MacBook Pro 15" Retina Display Early 2013 I/O Board Replacement

Use this guide to install an I/O board...

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INTRODUCTION

Use this guide to install an I/O board containing a USB 3.0 port, HDMI port, and SDXC card reader.

🔧 **TOOLS:**

MacBook Pro and Air 5-Point Pentalobe Screwdriver (1)
Spudger (1)
T5 Torx Screwdriver (1)
iFixit Opening Tool (1)

⚙️ **PARTS:**

MacBook Pro 15" Retina (Mid 2012-Early 2013) Right I/O Board (1)
MacBook Pro 15" Retina (Mid 2012-Early 2013) I/O Board Data Cable (1)
MacBook Pro 15" Retina (Mid 2012/Early 2013) I/O Board Cable (1)

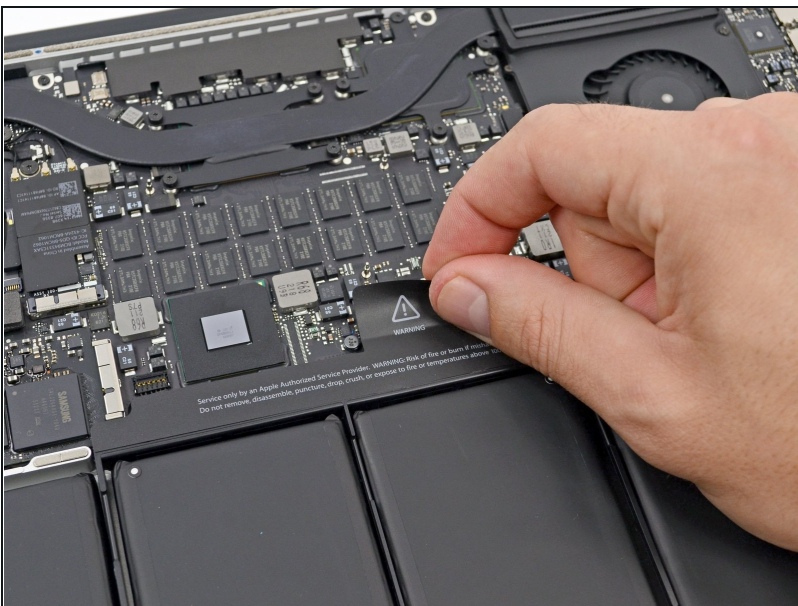## Step 1 — Lower Case

- Remove the following P5 pentalobe screws securing the lower case to the MacBook Pro:
  - Eight 3.0 mm
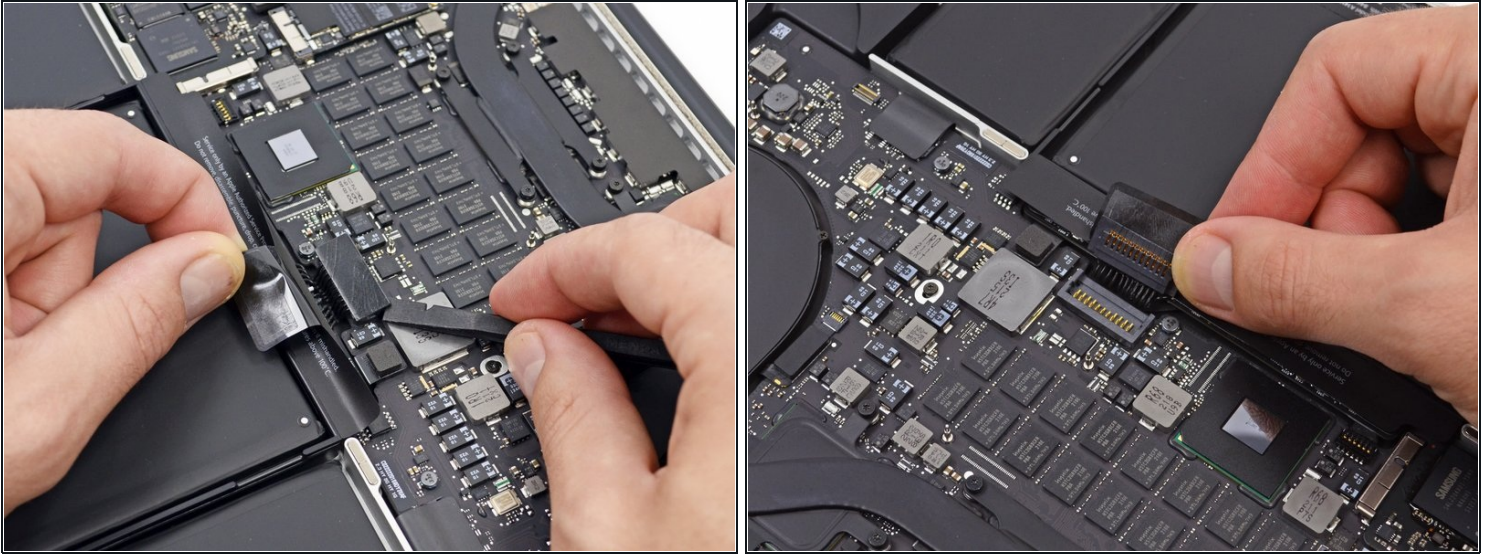 - Two 2.3 mm

