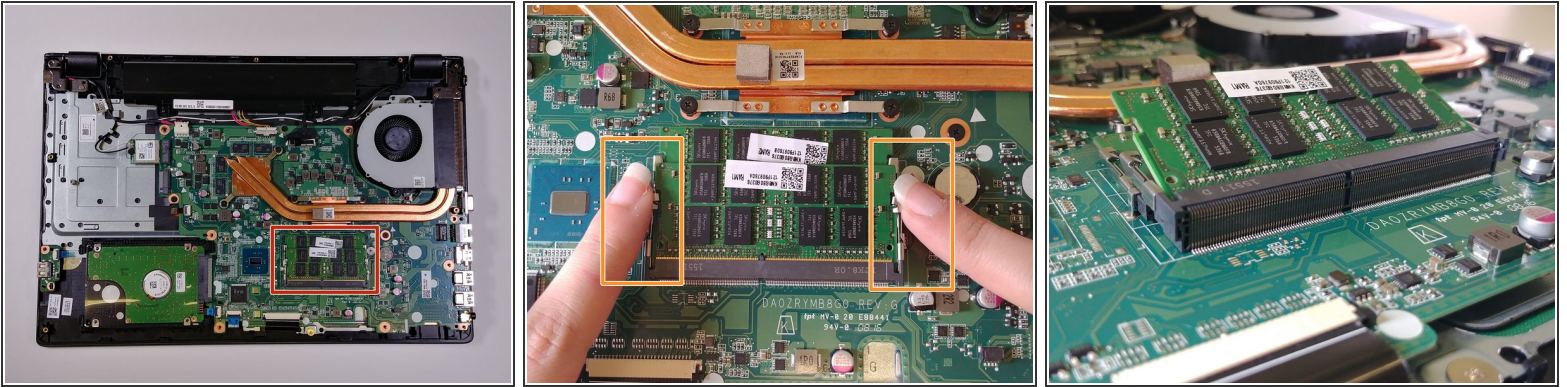
Step 5 — Hard Drive



- Using the plastic tabs, lift the hard drive slightly and pull to the left.
- Remove the **rubber mounting brackets** from the hard drive.

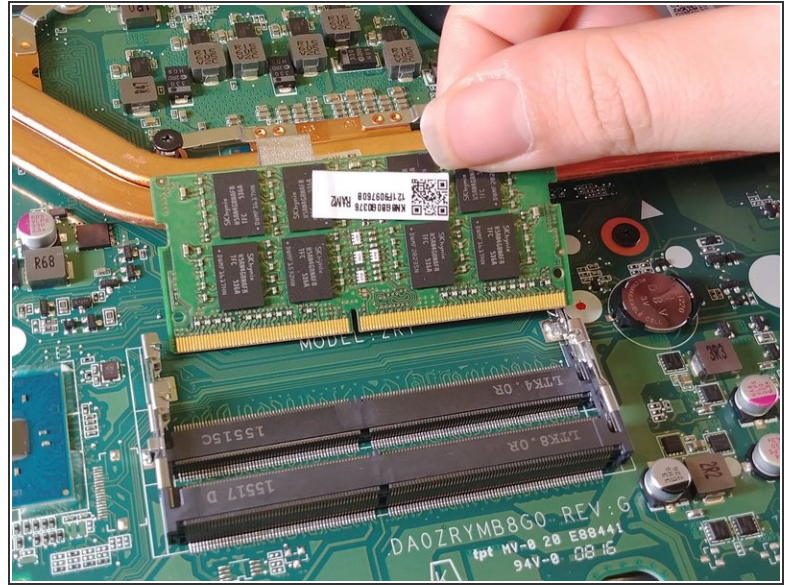
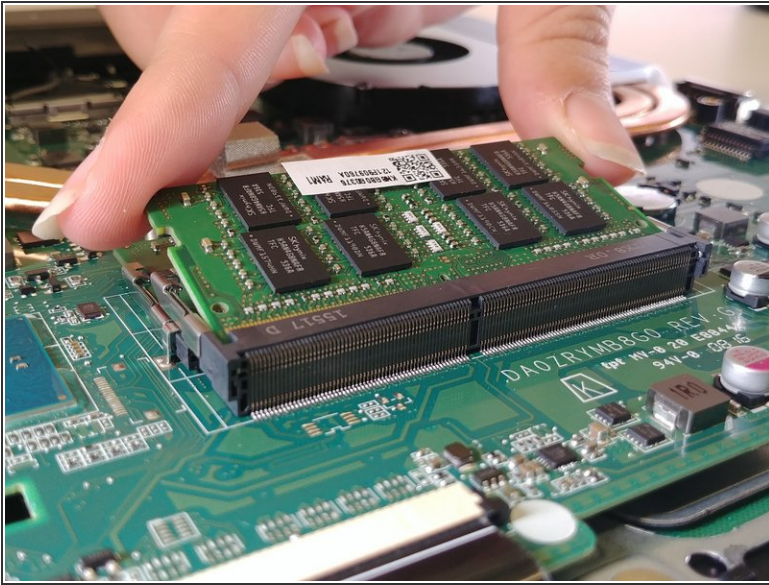
***i** If you are replacing your hard drive with a new one, please note you will need to reuse the rubber mounting brackets in order to secure it in place.*

