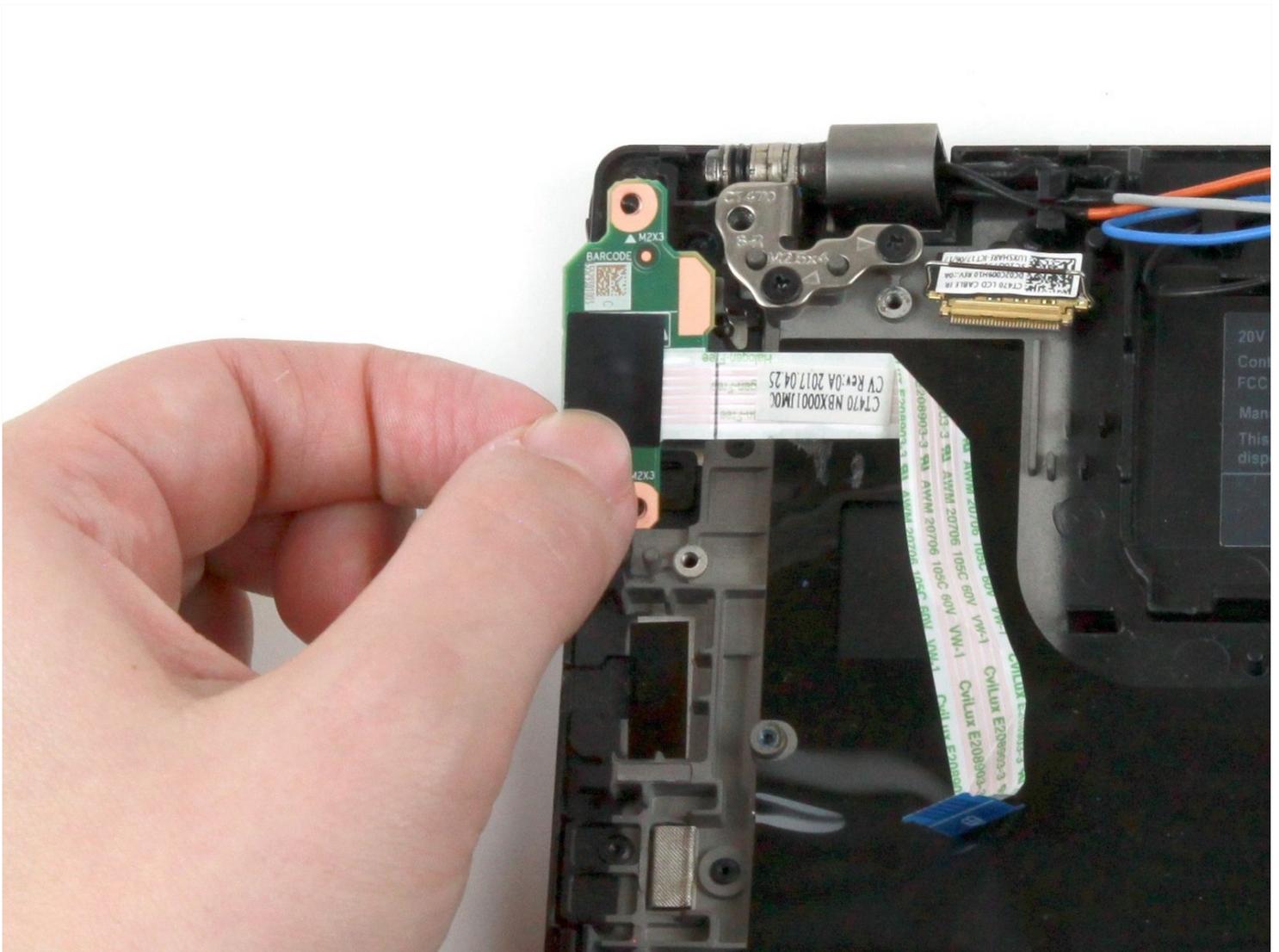




Lenovo ThinkPad T470 Power Button Board Replacement

Use this guide to replace the power button...

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INTRODUCTION

Use this guide to replace the power button board in your Lenovo ThinkPad T470.

The power button board contains the button that turns on the computer when pressed. Diagnosing a faulty power button may be tricky since some of the symptoms are similar to a faulty battery or AC adapter. If you are pressing the power button but your laptop is not turning on, take a look at this Lenovo ThinkPad [troubleshooting manual](#) before attempting a power button board replacement.

If you need to perform a replacement, make sure to [disable the internal battery](#), power down your device, and disconnect from any external power sources before you begin.

TOOLS:

Phillips #1 Screwdriver (1)

ESD Safe Blunt Nose Tweezers (1)

Spudger (1)

Step 1 — External Battery



 Before you begin this guide, make sure to [disable the internal battery](#), power down your device, and disconnect from any external power sources.

- Place the laptop so that the bottom is facing upwards.
- Slide the latch on the left side of the battery to the left until it clicks in place.

Step 2



- Slide the latch on the right side of the battery to the right and hold it in place with your thumb.
- Use your other hand to slide the battery towards the back of the laptop.
- Lift the battery up and away from the laptop.

Step 3 — Internal Components



- Use a Phillips #1 screwdriver to loosen the six captive screws on the bottom cover of the laptop.

Step 4



- Place the laptop so that the top is facing upwards.
- Open the lid of the laptop.

Step 5



- Place your fingers on the bottom edge of the keyboard.
- Use a small amount of pressure to push the keyboard towards the screen.

Step 6



- Grab the bottom edge of the keyboard with your hands, and flip the keyboard upside-down, so it rests on the bottom of the laptop.

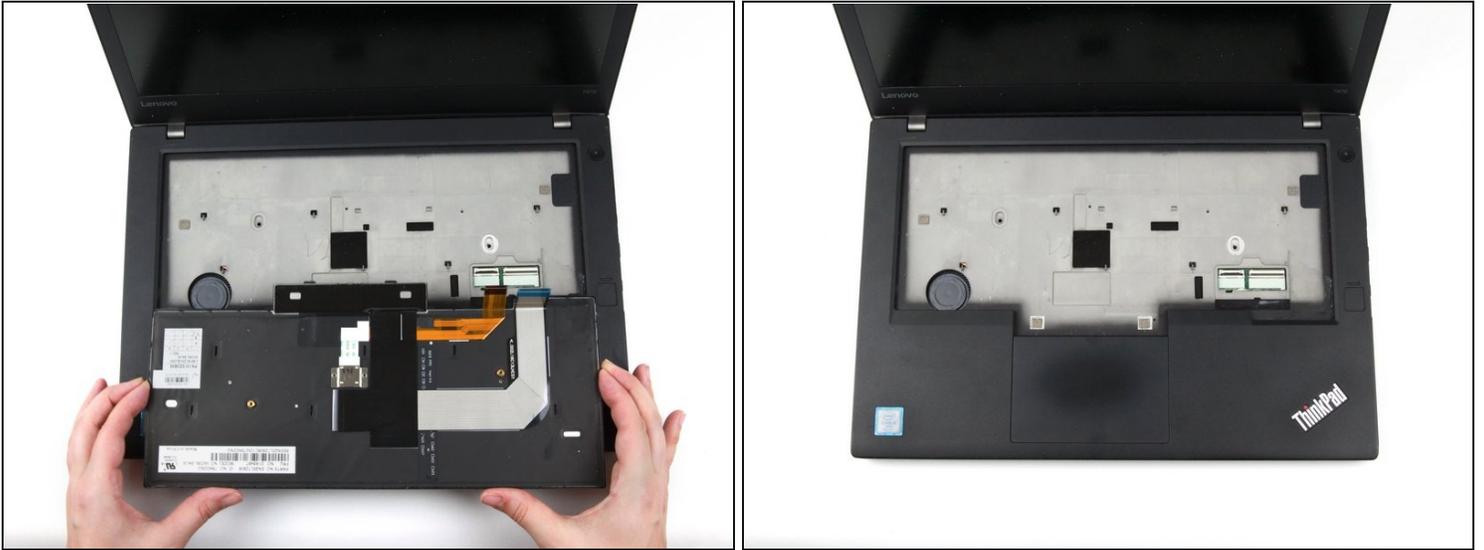
⚠ Potential for device damage: The keyboard is still attached to the rest of the laptop, so be gentle when flipping it over.

Step 7



- Use the flat end of a spudger to flip up the locking flaps securing each of the two ribbon cables.

Step 8



- Use your hands to lift the keyboard up and away from the laptop.

Step 9



- Close the laptop's lid and flip the laptop over so that the bottom is facing upwards.

Step 10



- Use your hands to pull up on the back cover and release the plastic clips starting on the bottom side of the battery compartment.

⚠ Potential for device damage: Be sure to detach the plastic clips in this area first. You risk cracking the bottom cover if you attempt to detach it from around the edges of the laptop first.

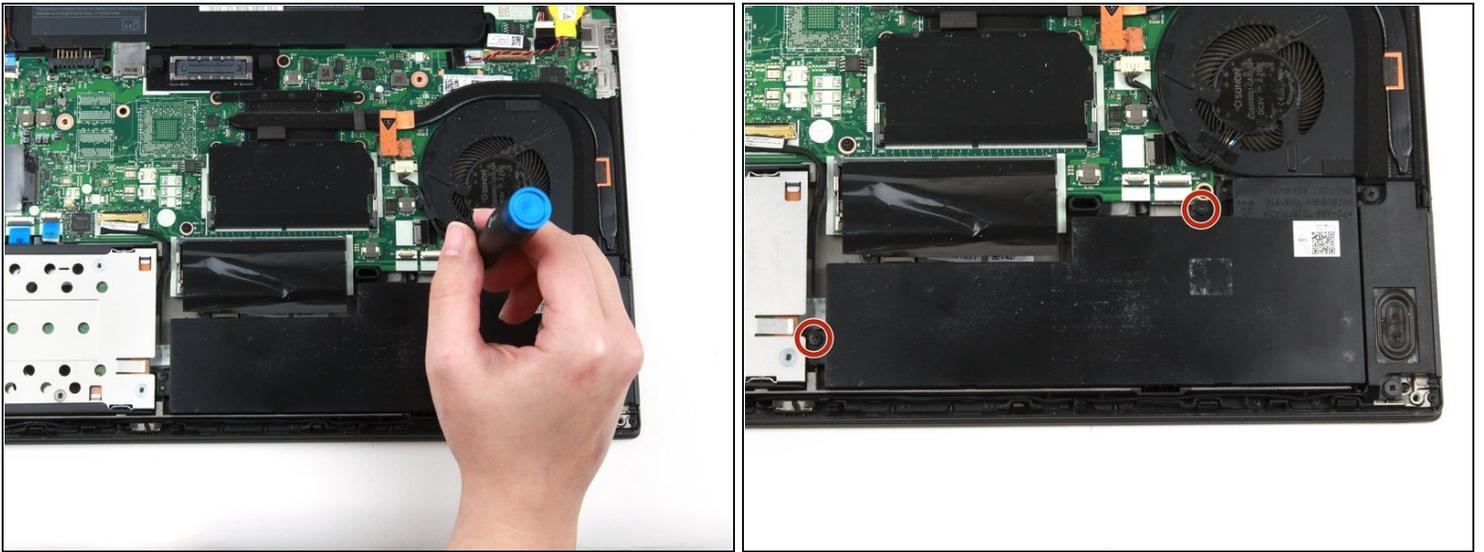
- Use your hands to pull up on the right side of the bottom cover to release the plastic clips.
- Use your hands to pull up on the left side of the bottom cover to release the plastic clips.

