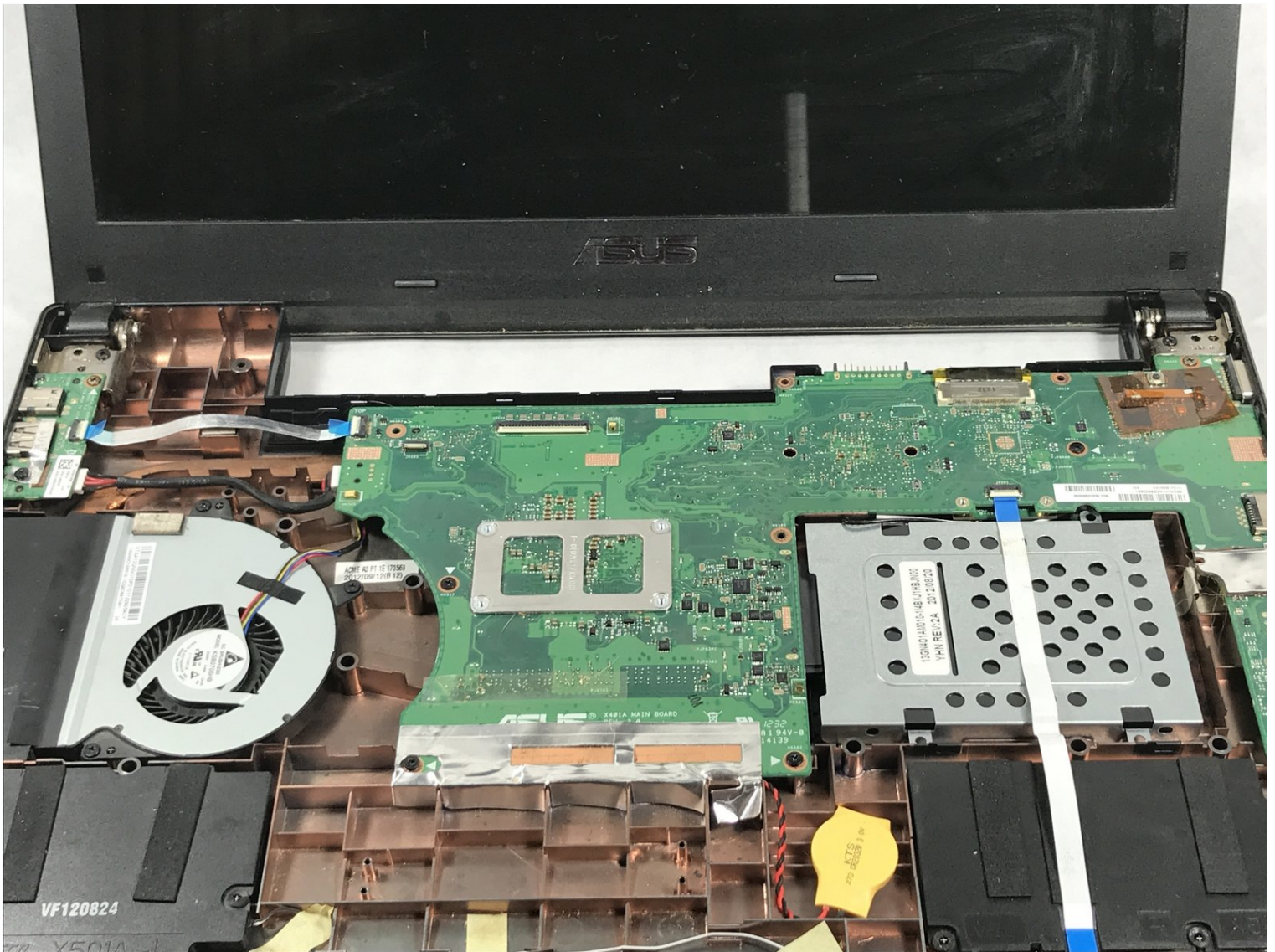




Asus X501A-RH31 Motherboard Replacement

This guide will show how to remove and replace...

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INTRODUCTION

This guide will show how to remove and replace the motherboard. Please note the motherboard is a very fragile component of the laptop and can break easily.

