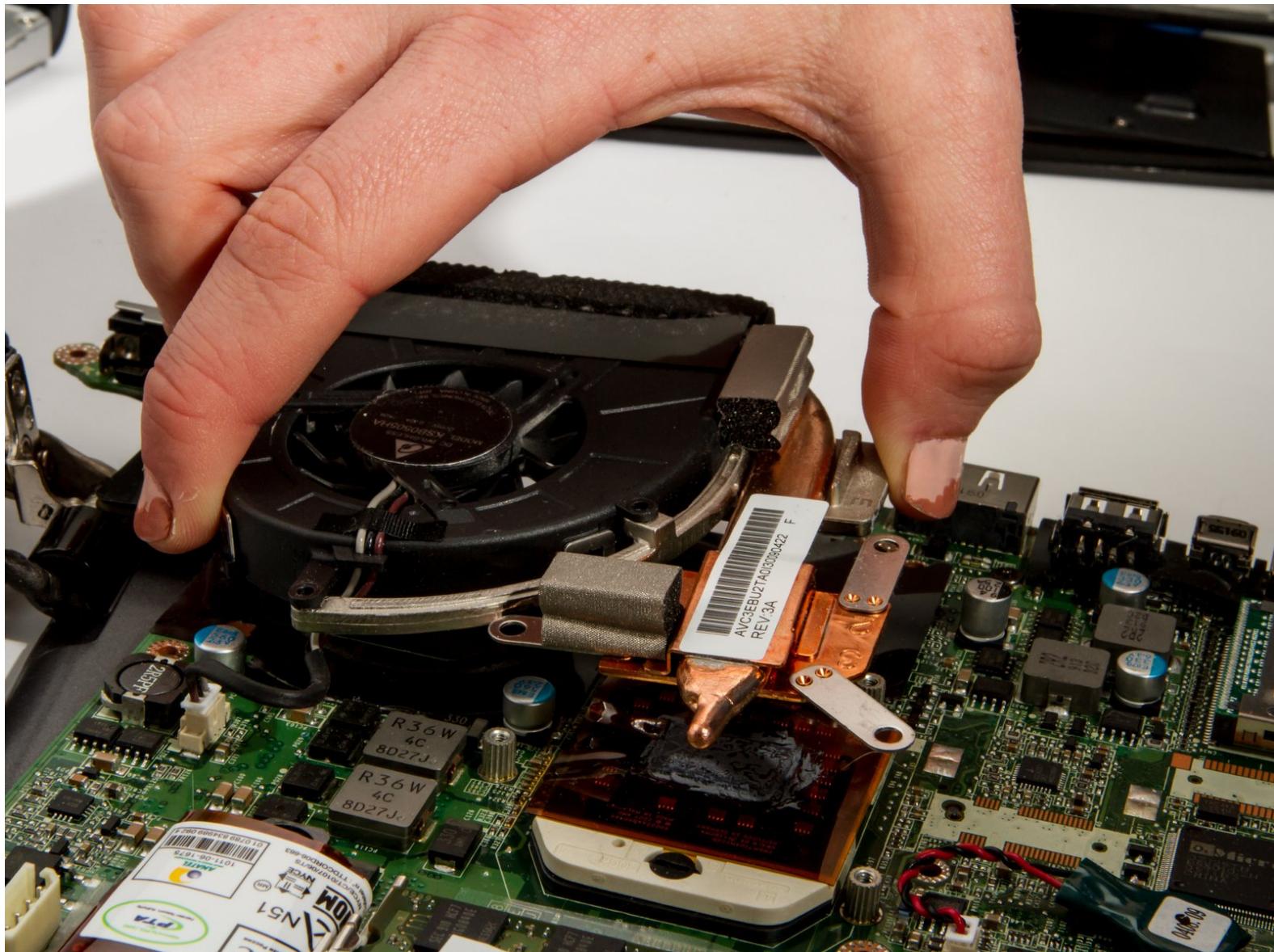




Toshiba Satellite U405D-S2902 Cooling Fans Replacement

This guide will demonstrate how to clean and replace the fans in your laptop.

Written By: Brandon Kirklen



 **TOOLS:**

- Arctic Silver Thermal Paste (1)
- Arctic Silver ArctiClean (1)
- Dust Blower (1)
- Tweezers (1)
- Paper Towels (1)
- Phillips #0 Screwdriver (1)
- Phillips #1 Screwdriver (1)
- Phillips #2 Screwdriver (1)
- iFixit Opening Tools (2)

Step 1 — Battery



i Make sure that the laptop is off and unplugged.