Step 6 — Memory Modules



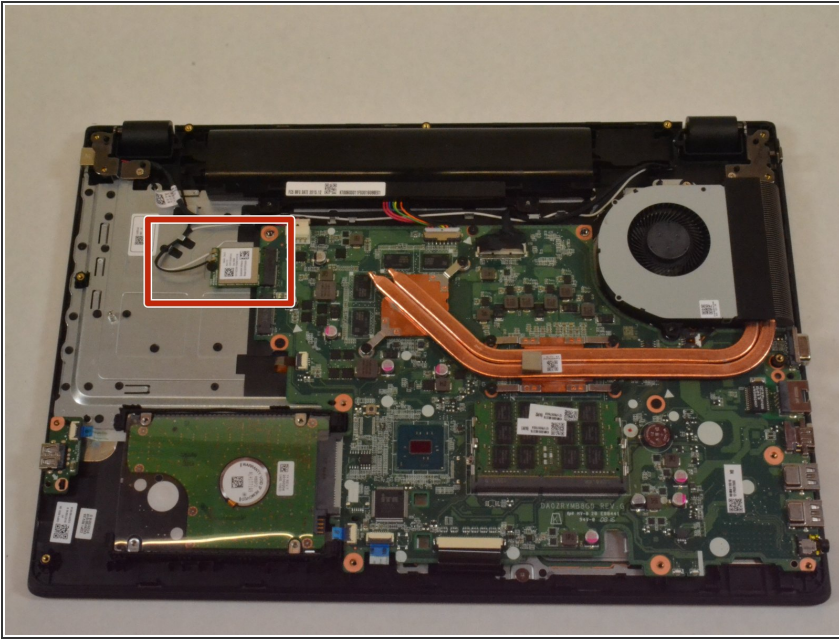
- Locate the memory modules at the bottom right quadrant of the motherboard. The two memory modules are slightly stacked on top of each other.
 - Using both hands, pull the clasps away simultaneously in order to release the memory modules.
- i** Once the clasps have been released, each memory module will spring up.*

Step 7



- To remove the top memory module, lift the module slightly up and pull away.
 - Repeat the previous step to remove the bottom memory module.
- i** Take note of the pins on the bottom of each memory module and make sure they line up with the slots when re-installing the memory modules. Once aligned and inserted, simply push the memory module down to lock it in place.

Step 8 — Wireless Card



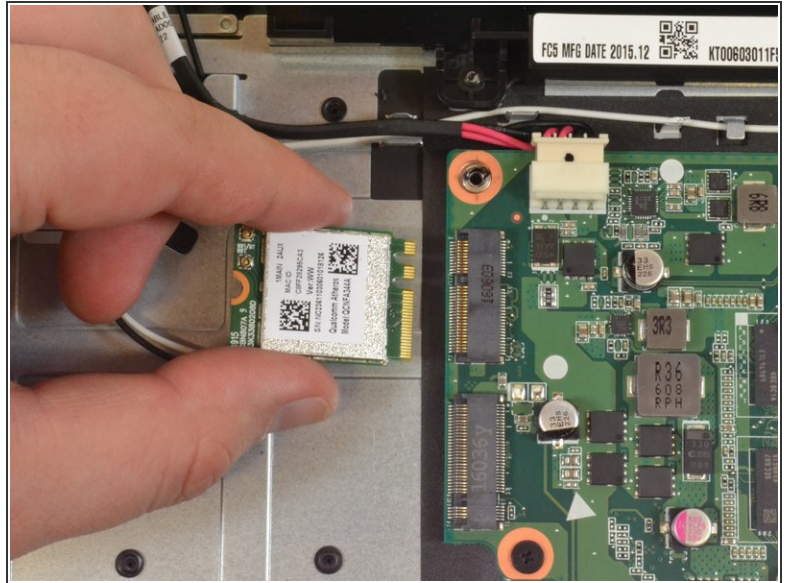
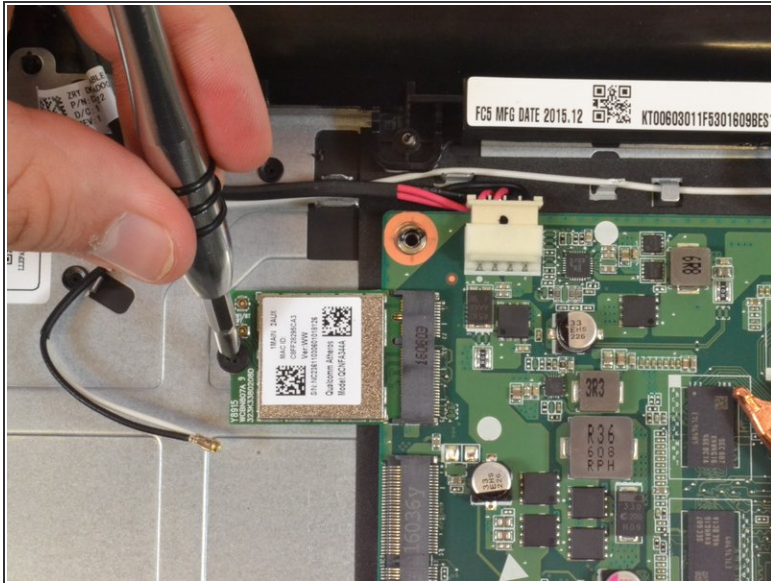
- Locate the wireless card on the top left quadrant. It should have two antenna cables connected to it, one white and one black.