TOOLS:

[Spudger](#) (1)

[iFixit Opening Tool](#) (1)

[Tweezers](#) (1)

[Phillips #00 Screwdriver](#) (1)

Step 1 — Battery



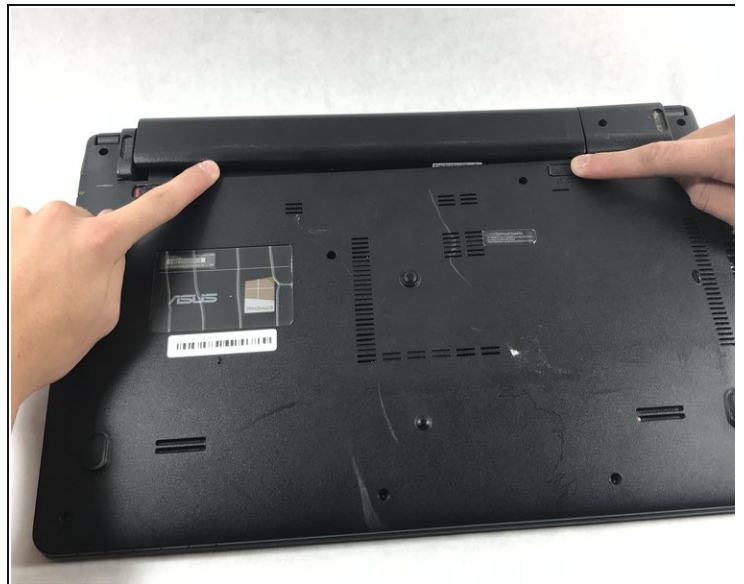
- Turn the laptop over so that the back is facing upwards.

Step 2



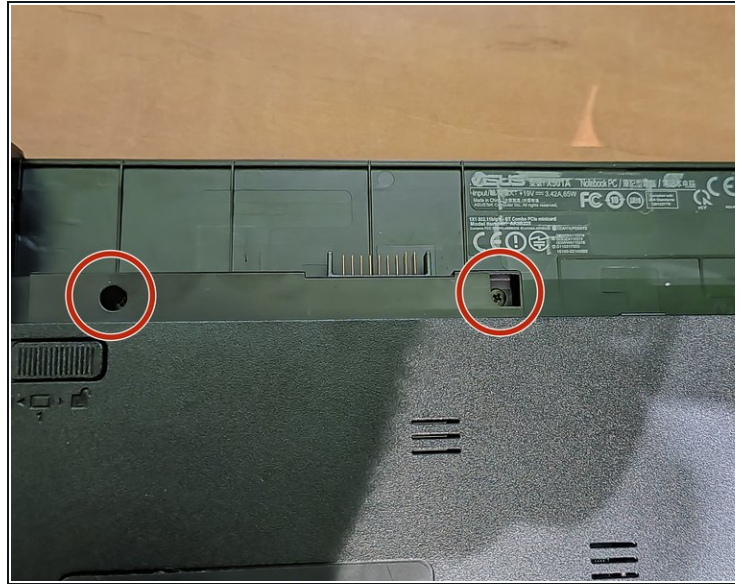
- To unlock the left tab, make sure the tab on the left has red showing.

Step 3



- To unlock the right tab, push the right slider to the left with one hand.
- Push the battery out with the other hand.

Step 4 — Keyboard



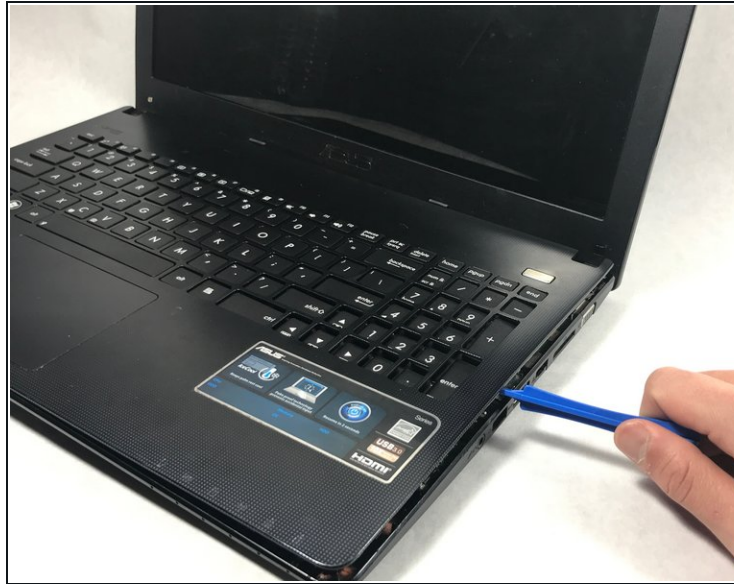
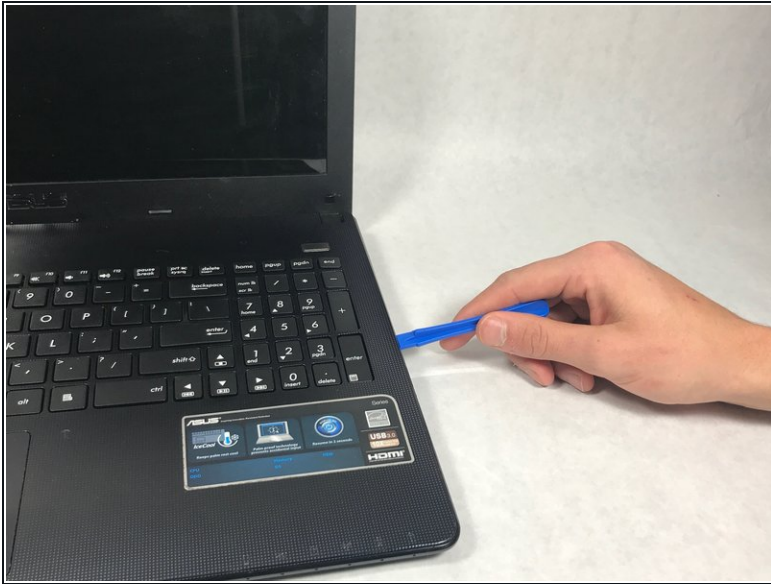
- Using the Phillips #00 screwdriver unscrew all nine screws from the bottom of the laptop, as well as the additional two screws inside the battery compartment.
- ① Nine of the screws are 5 mm long, 4.5 mm in diameter, while two screws closest to the hinges are 7 mm long.

