

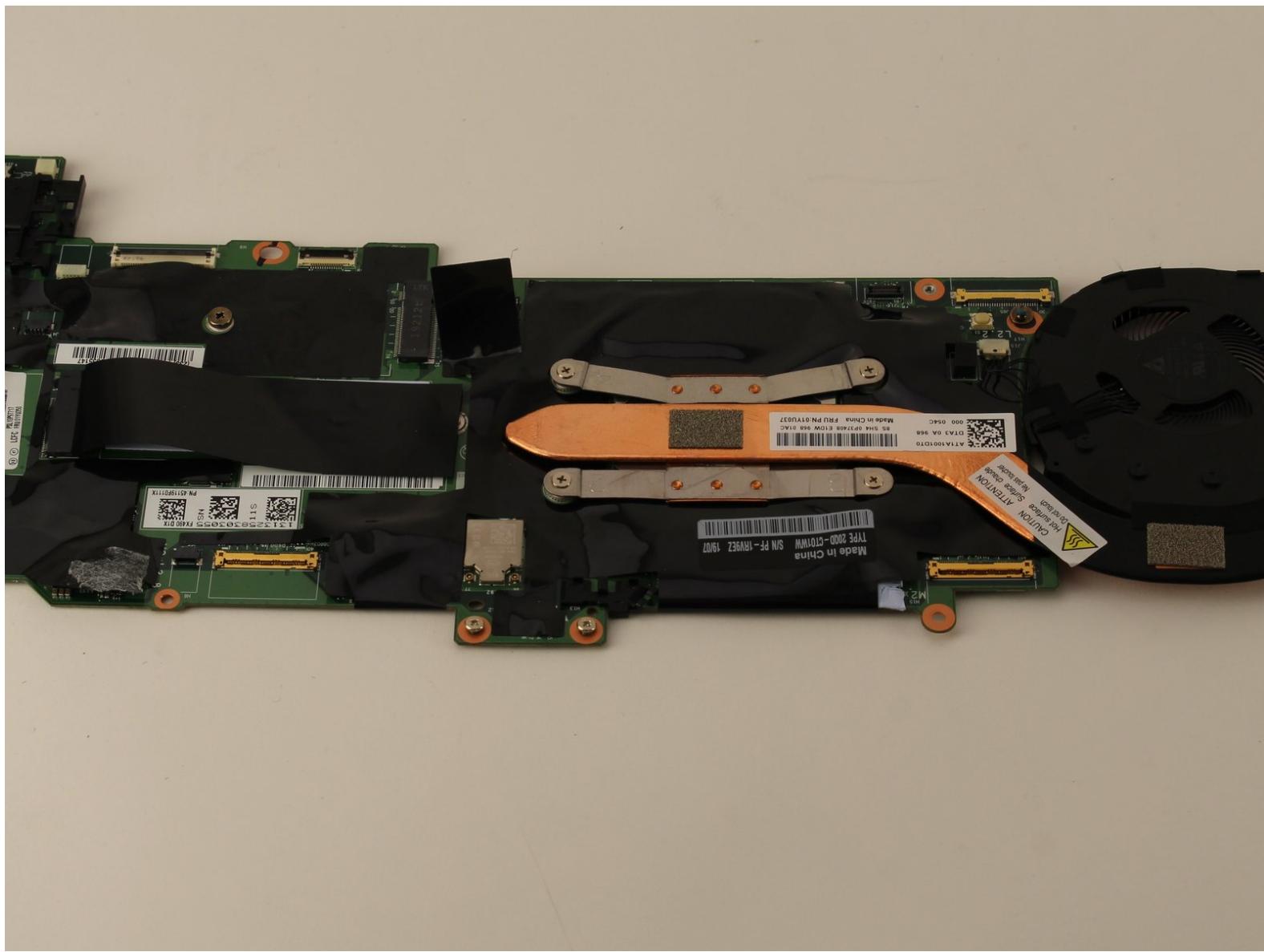


Lenovo ThinkPad X1 Carbon 7th Gen

Motherboard Replacement

How to replace the motherboard in a Lenovo ThinkPad X1 Carbon 7th Gen.