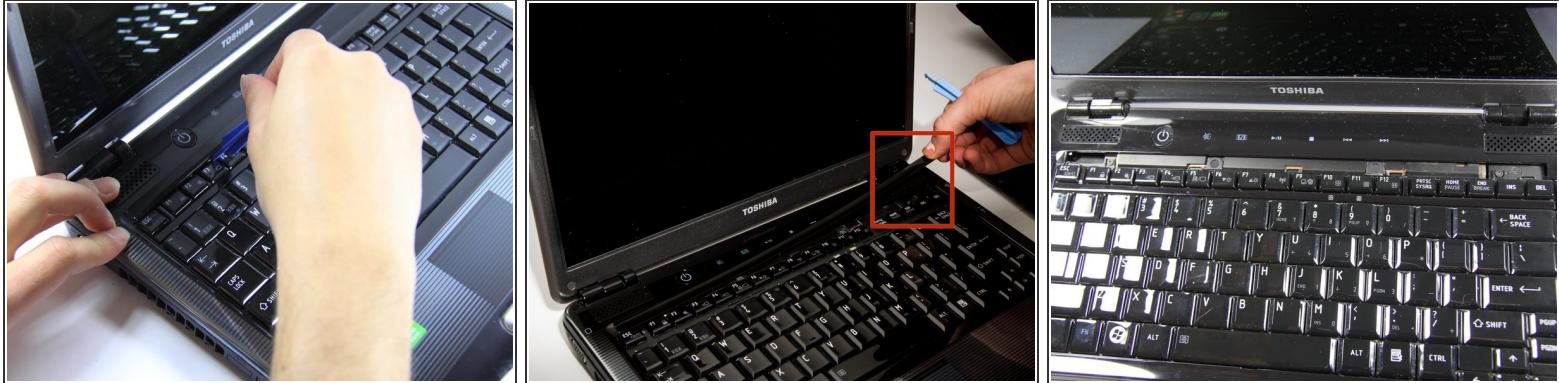
- Turn the laptop over.
- Slide back the left lock, and you should hear a click when it is successfully locked back in.

Step 2



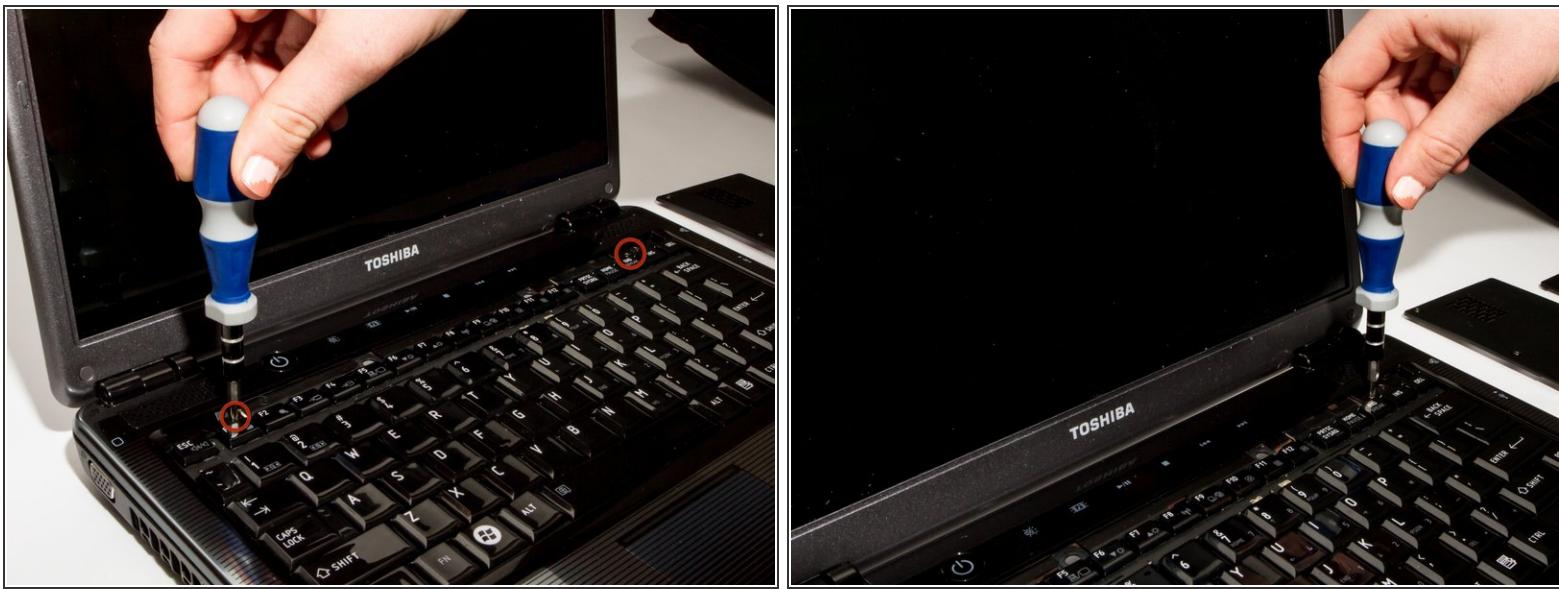
- Rotate the laptop 180 degrees so that the battery is near you.
- Hold back the spring slide and pull the battery out.