Step 5



- Turn the laptop over and open the top so the keyboard is facing you.

Step 6



- Pry off the keyboard cover on the edge using the plastic opening tool.
- Start from one side. Once it is loose, carry out the same procedure on the front and other side.

⚠ Only do little sections at a time as the keyboard may break if you attempt to take the whole thing off from a single point.

Step 7



- Slowly lift the keyboard upward, but do not remove completely.
- Remove the two data cables that attach the keyboard to the motherboard.

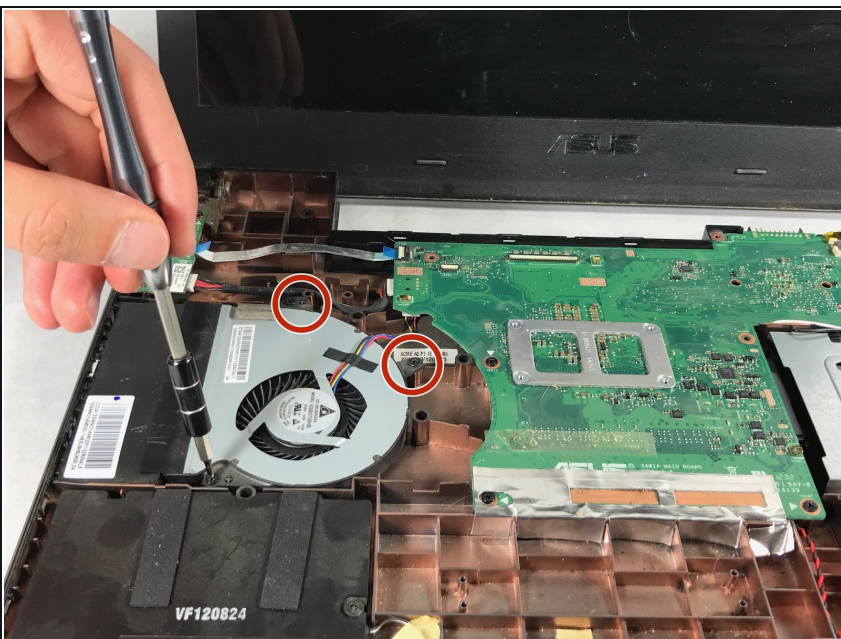
Step 8



- Use tweezers to pull the white plastic piece up that is attached to the data cable.
- Repeat this process for the big black cable as well.

