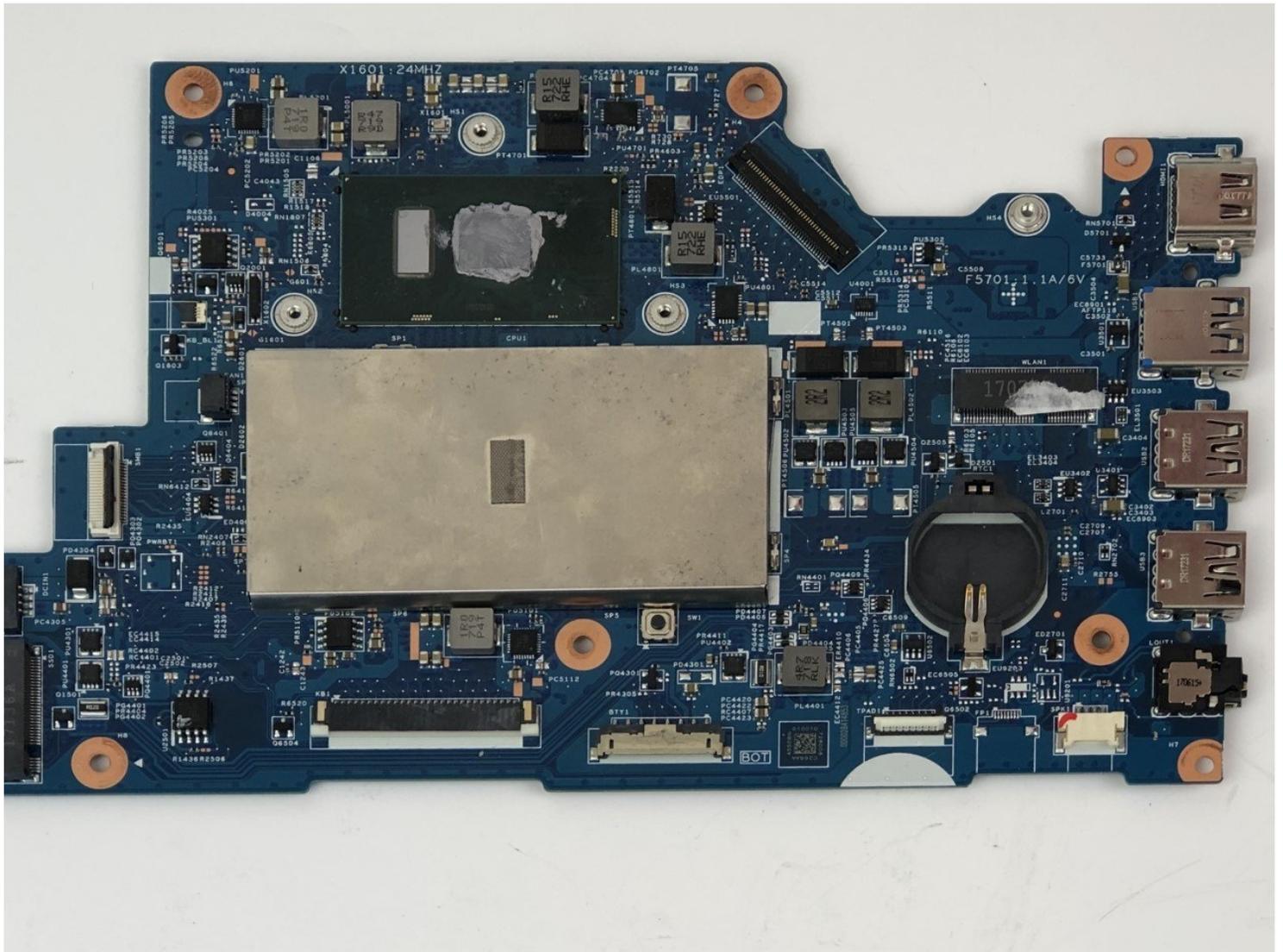




Acer Spin 5 SP513-51-57TP Motherboard Replacement

The motherboard holds together many of the...

Written By: Anthony Vansell



INTRODUCTION

The motherboard holds together many of the crucial components of your computer. If your motherboard is failing your computer will display an error code with a series of audible beeps. It will also display the “Blue Screen of Death” representing it has failed.

