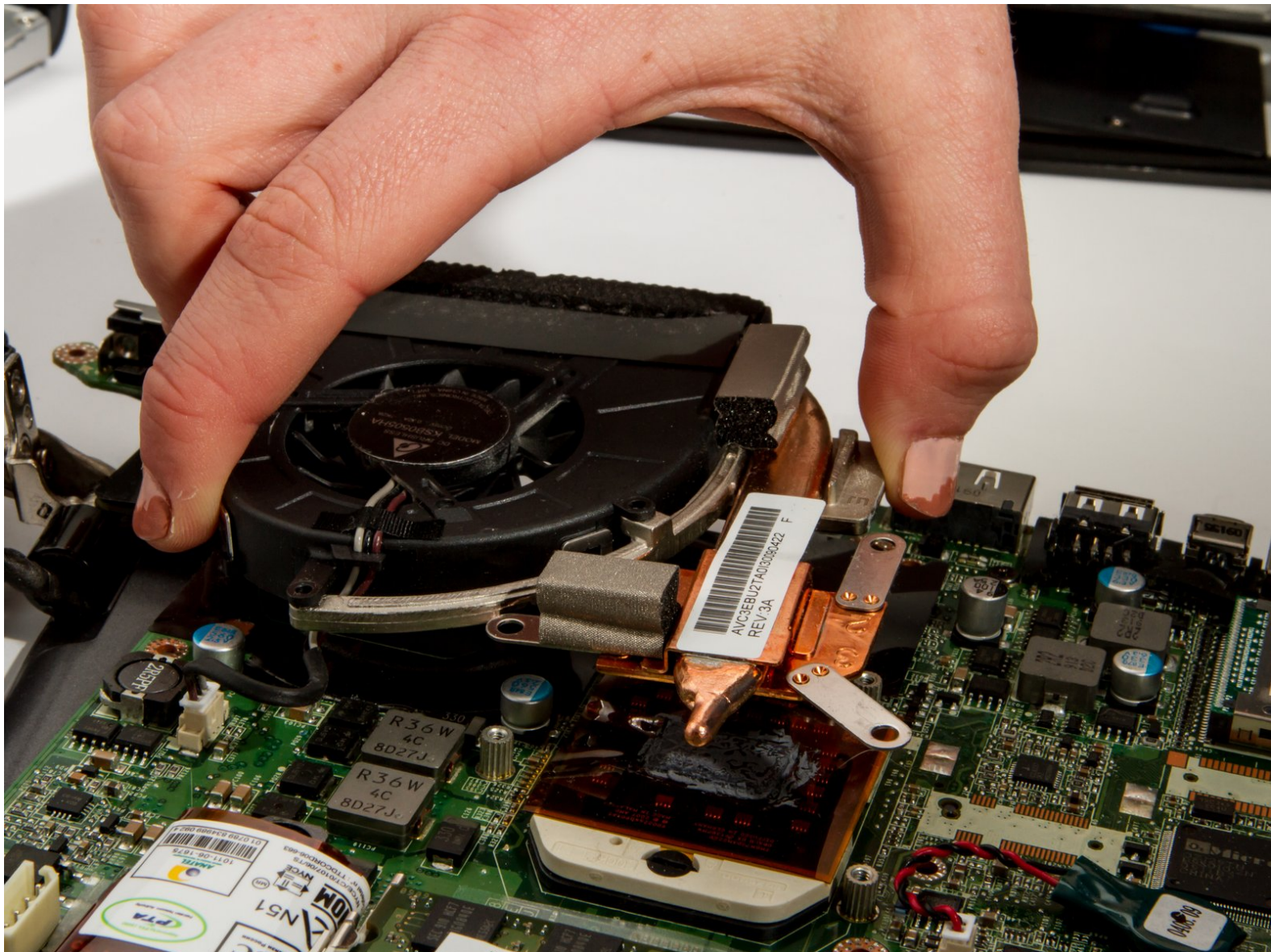




Toshiba Satellite U405D-S2902 Cooling Fans Replacement

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



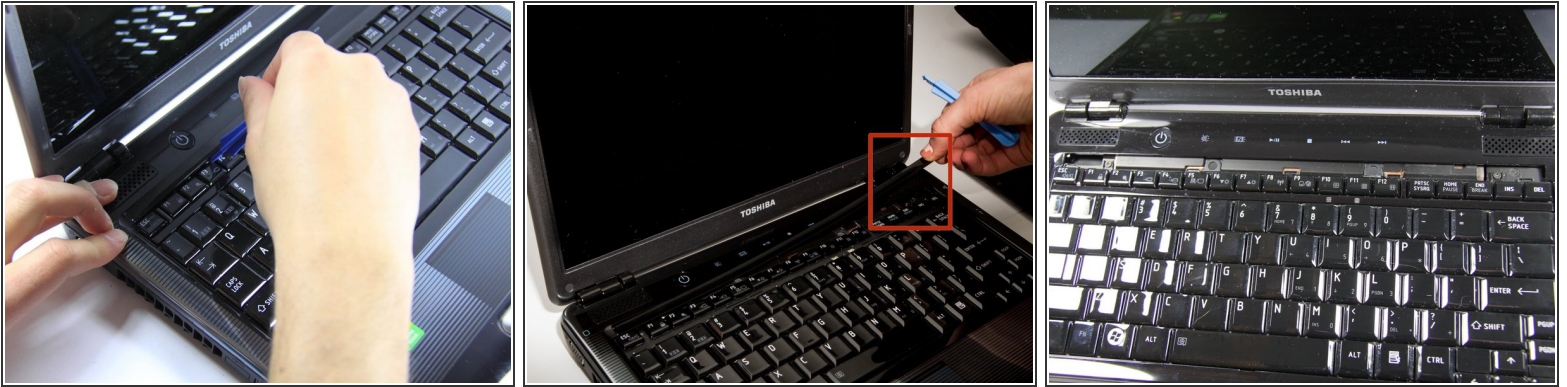
- ❗ Make sure that the laptop is off and unplugged.
- Turn the laptop over.
- Slide back the left lock, and you should hear a click when it is successfully locked back in.

