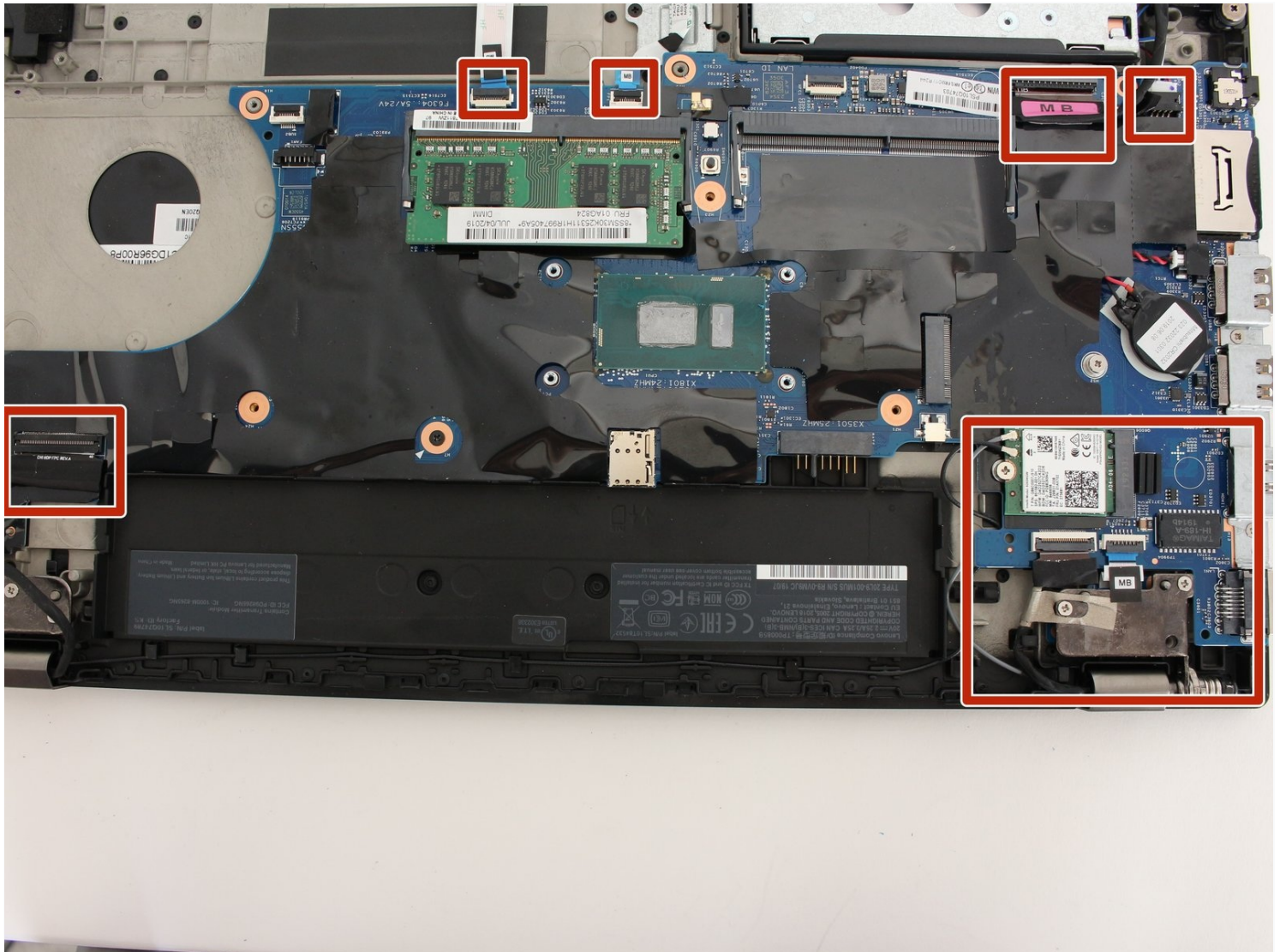




Lenovo ThinkPad T580 Motherboard Replacement

Welcome to the motherboard replacement guide fo...

Written By: Ben Elkayam



INTRODUCTION

Welcome to the motherboard replacement guide for the Lenovo Thinkpad T580.

This guide will detail the steps necessary to replace the motherboard.

The most common reasons why this component would need to be replaced are:

- The computer powers on but doesn't "turn on"
- The computer does not power on
- Your BIOS indicates your motherboard or integrated component is damaged
- You experience frequent crashes, glitches, or other malfunctions, and have ruled out other components as the culprit

There are no specialized skills required for replacing the motherboard.



TOOLS:

Jimmy (1)

Phillips #00 Screwdriver (1)

Spudger (1)



PARTS:

01YR244 - Lenovo Laptop Motherboard
- Genuine (1)

Step 1 — External Battery



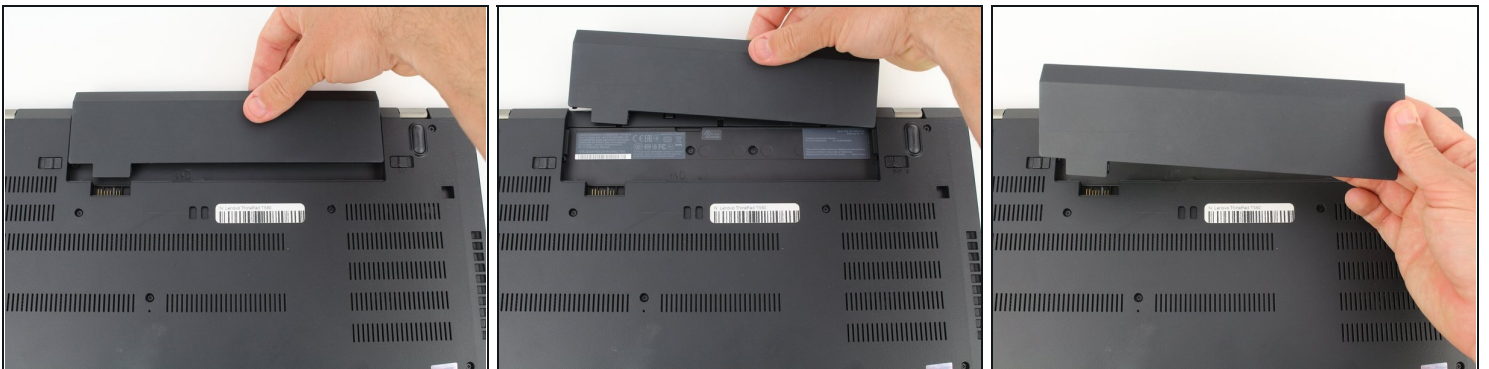
- Slide the switch on the left side of the battery to the left.

