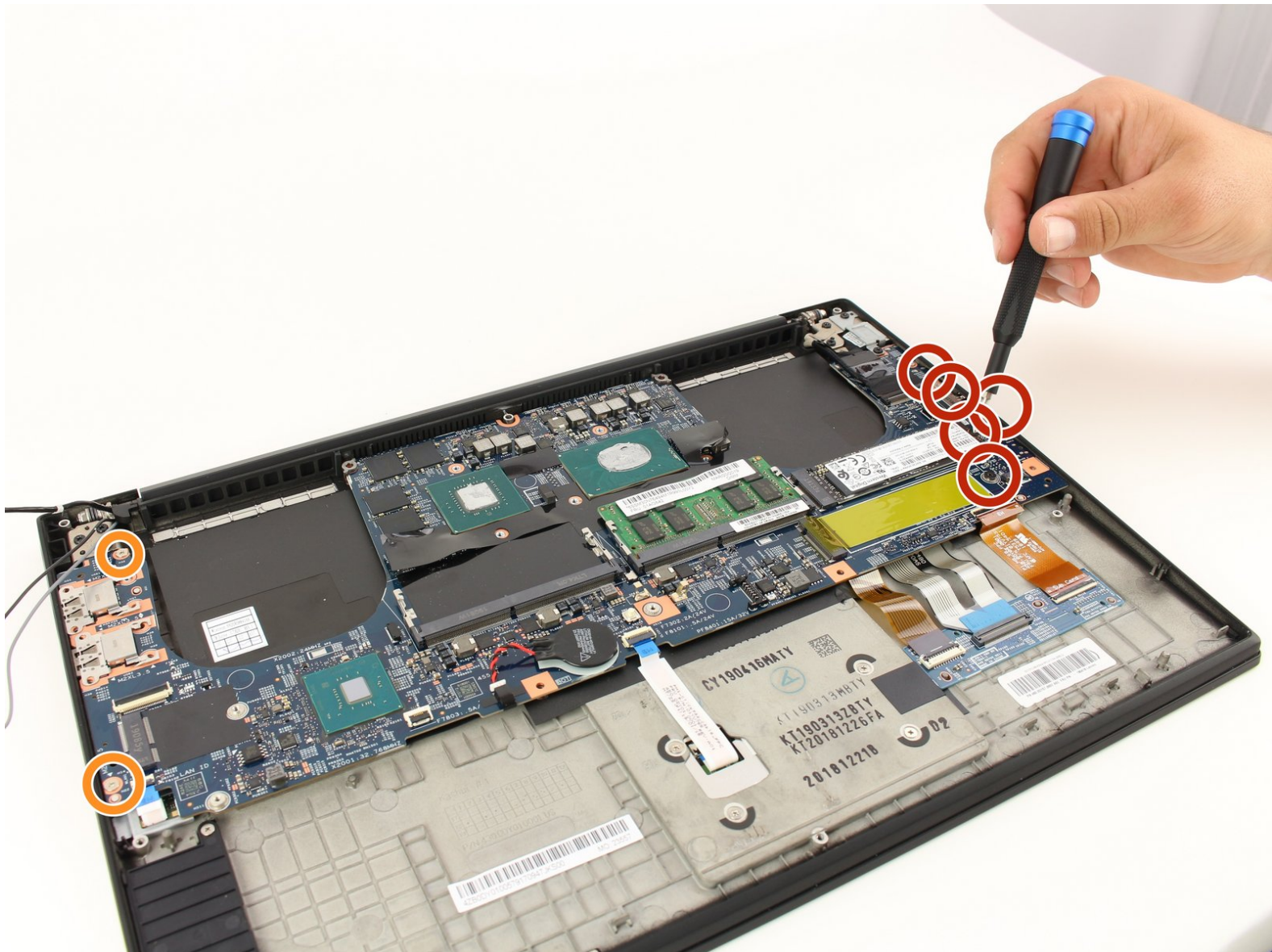




Lenovo ThinkPad X1 Extreme Motherboard Replacement

This guide will walk you through step-by-step instructions on replacing your motherboard on the Lenovo ThinkPad X1 Extreme.