Step 9



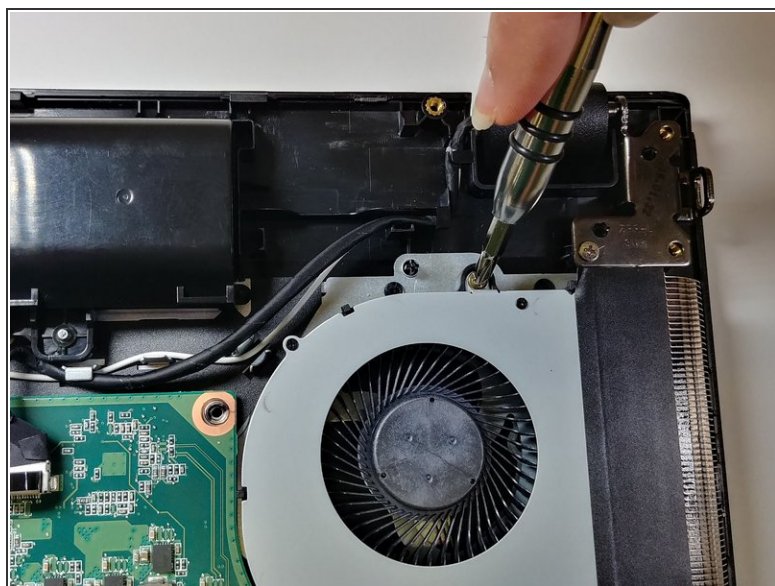
- With a pair of blunt tweezers, firmly grasp each antenna head and detach it by lifting straight up.
- i The antenna cables are connected through small sockets. Small popping sounds when attaching and detaching the antennas are normal.
- i Note that the white cable connects on the top socket.

Step 10



- Using a Phillip Head size 1 screwdriver, remove the screw attaching the wireless card to the laptop frame.
- To detach the wireless card, lift up slightly and pull away.