Step 2



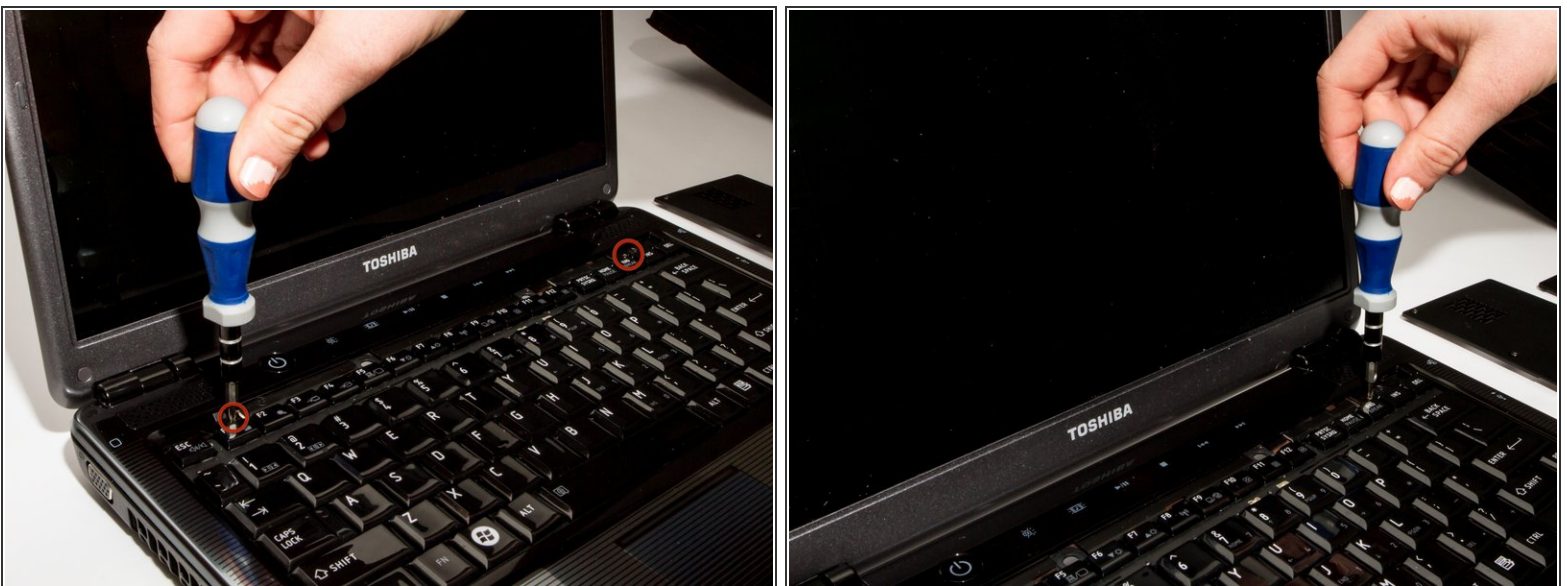
- Rotate the laptop 180 degrees so that the battery is near you.
- Hold back the spring slide and pull the battery out.

Step 3 — Keyboard



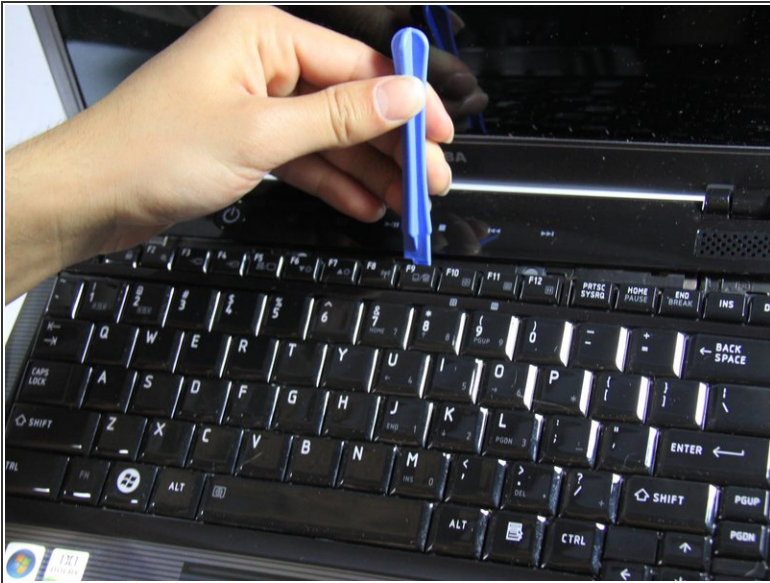
- Situate the laptop so that it is open and the display is facing you.
- Use the plastic opening tool to pry the black plastic insert upward. The insert can be found at the top of the keyboard.
- Once the insert is loose, carefully remove it from the device.