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INTRODUCTION

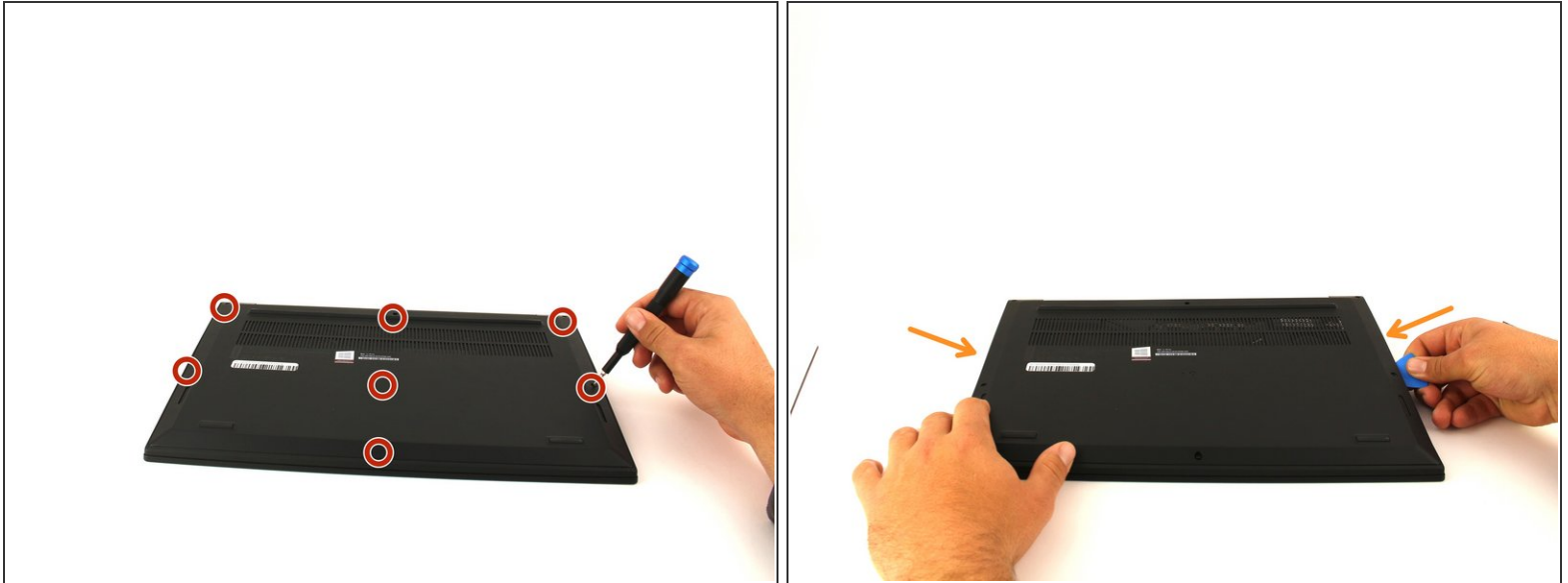
With so many components playing a role to make a computer function, it's important for the components to be able to communicate with each other. The motherboard acts as the central hub of communication for all components in a device. If you find that your computer is acting slow, struggling to load, or displays the blue screen of death (BSOD), your motherboard may be faulty. Follow these instructions to replace the motherboard in your device.