Step 11



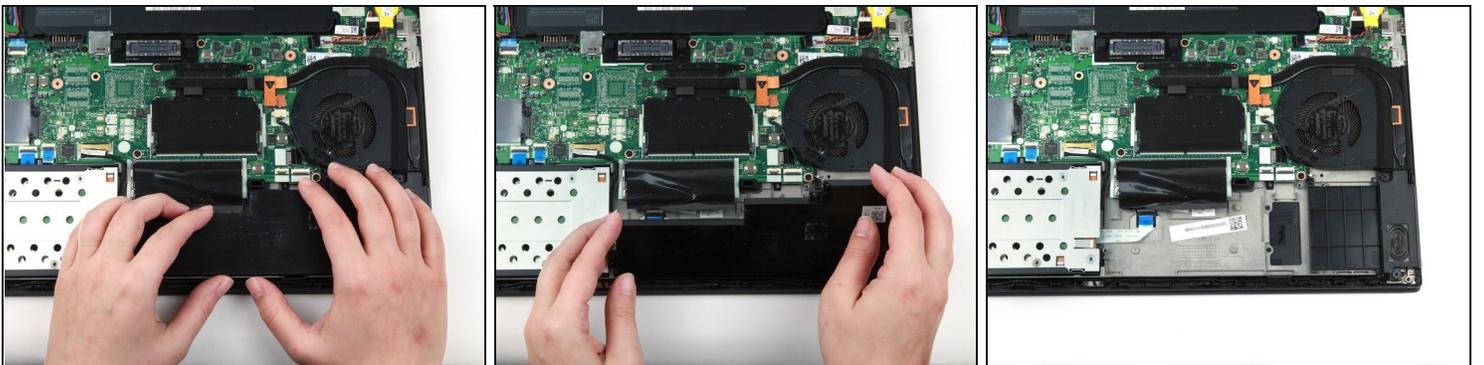
- Remove the bottom cover from the laptop.

Step 12



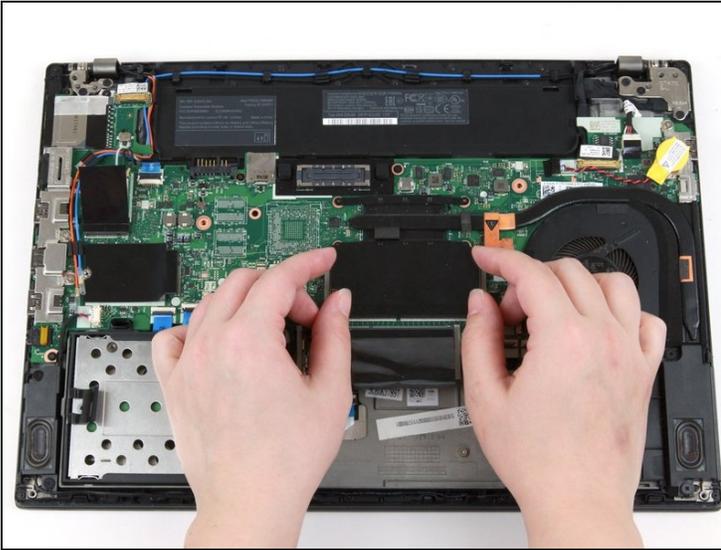
- Use a Phillips #1 screwdriver to remove two 5 mm screws from the internal battery.

Step 13



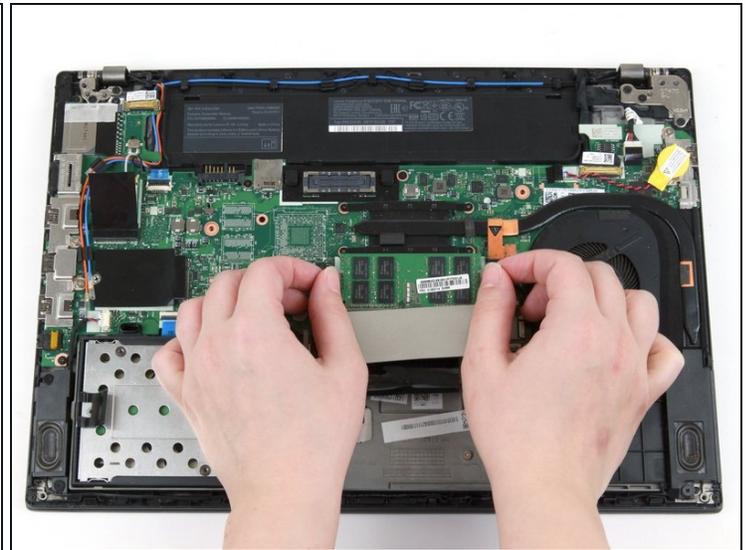
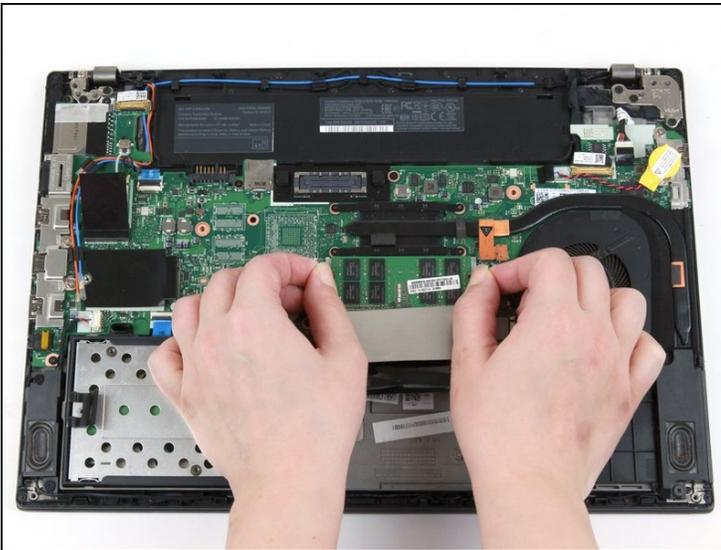
- Use your hands to lift the battery up and away from the laptop.

Step 14



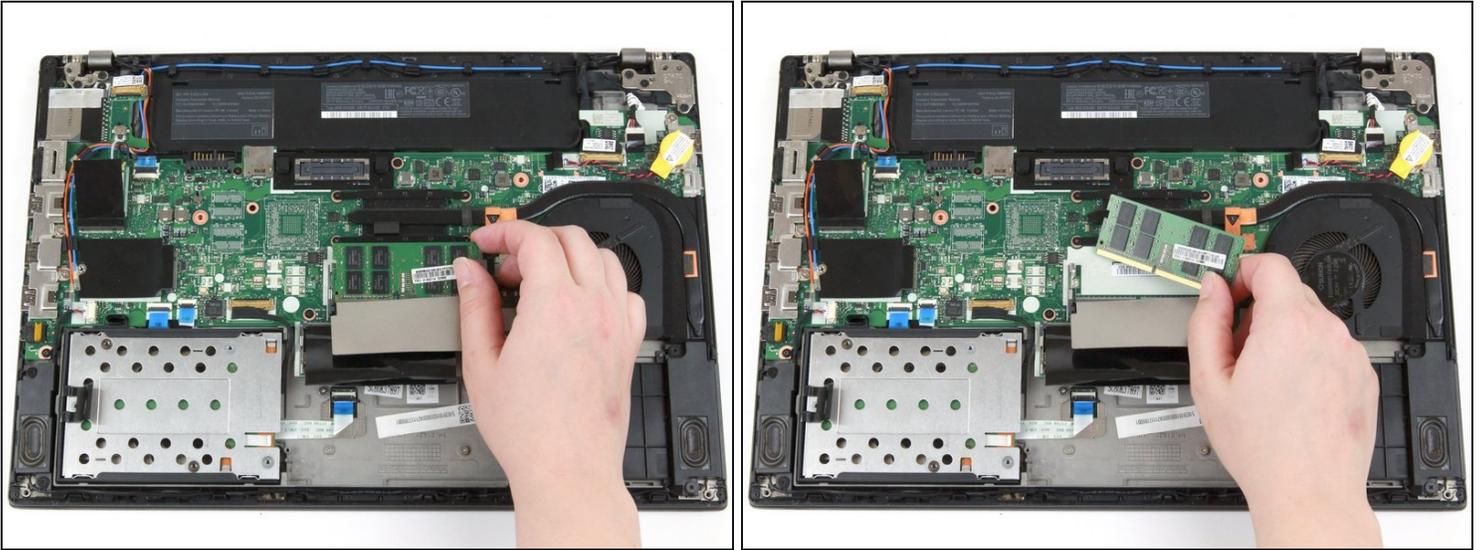
- Use your fingers to flip the black flap covering the top stick of RAM down.

Step 15



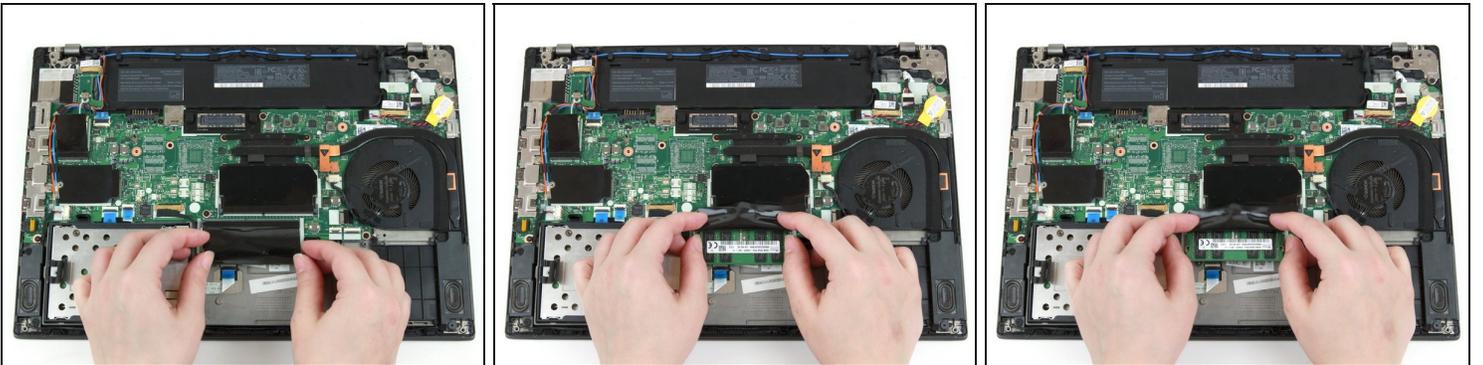
- Use your thumbs to push the metal clips on either end of the RAM outwards.
- ⓘ The RAM will pop up by a few millimeters.

Step 16



- Use your fingers to lift the RAM out of its socket and away from the laptop to remove it.

Step 17



- Use your fingers to flip the black flap covering the bottom stick of RAM up.
 - Use your thumbs to push the metal clips on either end of the RAM outwards.
- ⓘ The RAM will pop up by a few millimeters.

Step 18



- Use your fingers to lift the RAM out of its socket and away from the laptop to remove it.