Step 4



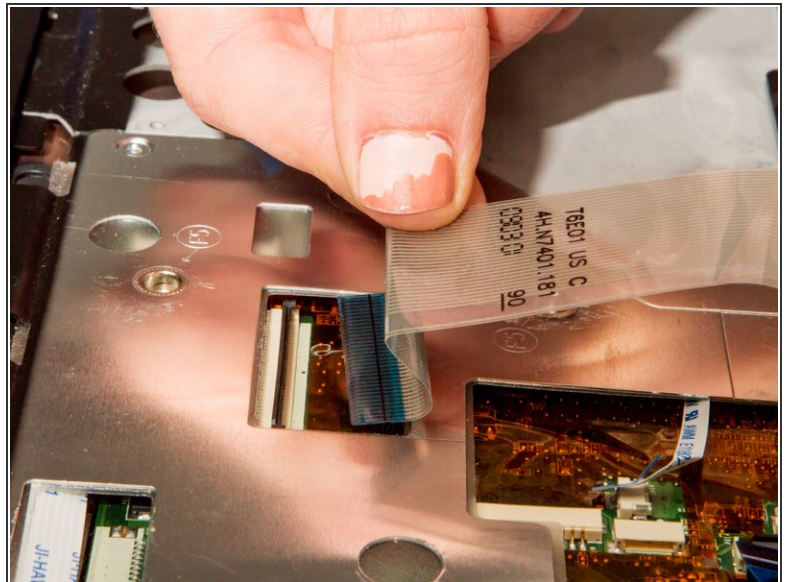
- Using #1 Phillips Screwdriver, remove both of the 5 mm screws that are located beneath the insert.

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.

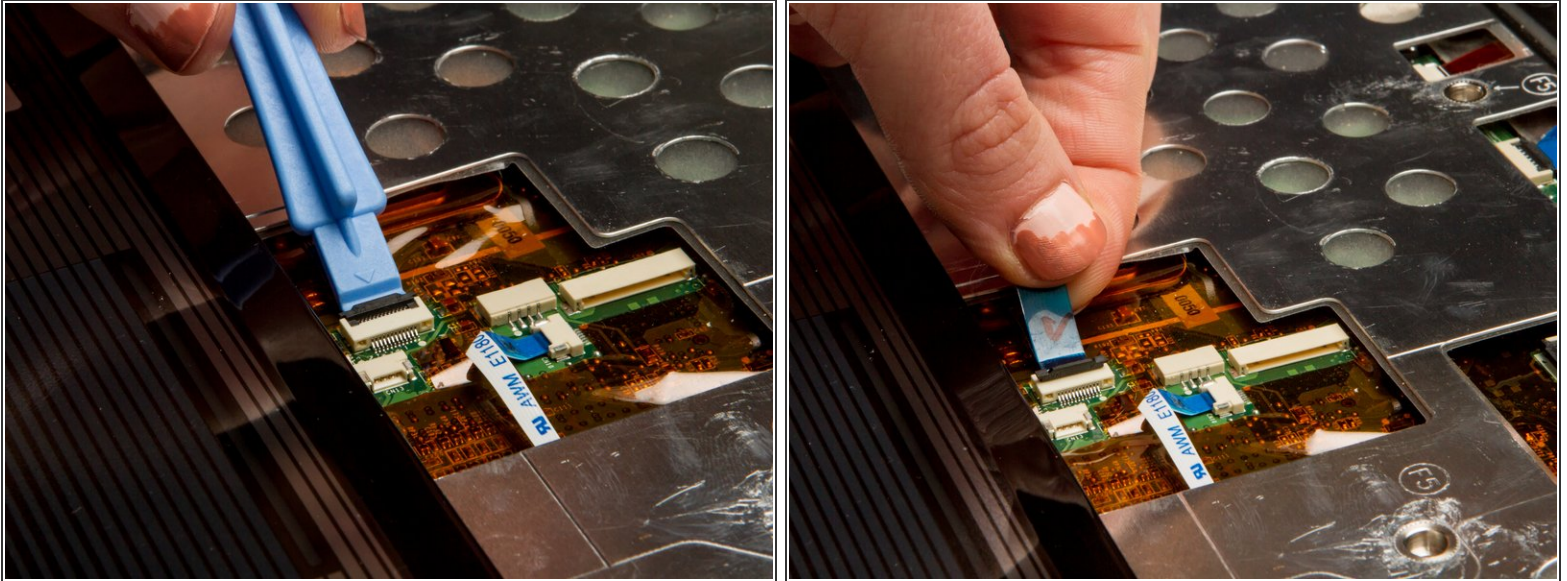
This document was generated on 2019-09-17 10:14:50 AM (MST).

Step 7 — Faceplate



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

Step 8



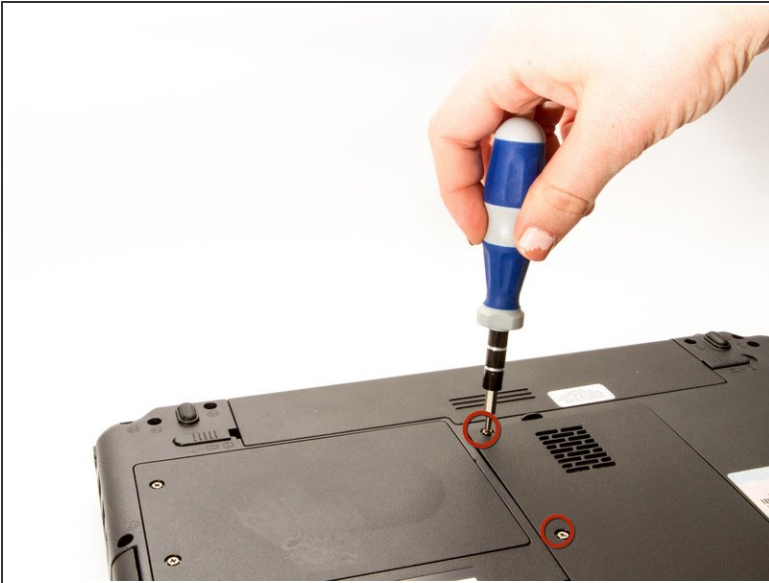
- In the opening above the mouse pad, use the plastic opening tool to push up the black gate of the ZIF socket.
- Remove the ribbon from the ZIF socket.