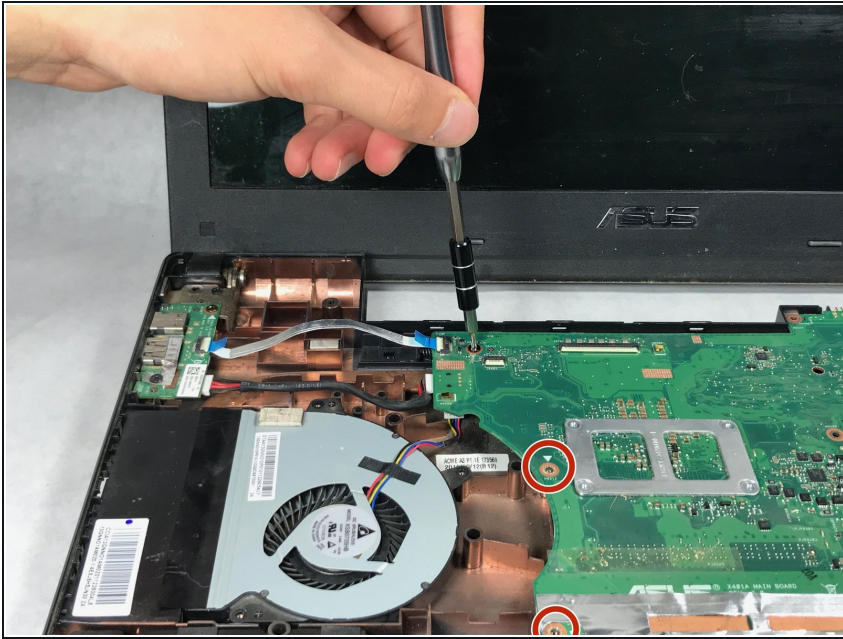
⚠ Use caution when unlatching the data cables from the motherboard. The cables are extremely delicate and can break.

Step 9 — Fan



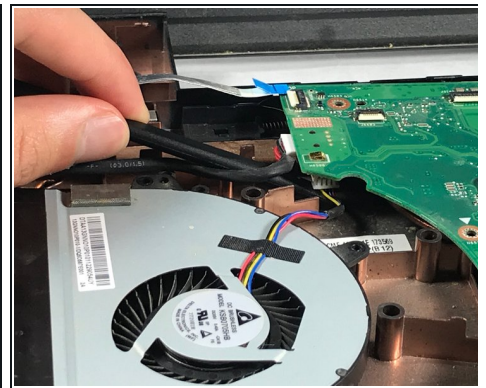
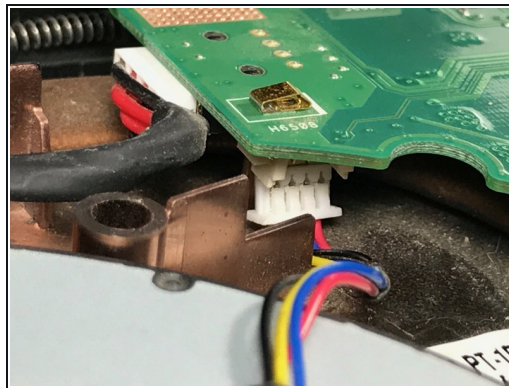
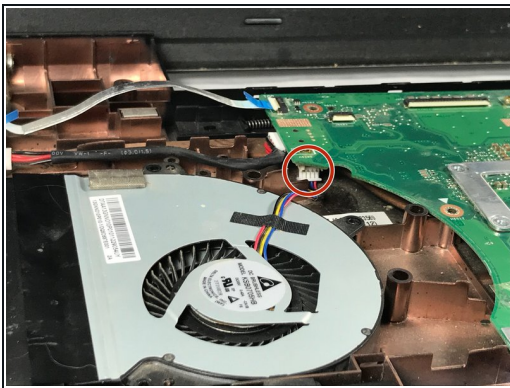
- Unscrew the three screws using the Phillips #00 screwdriver.
- ⓘ The three screws are 5 mm in length, 4.2 mm in diameter.