Step 2



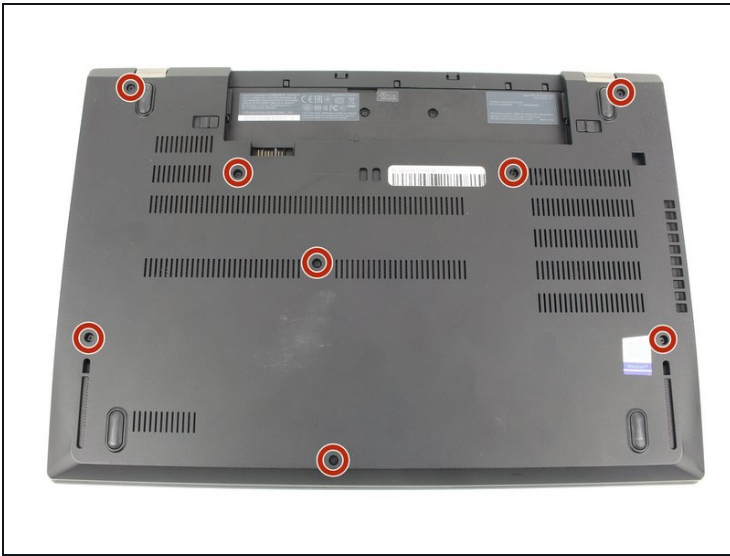
- Slide the switch on the right side of the battery to the right while applying upward pressure on the battery.

Step 3



- Pull the battery directly out of the socket

Step 4 — Bottom Case



- Using a Phillips #00 screwdriver, unscrew the eight 3.3 mm captive screws on the bottom of the laptop.

ⓘ The "captive" screws will not come out of the case.

Step 5



- Run a jimmy along the crease of the computer all the way around, twisting it periodically to disengage the clips.

Step 6



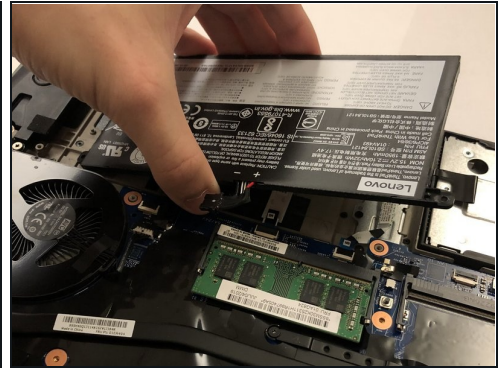
- Once all the clips are released, remove the bottom cover.
- ① You may need to jiggle the case slightly to release the clips around the external battery bay.

Step 7 — Internal Battery



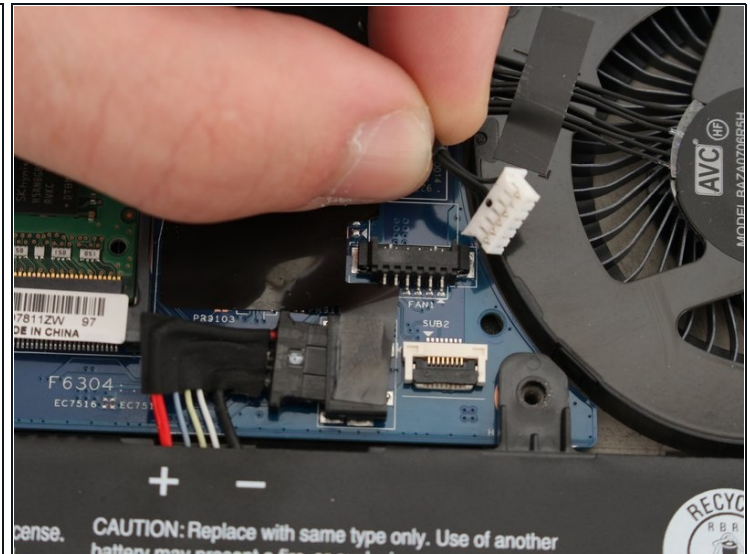
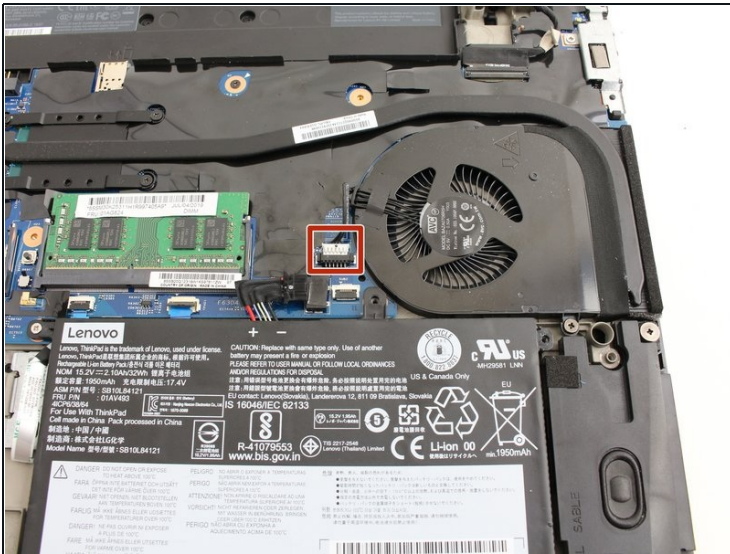
- Using a Phillips #00 screwdriver, remove five 3.7 mm screws holding down the battery.

Step 8



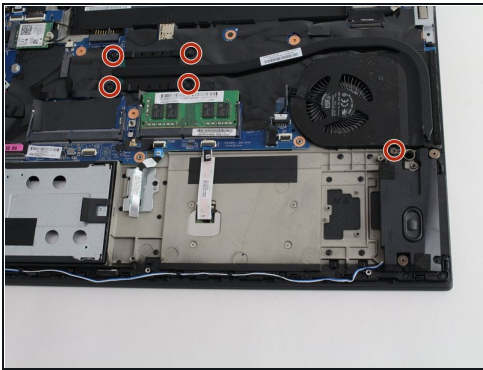
- Unplug and remove the battery connector from the motherboard.
- Remove the internal battery.

Step 9 — Cooling Fan



- Unplug the cooling fan's cable from the the motherboard.

Step 10



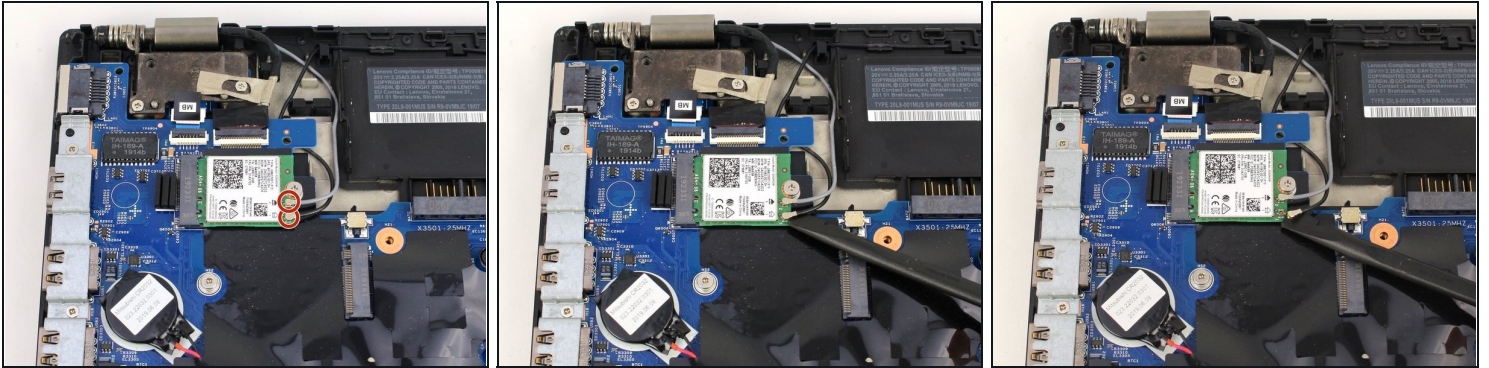
- Using a Phillips #00 screwdriver, unscrew five 4.6 mm screws fastening the fan and cooling pipe.
- ⓘ The screws are set in the plastic and are not able to be removed from the fan parts.