Step 3 — Keyboard



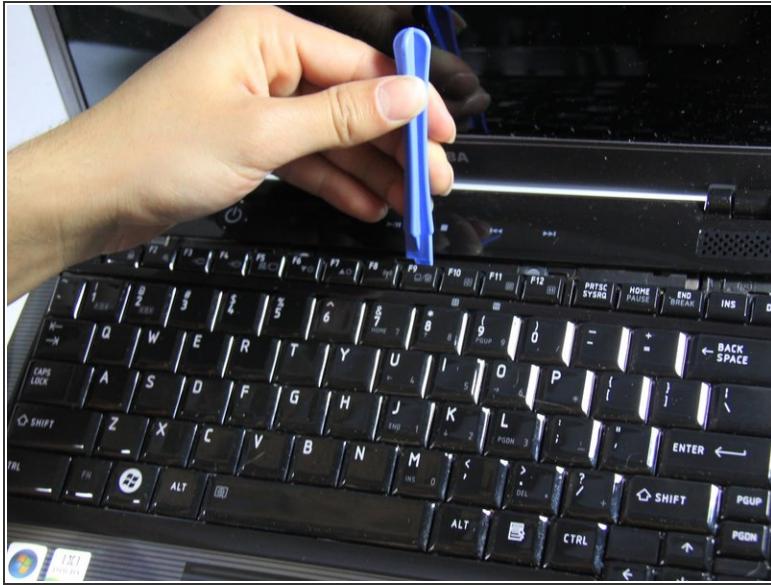
- Situate the laptop so that it is open and the display is facing you.
- Use the plastic opening tool to pry the black plastic insert upward. The insert can be found at the top of the keyboard.
- Once the insert is loose, carefully remove it from the device.

Step 4



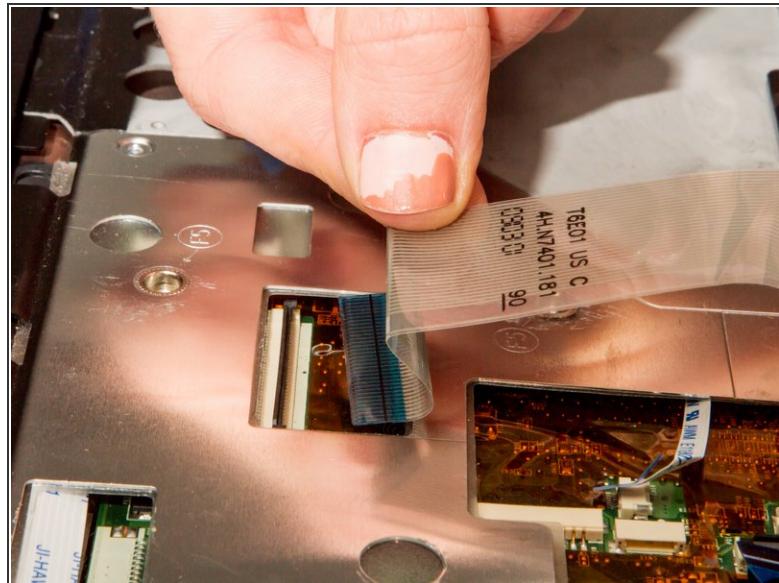
- Using #1 Phillips Screwdriver, remove both of the 5 mm screws that are located beneath the insert.

Step 5



- Use the plastic opening tool to begin removing the keys off of the device.
- Once the keys are off, gently remove the keyboard. Be careful of the ribbon cable that still connects the keyboard to motherboard.

Step 6



- Lift up the gate on the ZIF socket to release the ribbon.
- Ease the ribbon connecting the keyboard to the motherboard out of the ZIF socket.

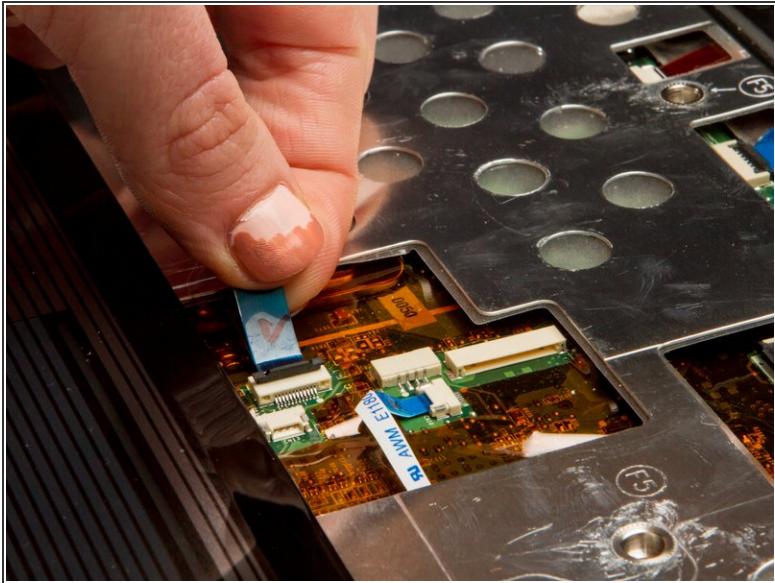
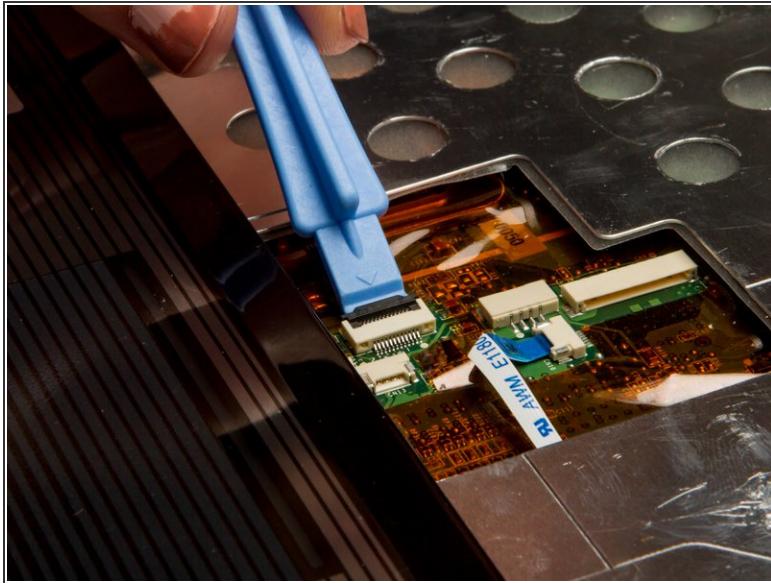
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Step 7 — Faceplate