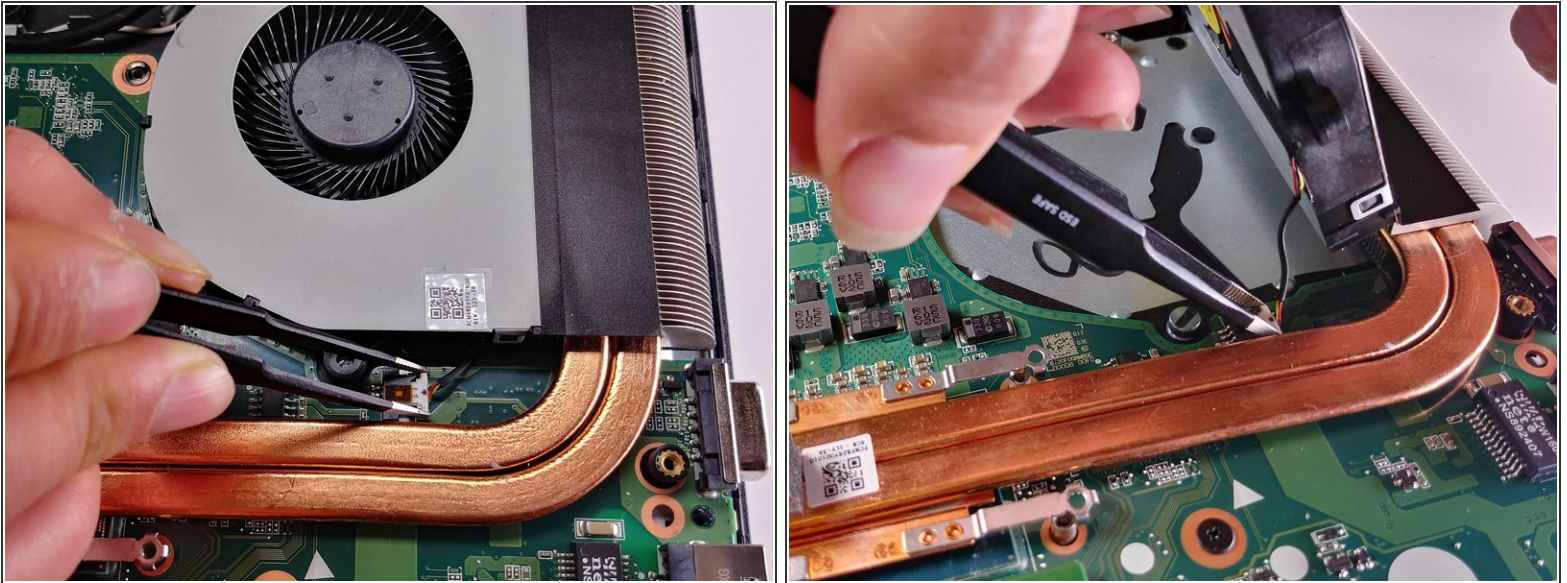
Step 11 — Fan and Heatsink



- Use a **Phillips Head size #1 screwdriver** to remove the two silver-colored **10mm Phillips Head screws** securing the fan to the motherboard.

***i** There are two screw holes, but you might only find one screw.*

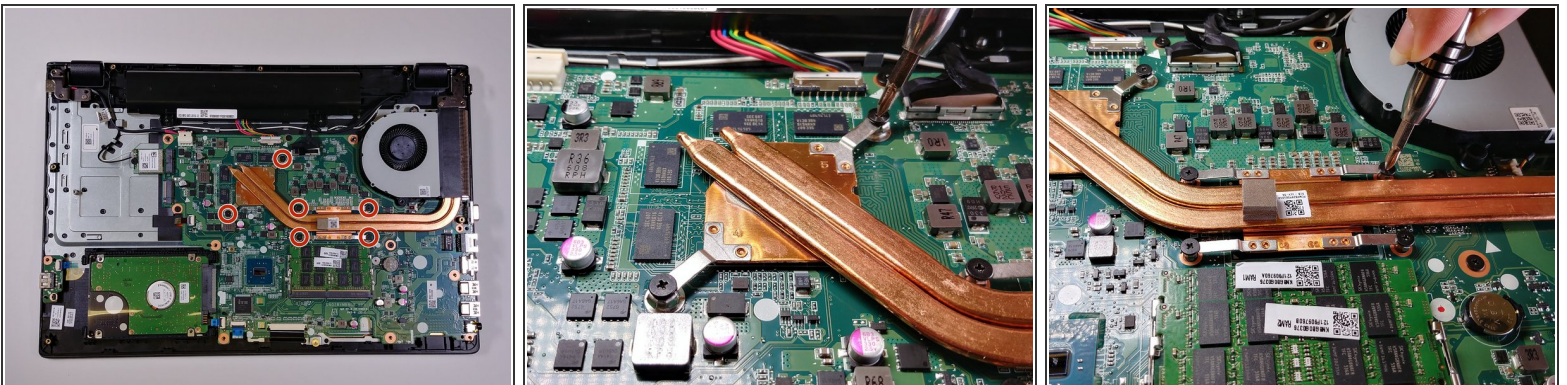
Step 12



- Use a pair of blunt tweezers to gently push on the 3-pin connector. This disconnects the fan from the motherboard.