TOOLS:

- [iFixit Opening Picks set of 6](#) (1)
 - [Phillips #00 Screwdriver](#) (1)
 - [Tweezers](#) (1)
 - [iFixit Precision 4 mm Screwdriver Bit](#) (1)
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Step 1 — Battery



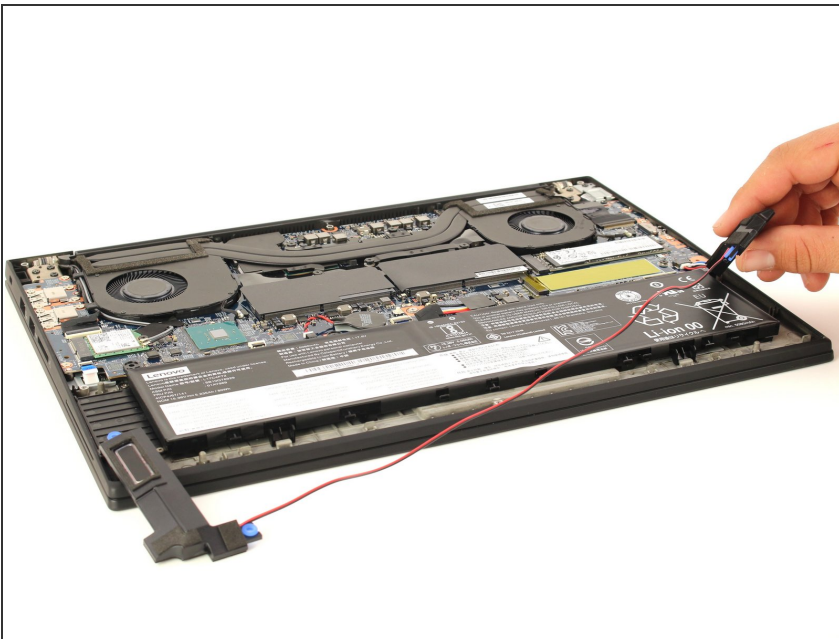
- Orient the laptop so that it is bottom up, and the track pad is closest to you.
- Unscrew the seven cover screws with a Phillips #00 head screwdriver. These screws will loosen, but will stay attached to the cover.
- Slide the blue opening pick along the side of the laptop and pry off the one clip on each side.
- The cover should easily come off.

Step 2



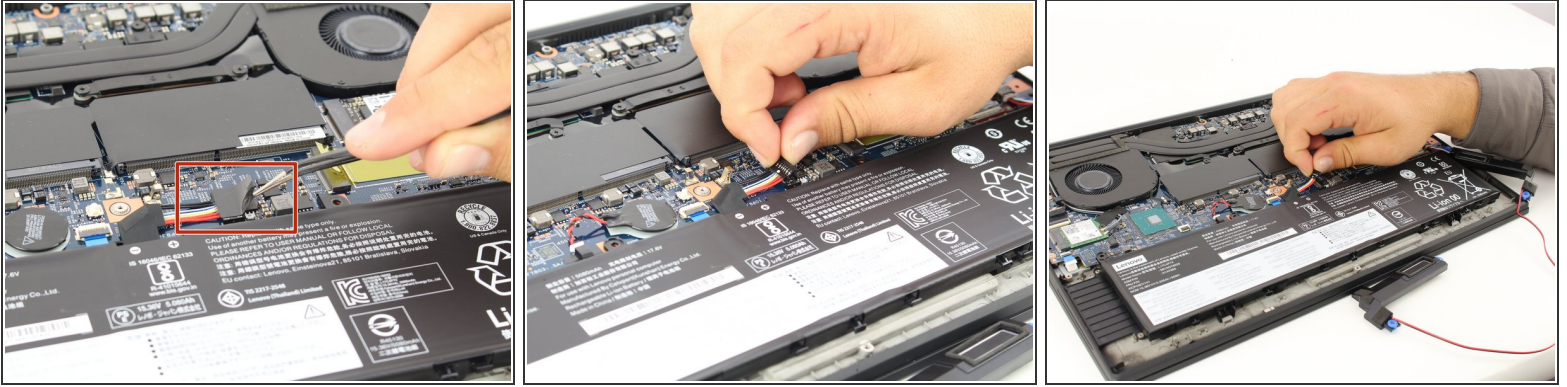
- Use a Phillips #00 head screwdriver to remove the four, 4mm screws above the battery.