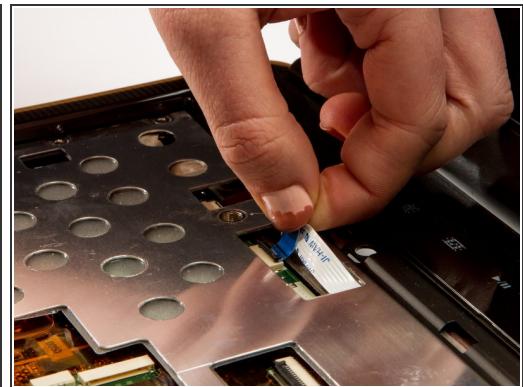
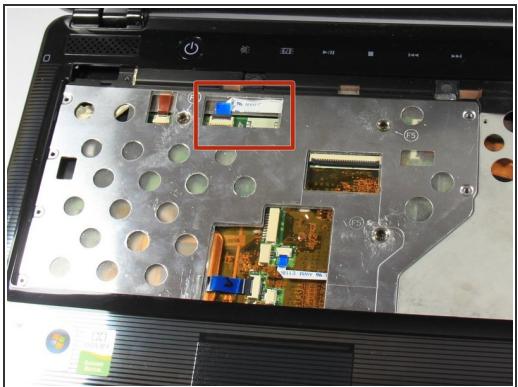
- With the keyboard removed, locate the marked screws.
- Remove the marked, 5mm screws using the #1 Phillips Screwdriver.

Step 8



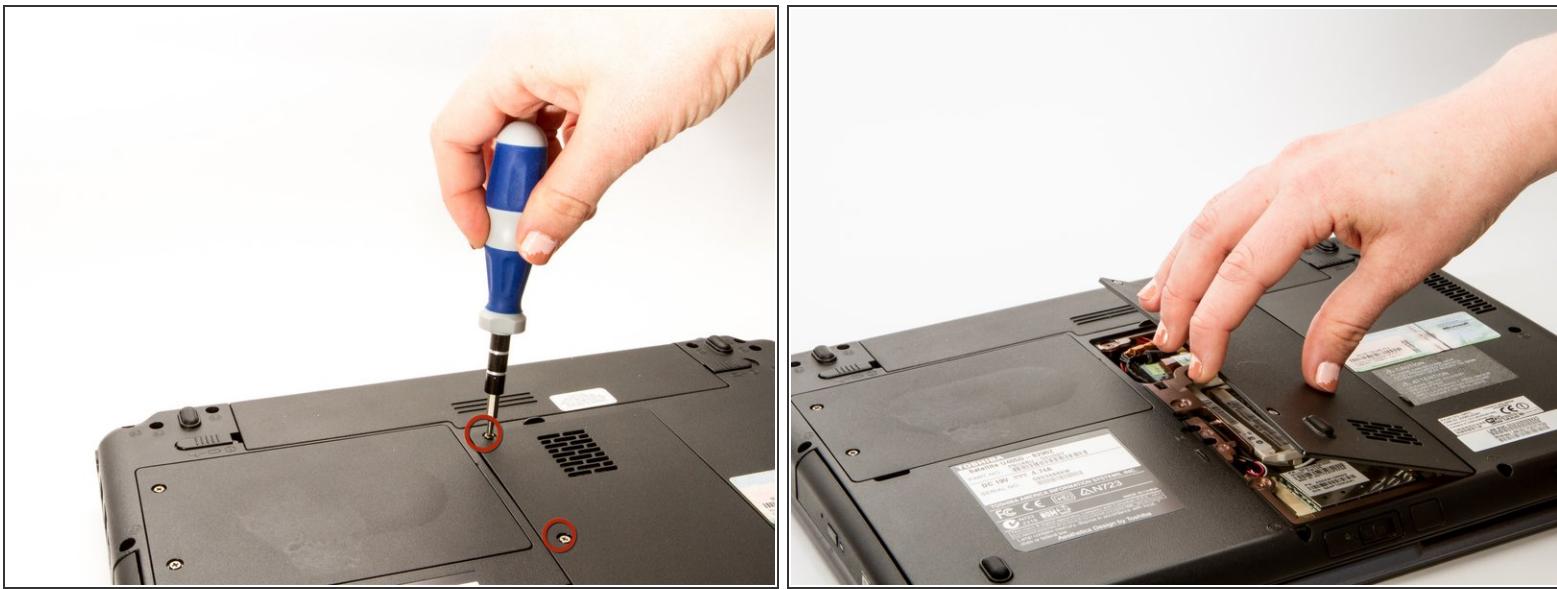
- In the opening above the mouse pad, use the plastic opening tool to push up the black gate of the ZIF socket.
- Remove the ribbon from the ZIF socket.