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.

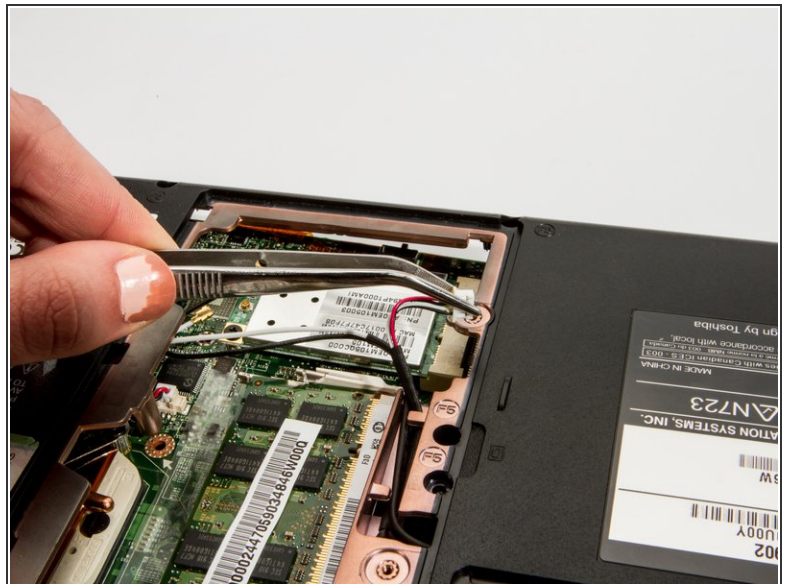
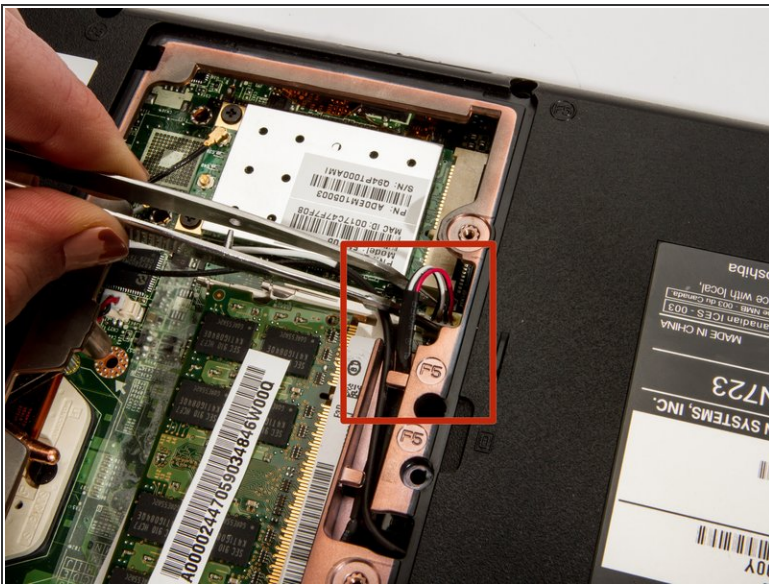
Step 10



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

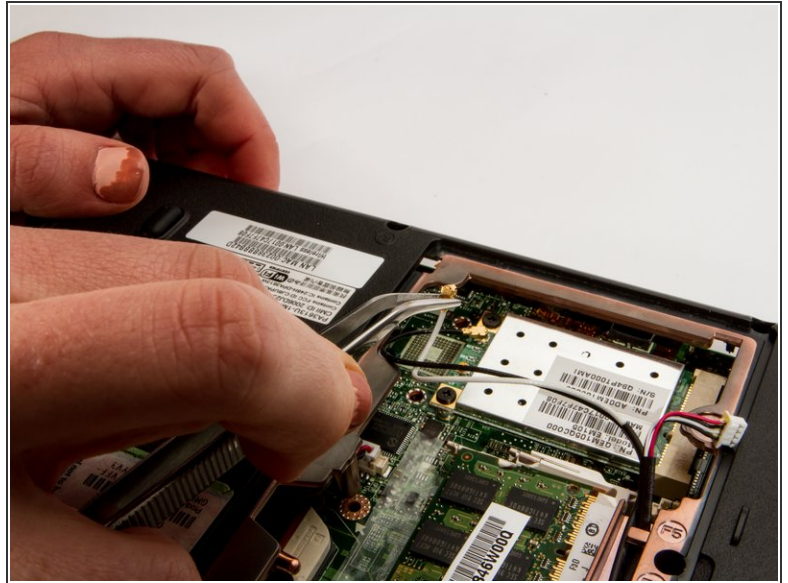
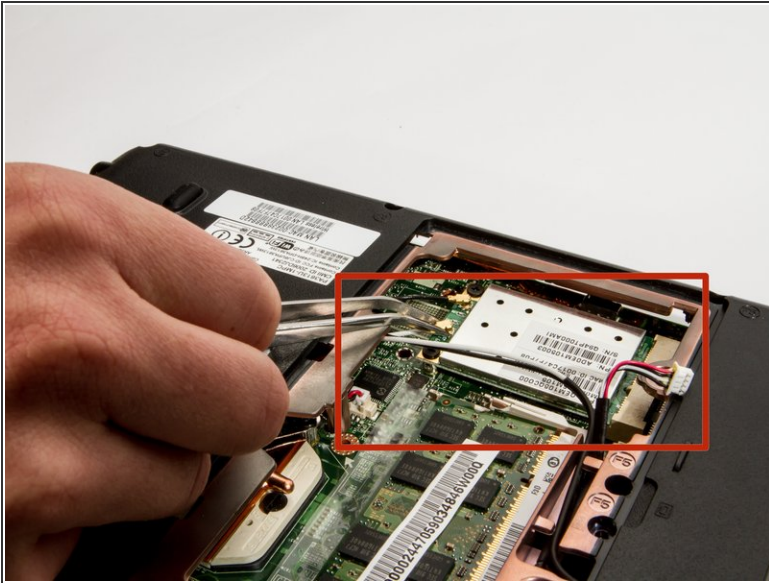
- Remove the three, 3 mm screws using the #1 Phillips Screwdriver.