Step 19



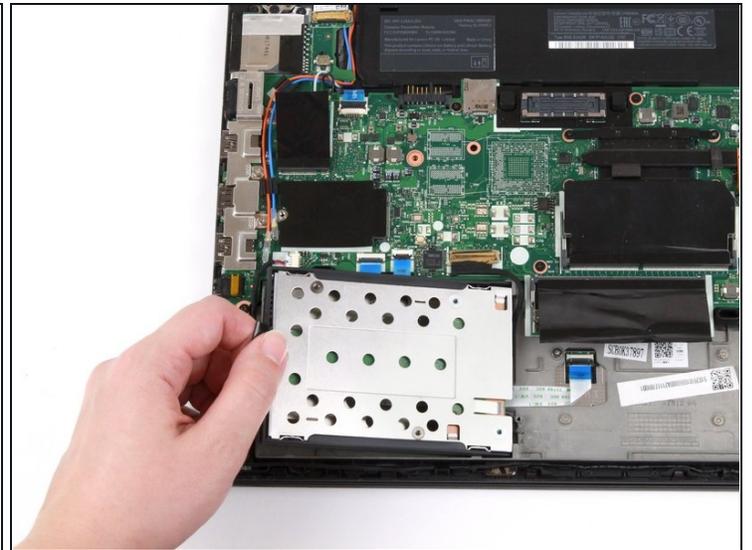
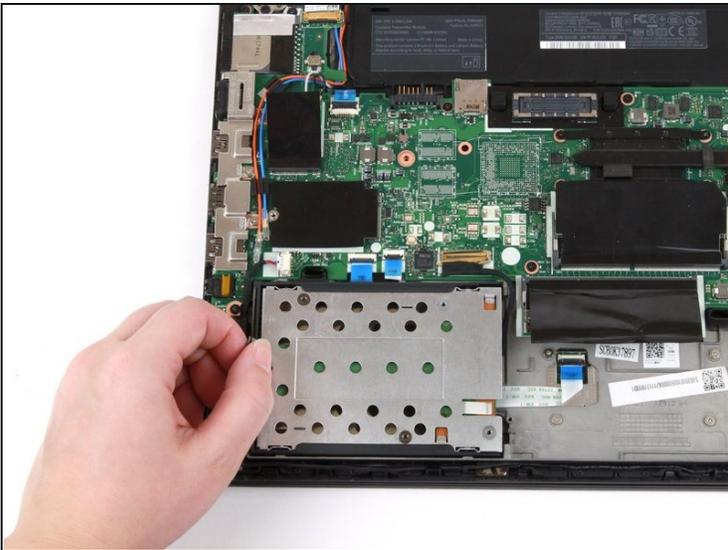
- Use the flat end of a spudger to flip up the metal clip securing the SSD connector to the motherboard.

Step 20



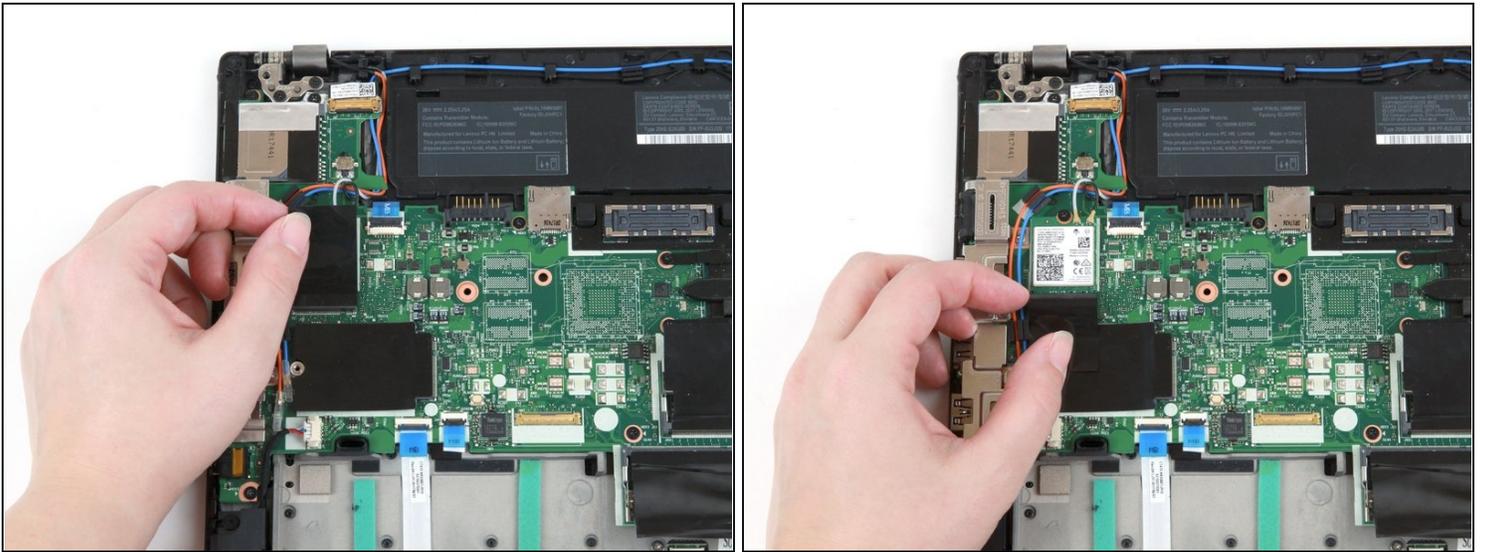
- Use the flat end of a spudger to separate the connector from its socket.

Step 21



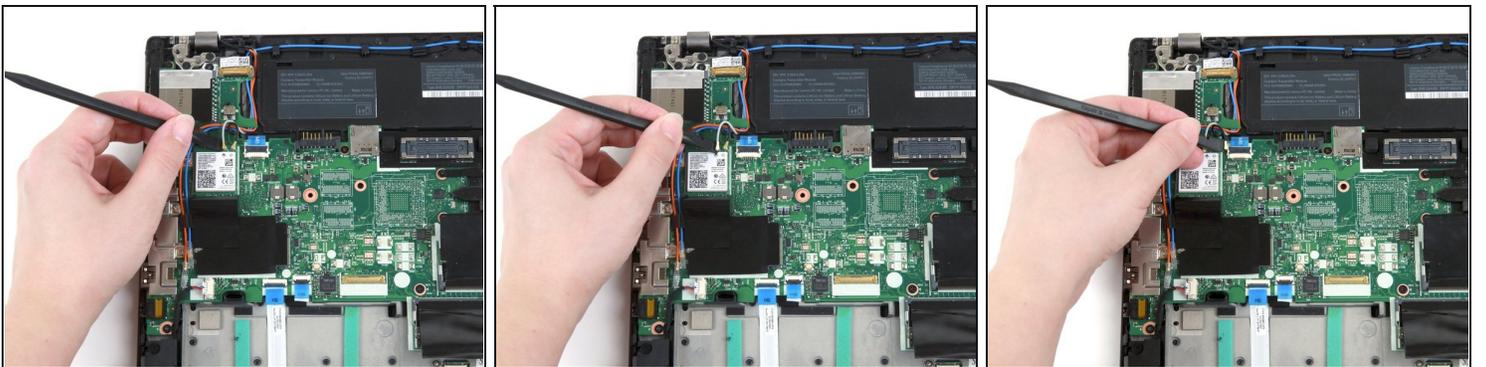
- Grab the tab on the left side of the hard drive, and pull up to remove it from the laptop.

Step 22



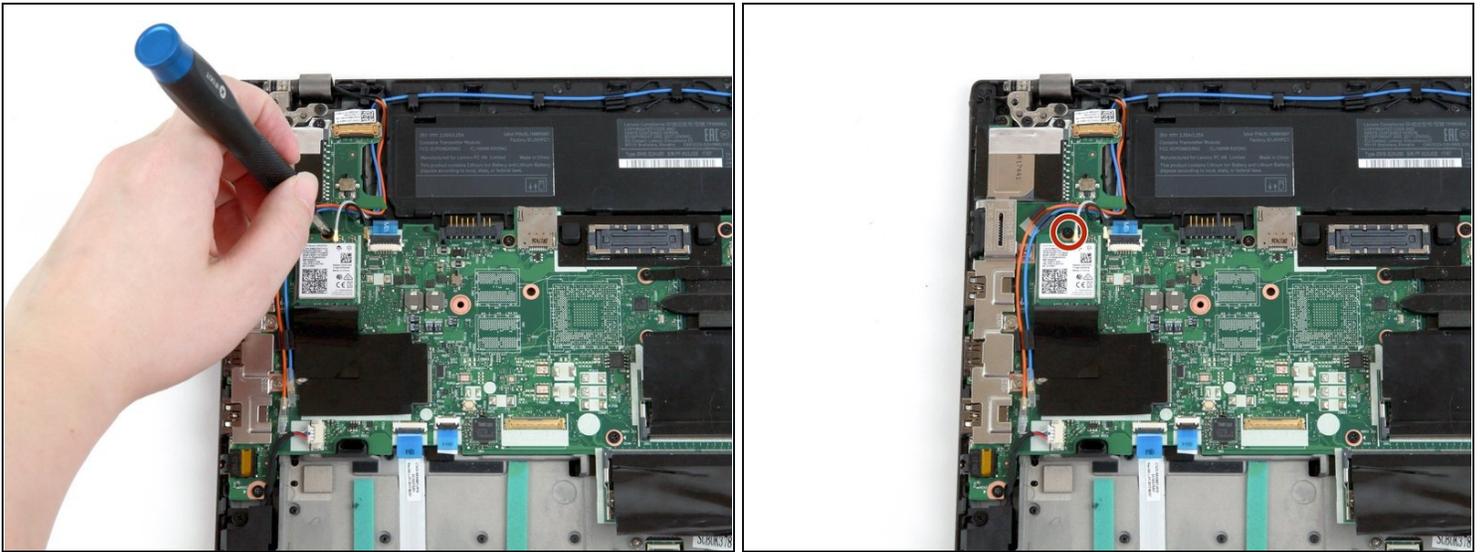
- Use a finger to press the black flap covering the Wi-Fi card down.

Step 23



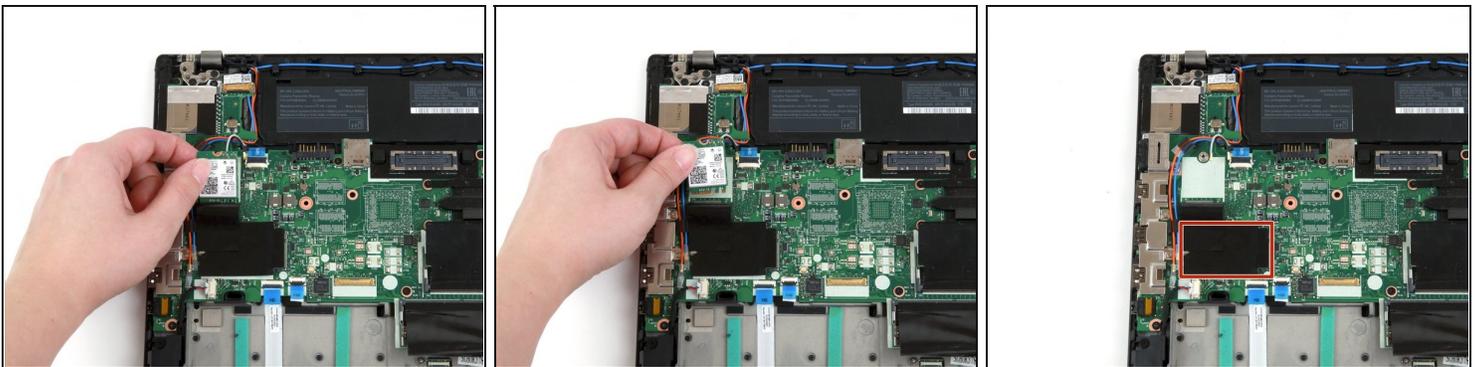
- Use the flat end of a spudger to disconnect the two coaxial wires from the Wi-Fi card.
- When reassembling, reattach the gray wire on the left and the black wire on the right.