Step 10



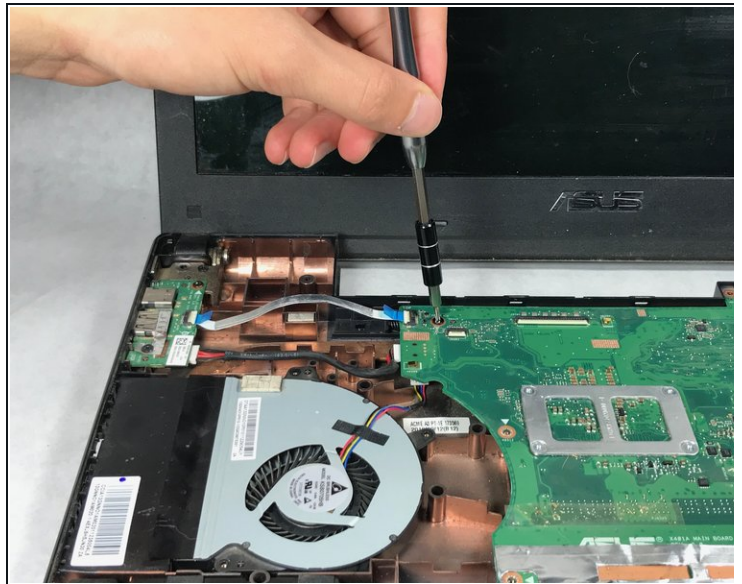
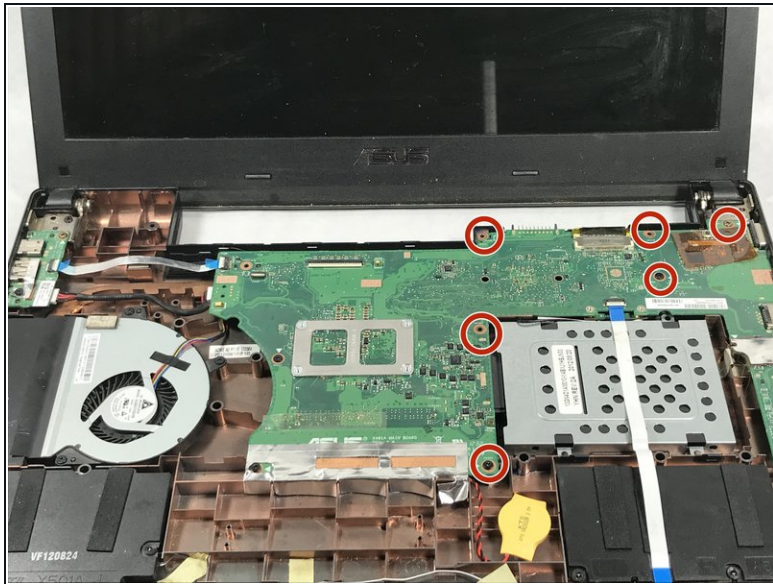
- Unscrew the three screws on the left hand side of the big motherboard.
- This will loosen the motherboard, which will allow for better access to the cables in the next step.
- ⓘ The three screws are 5 mm in length, 4.2 mm in diameter and Phillips head screws.

Step 11



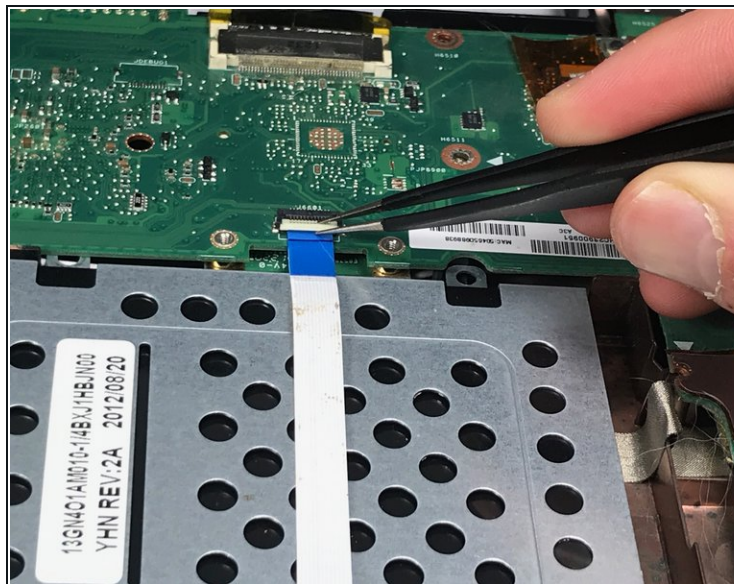
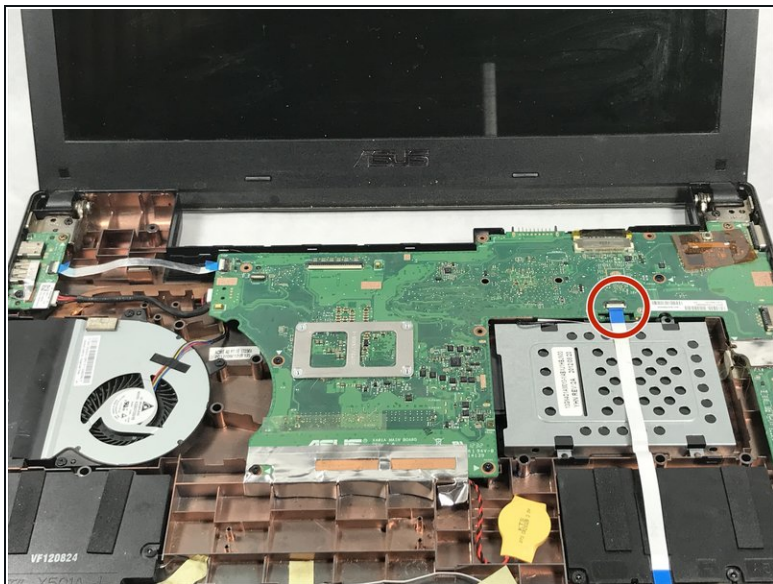
- Remove the connector cable attached to the bottom of the motherboard.
- Take the black plastic spudger and press down on the lower half of the white plastic piece to remove the connector cable.