Step 11



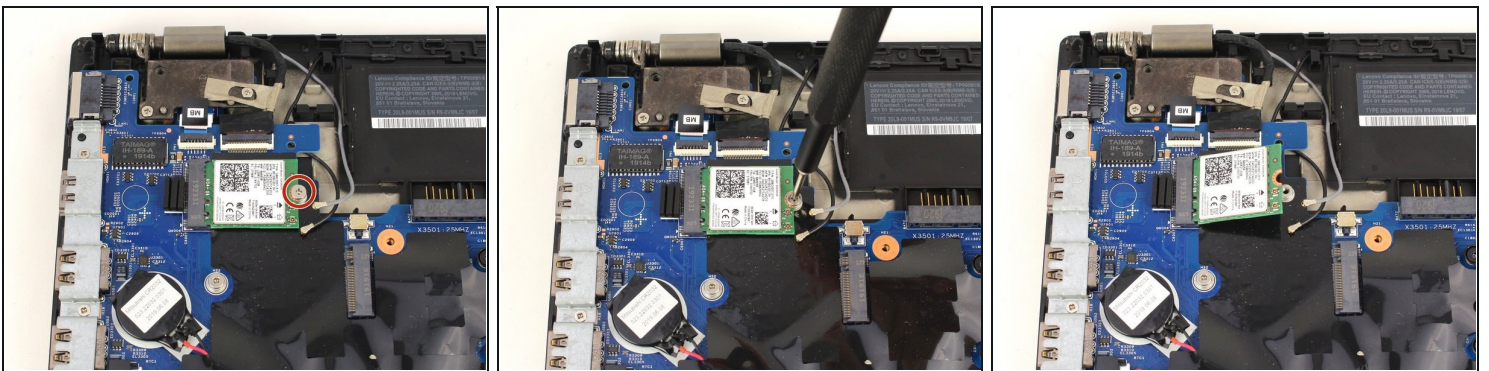
- Remove the cooling fan directly upwards from the core.
- ★ Be sure to clean and replace any thermal paste on the heatsink and CPU before reassembling. You can use our [How to Apply Thermal Paste](#) guide if you need any help!

Step 12 — Wi-Fi Card



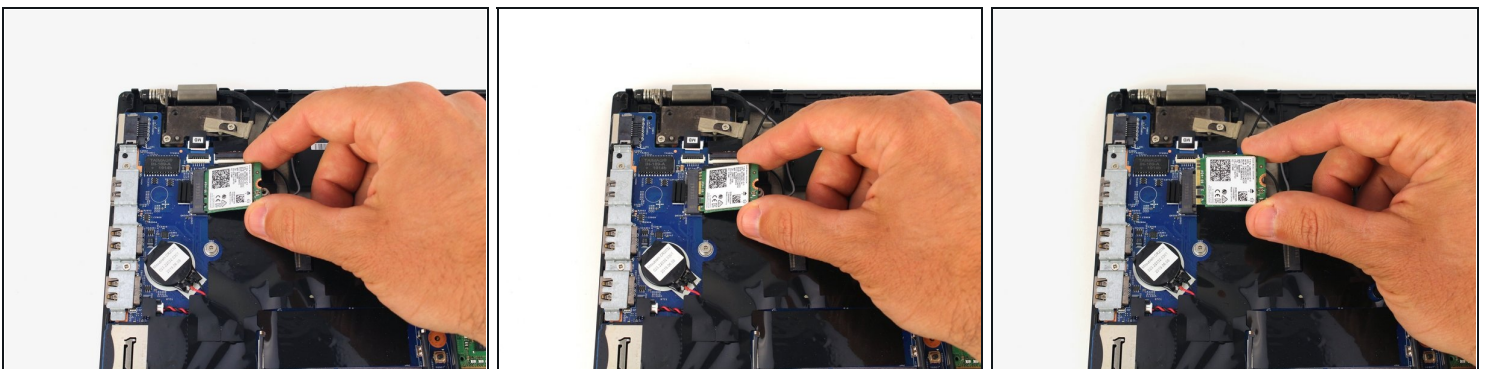
- Using a spudger, pop off the gray and black coaxial cables from the Wi-Fi card.

Step 13



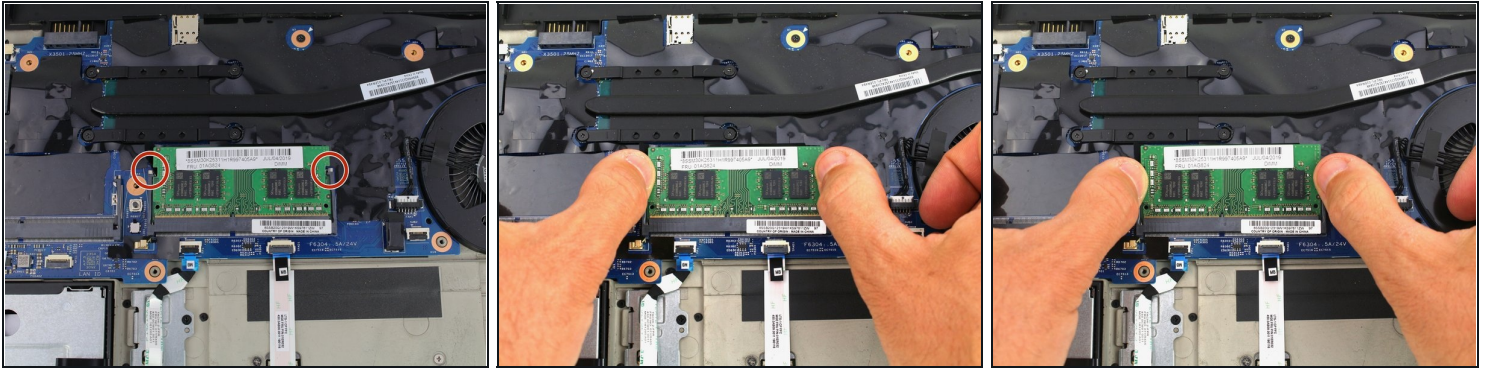
- Using a Phillips #00 screwdriver, remove the 3.6 mm screw from the Wi-Fi card.