Step 11



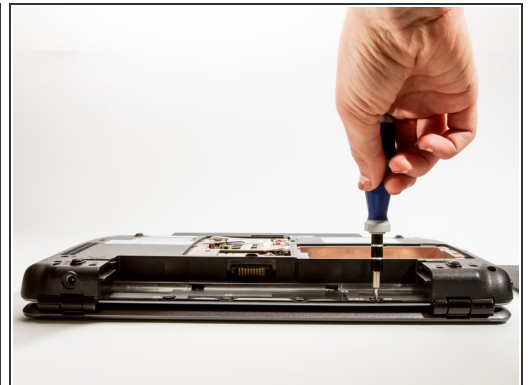
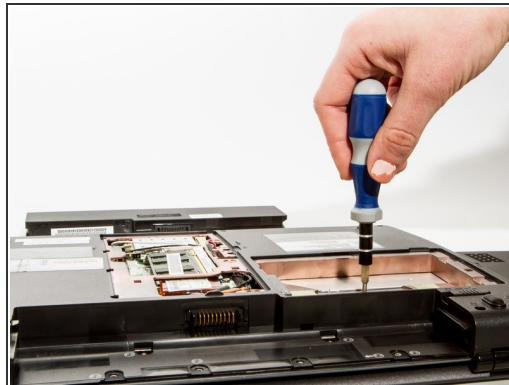
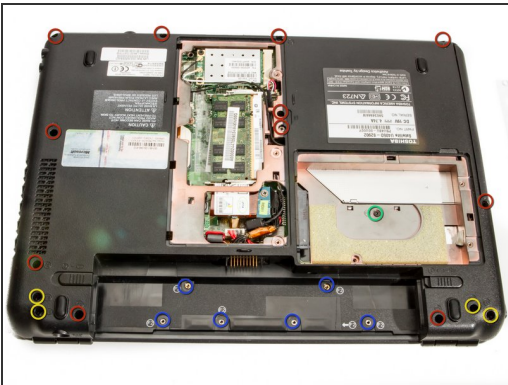
- Grasp the power cable with your tweezers and remove it from the wireless antenna.

Step 12



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

Step 13



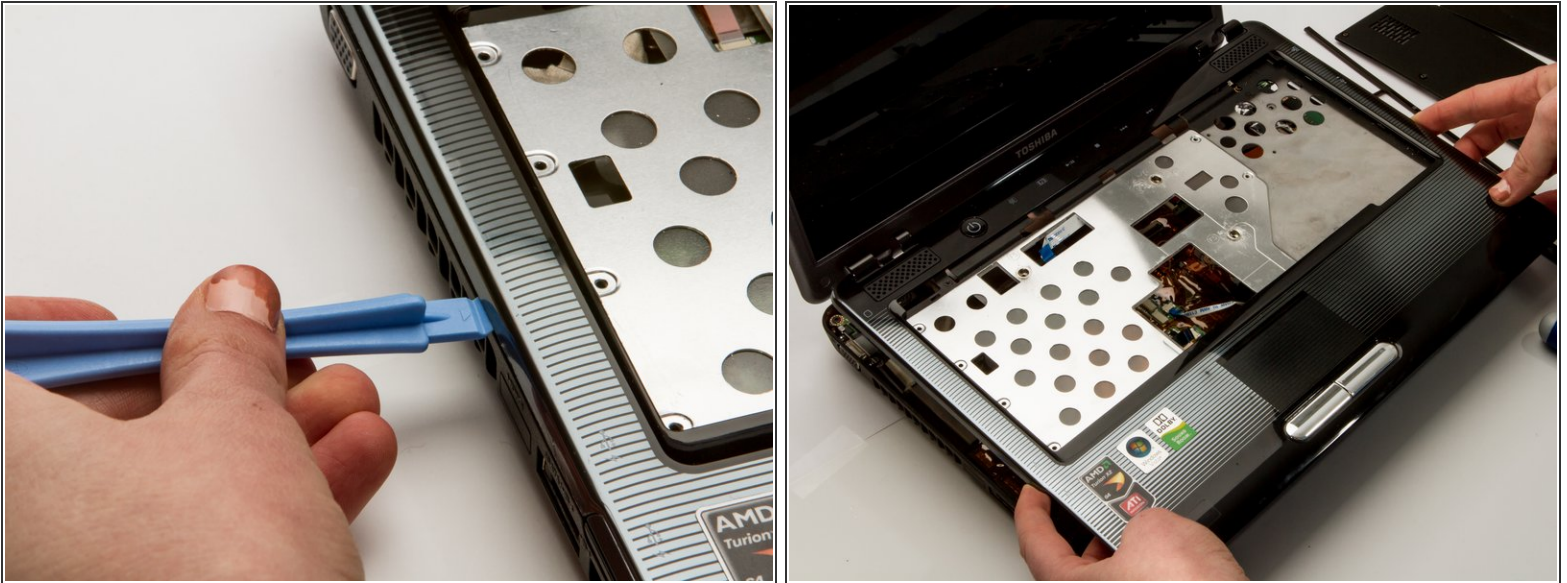
- Remove screws for back assembly.
- 11 x F5 (5 mm #1 Phillips)
- 6 x F2 (2 mm #0 Phillips)
- 4 x F8 (8 mm #1 Phillips)
- 1 x F3 (3 mm #1 Phillips)