Step 12 — Motherboard



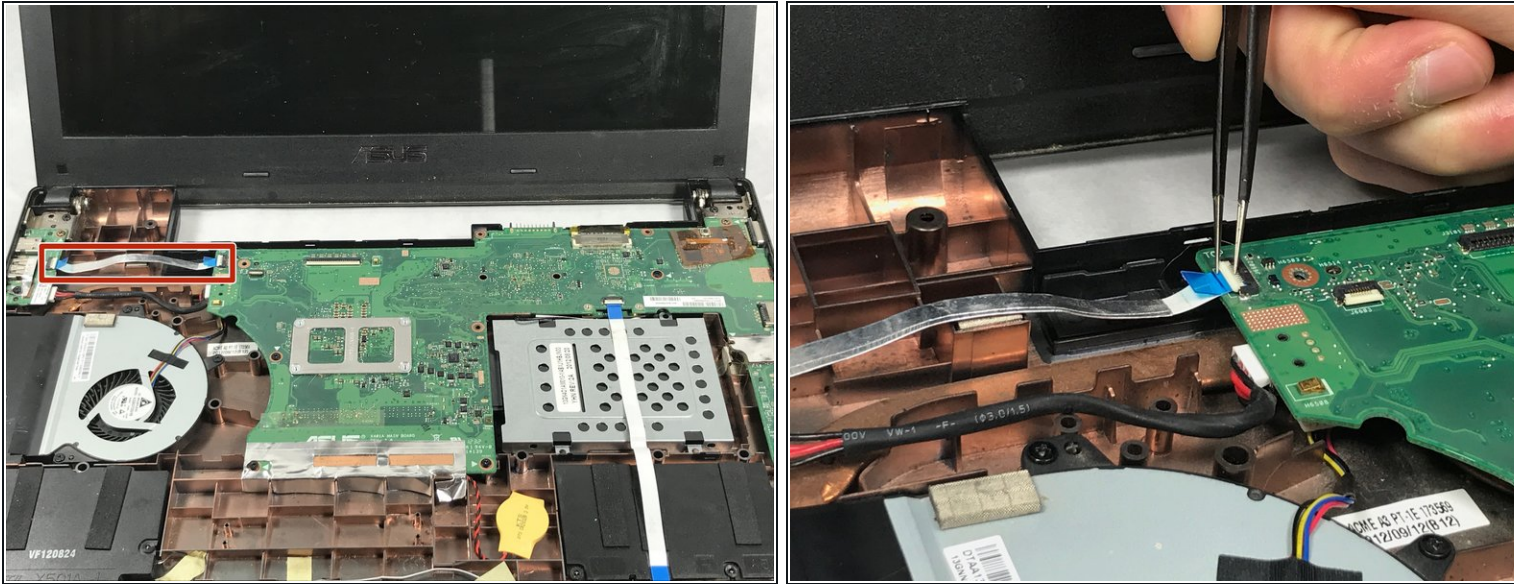
- Unscrew the six screws that hold the motherboard to the bottom of the laptop using a Phillips #00 screwdriver.
- ① The six screws are 4.2 mm long, 5 mm in diameter.