Step 14



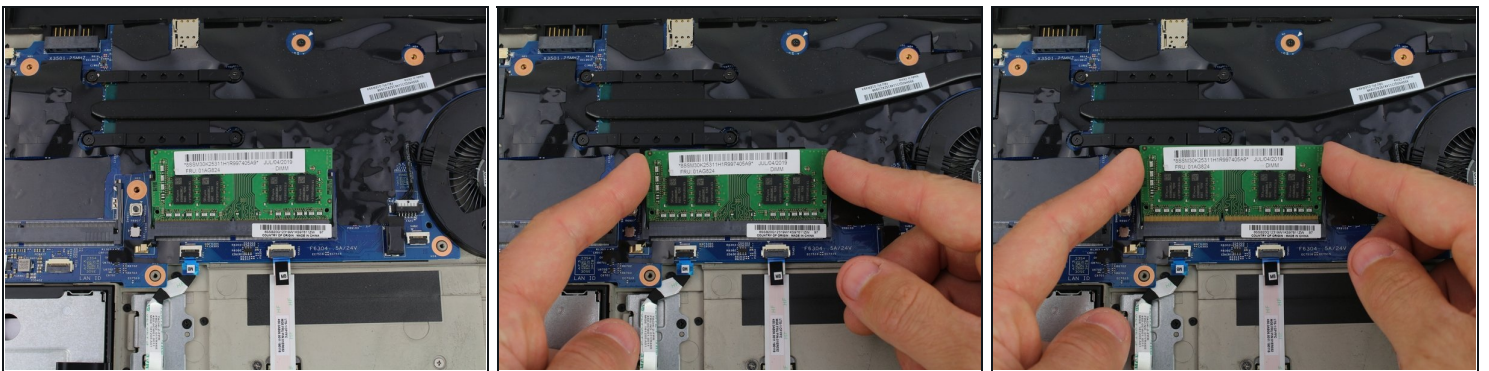
- Slide the Wi-Fi card out from the socket on the motherboard.

Step 15 — RAM



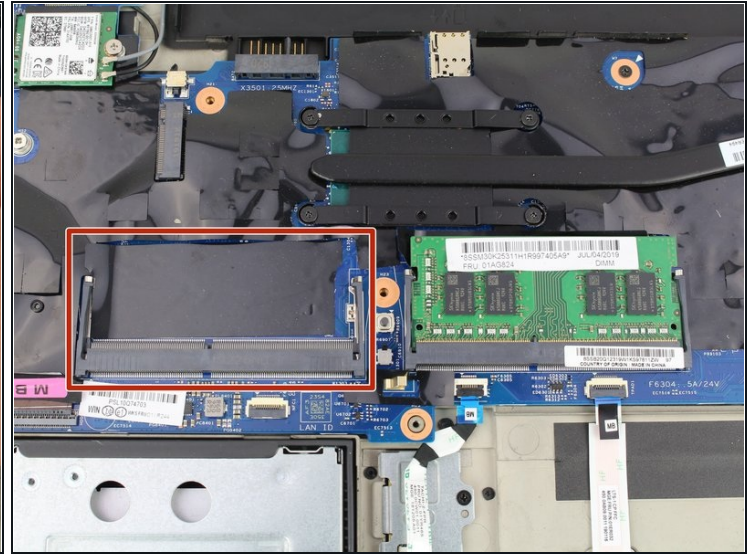
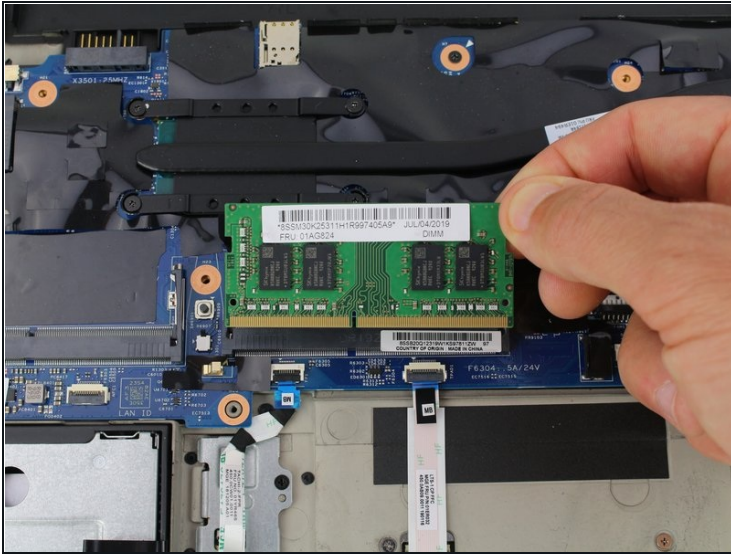
- Pull the two tabs on either side of the RAM card outwards with your fingers.

Step 16



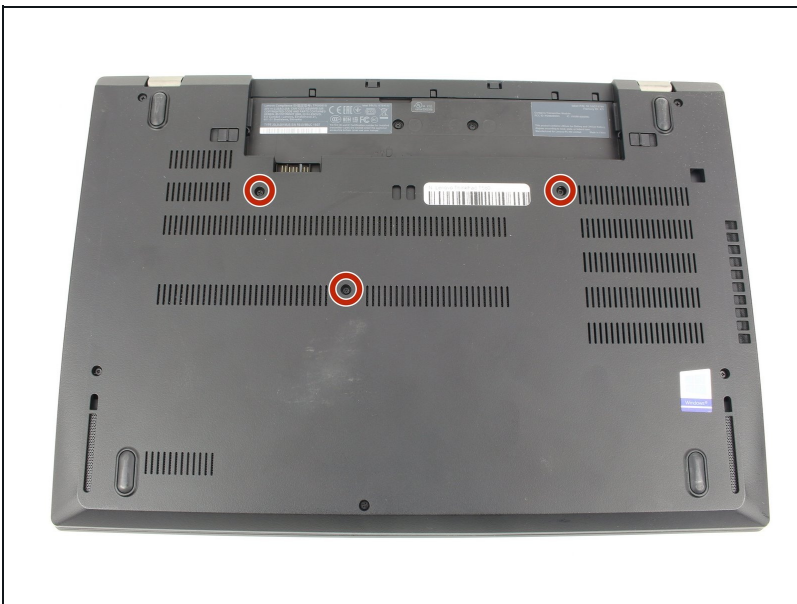
- ① The RAM module should pop up to rest at an angle to the motherboard.
- Pull the Wi-Fi card out from the port by the edges of the card.
- ☑ Try to remove and insert the card at the same angle at which it rests with respect to the motherboard.

Step 17



- Remove the RAM module from the laptop.
- Repeat the same process for the second RAM module if your computer included one.

Step 18 — Unfasten the keyboard



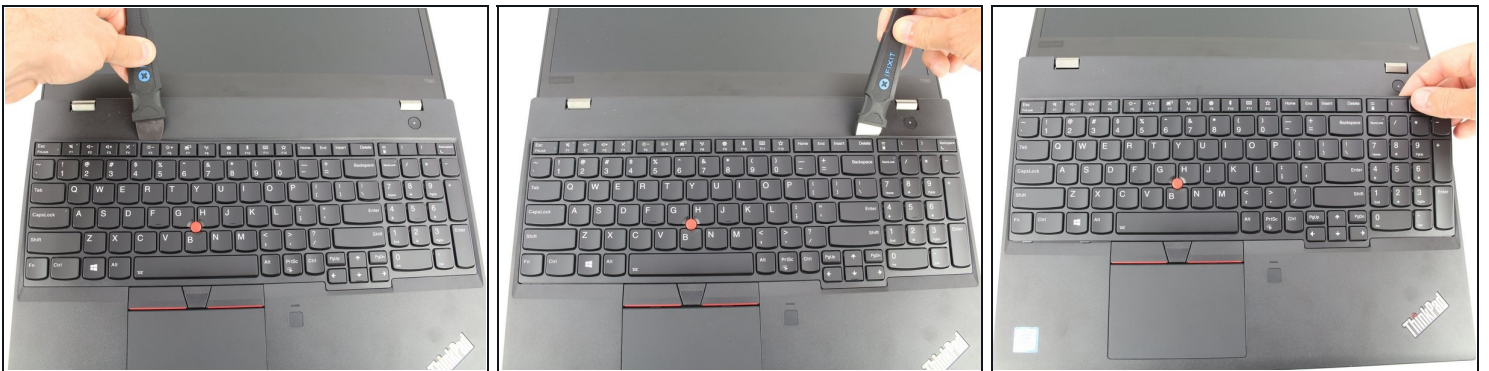
- Use a Phillips #00 screwdriver to unscrew the three 3.3 mm captive screws securing the keyboard.