Step 14



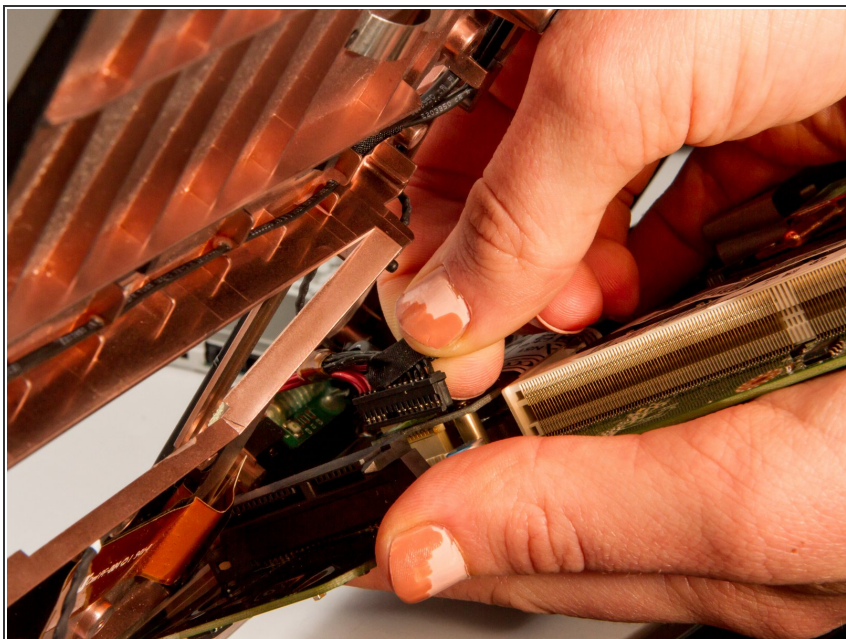
- Use the plastic opening tool to release the back panel from the laptop.
- ⓘ If all of the screws are removed it should come off with very little effort. Do not force it. If it still feels attached, check that you didn't miss a screw or two.

Step 15



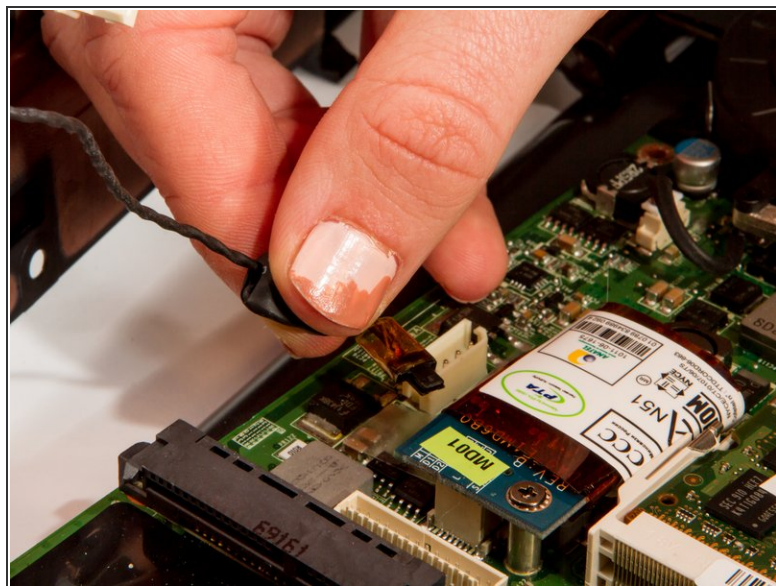
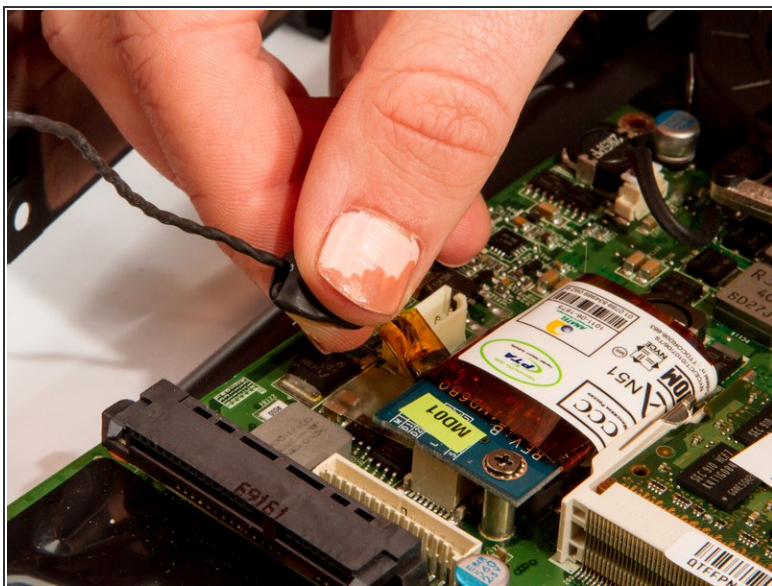
- Use the plastic opening tool to separate the top faceplate.
 - ⓘ The faceplate is the plastic surface and the metal piece under the keyboard.
- Carefully lift the faceplate off of the base by sliding the plastic opening tool around the outside of the device. You'll hear clicks as you do this.
 - ⚠ 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