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INTRODUCTION

This guide will explain how to replace the motherboard in the Lenovo ThinkPad X1 Carbon 7th Gen.

With a damaged motherboard, the computer will likely not have any display, and remain a blank screen after being powered on. See our [troubleshooting page](#) for more details. The motherboard is required for components of the computer to communicate between each other, allowing the computer to run.

Before starting any replacement, ensure you power off and unplug your device.

TOOLS:

- [iFixit Opening Tools](#) (1)
- [Phillips #0 Screwdriver](#) (1)

Step 1 — Back Panel



⚠ You MUST go to BIOS settings (F1 on startup) and disable the built-in battery. Disconnect laptop from power source to avoid electric shocks.

- Flip the laptop over on a flat surface with the back panel facing up.
- Remove five 5mm Phillips #0 screws from the edge of the back panel.
- Insert an opening tool between the back panel and edge. Maneuver the tool around the panel, disconnecting the clips holding the panel in place.

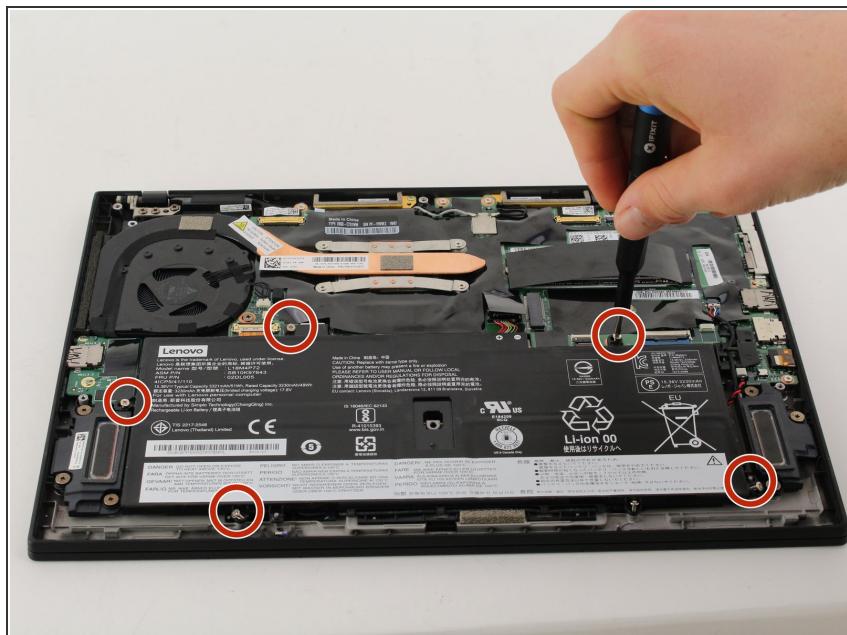
Step 2



- Lift the back panel away from the device, exposing the internals.