Step 3



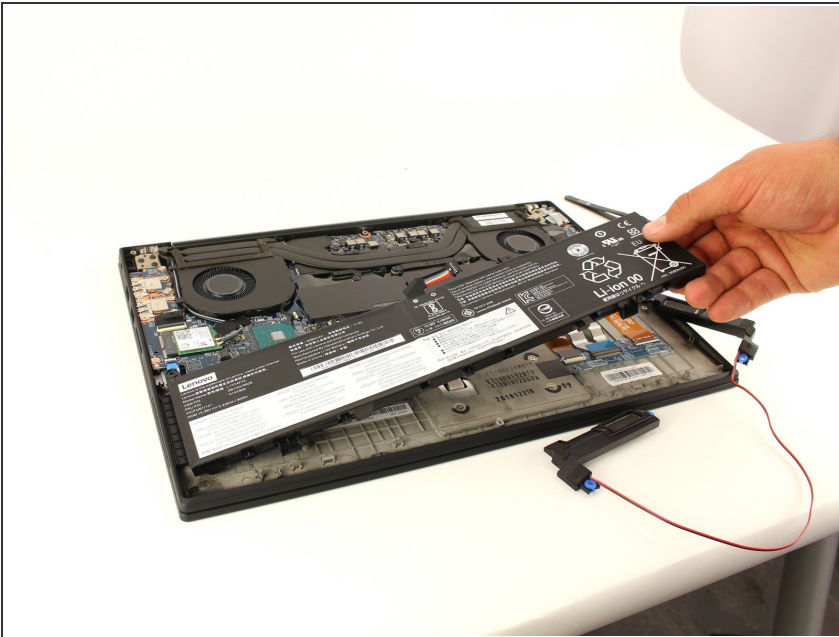
- Lift the connector to the left of the battery out of its pegs, and unwind the cable from the front of the battery.
- Set the connector out of the way of the battery.

Step 4



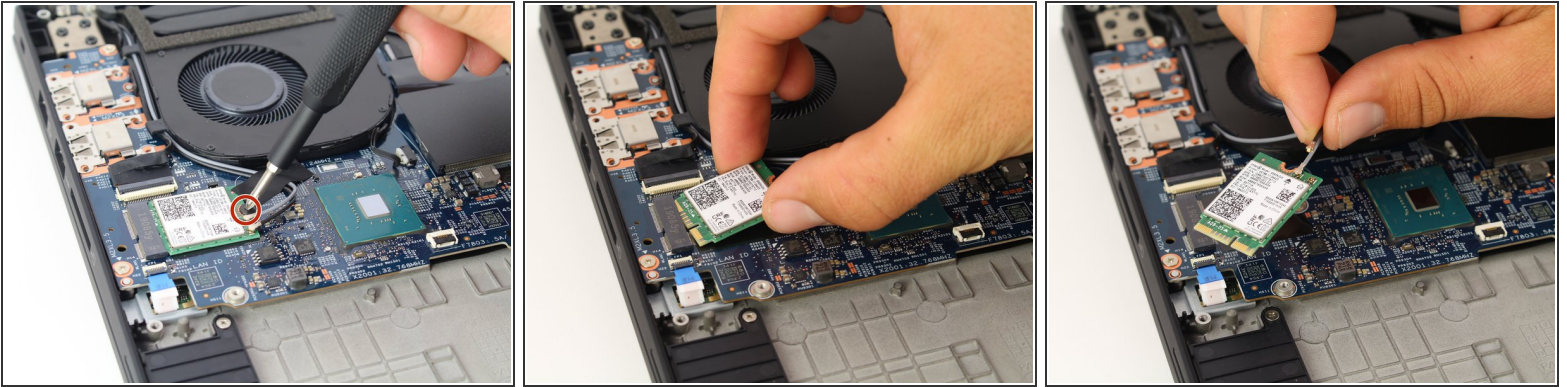
- Using tweezers, peel the plastic cover off the connector.
- Lift the clip on top of the connector, push towards the right of the computer and lift up carefully.
- After the connector is removed, check to see that it is labeled "Bat 1" on the motherboard, underneath the connector.