Step 13



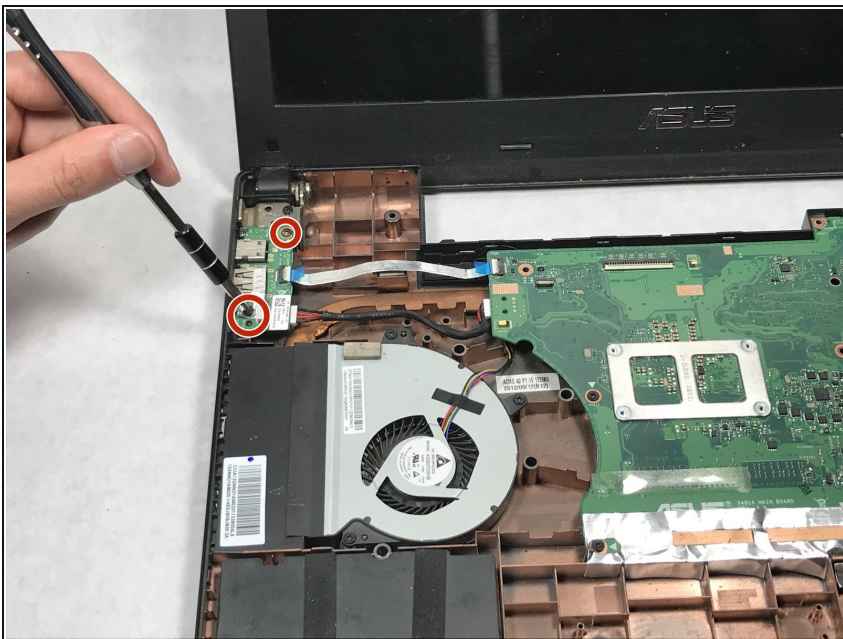
- Unlatch the data cable by using tweezers to lift the white tab and release the cable.

Step 14



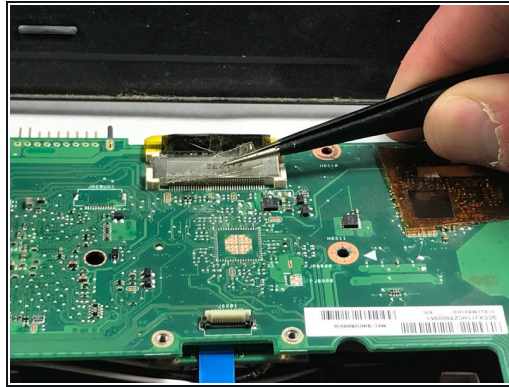
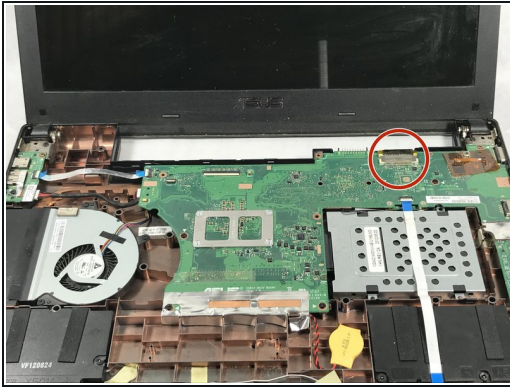
- Remove the cable on the left side of the motherboard.
- Use tweezers to pull the white tab up in order to release this cable.

Step 15



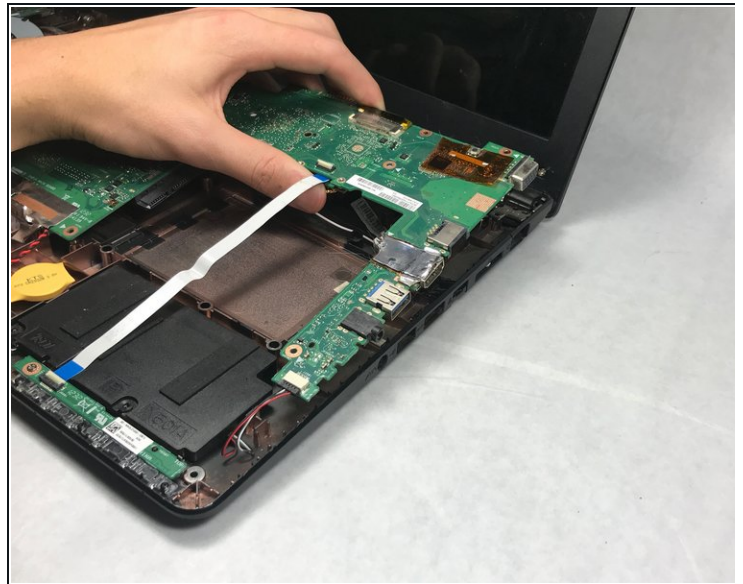
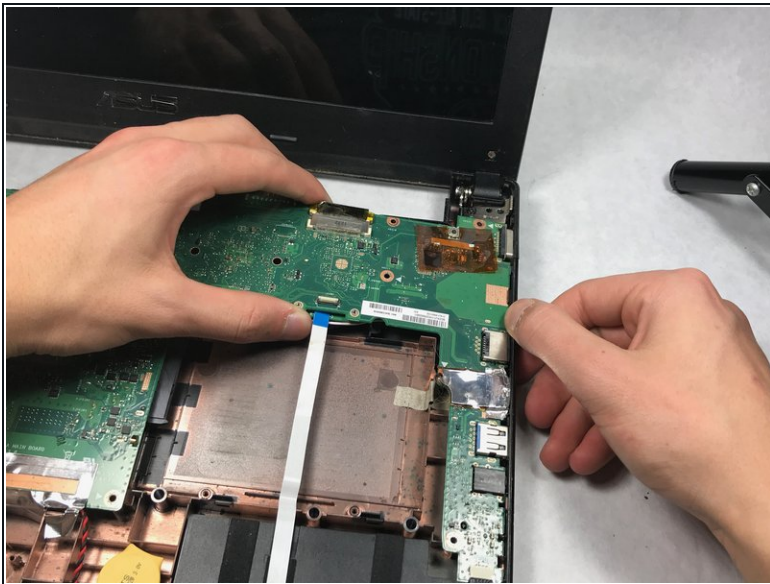
- On the left side is a small piece of the motherboard. Unscrew the two screws holding this piece down with the Phillips #00 screwdriver.
- ① The two screws are 6 mm long, 4.2 mm in diameter.