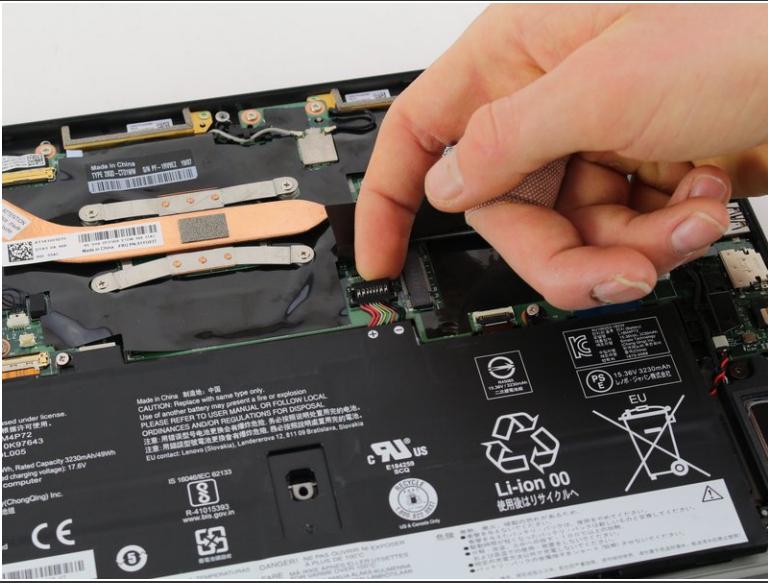
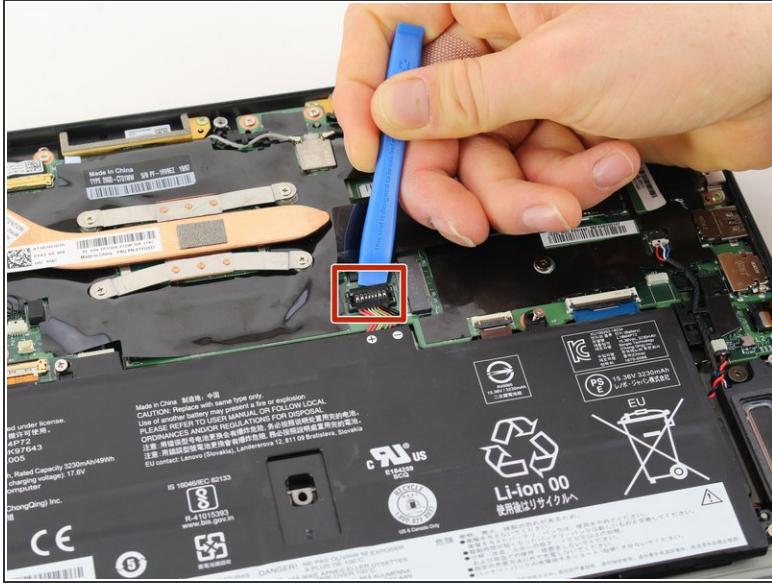
- ☒ When reassembling, prioritize the tabs on the side that does not have any screws. This ensures that the tabs do not break.

Step 3 — Battery



- Remove five 5mm Phillips #0 screws from the edges of the battery.

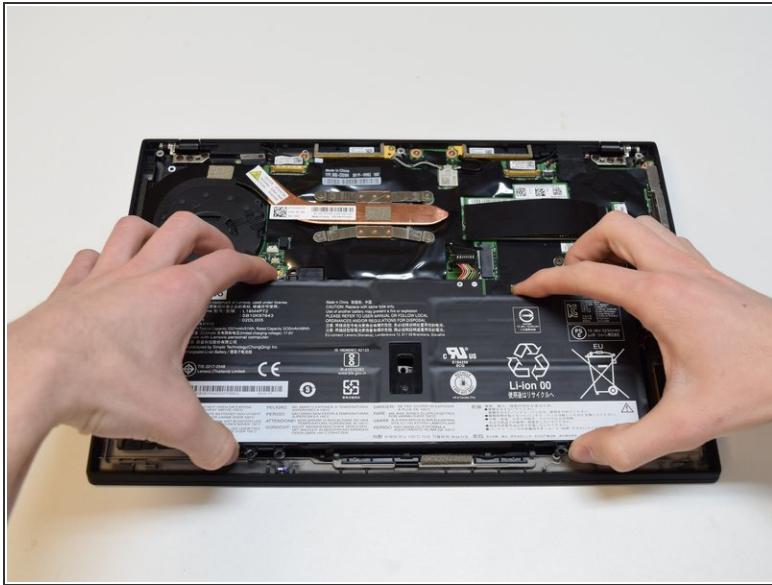
Step 4



- Remove the connector between the battery and the motherboard by using an opening tool to initially lift the back end of the connector up.