Step 5



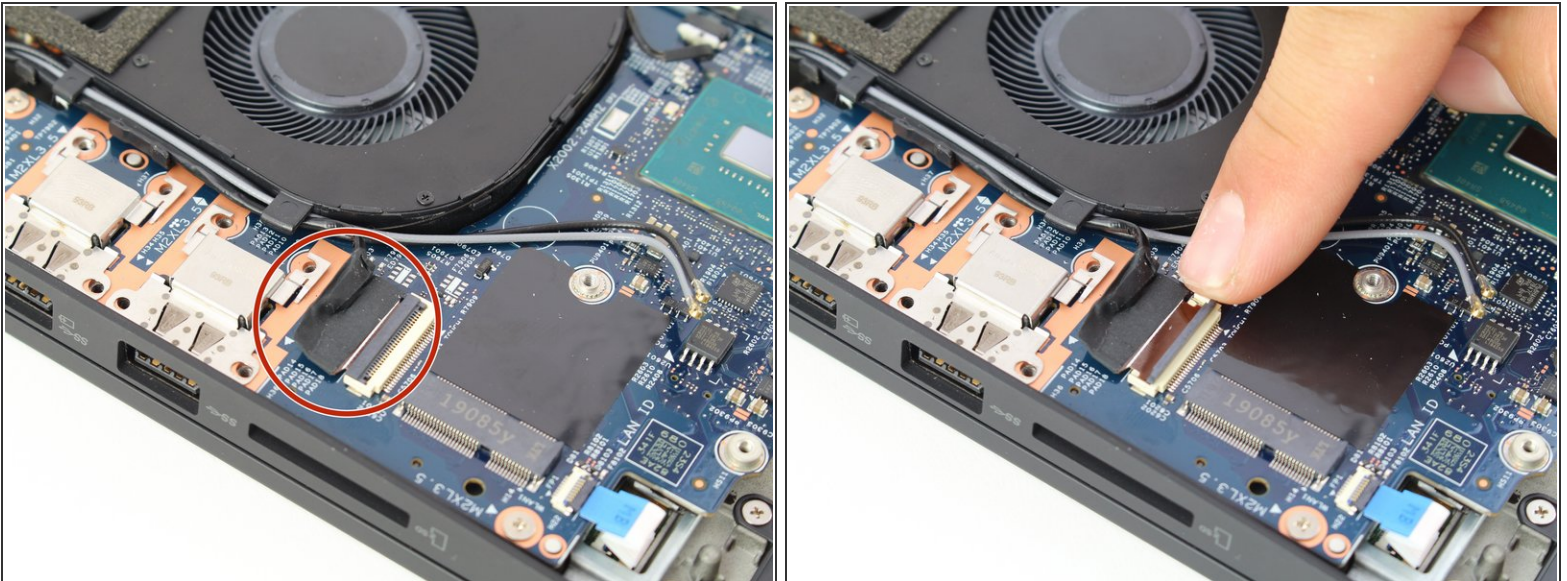
- Lift the battery out of the frame and remove it from the device.