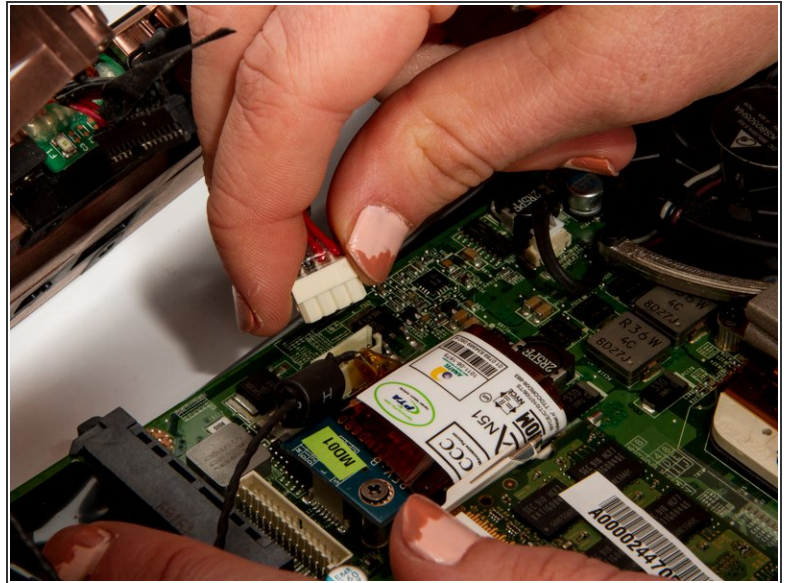
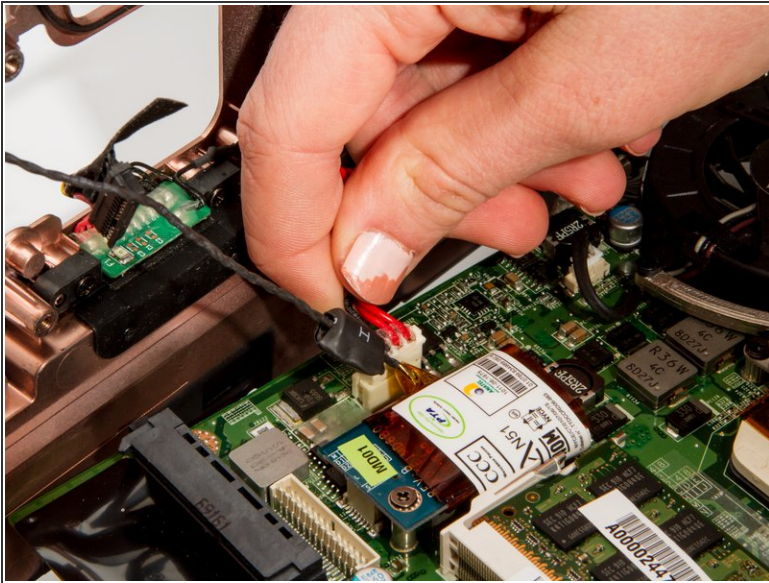
- Lift the back panel and carefully disconnect the main power cable.

Step 17



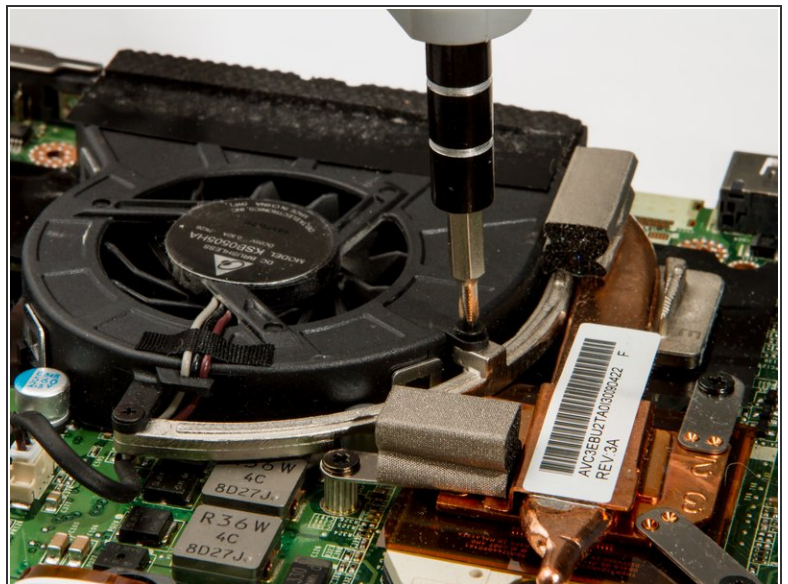
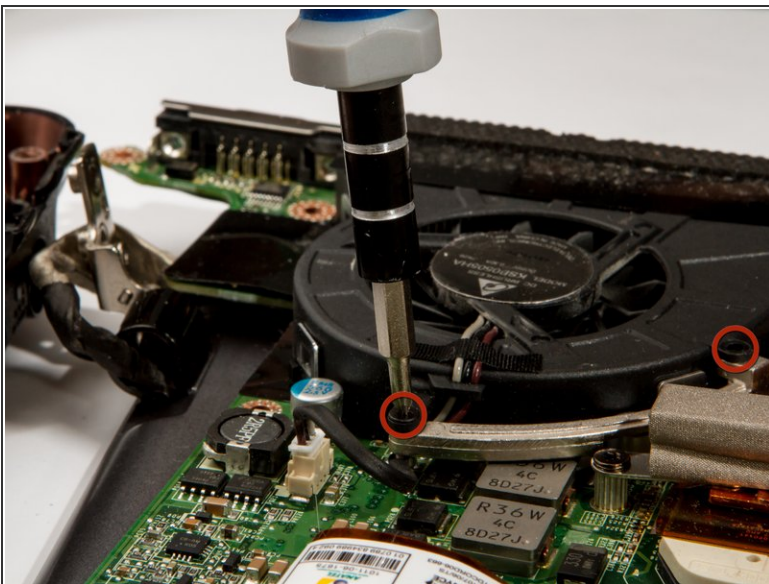
- Remove the black signal cable attached at the blue circuit board.