Step 9



- Locate the wide opening at the top near the screen.
- Use the plastic opening tool to open the black ZIF socket.
- Remove the blue ribbon.

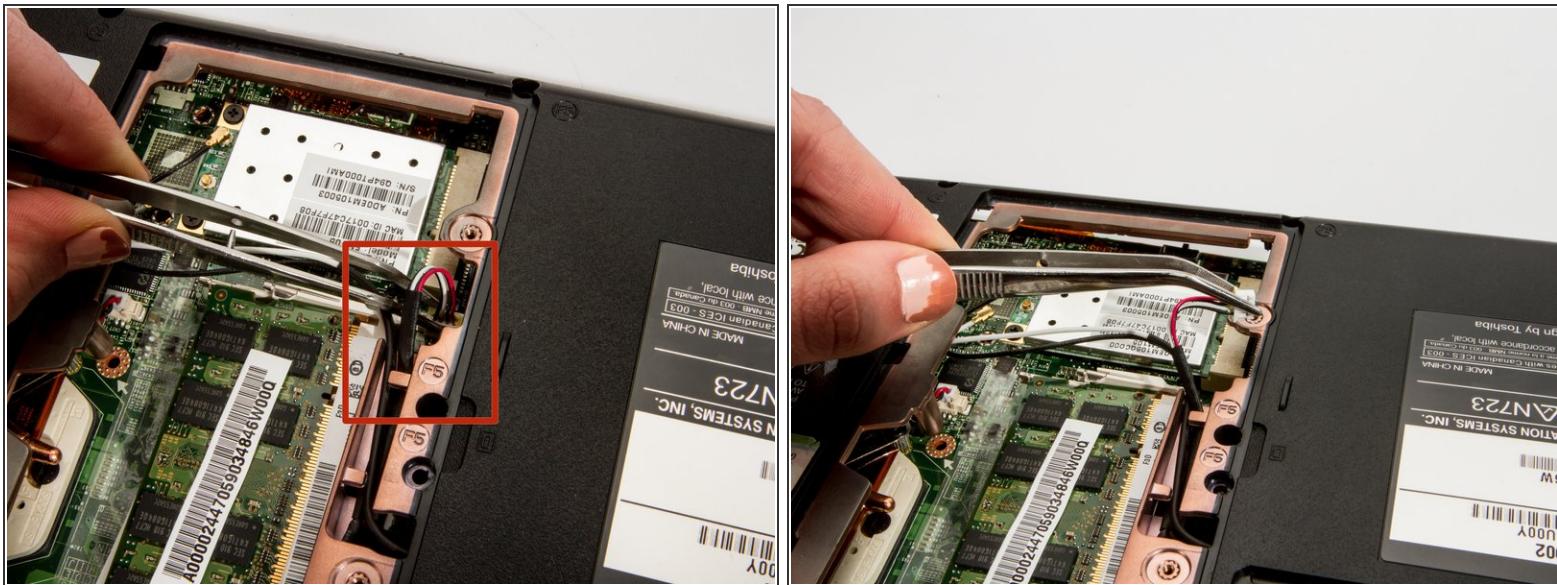
Step 10



⚠ After removing the screw in step 3, carefully close the laptop and put it face down. Locate the center panel.

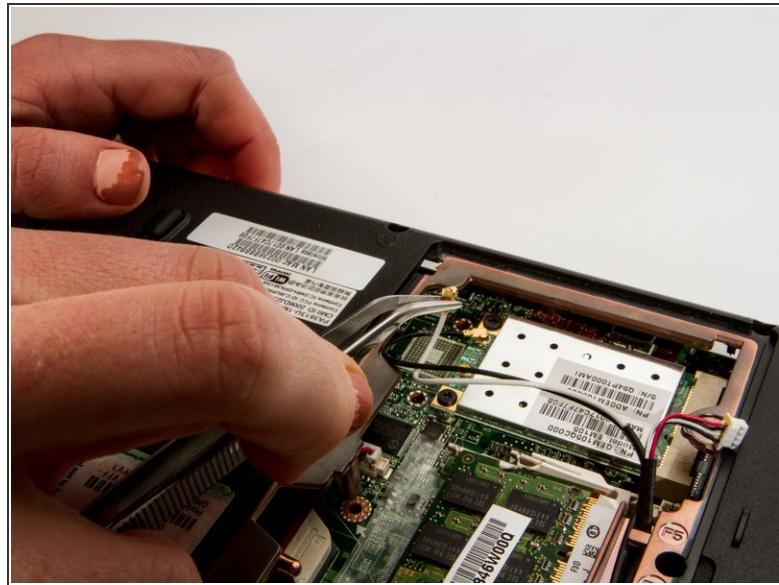
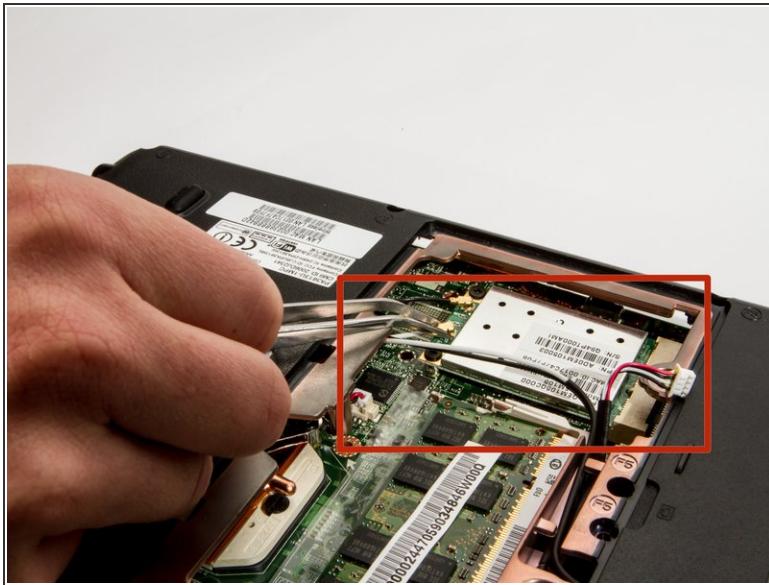
- Remove the three, 3 mm screws using the #1 Phillips Screwdriver.