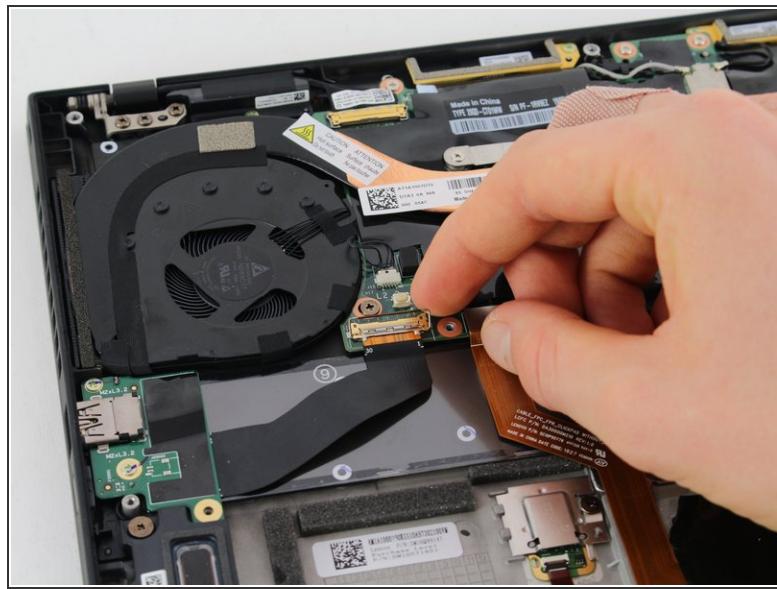
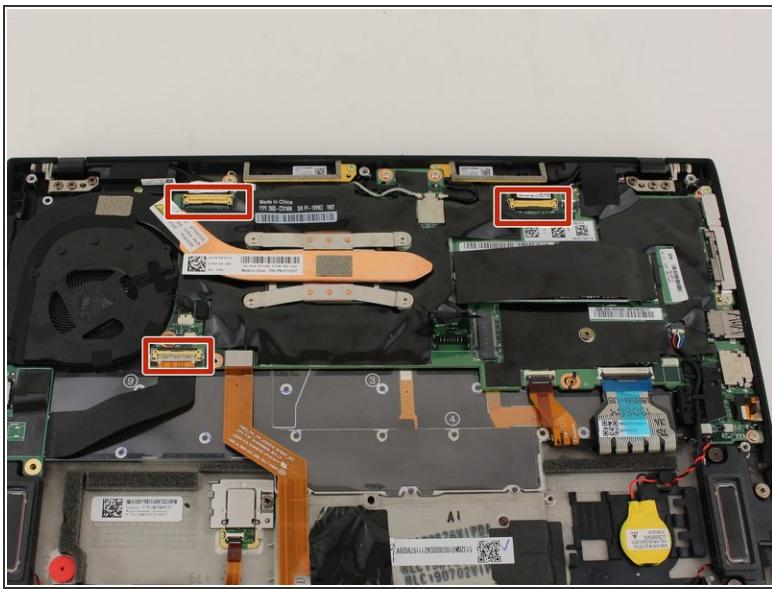
⚠ Avoid metal tweezers to remove the connector as metal to metal contact can damage the device.

Step 5



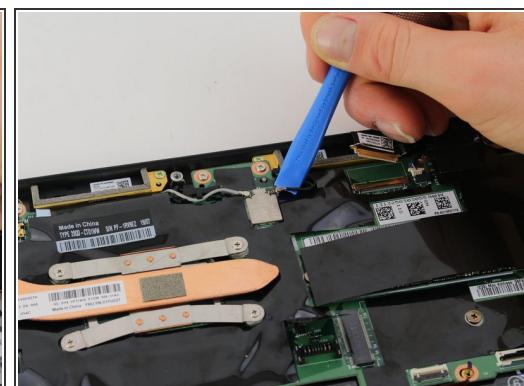
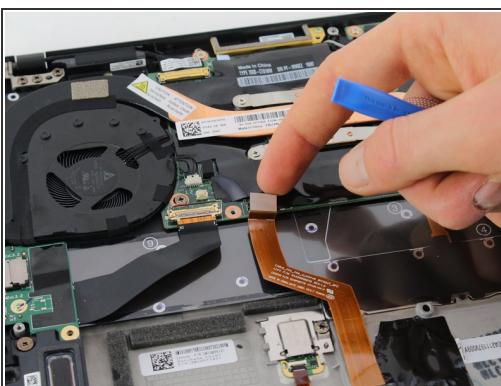
- Lift the battery straight up and out of device.