Step 6 — Fan



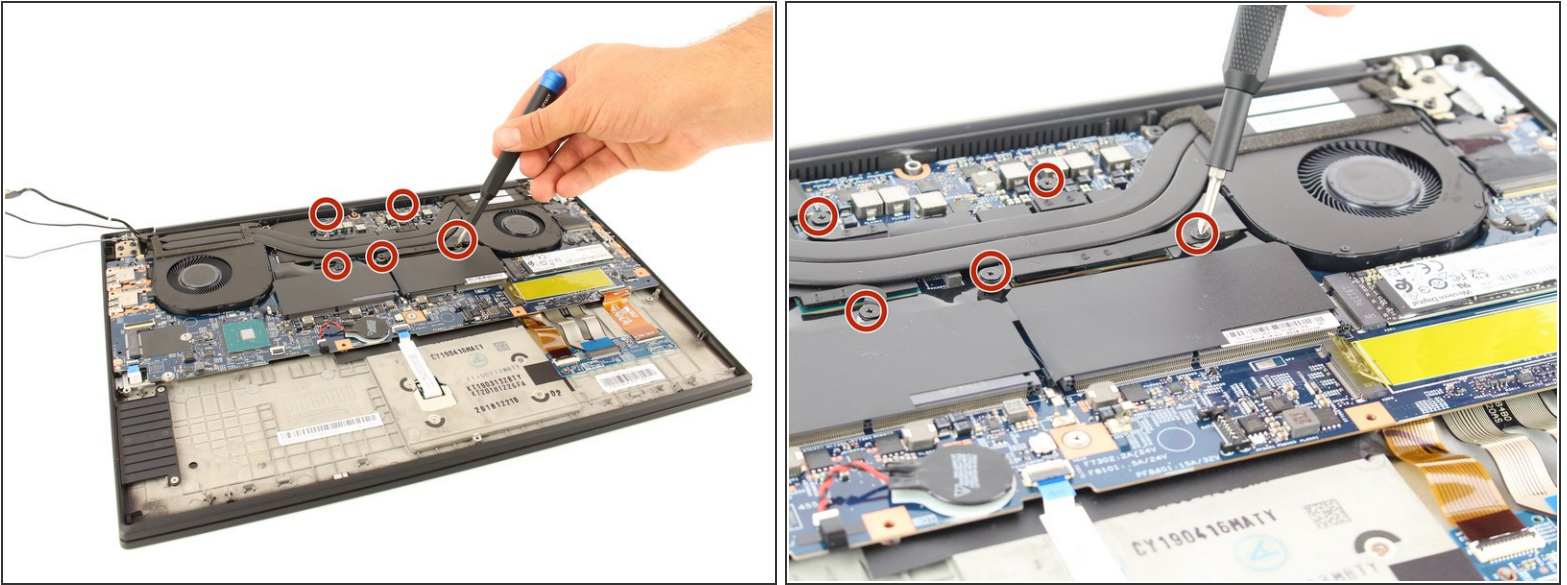
- Unscrew the 3mm screw holding down the wireless adapter using a Phillips #00 screwdriver.
- Slide the adapter out of its connector.
- Detach the black and gray cables and separate them from the frame of the fan by gently pulling upwards.

Step 7



- Unlatch and remove the cable connecting to the frame of the fan by flipping the thin black tab up.
- Separate the cable from the frame of the fan.