Step 11



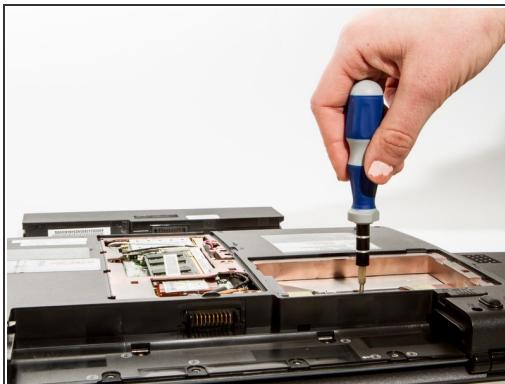
- Grasp the power cable with your tweezers and remove it from the wireless antenna.

Step 12



- Locate and remove both the white and black antenna leads with the tweezers.

Step 13



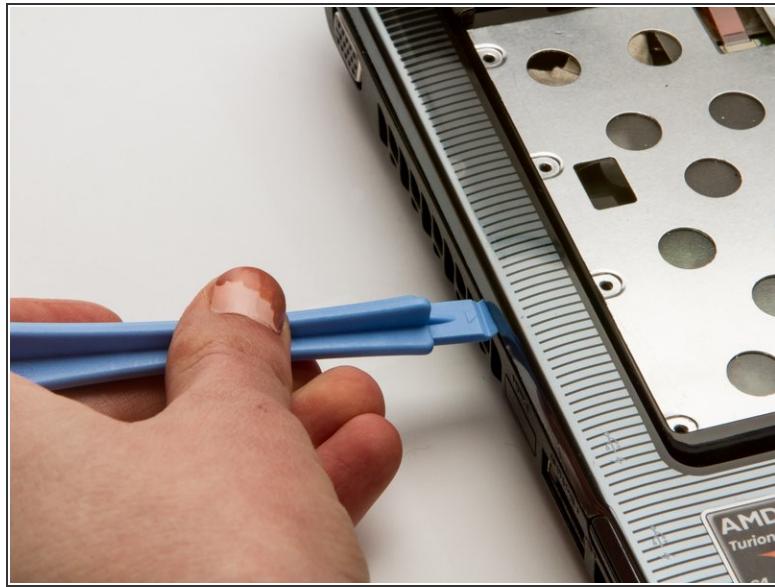
- Remove screws for back assembly.
 - 11 x F5 (5 mm #1 Phillips)
 - 6 x F2 (2 mm #0 Phillips)
 - 4 x F8 (8 mm #1 Phillips)
 - 1 x F3 (3 mm #1 Phillips)

Step 14



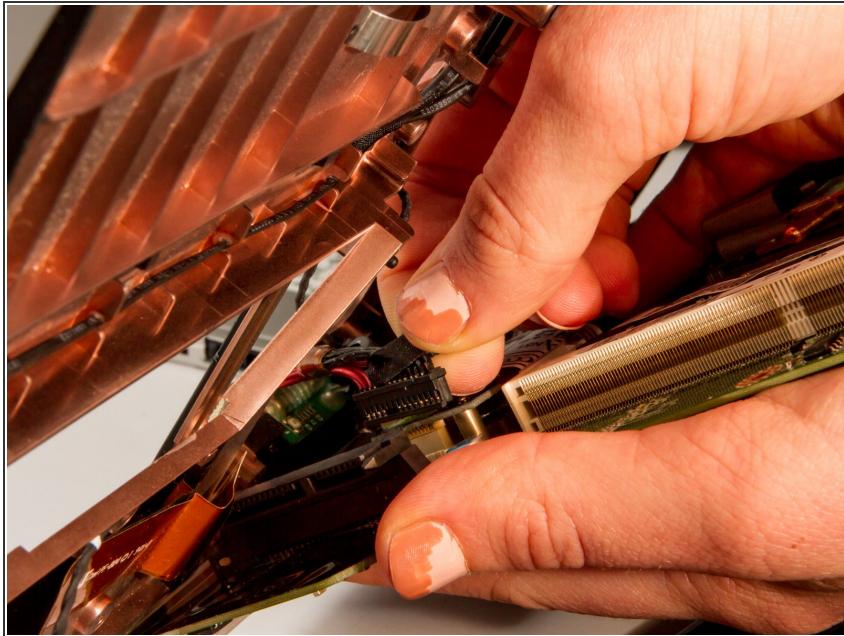
- Use the plastic opening tool to release the back panel from the laptop.
- *i* If all of the screws are removed it should come off with very little effort. Do not force it. If it still feels attached, check that you didn't miss a screw or two.