Step 19



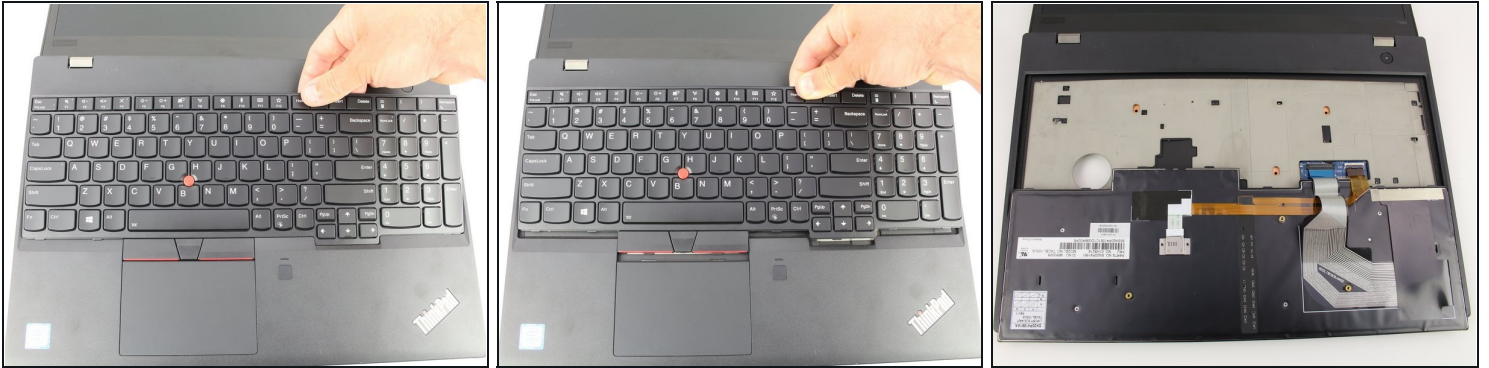
- Use a Jimmy to pry under the top left corner of the keyboard.
- ① You may hear a "click" or "pop" as the clips of the keyboard disengage.

Step 20



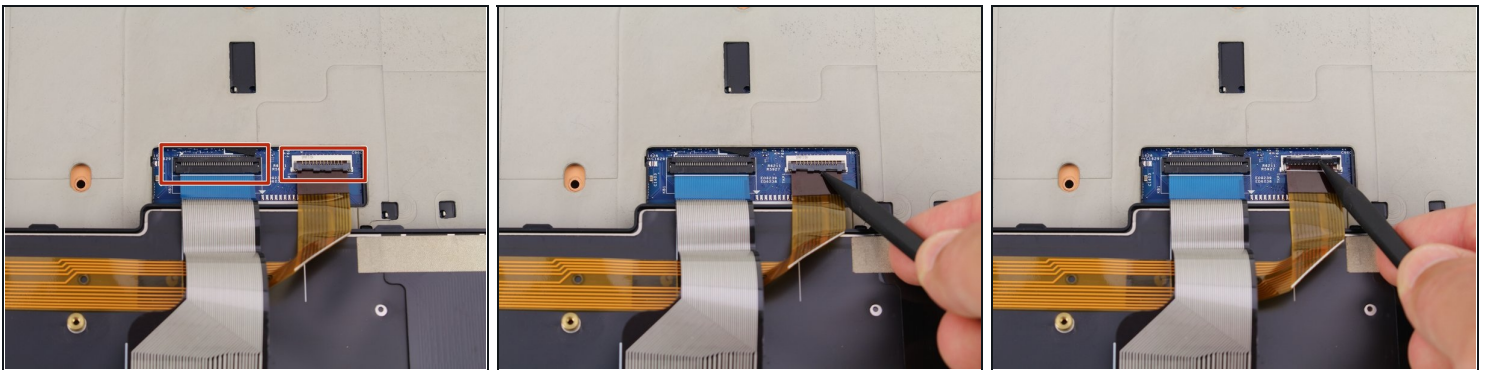
- Continue prying along the top edge of the keyboard, releasing the clips as you go.
- Once the top edge has been fully released, grab the top edge and hinge the keyboard upwards on the bottom edge.

Step 21



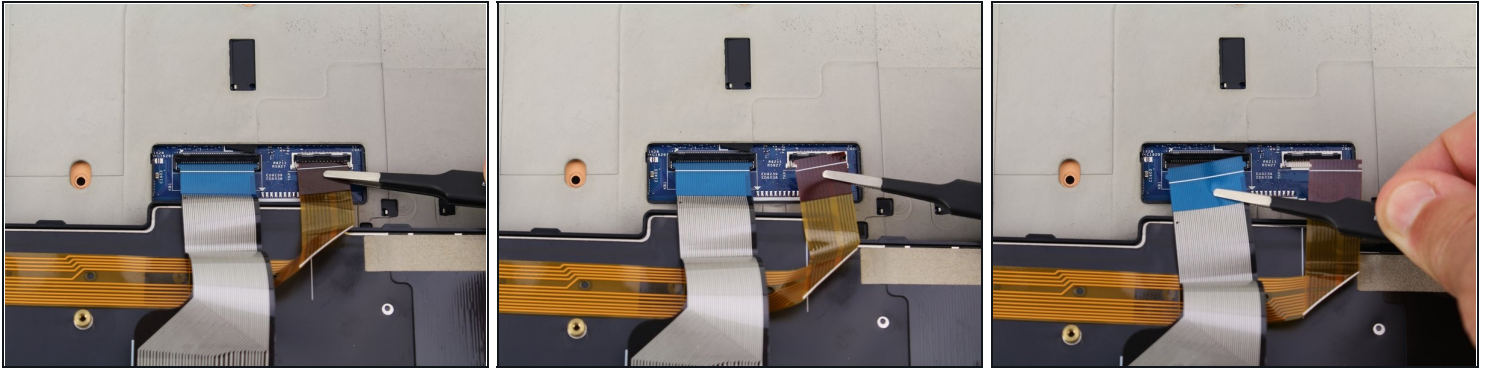
- Pull the keyboard away from you, releasing the tabs along the bottom edge.
⚠ Be sure not to pull on the keyboard too excessively, as it is still connected to the motherboard via two ribbon cables.
- Flip the keyboard over to rest face down over the trackpad.

Step 22



- Use a spudger to lift up the two black, hinged locking flaps on the [ZIF connectors](#) on the motherboard.