Step 24



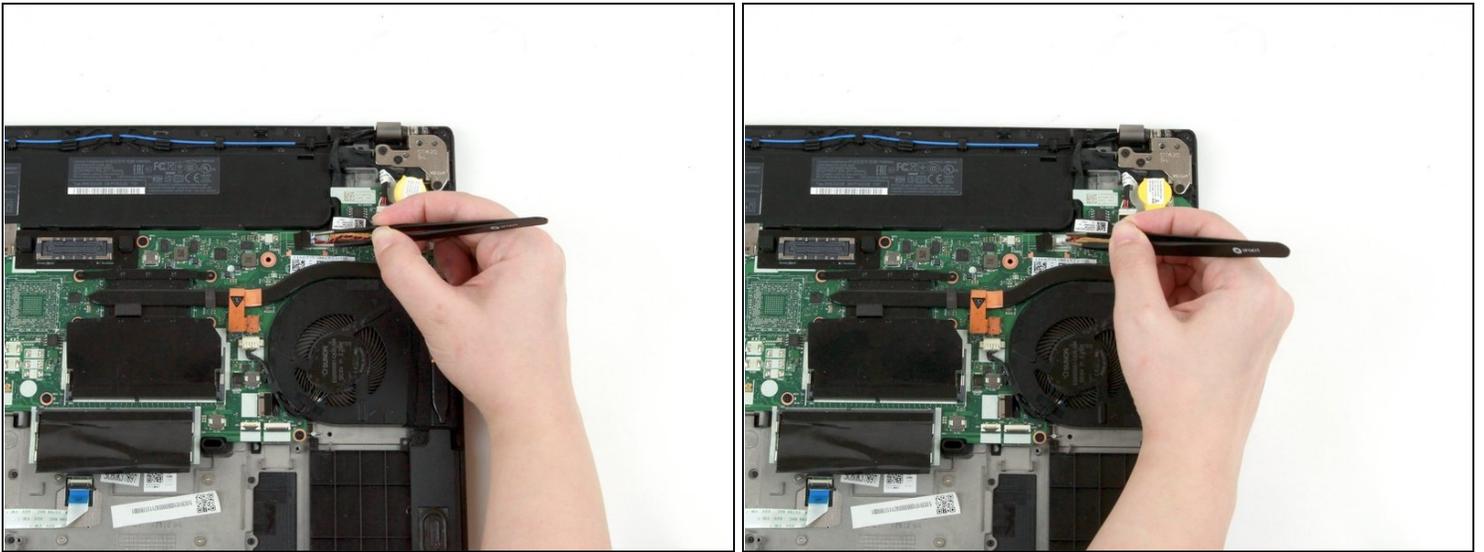
- Use a Phillips #1 screwdriver to remove the single 4 mm screw from the Wi-Fi card.

Step 25



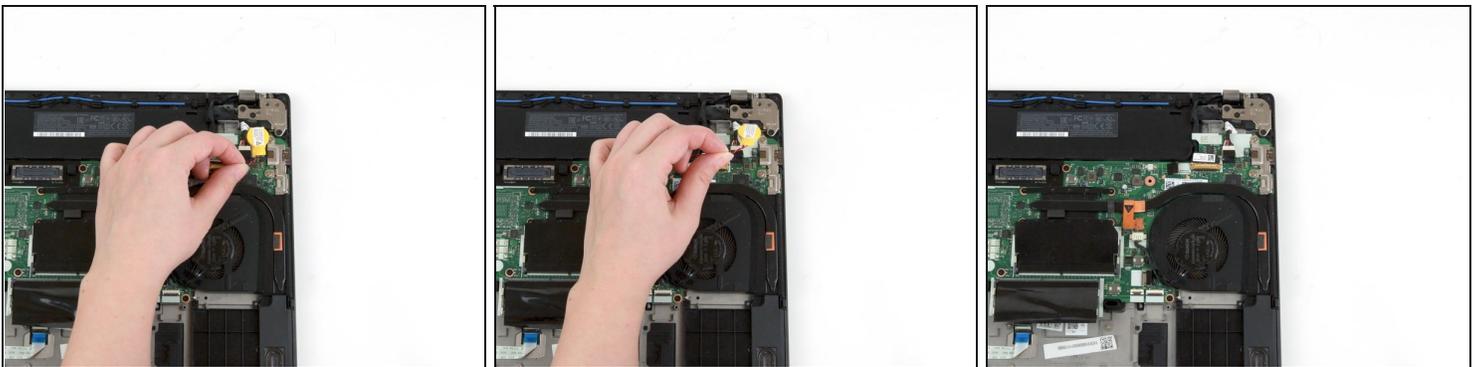
- Use your fingers to lift the Wi-Fi card up and out of its slot.
- This laptop does not include a WWAN card, but if yours does, follow the same procedure as Steps 9-12 to remove it.

Step 26



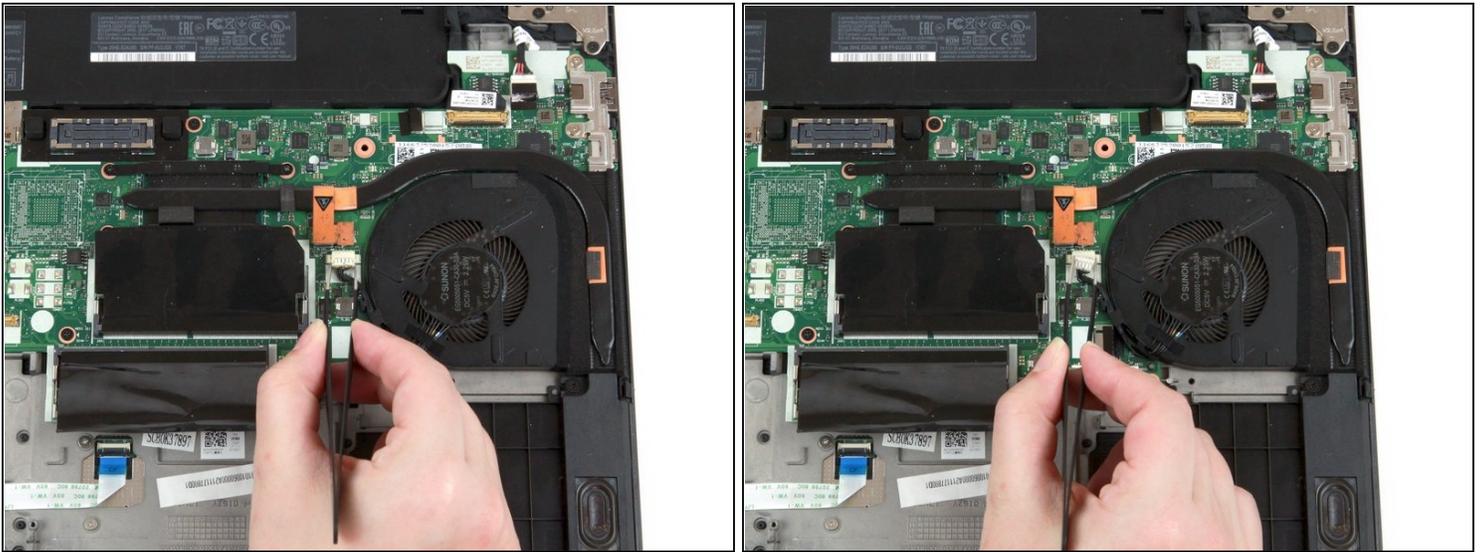
- Use a pair of blunt nose tweezers to pull the white connector out of its socket.

Step 27



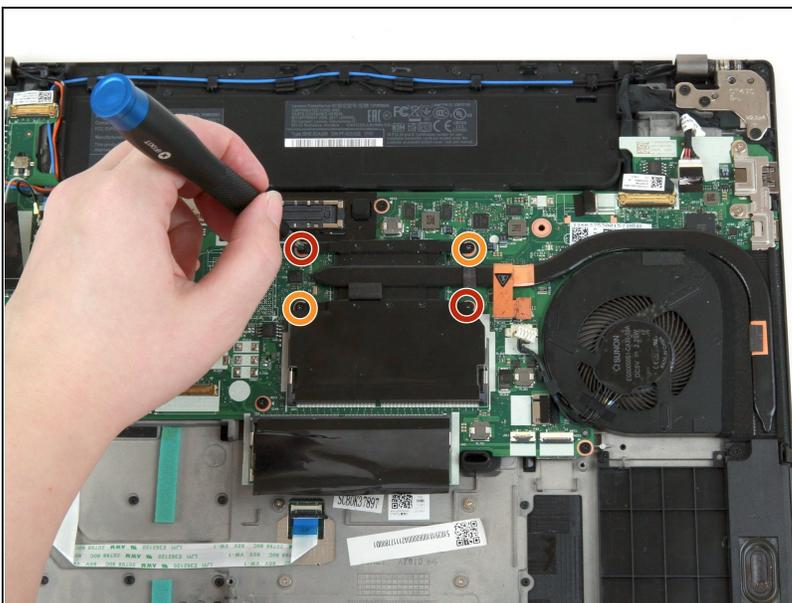
- Grab the wire attached to the coin cell battery, and lift it up and out of the laptop.

Step 28



- Use a pair of blunt nose tweezers to pull the white fan connector out of its socket on the motherboard.

Step 29



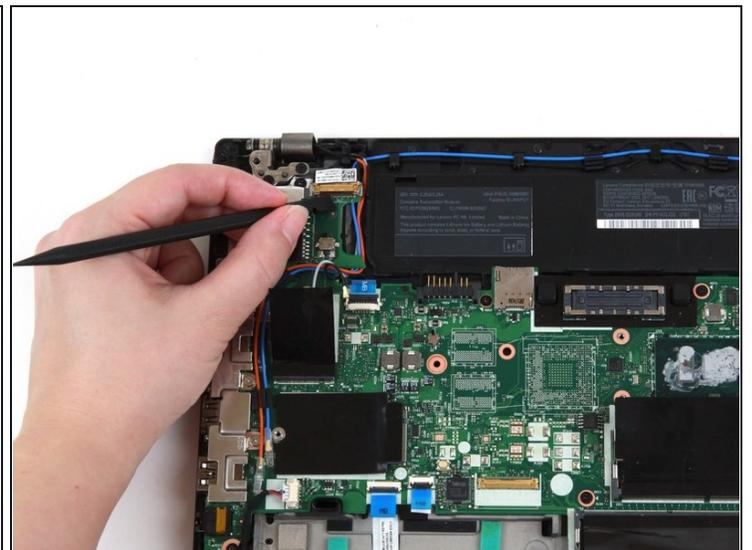
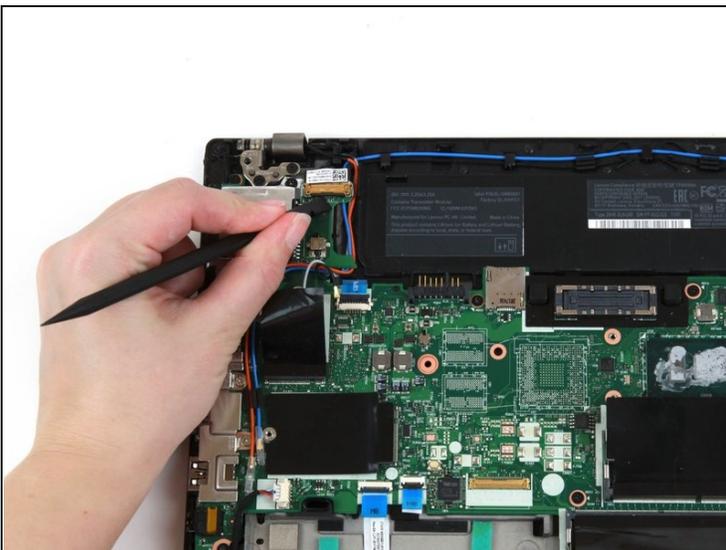
- Use a Phillips #1 screwdriver to loosen the first pair of captive screws on the fan and heat sink assembly in a crosswise pattern.
- Use a Phillips #1 screwdriver to loosen the second pair of captive screws on the fan and heat sink assembly in a crosswise pattern.