Step 2

- Lifting from the edge nearest the clutch cover, lift the lower case off the MacBook Pro.

- Set the lower case aside.

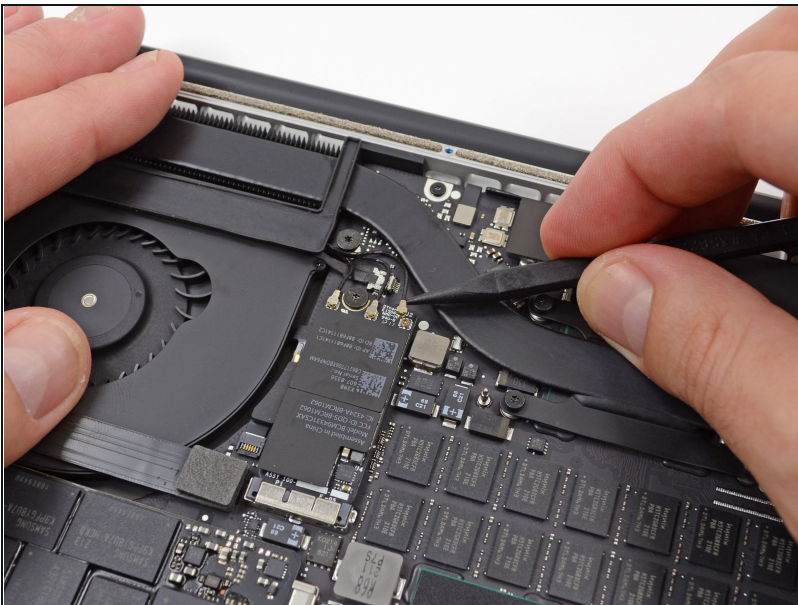## Step 3 — Battery Connector

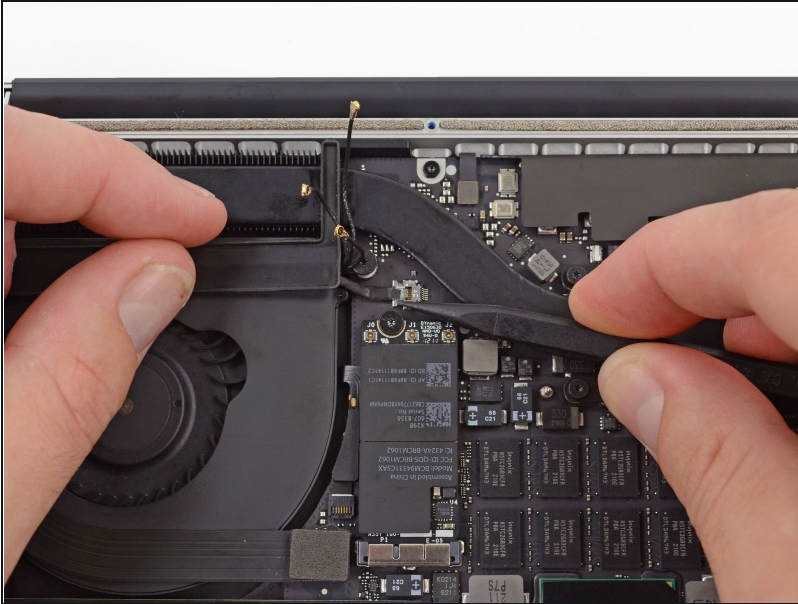- Peel back the warning label covering the battery connector.