Motherboard: Definition. A **motherboard** is one of the most essential parts of a **computer** system. It holds together many of the crucial components of a **computer**, including the central processing unit (CPU), memory and connectors for input and output devices.

Common symptoms of motherboard issues are similar to CPU problems: The system does not display anything; an error code appears; one or more beeps occur; the system locks; the system reboots; a Windows BSOD (blue screen of **death**) appears; or one or more of the ports, expansion slots, or memory modules fails.

TOOLS:

[iFixit Opening Tool](#) (1)

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

[Tweezers](#) (1)

Step 1 — Battery



- Flip your laptop over so that the model sticker is facing upward towards the ceiling.

 **Make sure your computer is turned off before starting to avoid getting shocked.**

Step 2



- Use a Phillips #1 screwdriver to remove the thirteen 6.5mm screws that secure the back cover.

Step 3



- Use a plastic opening tool to gently separate the back cover from the laptop. A snapping sound will be heard as a signal that the clips are being disengaged.

⚠ Do not use any metal tools to pry open the device.

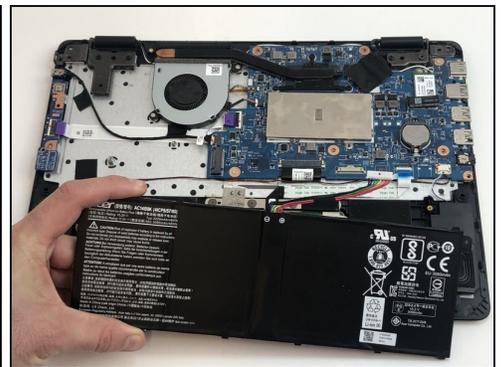
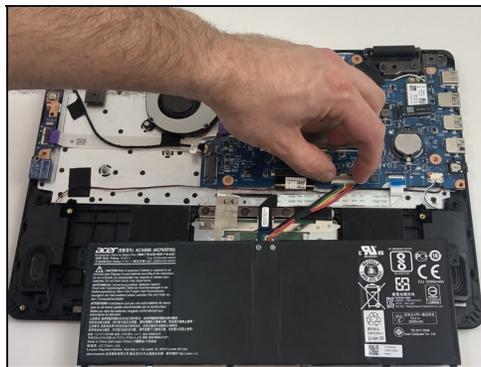
- ① It is recommended that you start from one corner and run the tool along the edges of your laptop from corner to corner for a safe removal.

Step 4



- Use a Phillips #1 screwdriver to remove two 4 mm screws that secure the battery.

Step 5



- Use your hand to carefully pull out the wiring harness from its port that is located between the battery and the motherboard.
- Remove the battery from the case.

Step 6 — CMOS Battery



- Grasp the CMOS battery with the [tweezers](#) and remove it from the motherboard.

Step 7 — Solid State Drive



- Using a Phillips #1 screwdriver, remove the one 4mm screw that secures the Solid State Drive.