Step 30



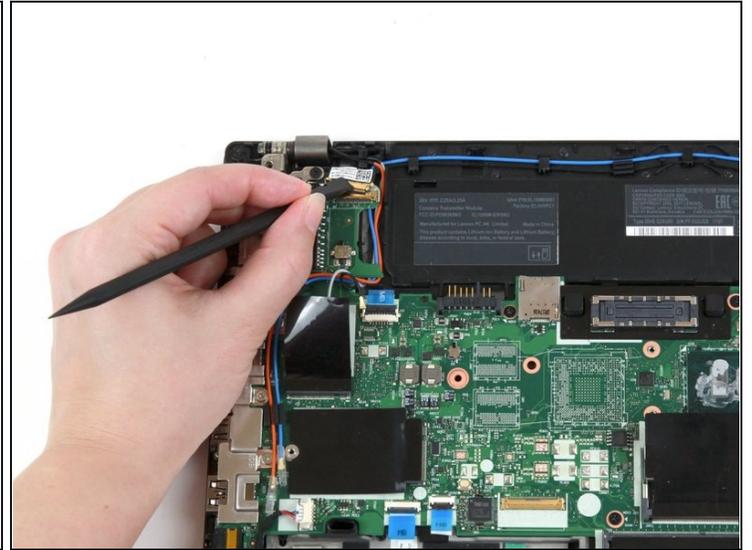
- Use your hand to pull the fan and heat sink assembly up and away from the laptop.
- ☑ Clean the thermal paste from the heatsink and CPU and [reapply fresh paste](#) before reassembling.

Step 31 — Motherboard



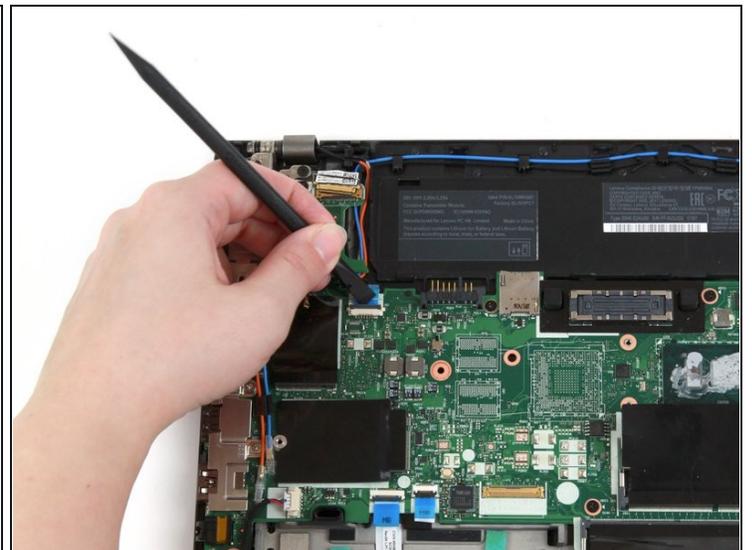
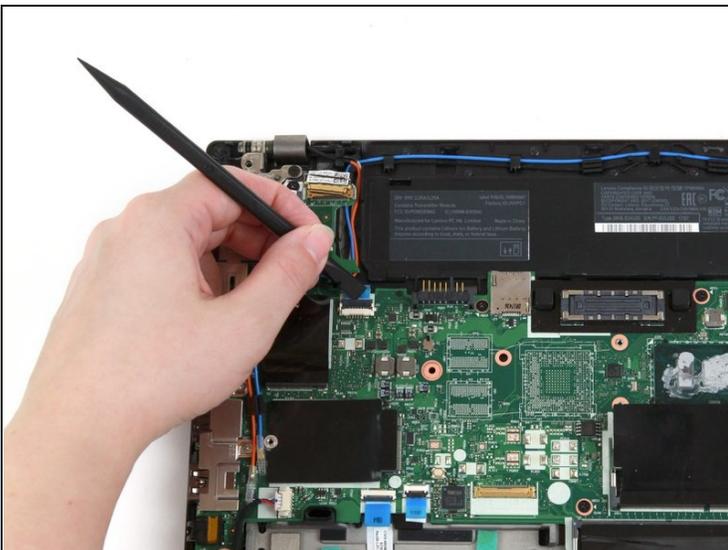
- Use the flat end of a spudger to flip up the metal clip securing the LCD cable to the motherboard.

Step 32



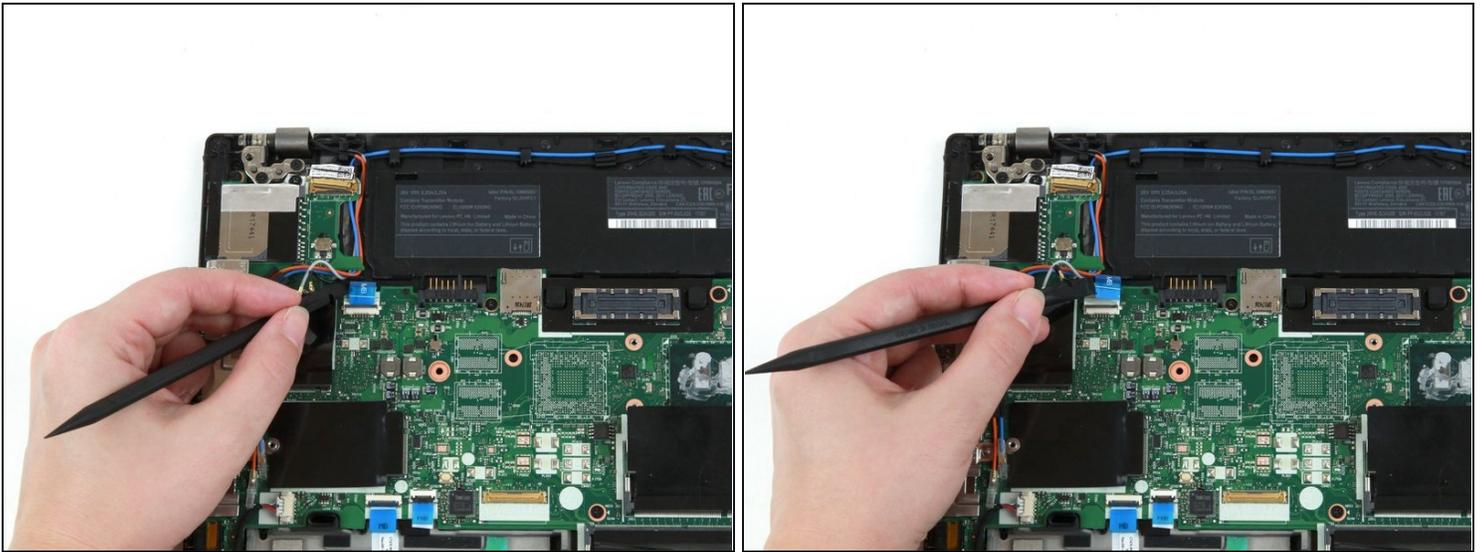
- Use the flat end of a spudger to disconnect the LCD cable from its socket on the motherboard.

Step 33



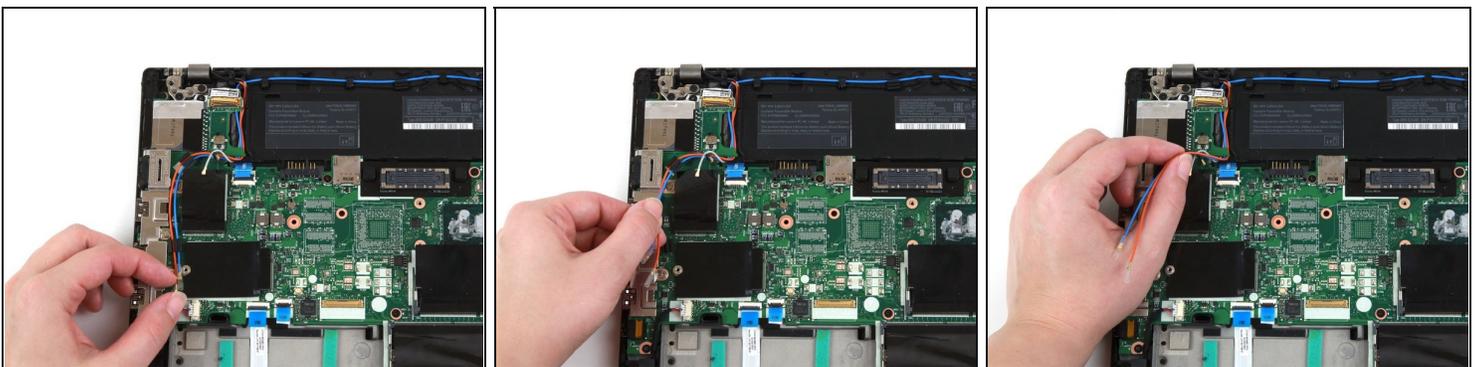
- Use the flat end of a spudger to flip the power button cable's black tab up.

Step 34



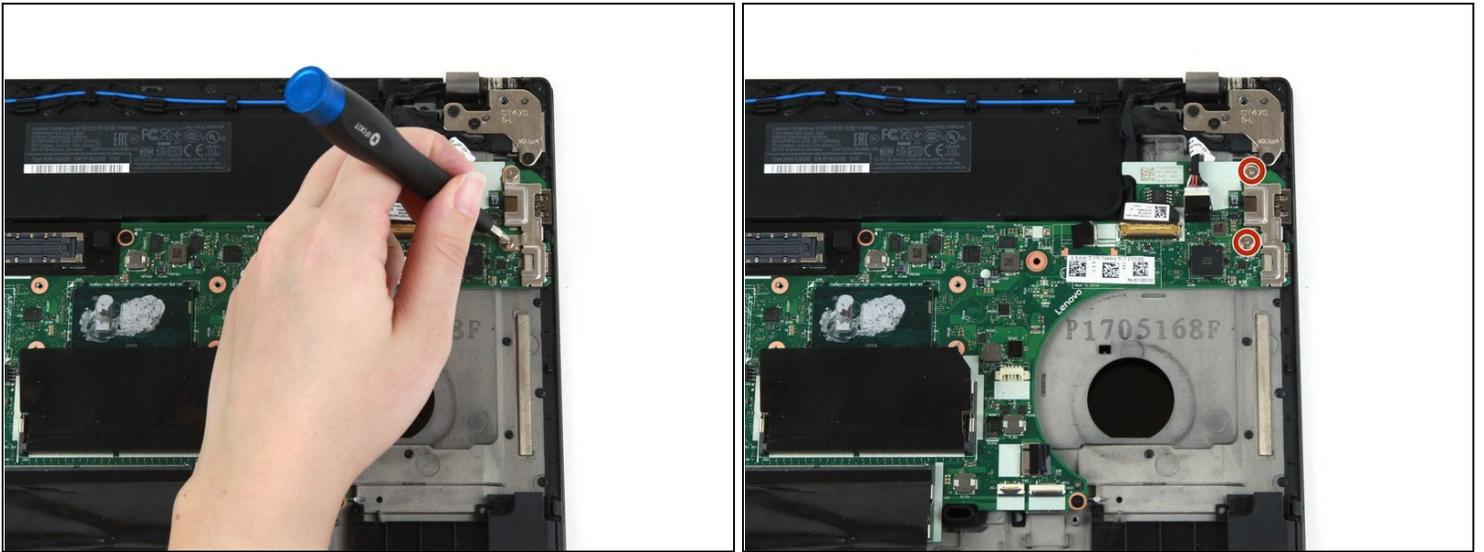
- Use the flat end of a spudger to slide the power button cable out of its connector on the motherboard.