Step 16



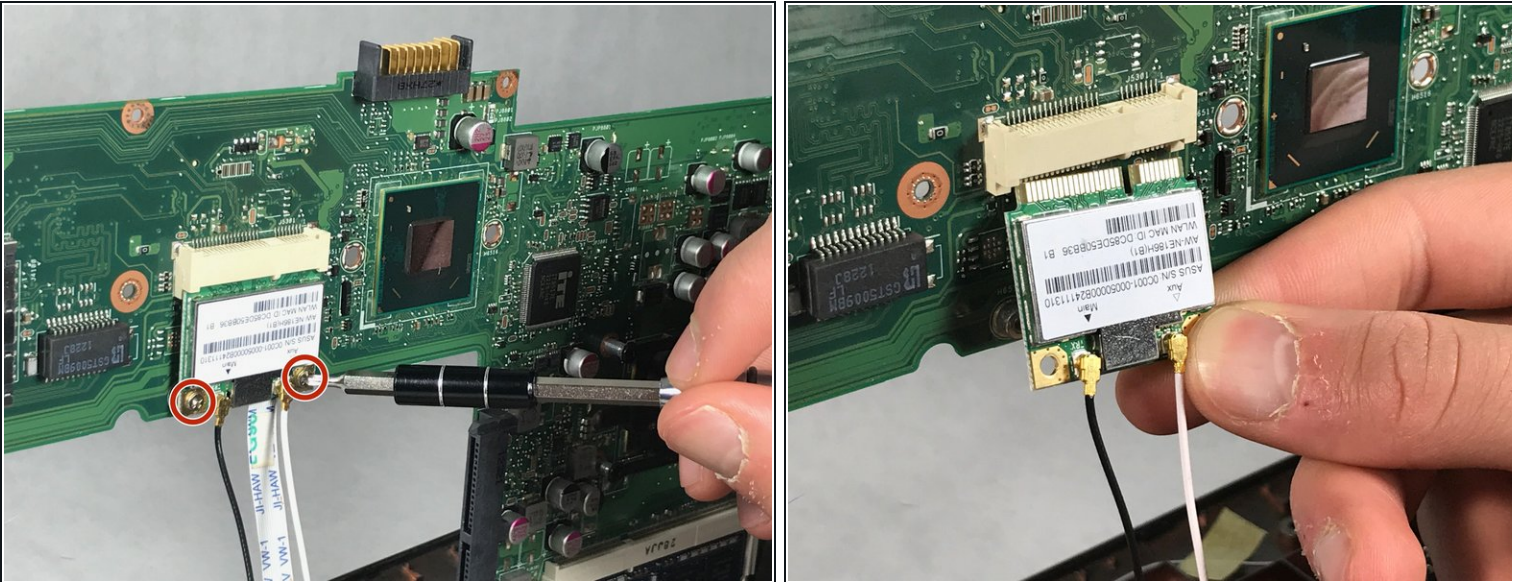
- Release the connector cable on the back right side of the motherboard.
- Peel off the tape with tweezers so that the cable can be released.
- Using the black plastic spudger, push the back half of the cable towards the screen.

Step 17



- Grip the motherboard firmly and pull the board leftward and upwards so that the ports on the right side escape their frames.

Step 18



- On the back of the motherboard there are two screws that attach the LCD connector to the motherboard.
- Unscrew the two screws using the Phillips #00 screwdriver.
 - ❗ These screws are 3 mm in length, 3.5 mm in diameter.
- Pull the connector downwards and out.

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