Step 4

- Using the flat end of a spudger, gently pry the battery connector straight up out of its socket on the logic board.

- Bend the battery cables back and out of the way, ensuring that the battery connector doesn't accidentally make contact with the logic board.

Step 5 — AirPort/Camera Cable

- Use a spudger or tweezers to pry the three AirPort antenna cables straight up off of their sockets on the AirPort board.

  ⚠ The cable connection points are fragile. Be careful to lift only on the connector, and not on the socket or cable.

- 📌 To reconnect, align the connector carefully into position over the socket, and press it down firmly with the flat of your spudger.
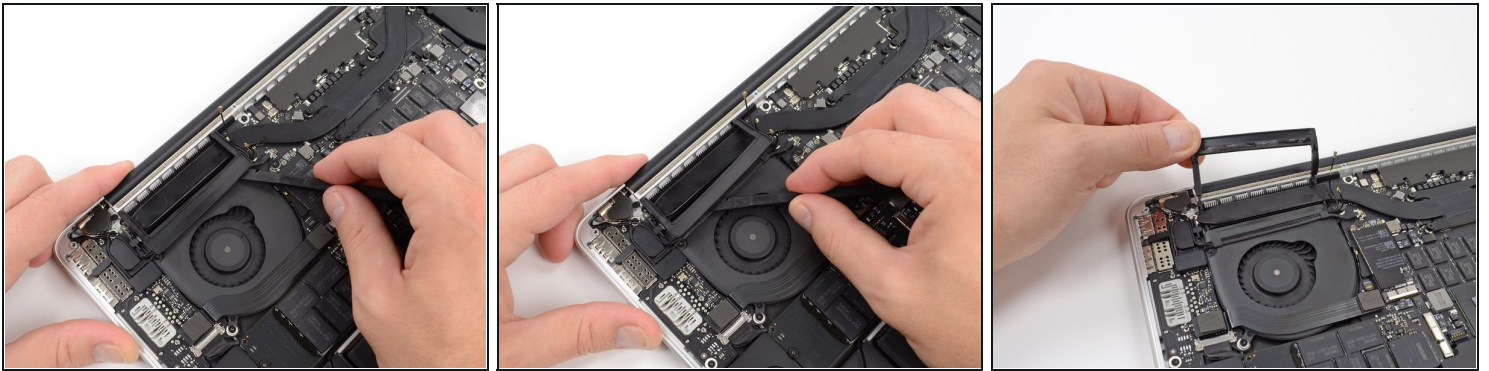
- Use the tip of a spudger to push the camera cable's plug toward the fan and out of its socket on the logic board.

  - ⓘ The plug in the photo has six connections, but some models have twelve connections. The process of removing the plug from its socket is the same for both.