Step 8



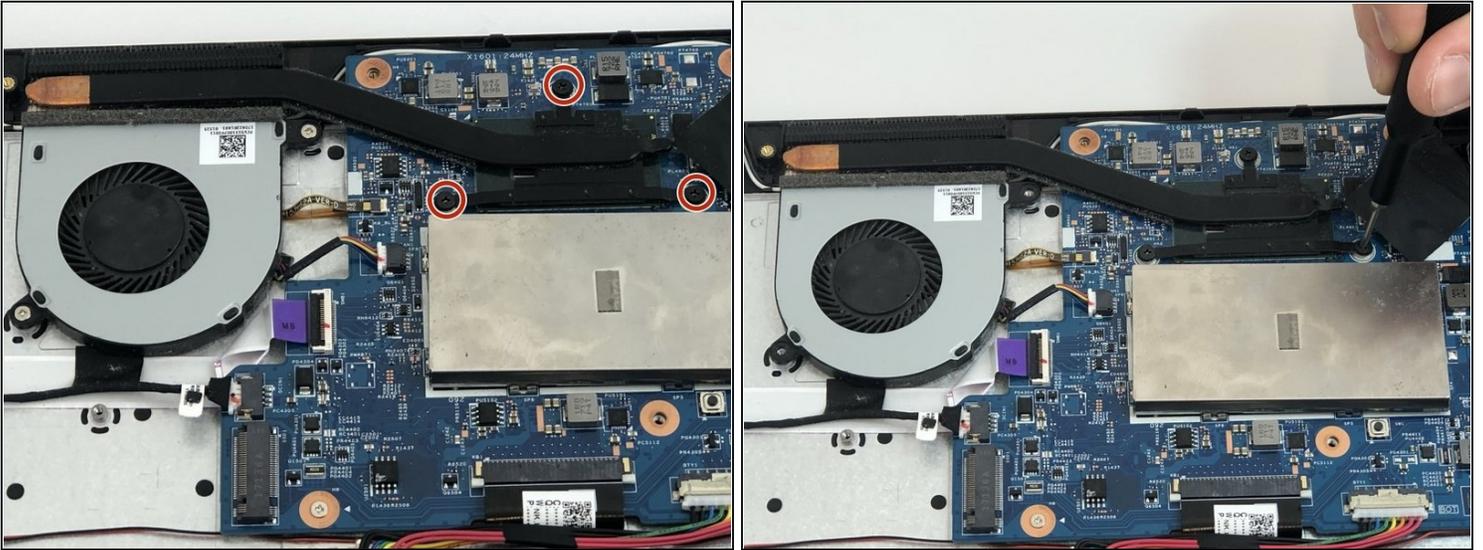
- Use your hand to pull out the Solid State Drive from the motherboard.
- You will be pulling the solid state drive out to the left, as it will be connected to the port on the motherboard on its right side. This is opposite the direction that the pictures depict it.

Step 9 — Cooling Fan



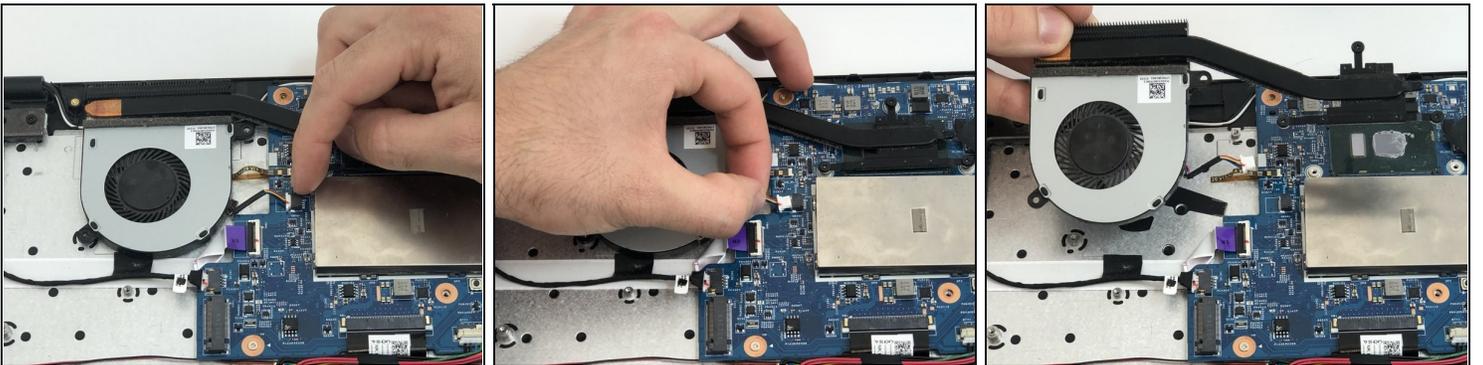
- Use Phillips #1 screwdriver to remove the two 4mm screws that are securing the fan.

Step 10



- Using Phillips #1 screwdriver remove three 5 mm screws to remove the heatsink.
- ⓘ When removing the cooling fan, the heatsink component will stay connected.

Step 11



- Using your hand, pull out wiring harness to disconnect the fan from the motherboard.
- Lift the fan out of the case to remove it.