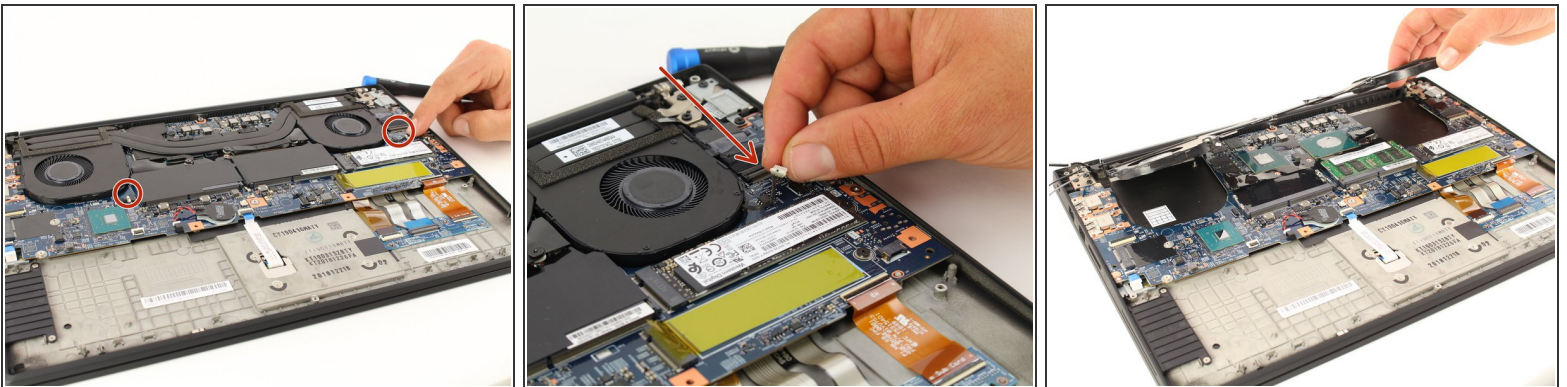
Step 8



- Loosen the five screws connecting the fan to the motherboard using a Philips #00 head screwdriver.

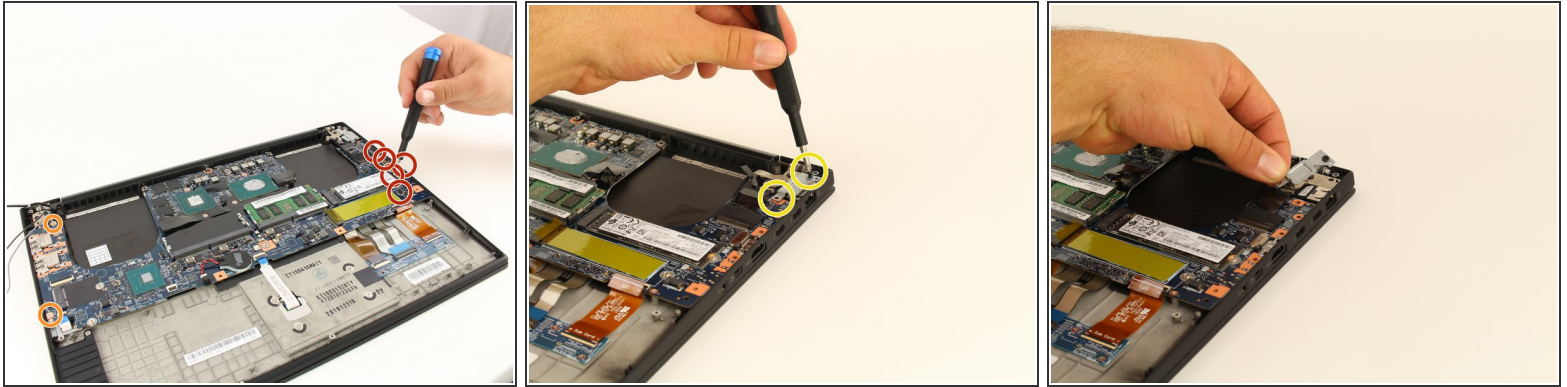
i These screws will not come out and will stay connected to the fan.