  - ⓘ If the camera cable's plug won't come easily out of its socket on the logic board, fold back the rubber cover over the fan to gain access to the cable, then gently pull on the cable while using the spudger to gently push the plug out of its socket.
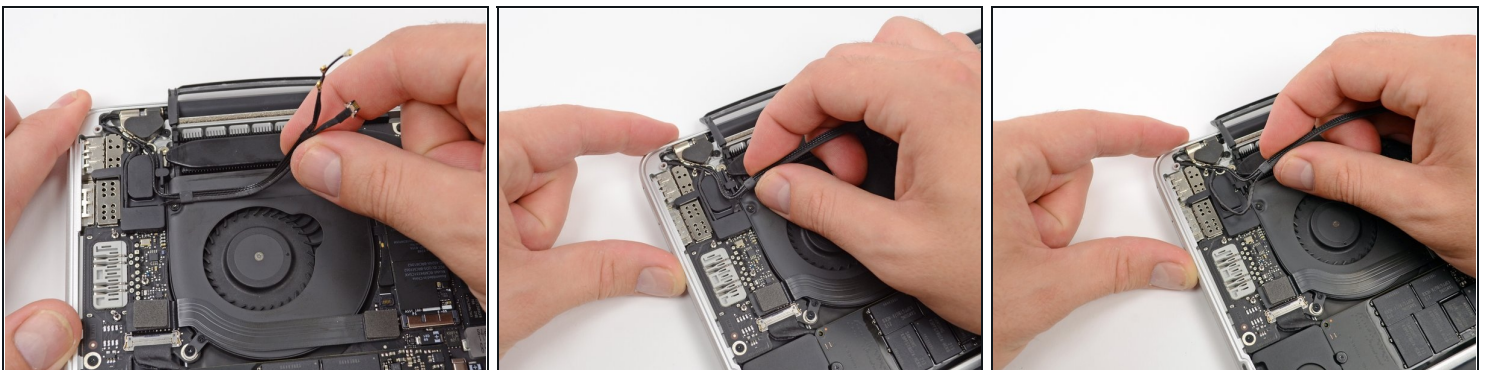
  - ⚠ Be sure to push parallel to the board, first on one side, then the other, to slowly "walk" the plug out of its socket. Do not pry up, or you will damage the socket.
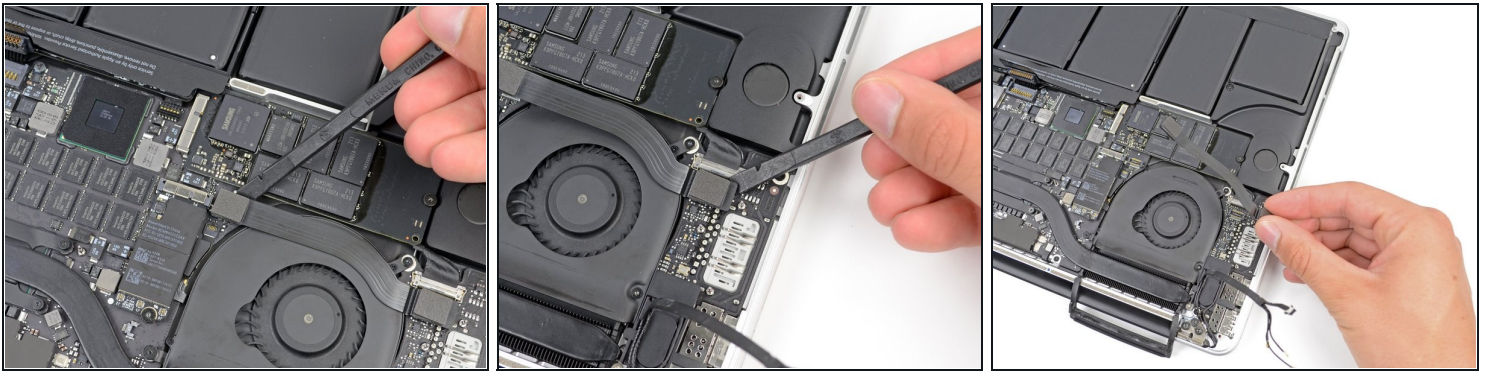
Step 7

- Insert the flat end of a spudger underneath the rubber heat sink cover on the right fan.

- Slide the spudger underneath the length of the cover, releasing the adhesive.

- Lift the cover and flip it back so that you can access the cables underneath.

Step 8

- Use your fingers to pull the AirPort/Camera cables up off the fan.
  - ⓘ The cables are adhered to the fan, so peel them up carefully to avoid damaging them.

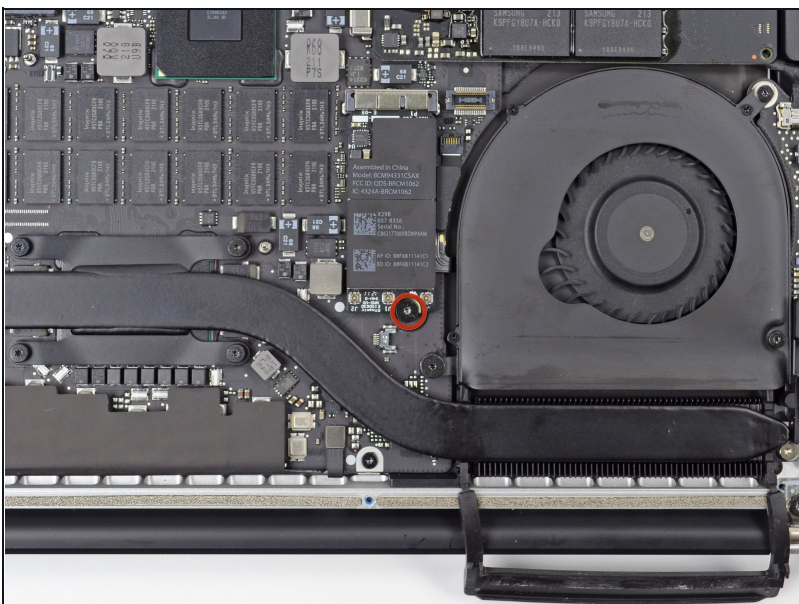- Carefully de-route the cables from the plastic cable guide.