Step 15



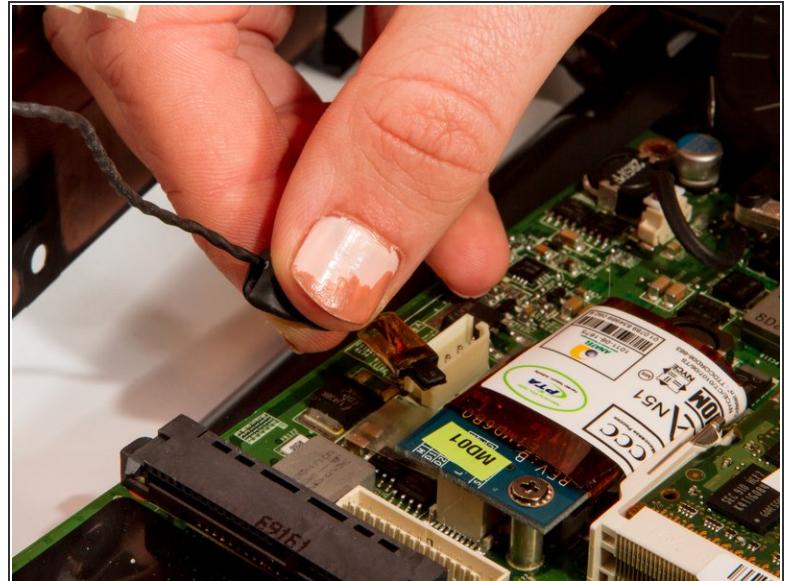
- Use the plastic opening tool to separate the top faceplate.
(i) The faceplate is the plastic surface and the metal piece under the keyboard.
- Carefully lift the faceplate off of the base by sliding the plastic opening tool around the outside of the device. You'll hear clicks as you do this.
⚠ Prying apart the faceplate will be a little hard, but try not to bend it too much - you do not want to crack it.

Step 16



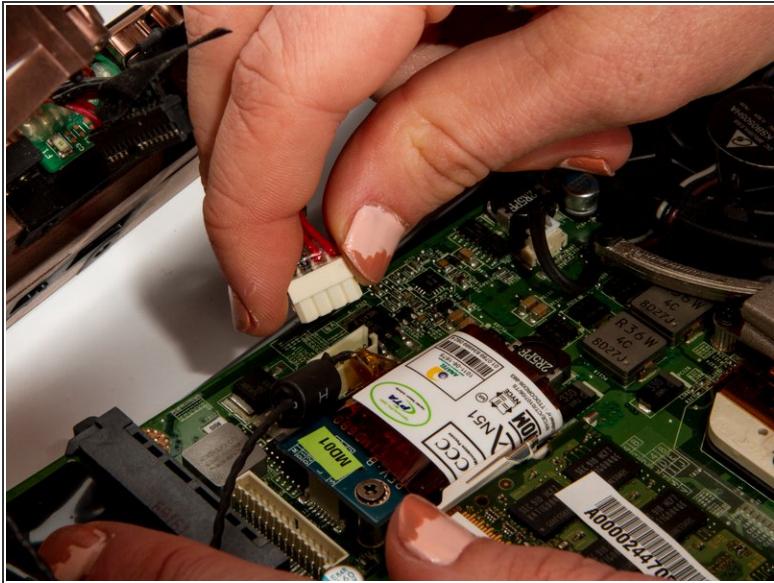
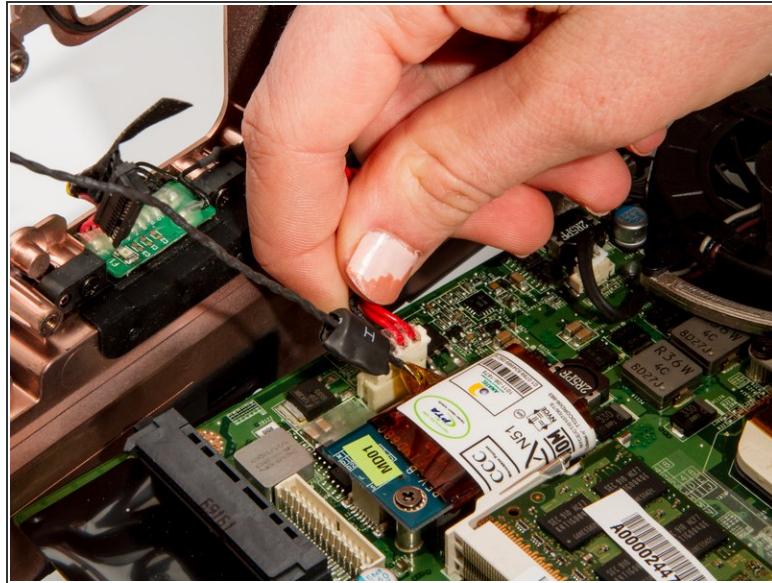
- Lift the back panel and carefully disconnect the main power cable.