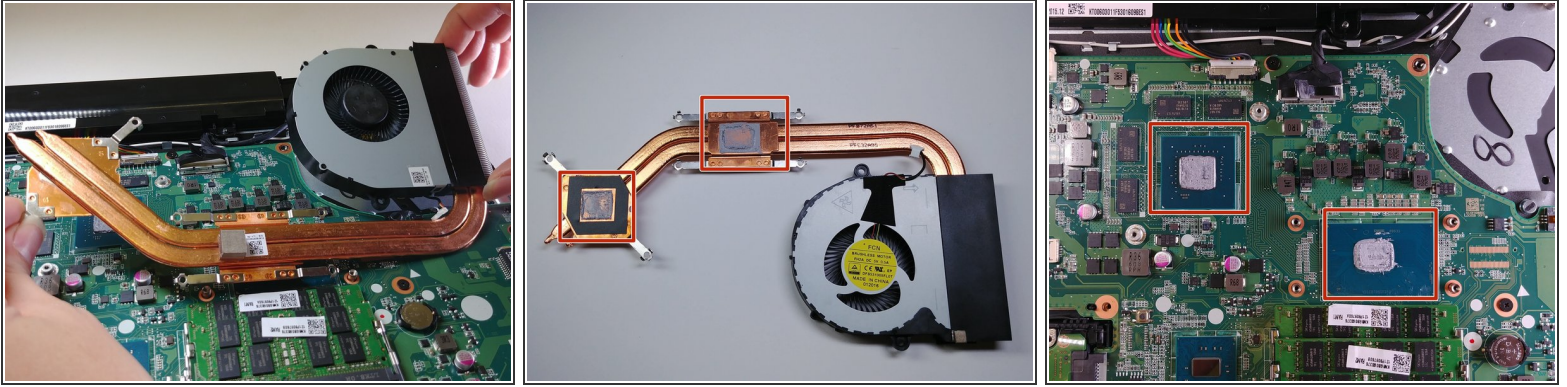
(i) You can lift up the fan if you need additional space to remove the connector.

Step 13



- Use a **Phillips #1 screwdriver** to remove 6 black **10mm Phillips Head screws** that connect the copper heat-sink to the motherboard.

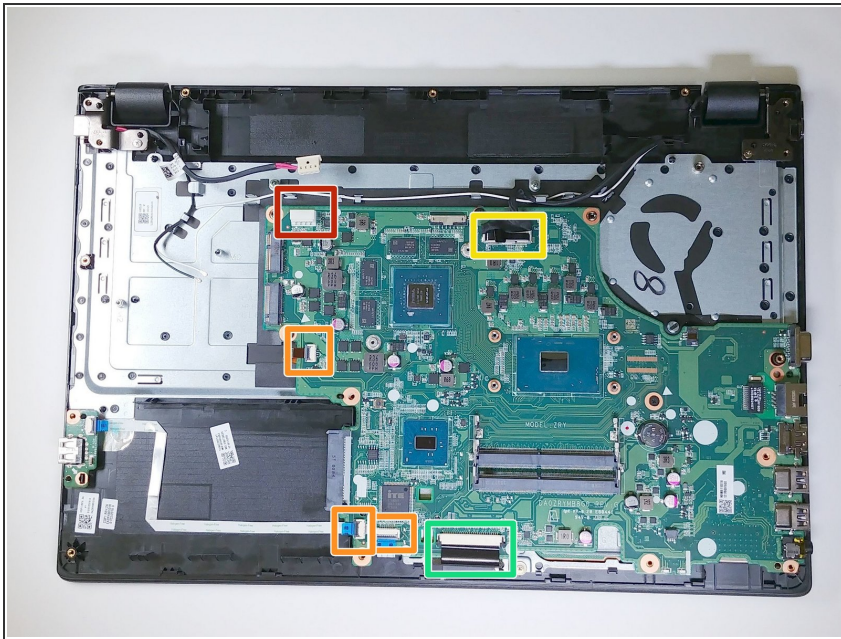
Step 14



⚠ Once you separate the heat-sink from the motherboard, you will need to [clean and re-apply thermal compound](#). Do not proceed unless you are prepared and you have the necessary materials.

- Using both hands, gently lift the heat-sink and fan components from the motherboard.
- i** Old thermal compound can dry up and adhere the heat-sink to the motherboard like glue. This may make removing the fan and heat-sink difficult.
- ⚠** Do not re-seat the fan and heat-sink without cleaning and re-applying the thermal compound. For more information, please refer to this [guide](#).