Step 9 — I/O Board Cable

- ⓘ If your I/O Board cable's connectors have [notches in the padding](#), you will need to **release a locking lever underneath the notch** in order to remove the cable. If this is the case, **don't pry up on the connector until the levers are unlatched**.
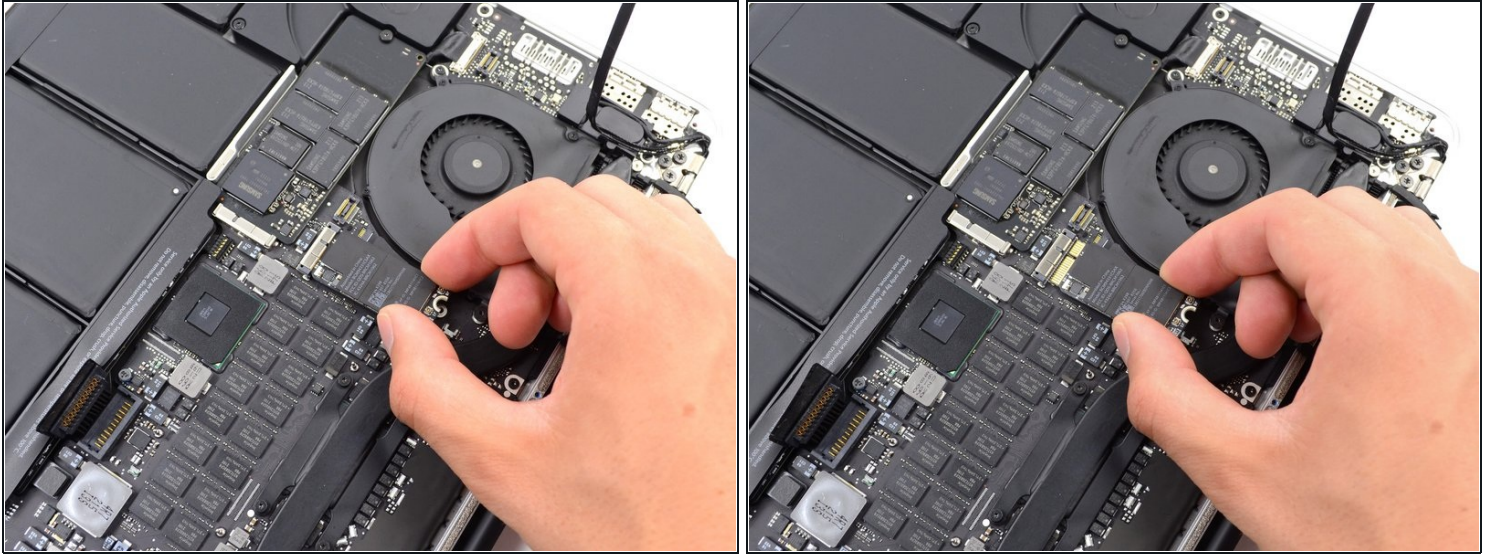
- Using the flat end of a spudger, pry the I/O Board connector straight up out of its socket on the logic board.

  - 📌 During reassembly, connect this end first, as it does not flex.

- In a similar fashion, remove the I/O Board cable connector from its socket on the I/O Board.