Step 9



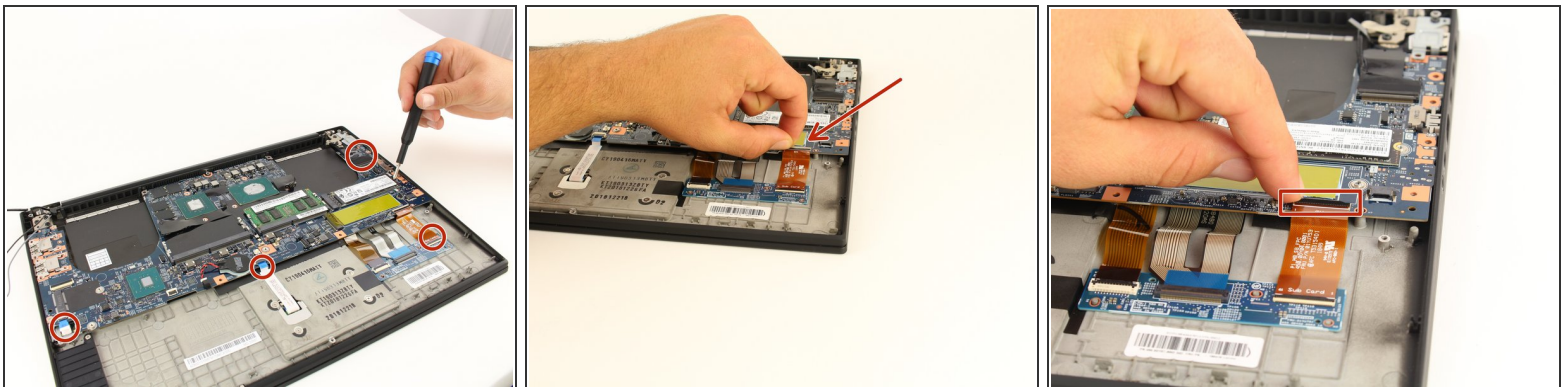
- Gently disconnect the two cables located on right and left side of the fan.
- i** To identify these, they are labeled "FANR1" and FANL2" on the motherboard.
- Lift the fan up and out and remove it from the device.

Step 10 — Motherboard



- Using the Phillips #00 head screwdriver, remove the five 4mm screws below the charging port, holding down the motherboard.
- Remove the two 3mm left most screws.
- Remove the two 5mm screws that are holding down a silver plate on the charging port in the top right.
- Remove the silver plate on top of the charging port. This is needed so that the mother board may be removed.

Step 11



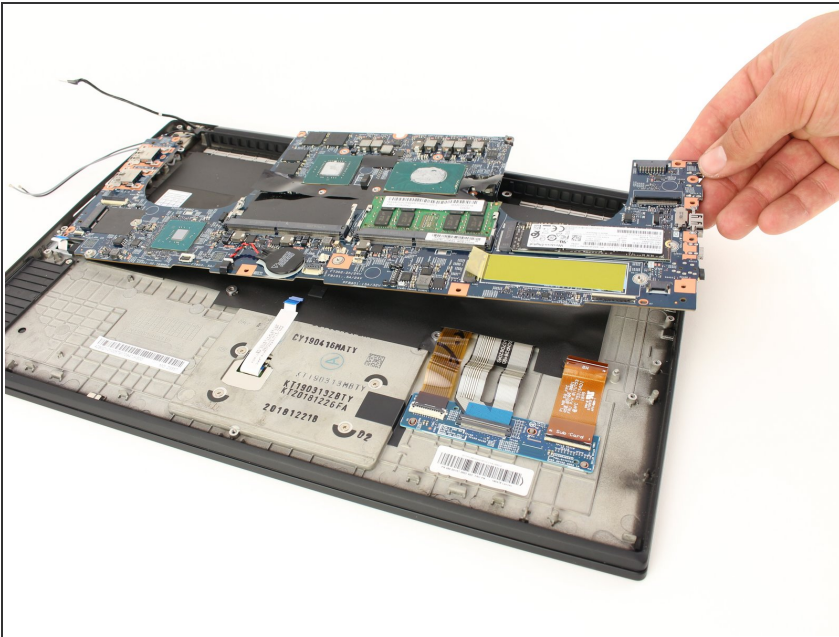
- Disconnect all the ribbon wires from the motherboard.
- All ribbon wires can be disconnected by flipping up the thin black tab at their connection points, and pulling the ribbon out.

Step 12



- Disconnect the black attachment at the top right corner of the motherboard.
- Insert the SIM eject bit into the small hole on the top and apply a small amount of pressure to release the clip.
- While maintaining pressure, gently pull on the wire that is connected to it to remove it.

Step 13



- Gently lift the motherboard out of the computer.

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