Step 6 — Motherboard



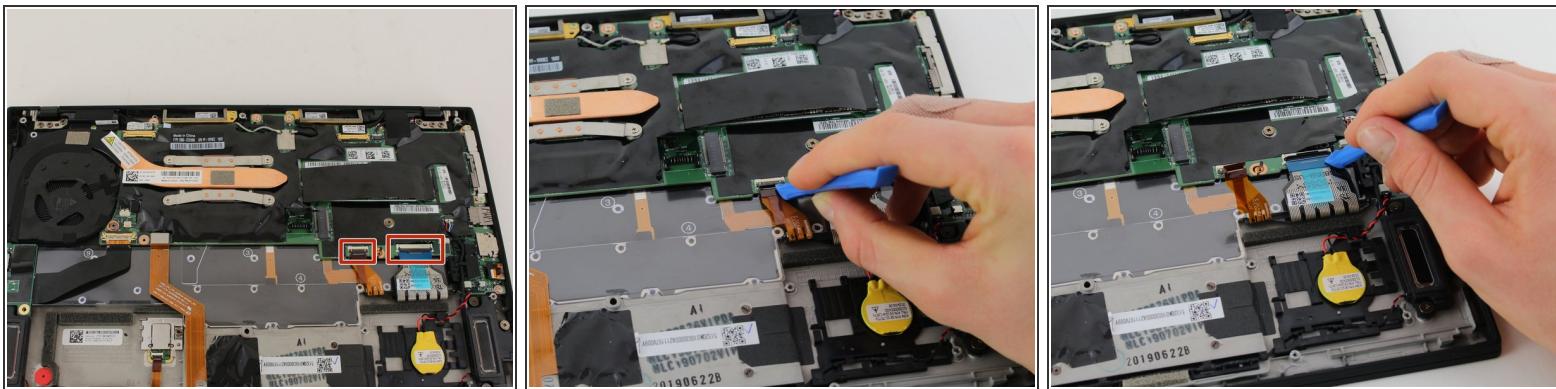
- Remove the connectors with bar latches by lifting up on the small bar behind the port and pulling the circuit ribbon away from the port.

Step 7



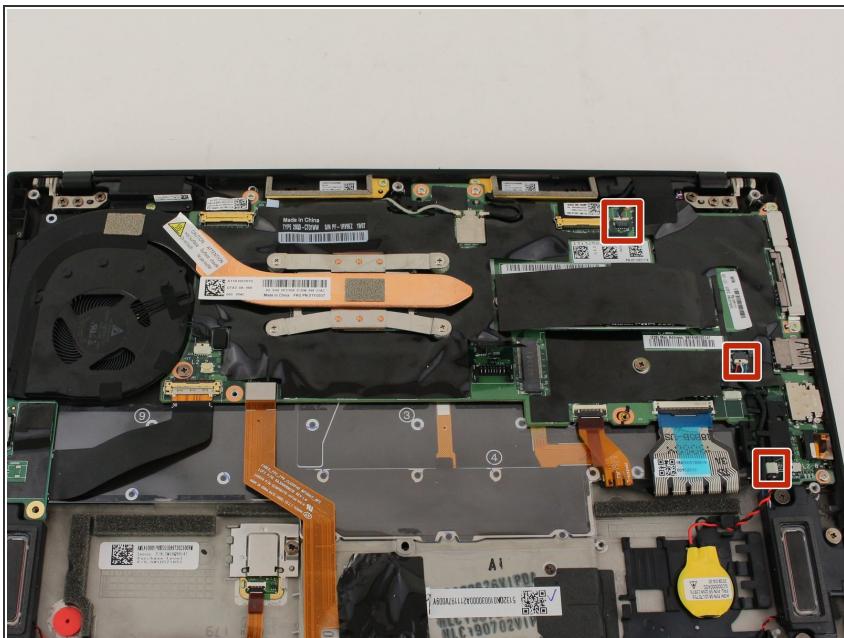
- Remove the snap connectors by lifting straight up until the connection pops out.
- Use an opening tool to pry them off if a finger cannot get underneath the connection.