Step 23



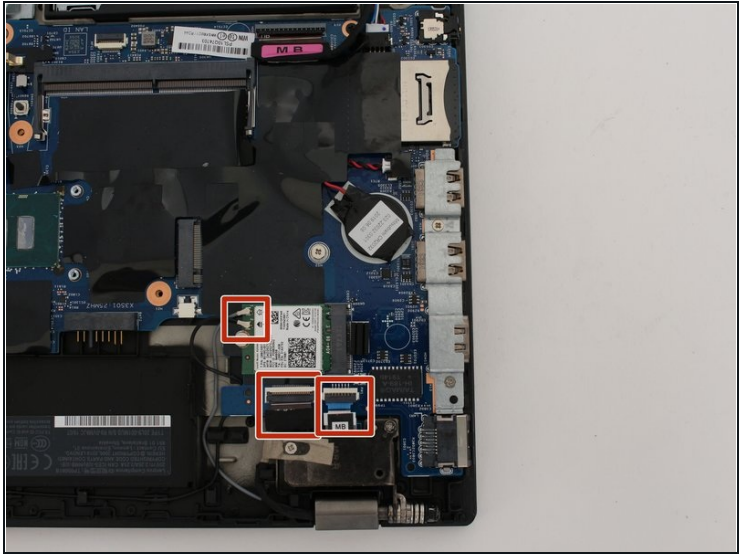
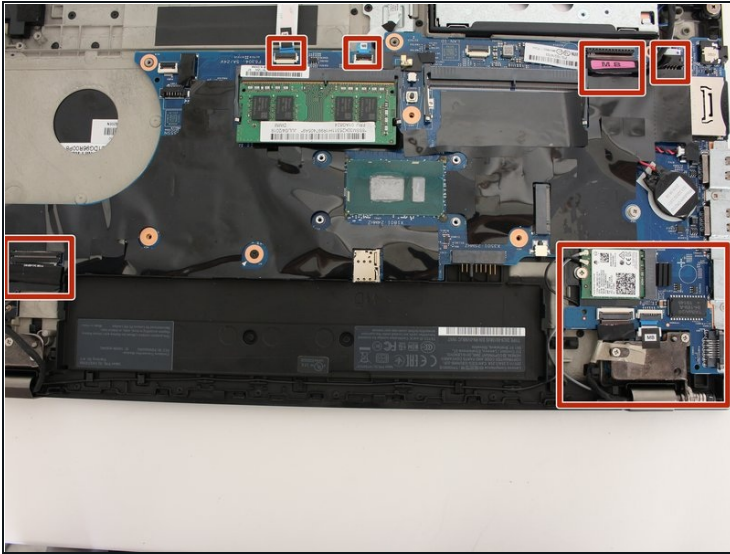
- Use a pair of blunt nose tweezers to pull the two keyboard ribbon cables out from the ZIF connectors.

Step 24



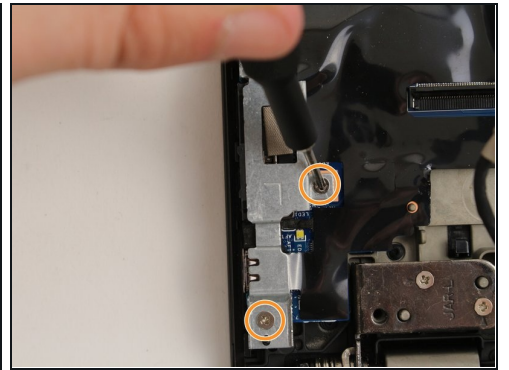
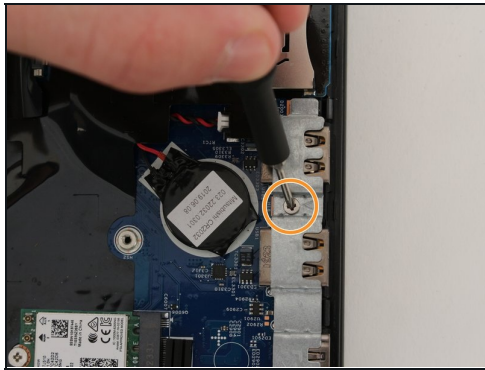
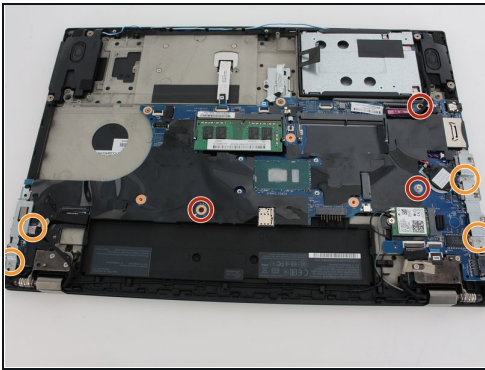
- Remove the keyboard.

Step 25 — Motherboard



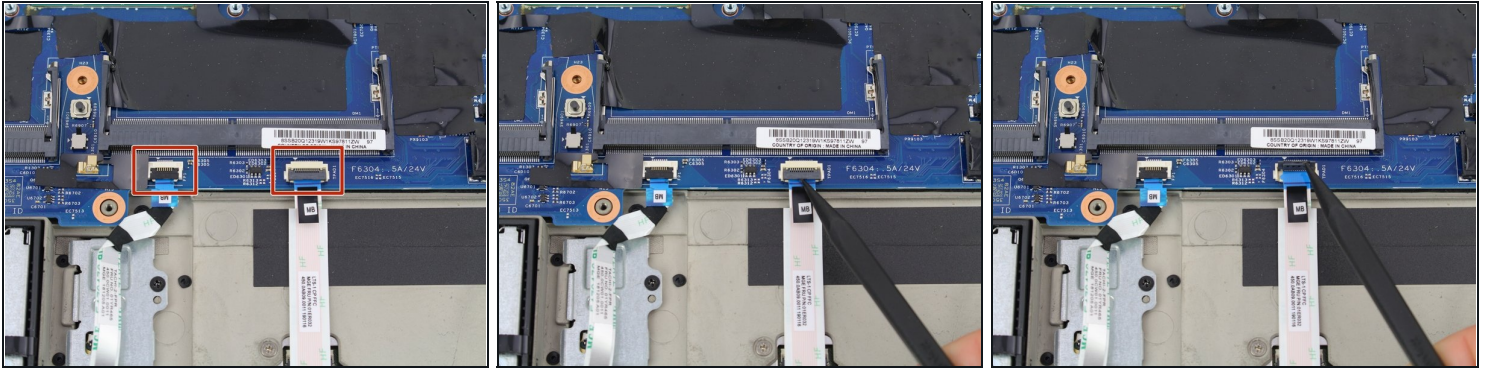
- Disconnect all the attached cables.