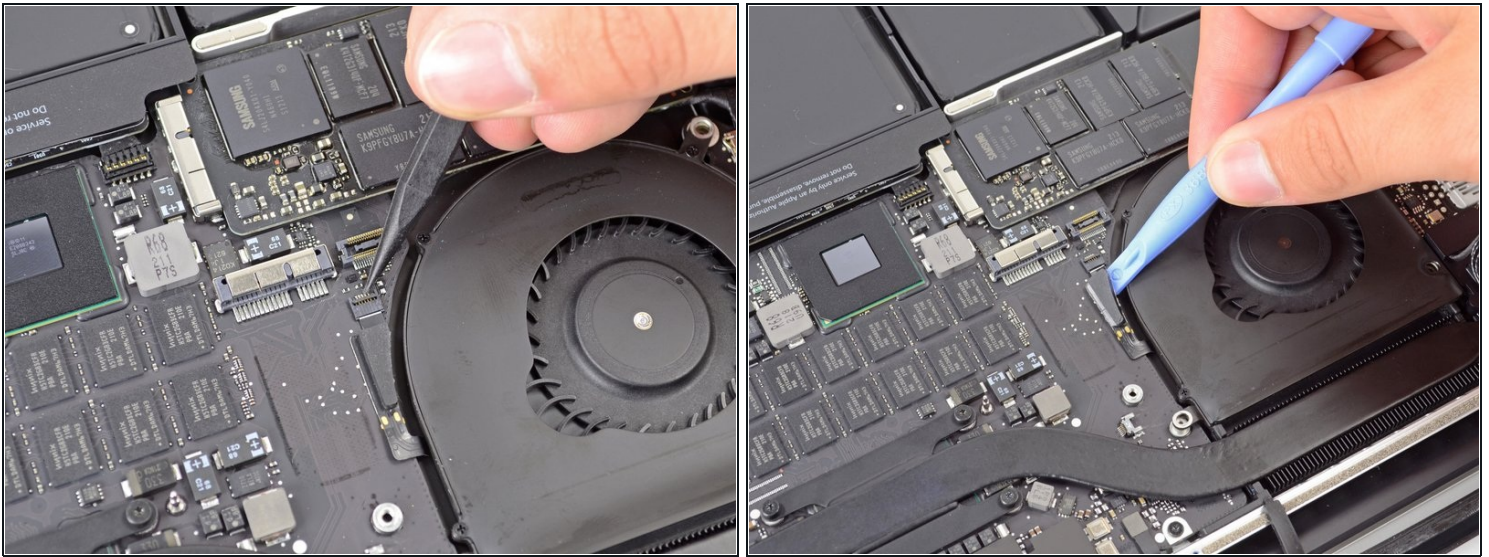- Remove the I/O Board cable from the MacBook Pro.

Step 10 — Airport Card

- Remove the single 2.9 mm T5 Torx screw securing the AirPort card to the logic board.

- Grasp the sides of the AirPort card and lift it up to a shallow angle (5-10˚) to separate the light adhesive adhering it to the logic board.

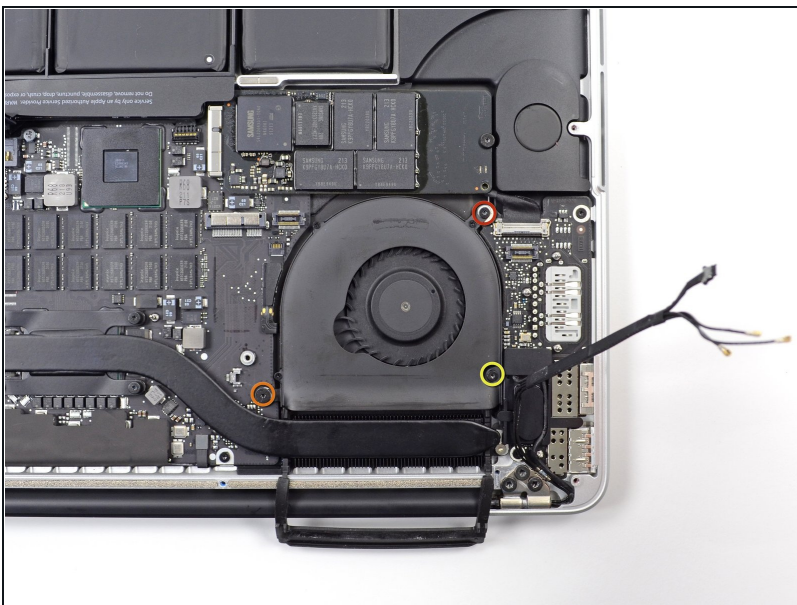- Pull the AirPort card parallel out of its connector on the logic board to remove it.