Step 12 — Motherboard



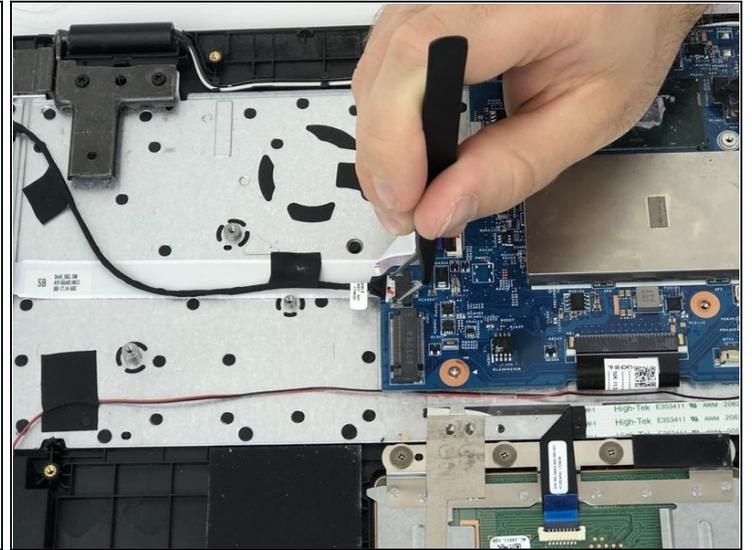
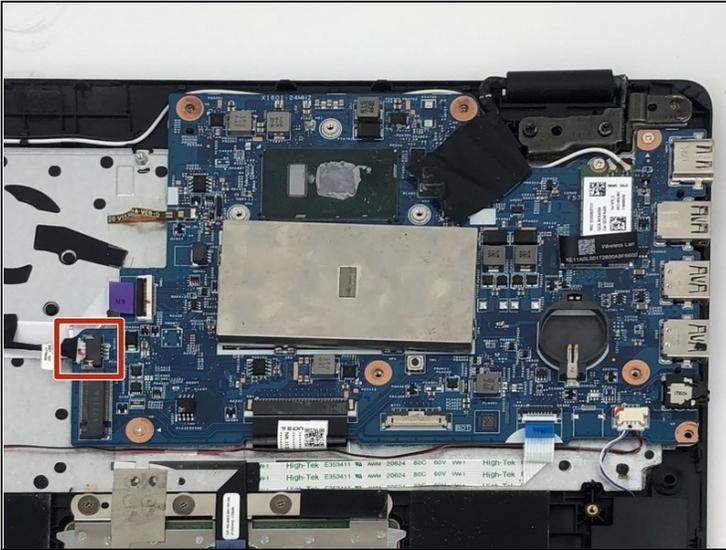
- Use the [tweezers](#) to disconnect the wiring harness in the bottom right corner of your laptop.

Step 13



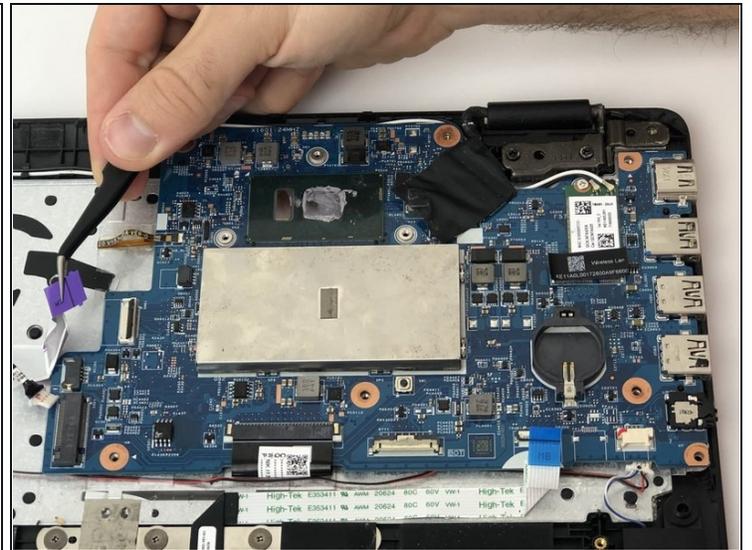
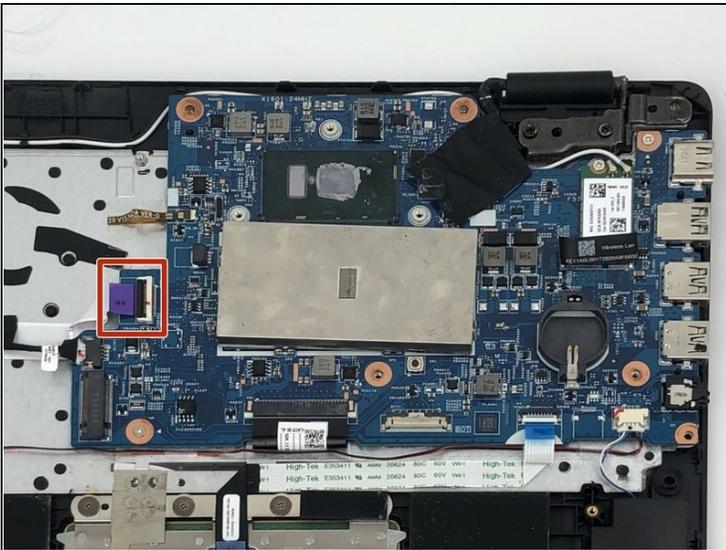
- Using the tweezers, flip the white lock tab of the ZIF connector upward.
- Pull the blue "MB High-Tek" ribbon cable out.