Step 8



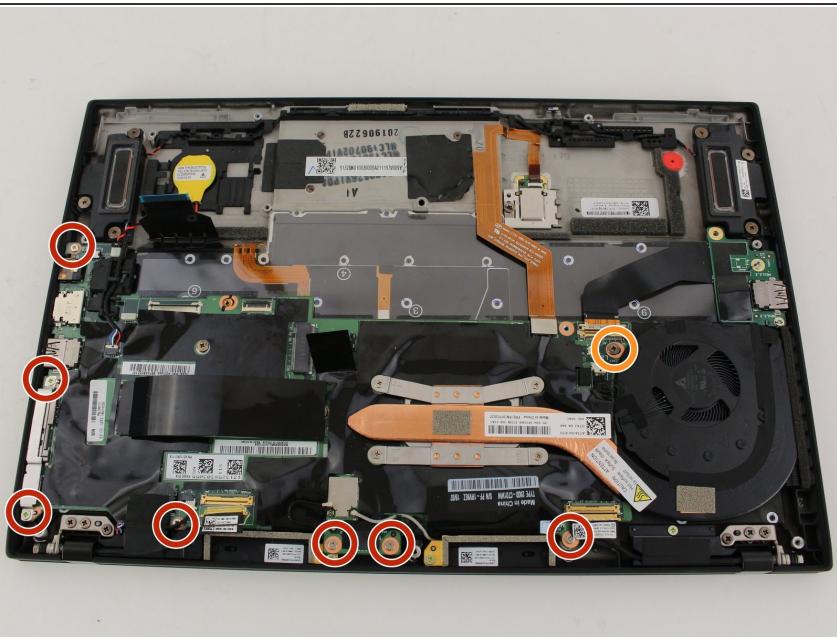
- Remove the latch connections by lifting the latch up, releasing the circuit ribbon.
- Use an opening tool to get underneath the latch if a finger cannot.

Step 9



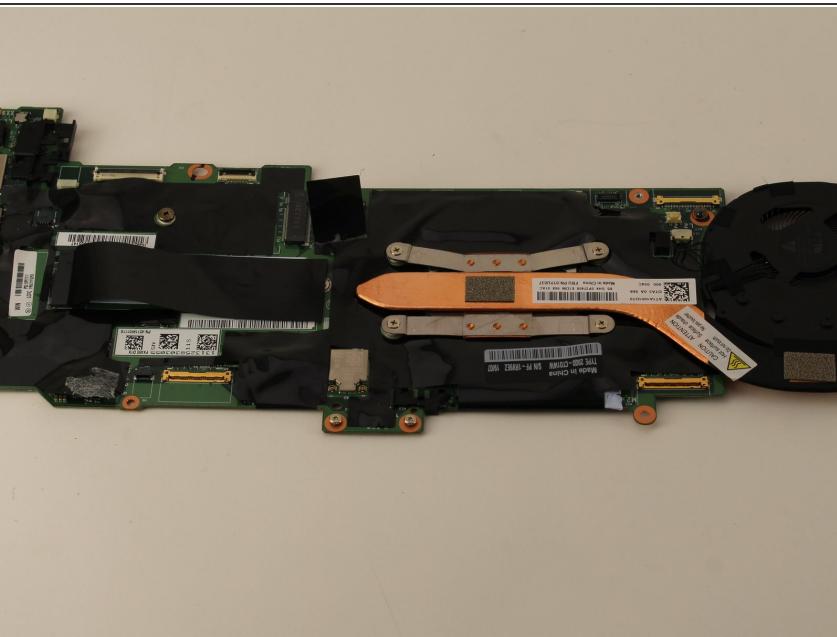
- Remove the insert connections by pulling the connector away from the port.

Step 10



- Remove the seven 4mm Phillips #0 screws that hold the motherboard in place
- Remove the 3mm Phillips #0 screw located near the fan.

Step 11



- Lift the motherboard with the fan still connected straight up and out of the device.

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