Step 17



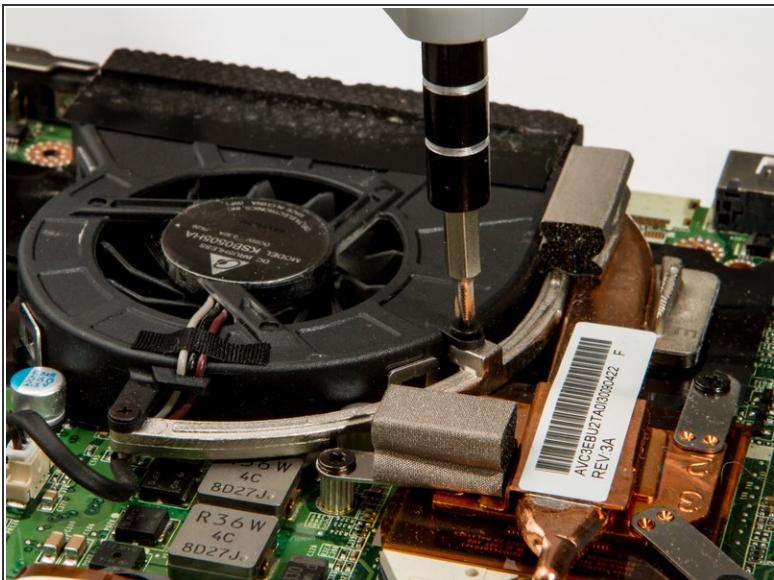
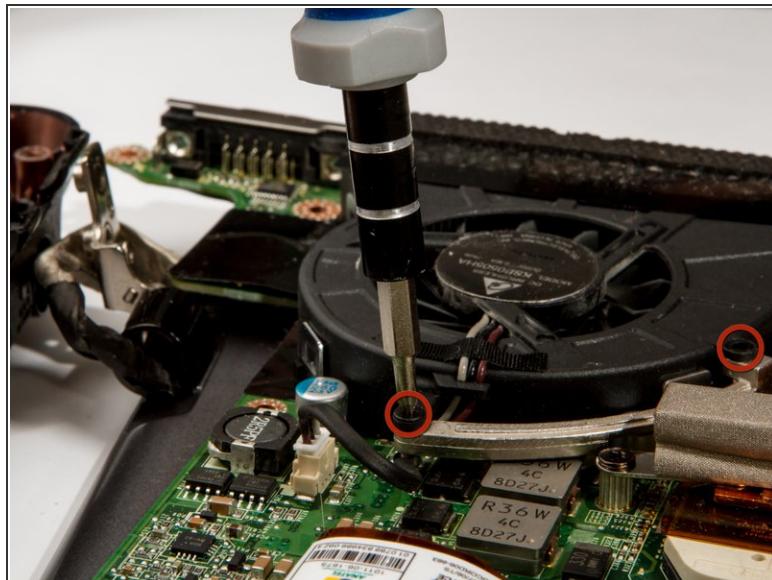
- Remove the black signal cable attached at the blue circuit board.

Step 18



- Remove auxiliary power cable attached to the blue board at the back of the laptop.

Step 19 — Cooling Fans



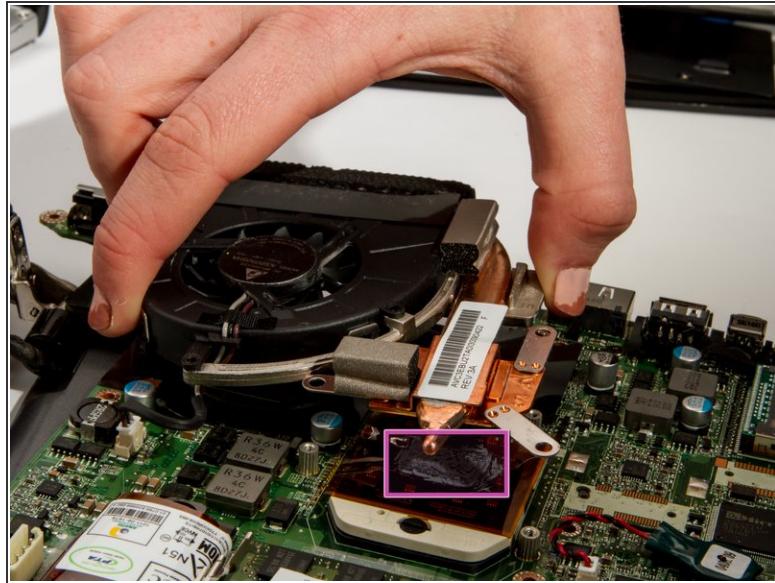
- Remove the fan mounting screws with a #1 Phillips Screwdriver.

Step 20



- Locate and remove the heat sink mounting screws using a #1 Phillips Screwdriver.
- (i)* These screws will be tight as they hold a critical component onto the processor. You may need to use a little extra elbow grease to remove them.

Step 21



- Carefully lift the fan and heat sink assembly.
- Detach the fan power cable from the motherboard with your fingers by squeezing the white plastic connector and wiggling gently from side to side.
- There will be a grey goop between the copper heat piping and the back of the processor, (indicated in pink). This is thermal paste and allows heat to flow properly.

 Be sure to replace any missing thermal paste when installing the new fan.

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