Step 14



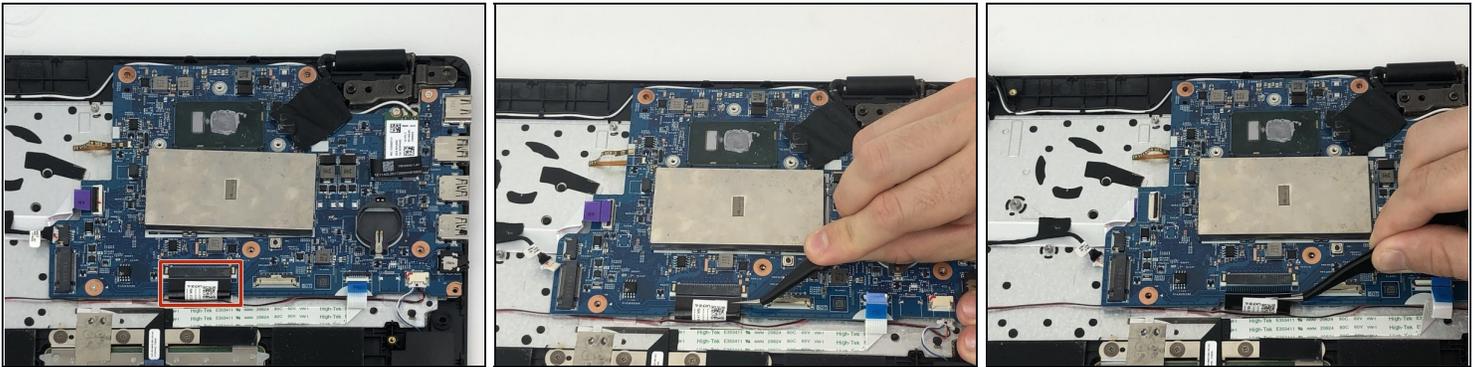
- Using the tweezers, pull the black CQWP connection wire from its port.