Step 26



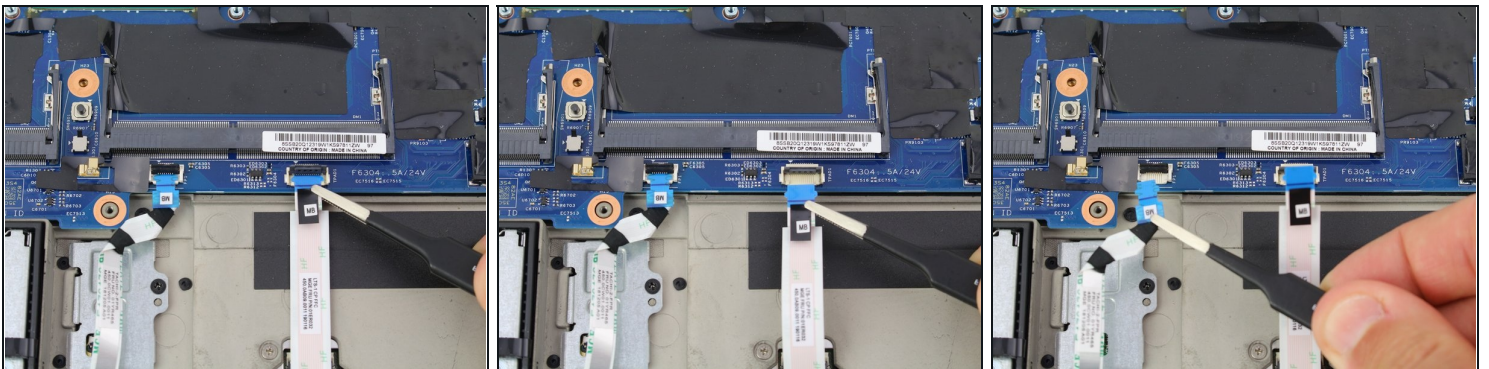
- Using a Phillips #00 screwdriver, unscrew the three 3.3 mm motherboard screws.
- Using a Phillips #00 screwdriver, take out the port clamps and the three 3.6 mm screws.

Step 27



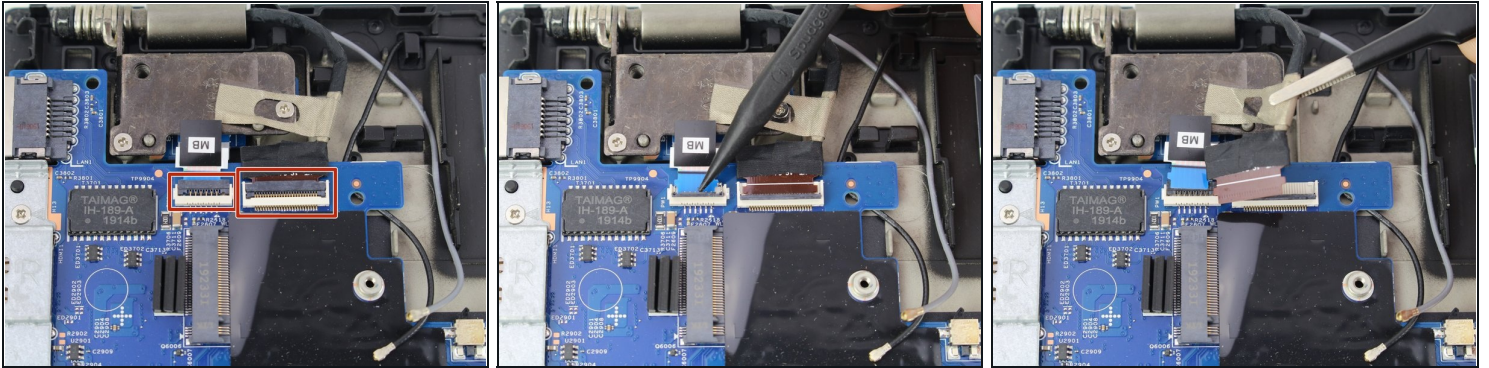
- Flip up the two ZIF cables for the trackpad and fingerprint sensor with the pointed end of a plastic spudger.

Step 28



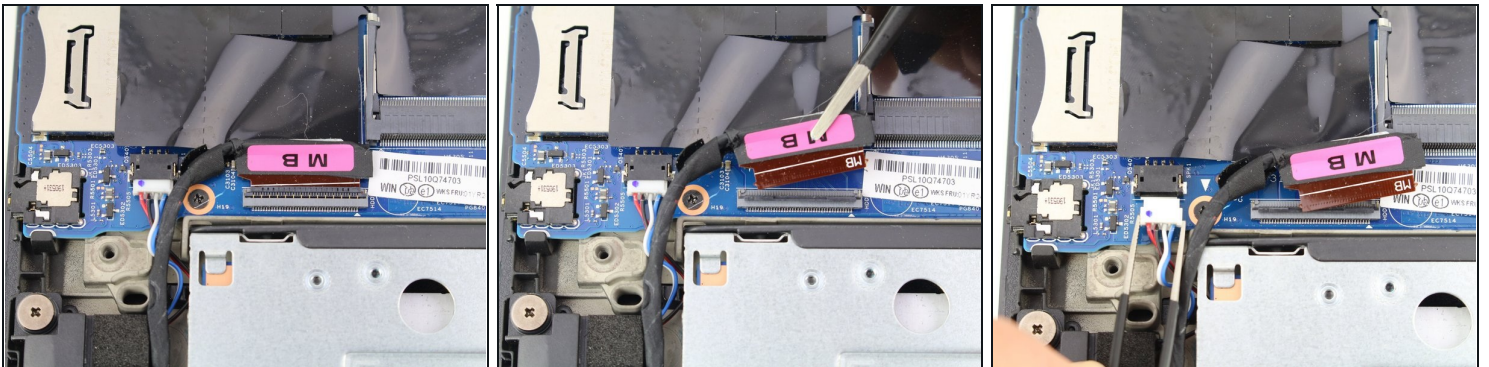
- Pull out the two ribbon cables with a pair of blunt nose tweezers.

Step 29



- Using a spudger, flip up the locking tabs of the two ZIF connectors on the upper left corner of the motherboard.
- Pull out each of the ribbon cables using a pair of blunt nose tweezers.

Step 30



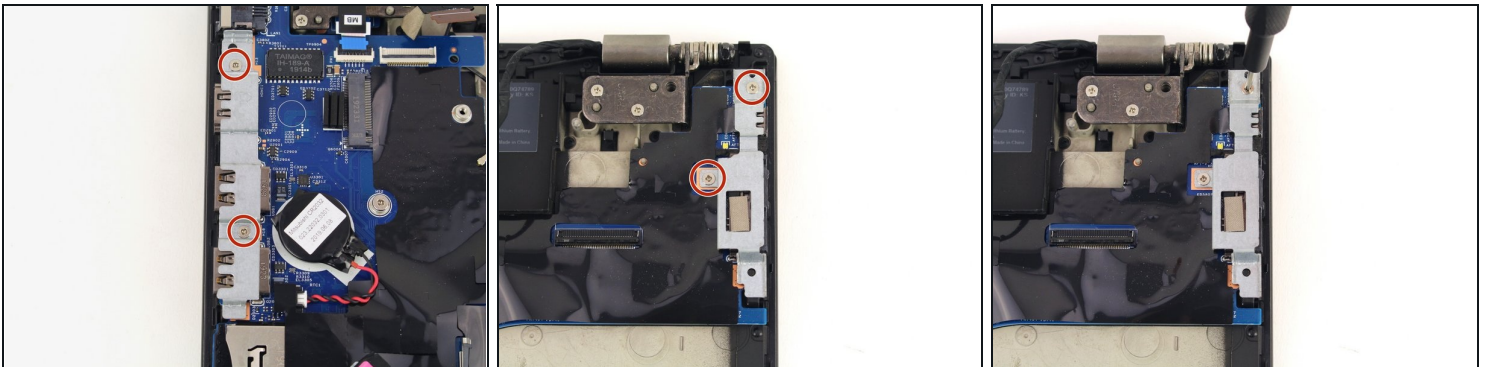
- Flip up the locking tab of the ZIF connector on the bottom left of the motherboard.
- Pull out the ribbon cable and speaker cable from their connectors using a pair of blunt nose tweezers.