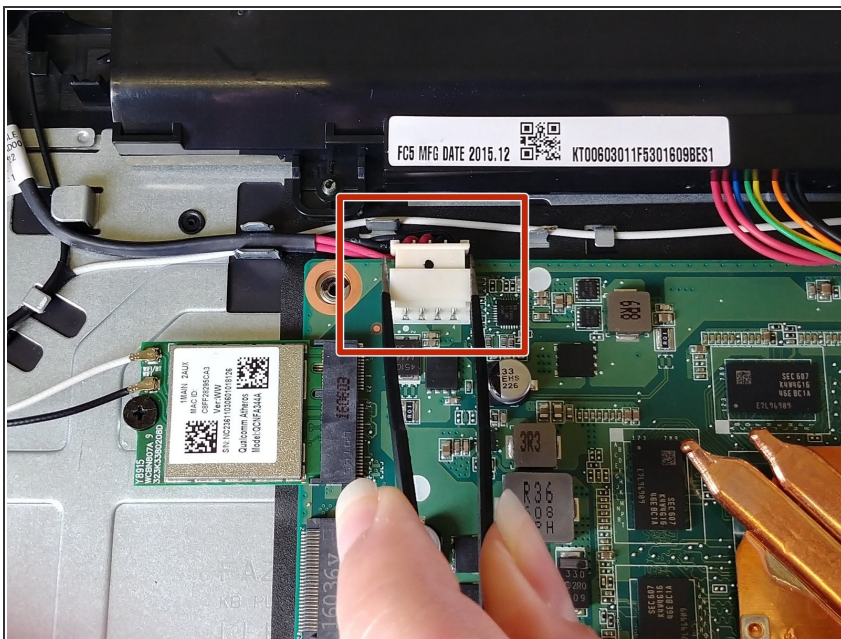
Step 15 — Motherboard



- With all major components removed, proceed to locate the connectors marked on the photograph:
 - Power jack harness connector.
 - Ribbon cables.
 - Display cable connector.
 - Keyboard connector.

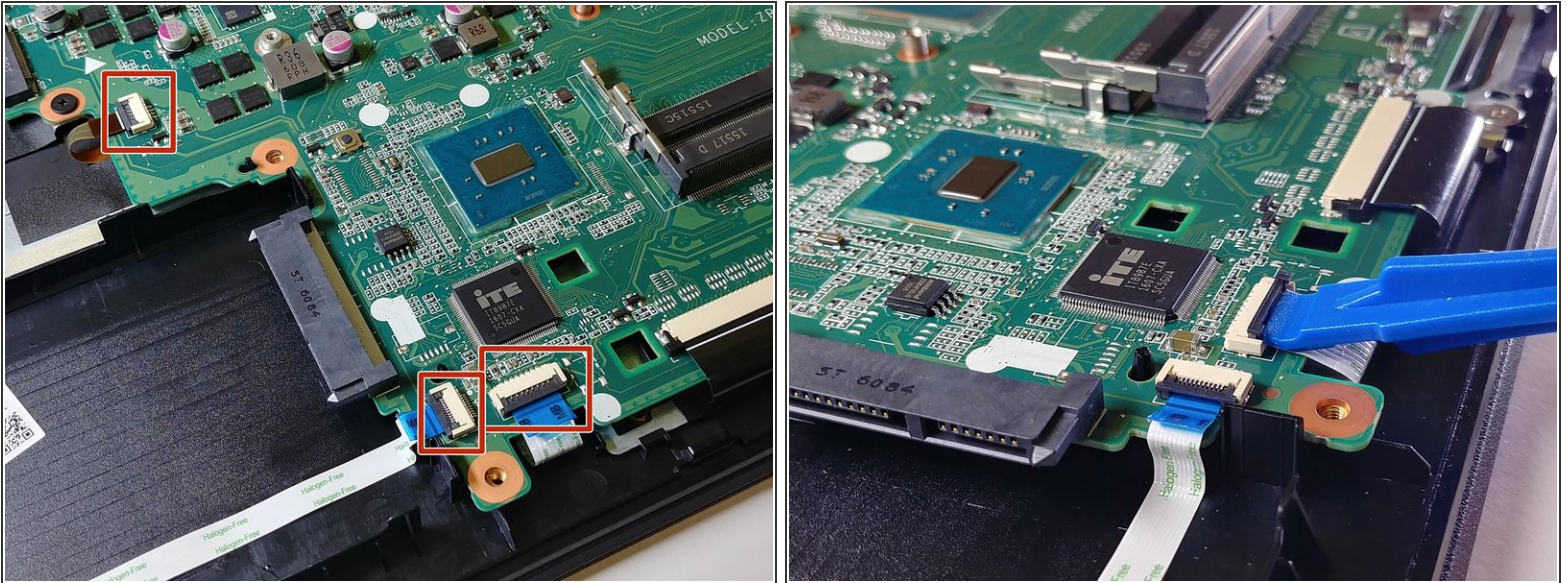
ⓘ Please note that at this stage, the thermal compound has been cleaned off the motherboard. For more information, please refer to [this guide](#).