- Use the tip of a spudger to flip up the retaining flap on the right fan ribbon cable <u>ZIF</u> socket.

⚠ Be sure you are prying up on the hinged retaining flap, **not** the socket itself.

- Starting at the top of the cable, slide a plastic opening tool under the right fan cable to free it from the logic board.
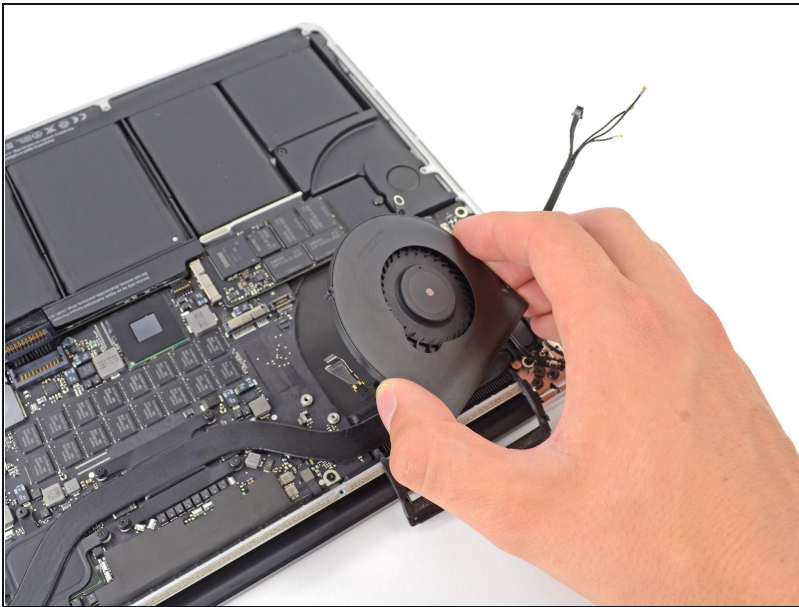
⚠ Use caution when freeing the cable, as it is strongly adhered to the logic board.

- Remove the following three screws securing the right fan to the logic board:
  - One 4.4 mm T5 Torx screw
  - One 3.9 mm T5 Wide Head Torx screw
  - One 5.0 mm T5 Torx screw with 2 mm collar

Step 14

- Lift and remove the right fan out from the MacBook Pro.

- 📌 When reinstalling the fan, it's easiest connect the fan ribbon cable as you drop the fan in place, rather than after you've installed the three fan screws.

Step 15 — I/O Board

- Use the point of a spudger to flip up the locking mechanism on the I/O board connector.

- Flip the spudger around and use the flat end to slide the I/O cable out of the connector.
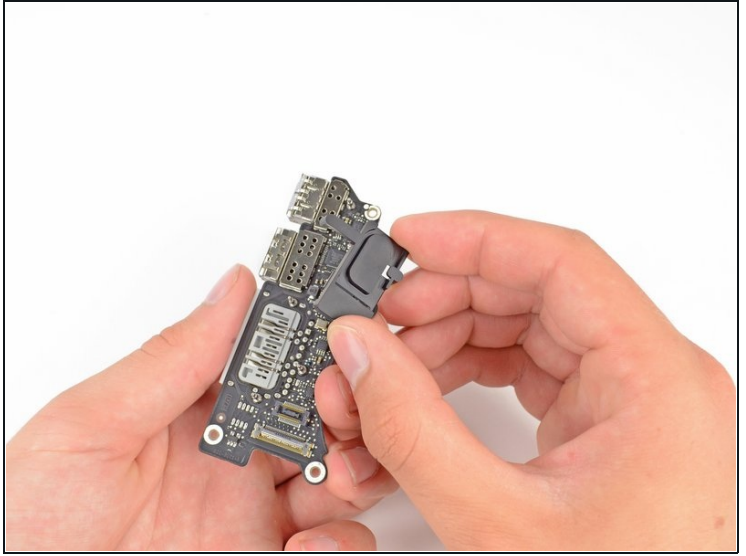
Step 16

- Remove the two 3.1 mm T5 Torx screws from the I/O board.

Step 17

- Lift the I/O board straight up, out of the device.

Step 18

- With the flat of a spudger, release the clip on the right side of the plastic I/O cover.

- After releasing the clip, you can easily lift the cover off of the board.

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