Step 35



- Use your fingers to detach the red and blue antenna cables from their slots.

Step 36



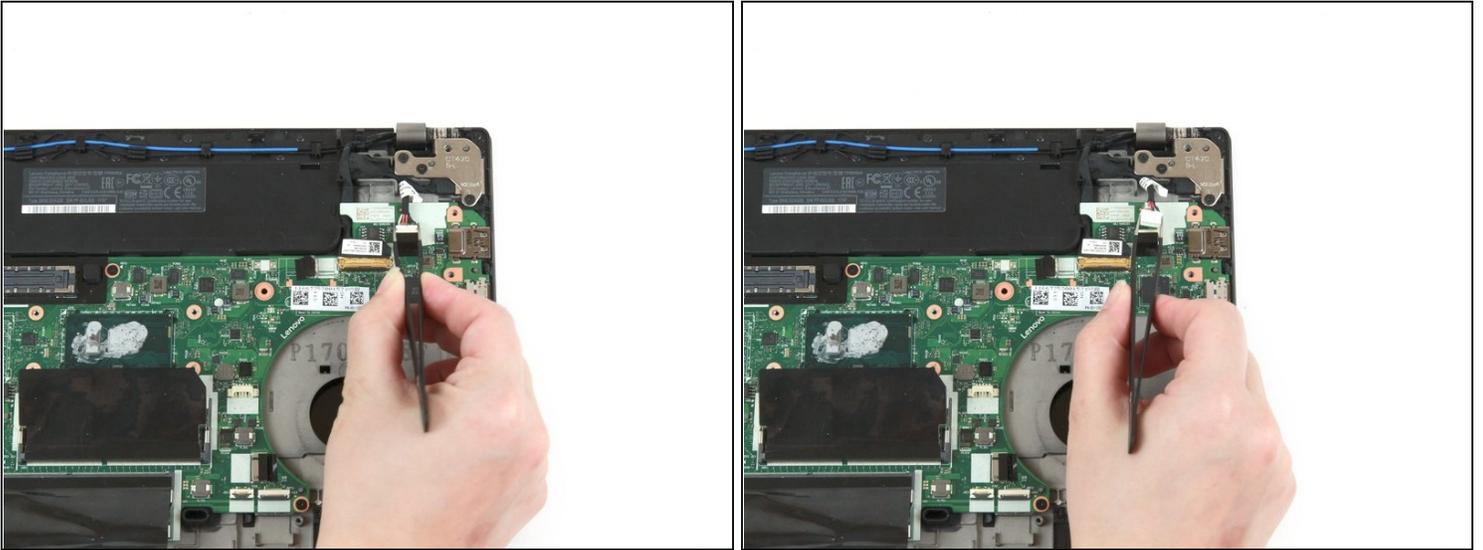
- Use a Phillips #1 screwdriver to remove the two 4 mm screws from the USB bracket.

Step 37



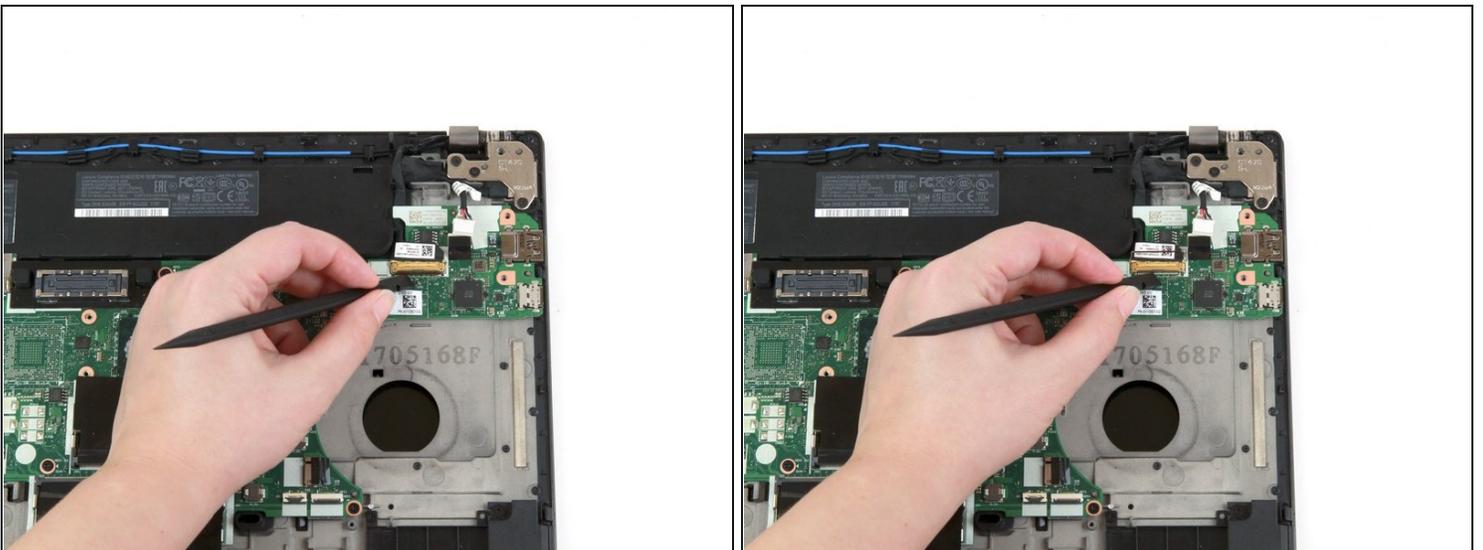
- Use your fingers to lift the USB bracket up and away from the laptop.

Step 38



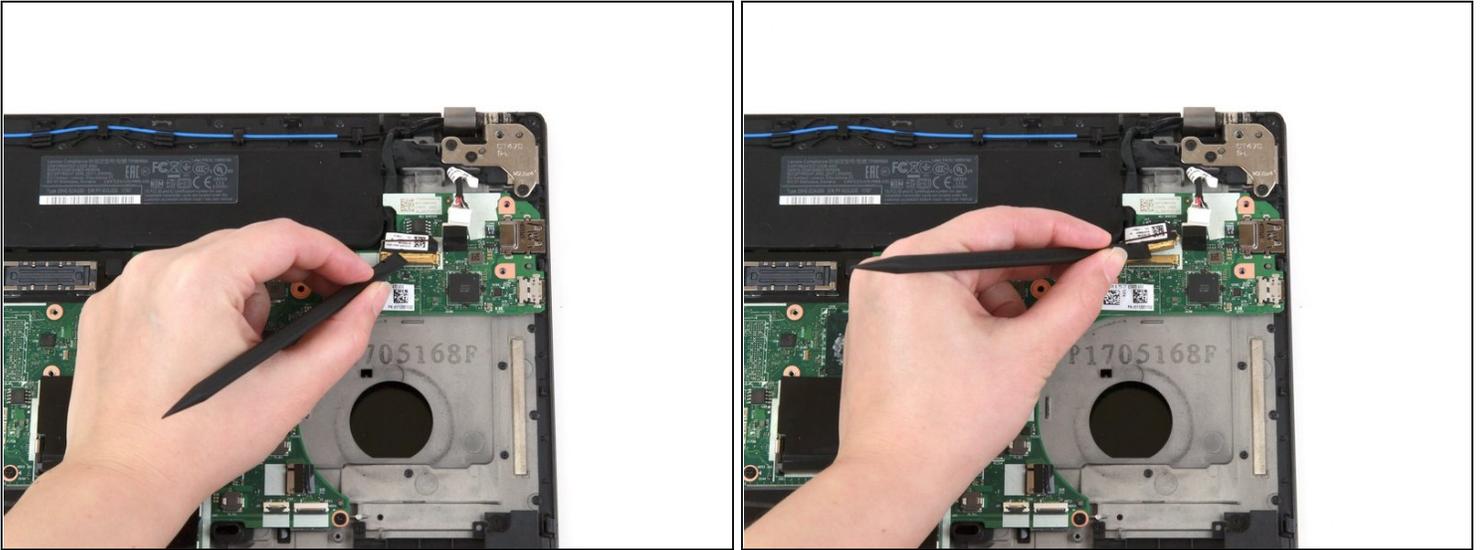
- Use a pair of blunt nose tweezers to disconnect the DC-in cable from its socket on the motherboard.

Step 39



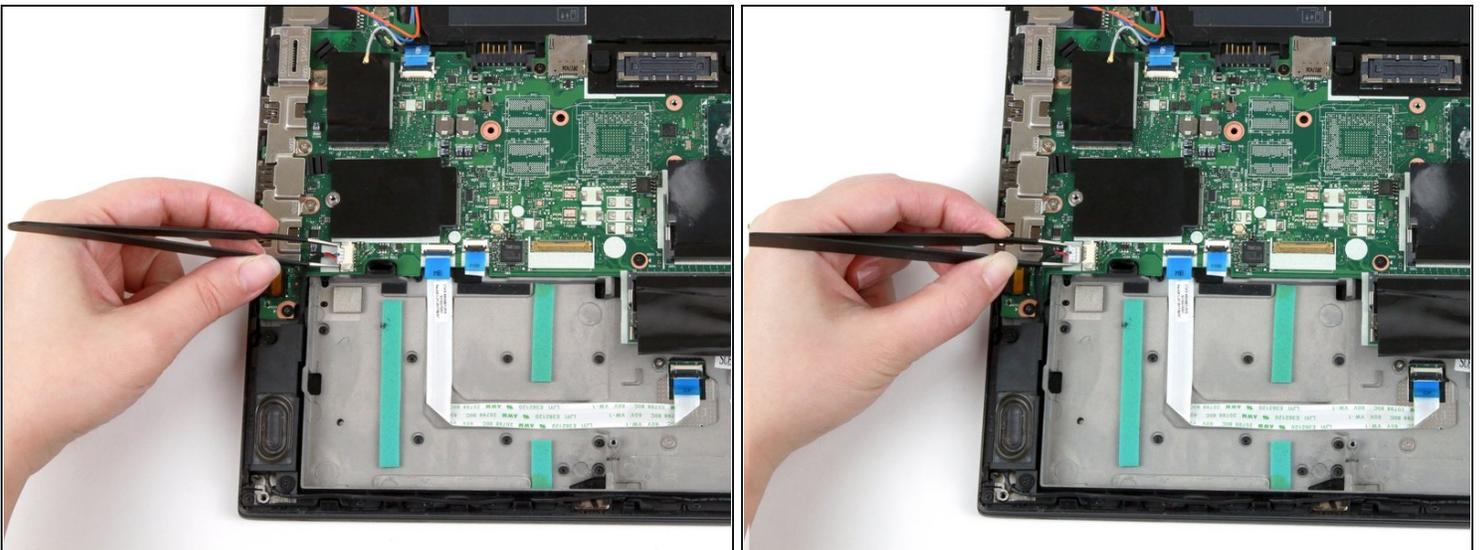
- Use the flat end of a spudger to flip up the metal bracket securing the camera cable to the motherboard.