Step 31



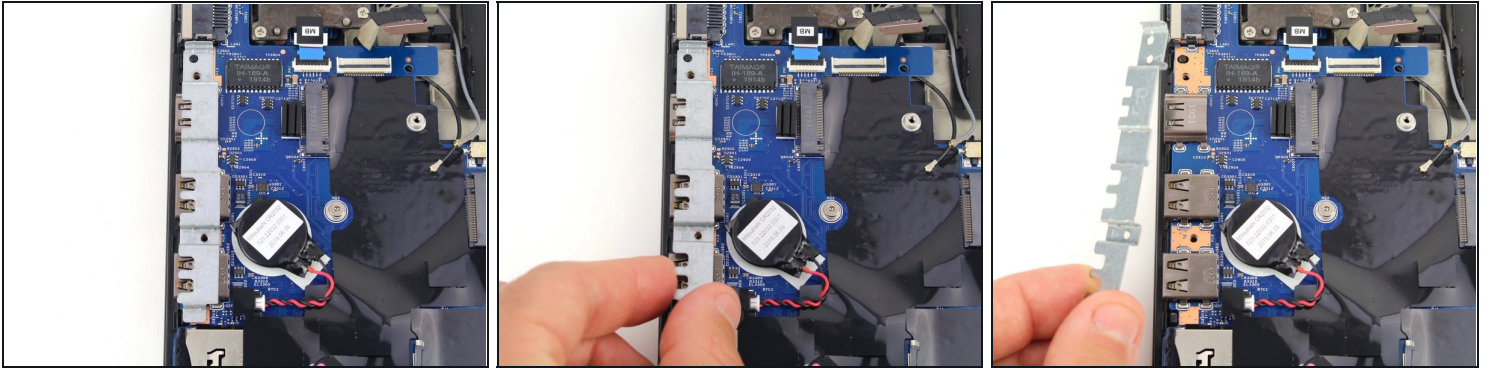
- Using a spudger, flip up the locking tab of the ZIF connector in the top right corner of the motherboard.
- Pull the ribbon cable out from the connector with a pair of blunt nose tweezers.

Step 32



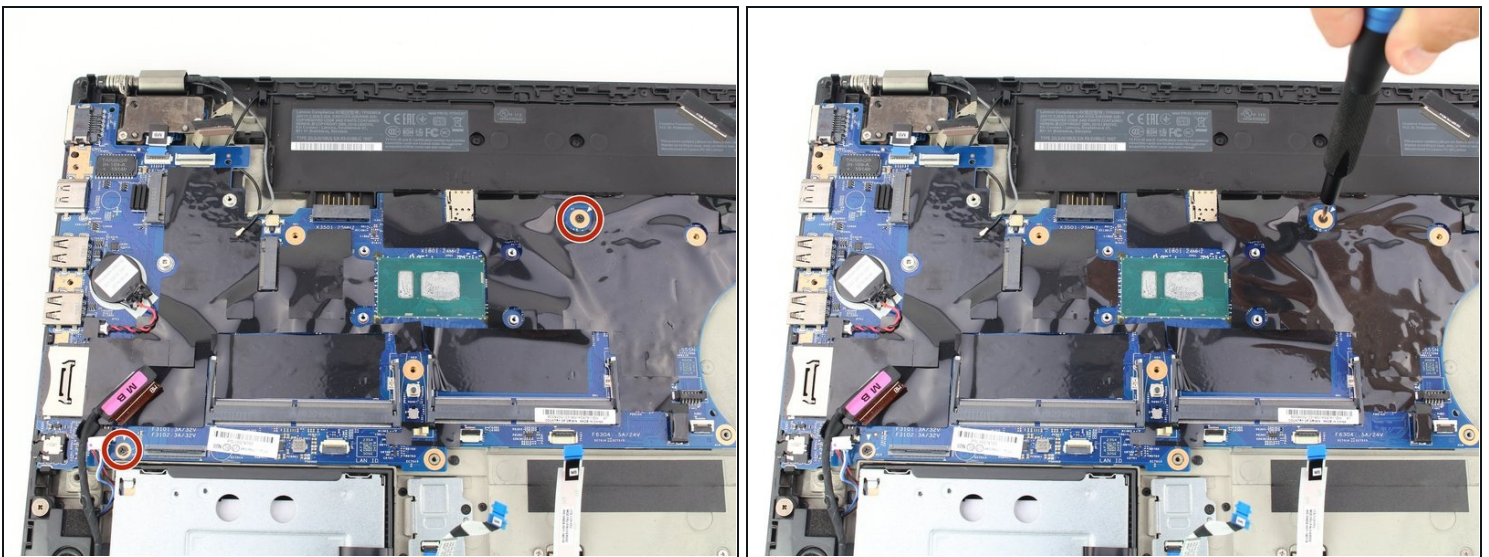
- Using a Phillips #00 screwdriver, remove the four 3.6 mm screws holding down the port brackets on the right and left sides of the motherboard.

Step 33



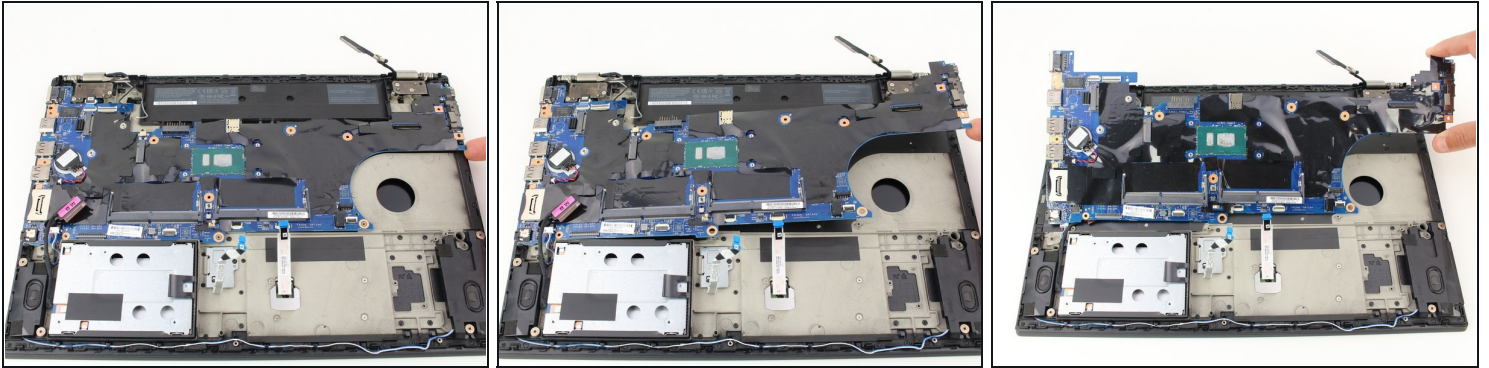
- Pull off each of the port brackets.

Step 34



- Remove the two 3.3 mm screws from the motherboard with a Phillips #00 screwdriver.

Step 35



- Lift up and remove the motherboard.
- If your replacement motherboard does not include a CMOS battery, you may need to move it over from your old motherboard. You can follow this [CMOS Battery Replacement guide](#) if you need help!

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