Step 16



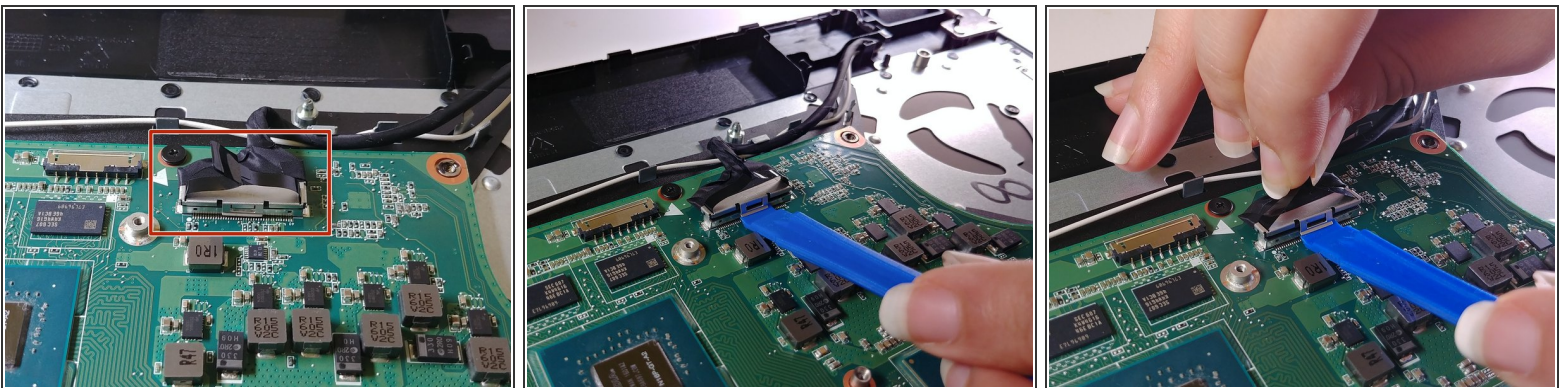
- Disconnect the power jack harness from the motherboard by pushing on the tabs with a pair of **blunt tweezers**.
- Use a **plastic opening tool** to pry open the locks, then pull the ribbon cables out.

Step 17



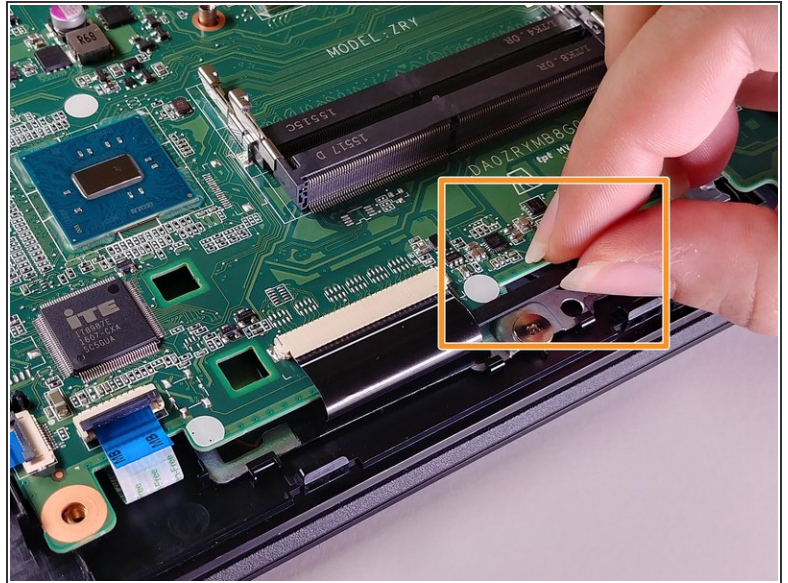
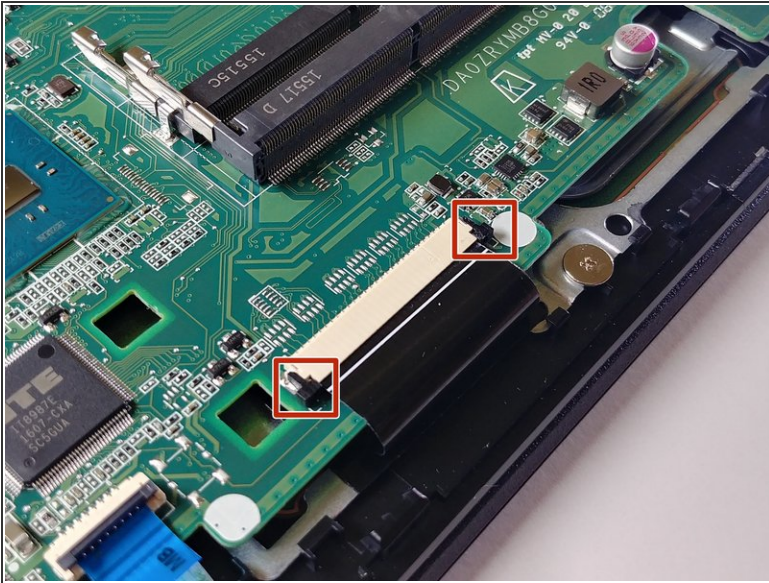
- The ribbon cables have small locks securing them in place.
- Use a plastic opening tool to pry the locks up. Once unlocked, simply pull the cables out.