Step 18



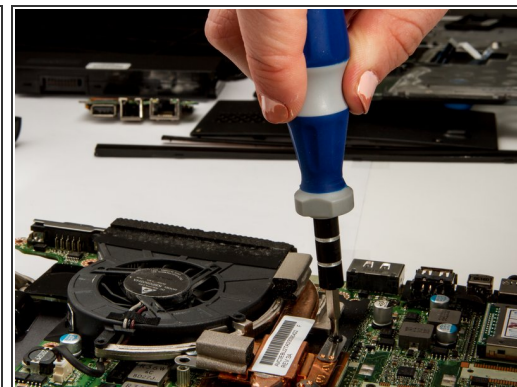
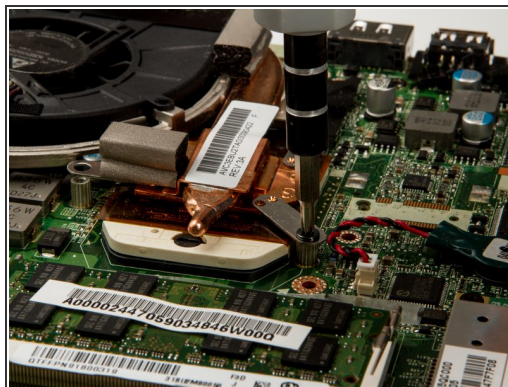
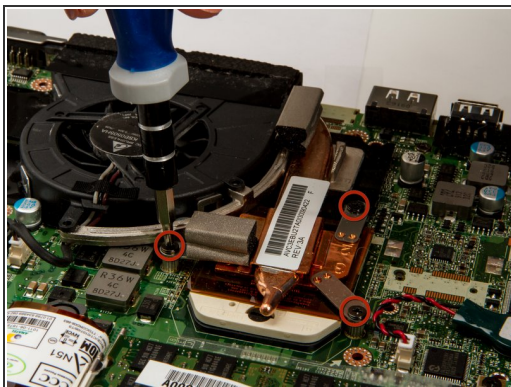
- Remove auxiliary power cable attached to the blue board at the back of the laptop.

Step 19 — Cooling Fans



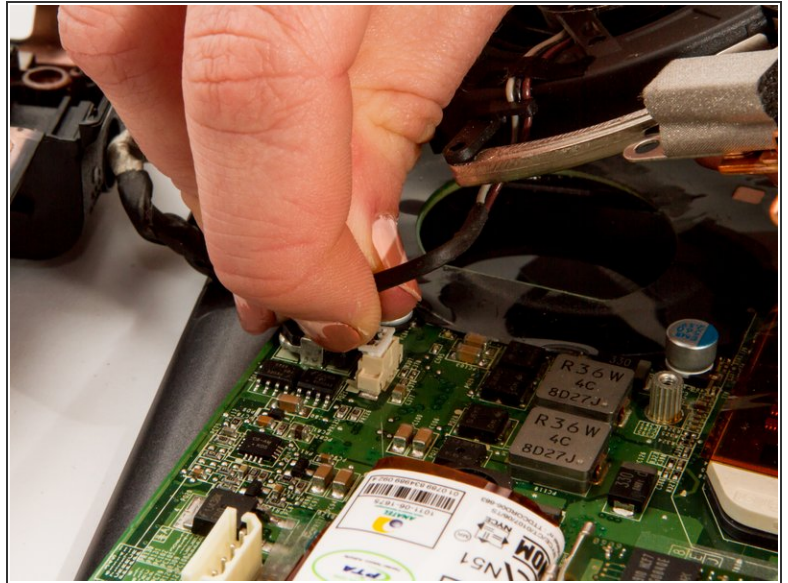
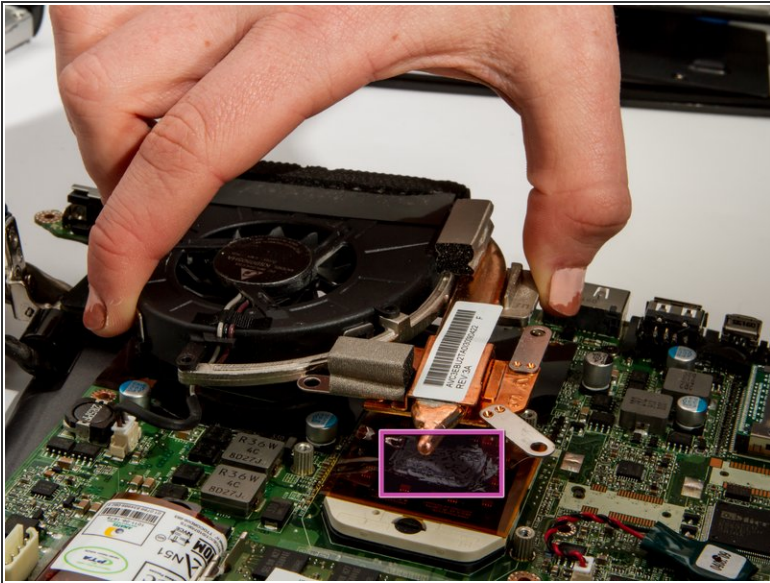
- Remove the fan mounting screws with a #1 Phillips Screwdriver.

Step 20



- Locate and remove the heat sink mounting screws using a #1 Phillips Screwdriver.
- ⓘ 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.