Step 15



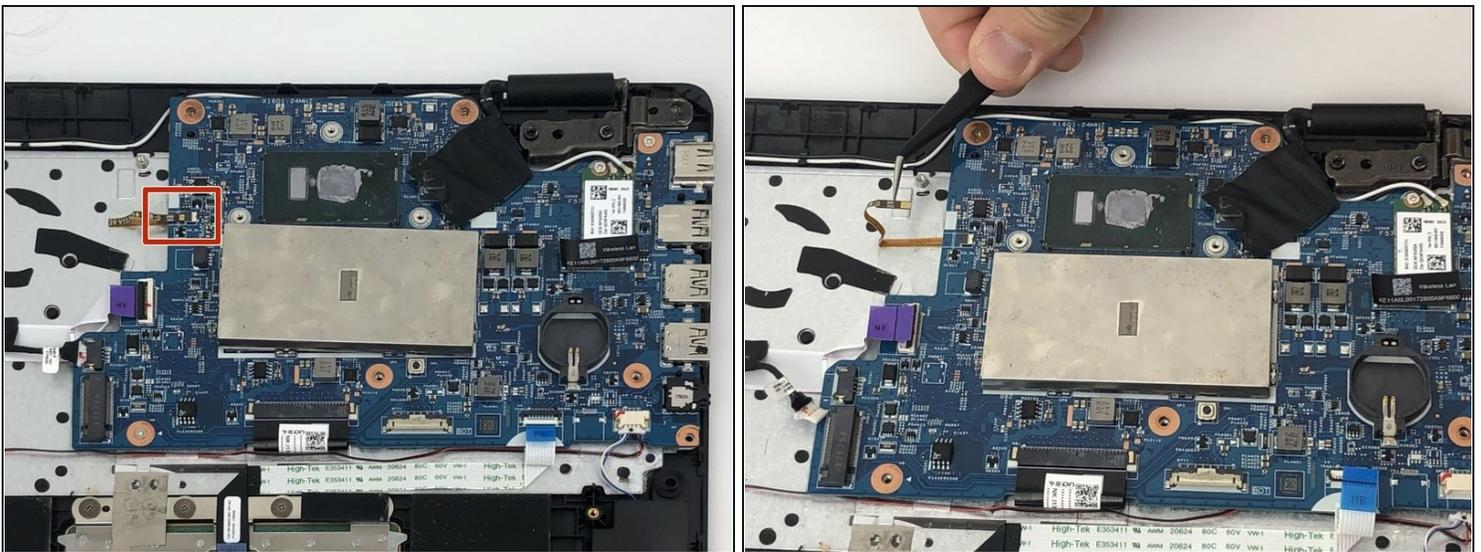
- Using the tweezers, flip up the black lock tab of the ZIF connector upward.
- Pull out the MB purple ribbon cable out.

Step 16



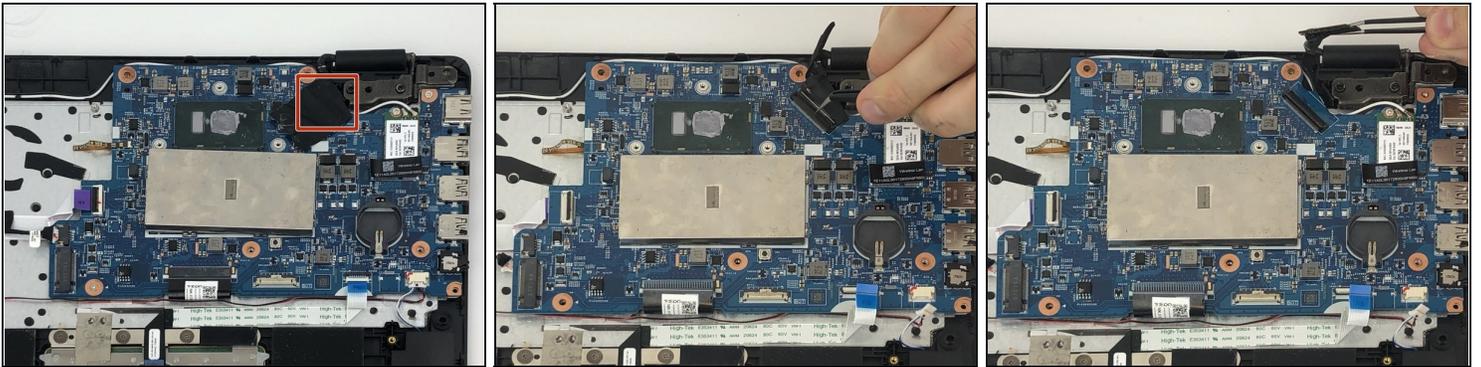
- Using the tweezers, remove the black drift cable from its port.

Step 17



- Using the tweezers, pull out the orange GND VCC connection wire.

Step 18



- Using the tweezers, flip up the black lock from the connector holding the display cable.
- Remove the display connection wire from its port.

Step 19



- Using Phillips #1 screwdriver, remove the 4mm screw that secure the WiFi card.
- Remove WiFi card from its port.

Step 20



- Using Philips #1 screwdriver remove the seven 4mm screws that secure the motherboard to the laptop.
- Remove the motherboard by lifting it out from the back case.

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