Step 40



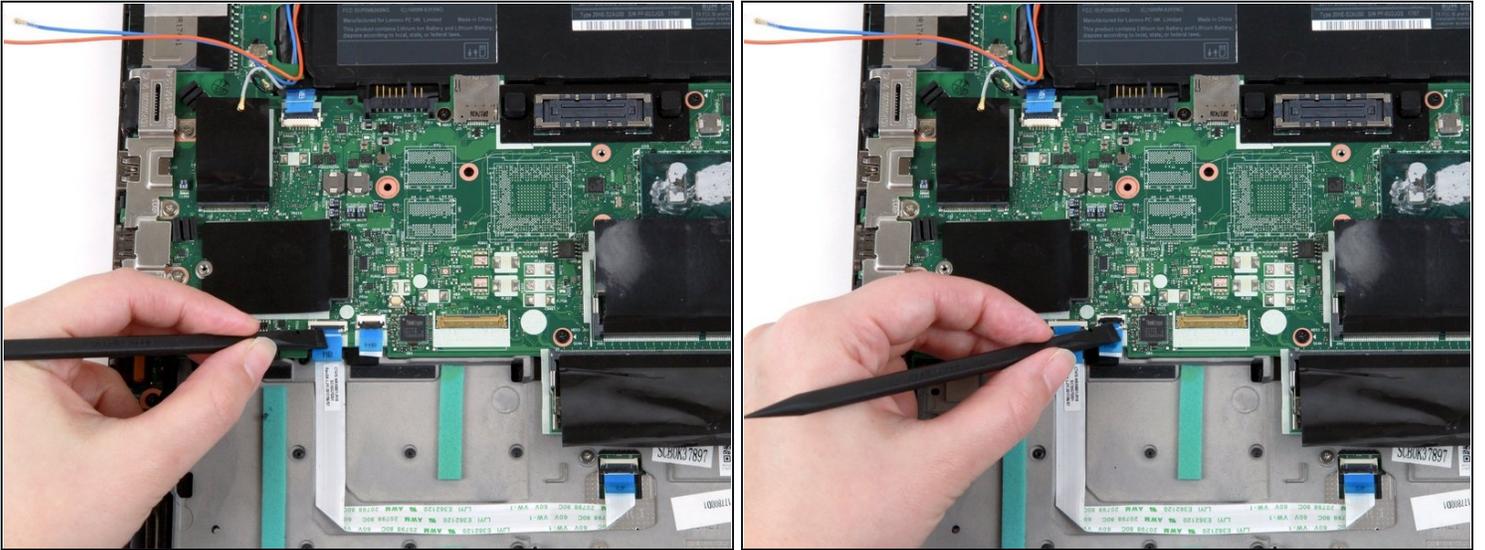
- Use the flat end of a spudger to disconnect the camera cable from its socket on the motherboard.

Step 41



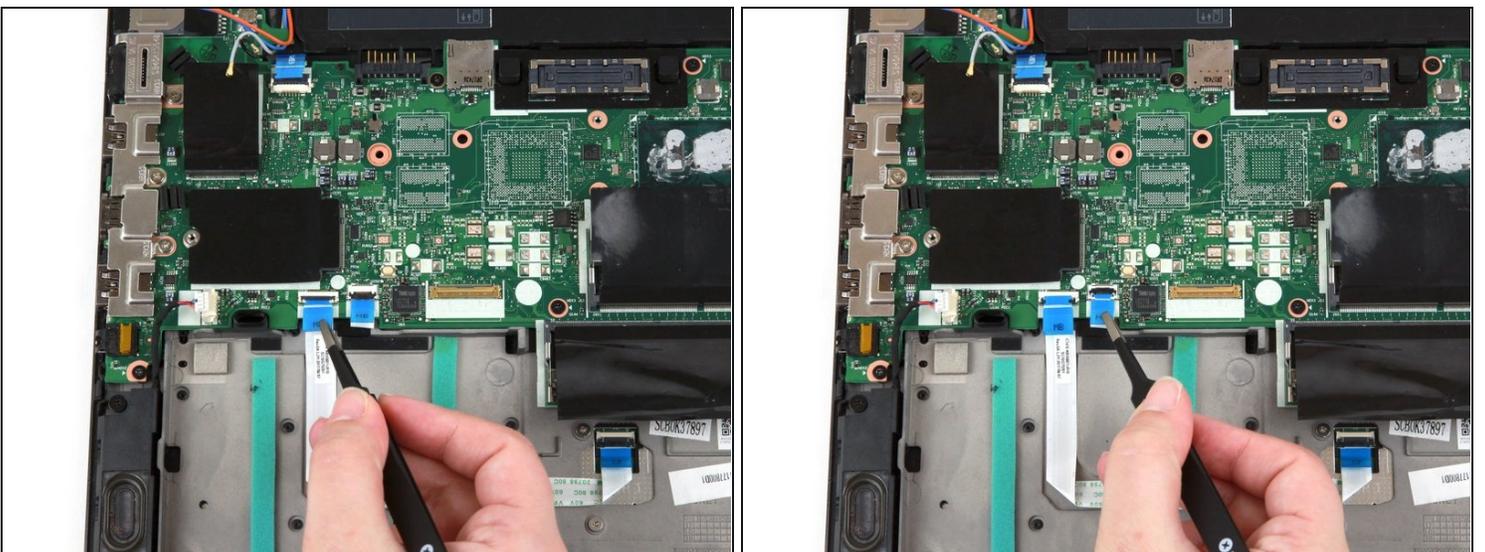
- Use a pair of blunt nose tweezers to disconnect the speaker cable from its socket on the motherboard.

Step 42



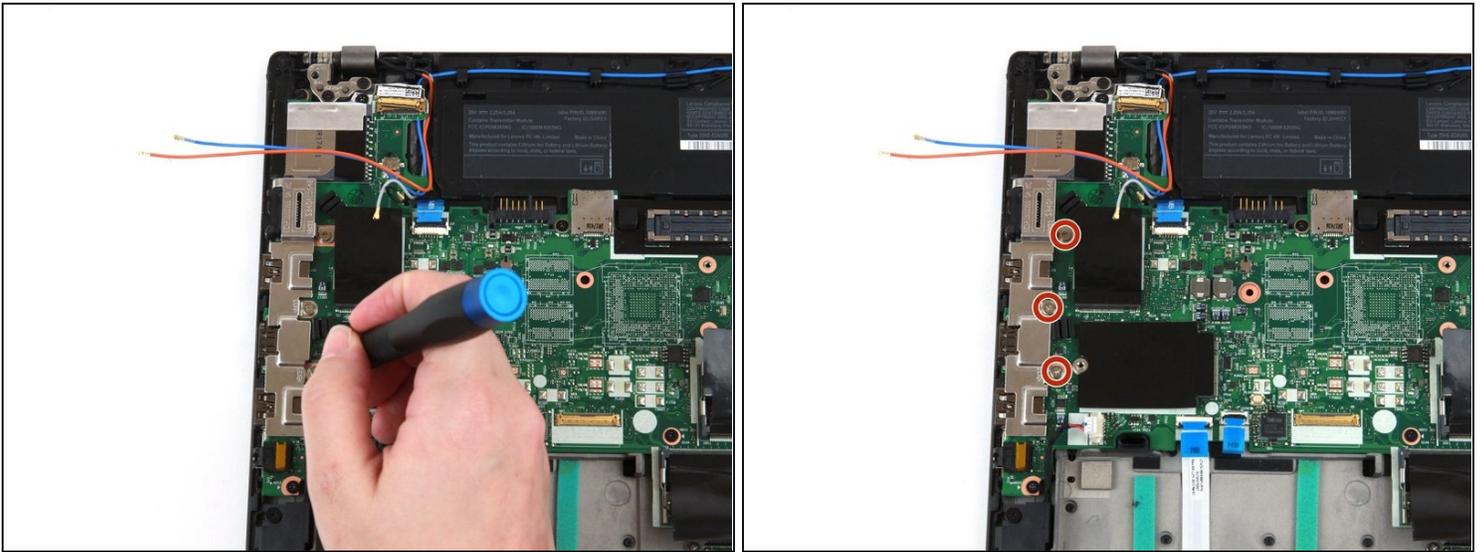
- Use the flat end of a spudger to flip up the black tabs on the trackpad and fingerprint reader cables.

Step 43



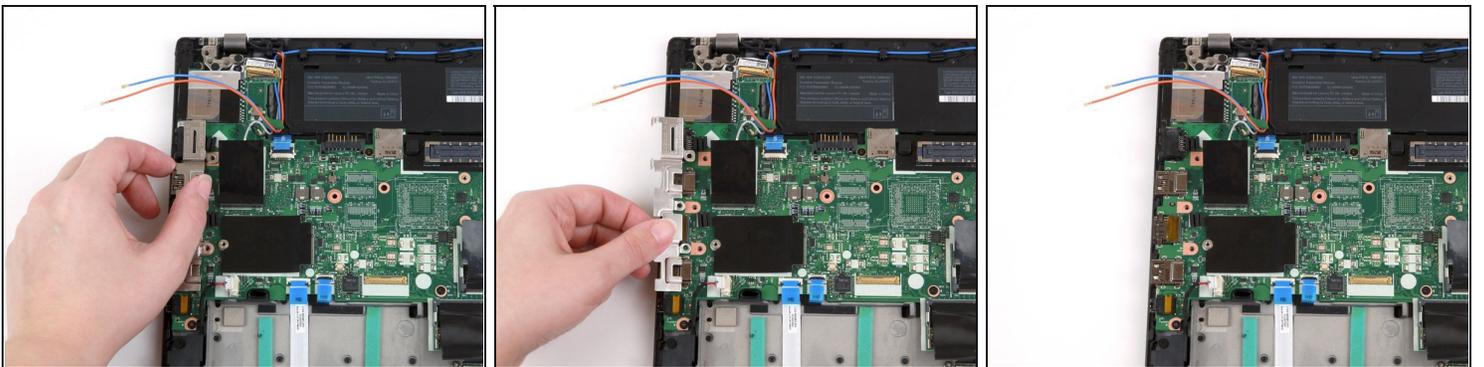
- Use a pair of blunt nose tweezers to slide the trackpad and fingerprint reader cables out of their connectors on the motherboard.