Step 18



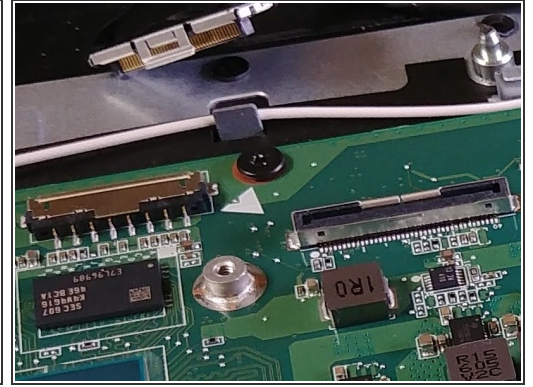
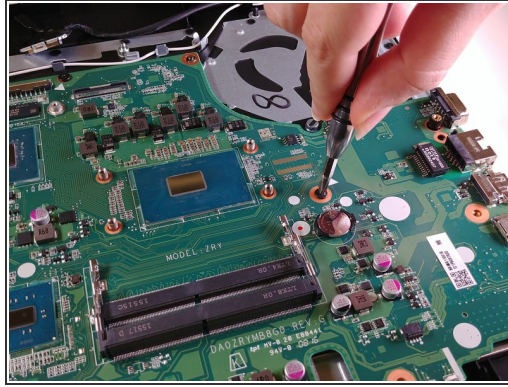
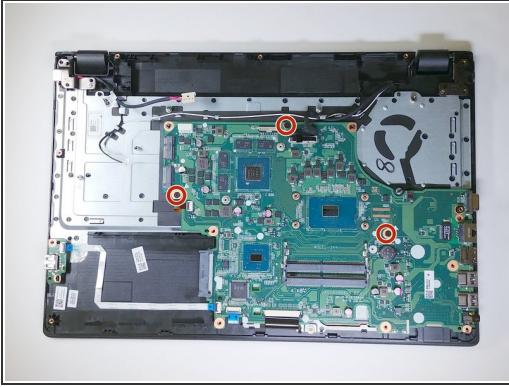
- The display cable connects the motherboard to your laptop's monitor. It has a small tab lock on it.
- Use a **plastic opening tool** to pry the tab lock up.
- Use the plastic ears on top of the cable to head to disconnect the display cable from the motherboard.

Step 19



- To disconnect the wide ribbon cable, use your fingers to pull back the black tab until it is loose.
 - Slide out the black plastic tab from beneath the ribbon cable.
 - Once the plastic tab is out, simply pull out the wide ribbon cable.
- i** *Take care not to flip the tab upside down, as it is not symmetrical. If you are having difficulties fitting it back, it might have flipped at some point.*

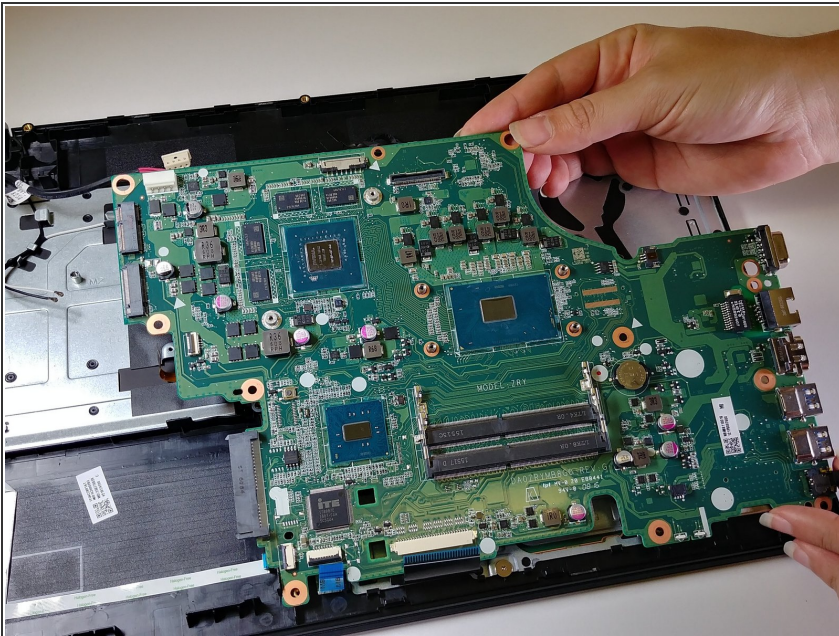
Step 20



- Use a **Phillips #1 screwdriver** to remove the **3 black 10mm Phillips Head screws** securing the motherboard to the face-plate of the device.

(i) Note that each of the holes for these screws are marked with a small white triangle.

Step 21



- Lift the motherboard gently to completely remove this component from the device.

You can follow the steps in reverse to reassemble your device, but you should not re-seat the heat sink and fan without cleaning and re-applying the thermal compound.