Step 44



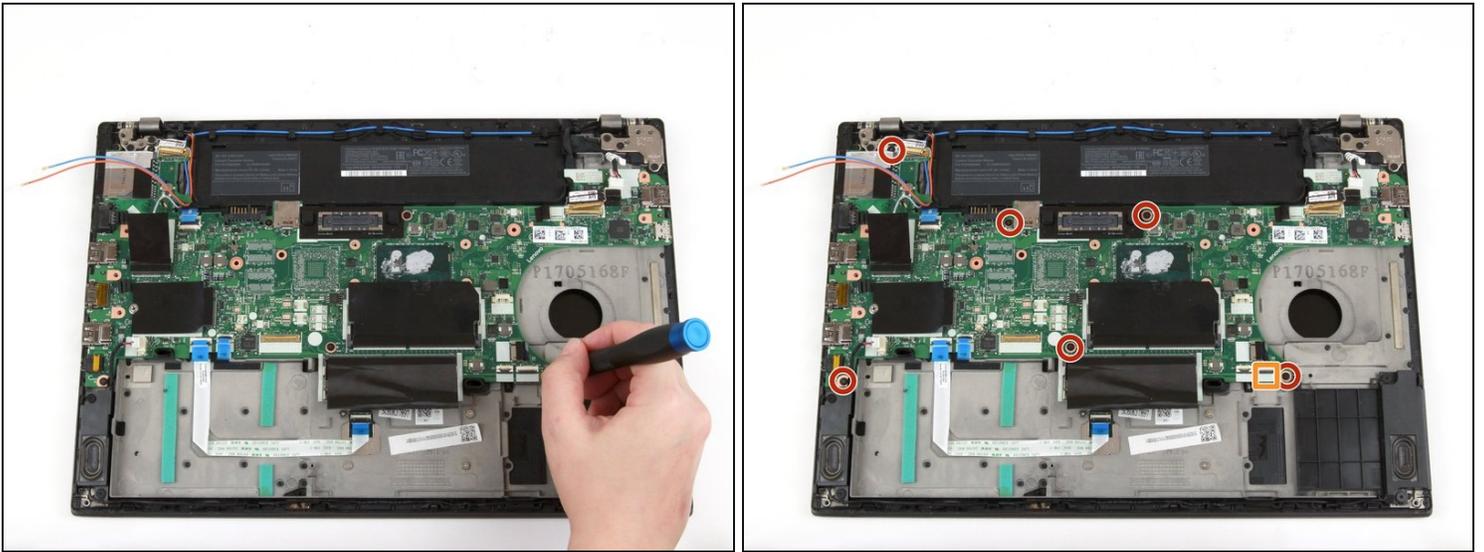
- Use a Phillips #1 screwdriver to remove the three 4 mm screws from the I/O bracket.

Step 45



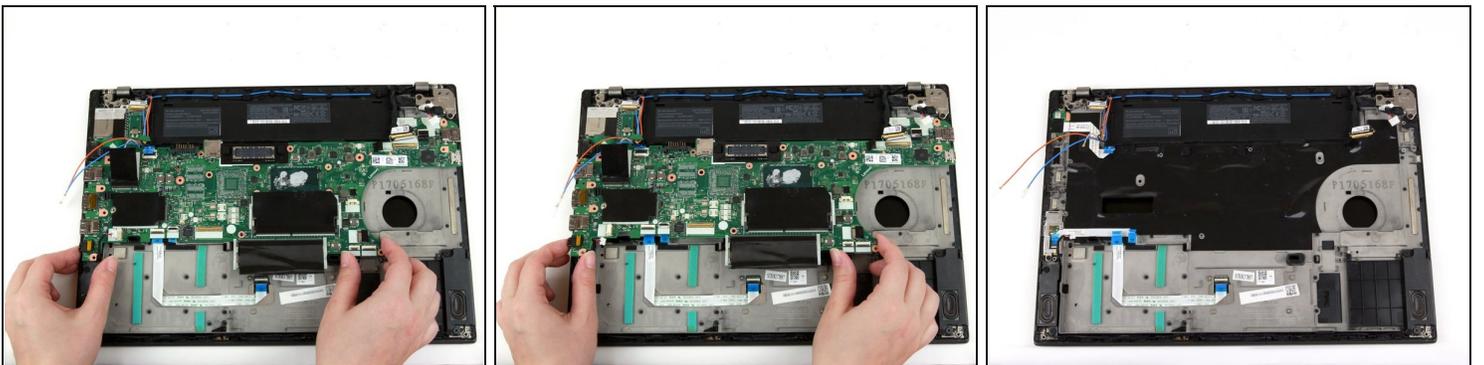
- Use your fingers to slide the I/O bracket to the left.
- Lift the I/O bracket up and away from the laptop.

Step 46



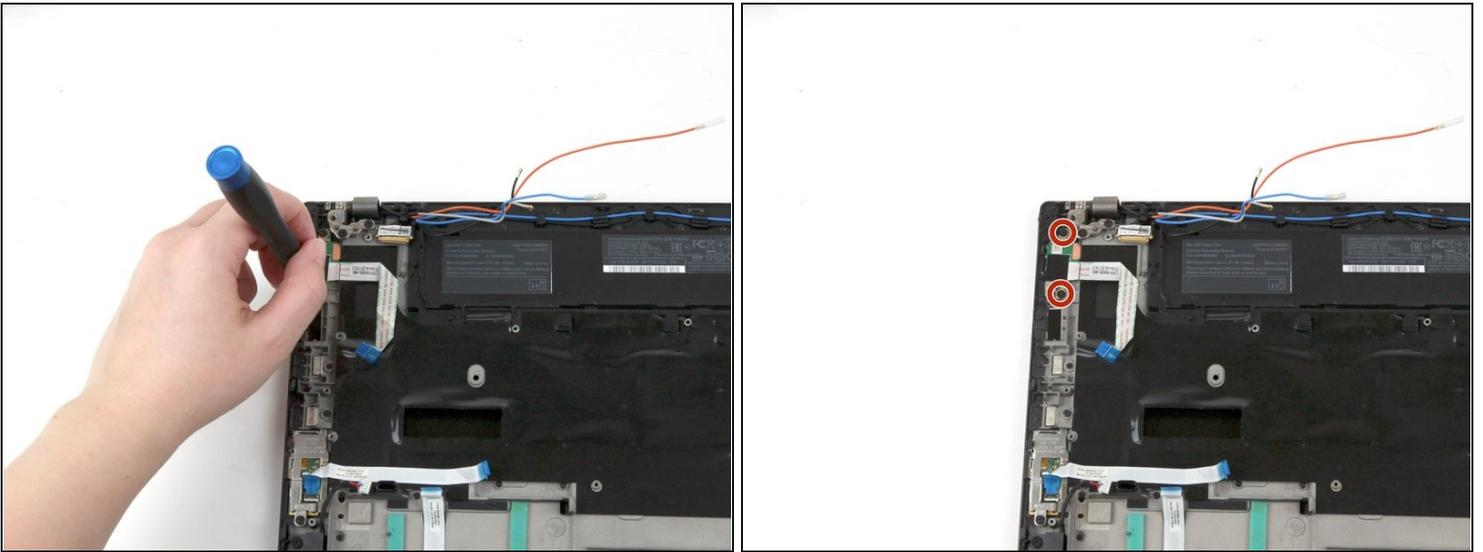
- Use a Phillips #1 screwdriver to remove the six 4 mm screws from the motherboard.
- This laptop does not have an NFC cable, but if yours does, use the flat end of a spudger to flip up the tab and slide the cable out of its connector.

Step 47



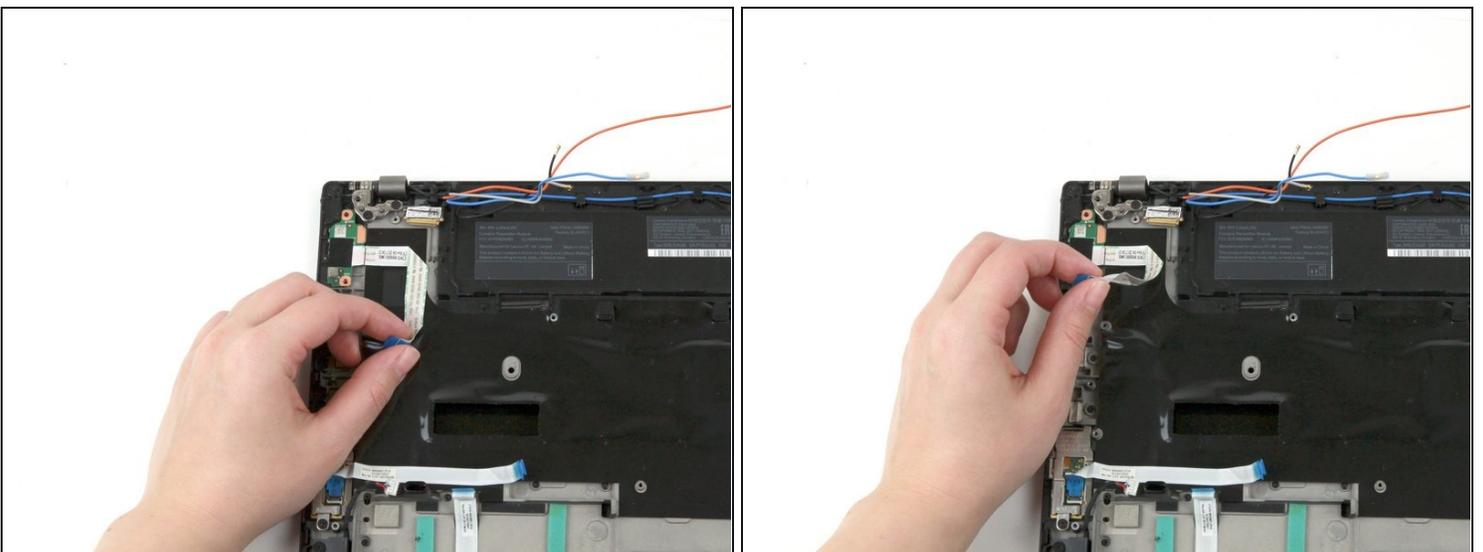
- Use both hands to lift the motherboard up and away from the laptop.

Step 48 — Power Button Board



- Use a Phillips #1 screwdriver to remove the two 4 mm screws from the power button board.

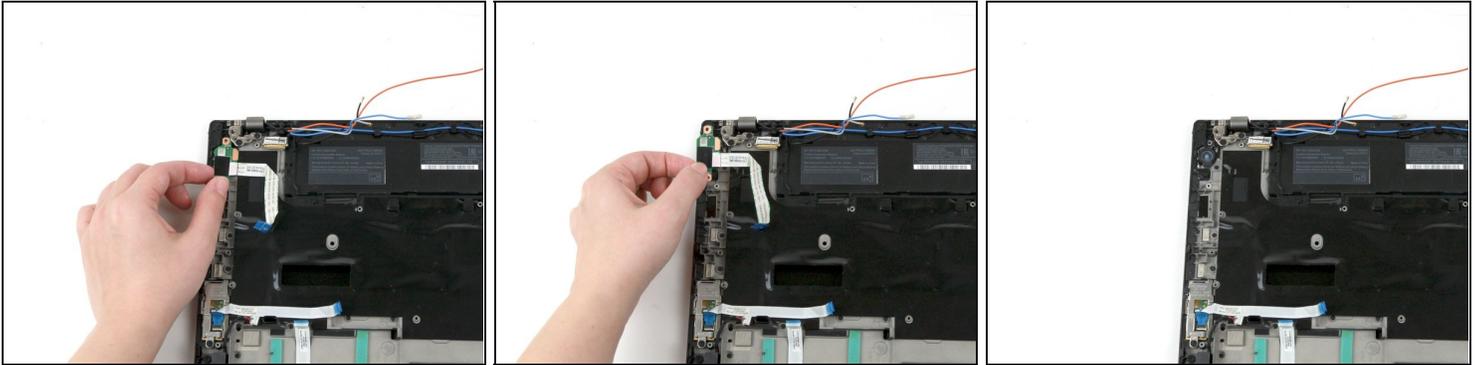
Step 49



- Peel up the white ribbon cable.

⚠ Potential for device damage: The cable may be attached to the laptop with strong adhesive, so be cautious not to tear it.

Step 50



- Use your fingers to lift the power button board up and away from the laptop.

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

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Try some [basic troubleshooting](#), or ask our [Answers community](#) for help.