

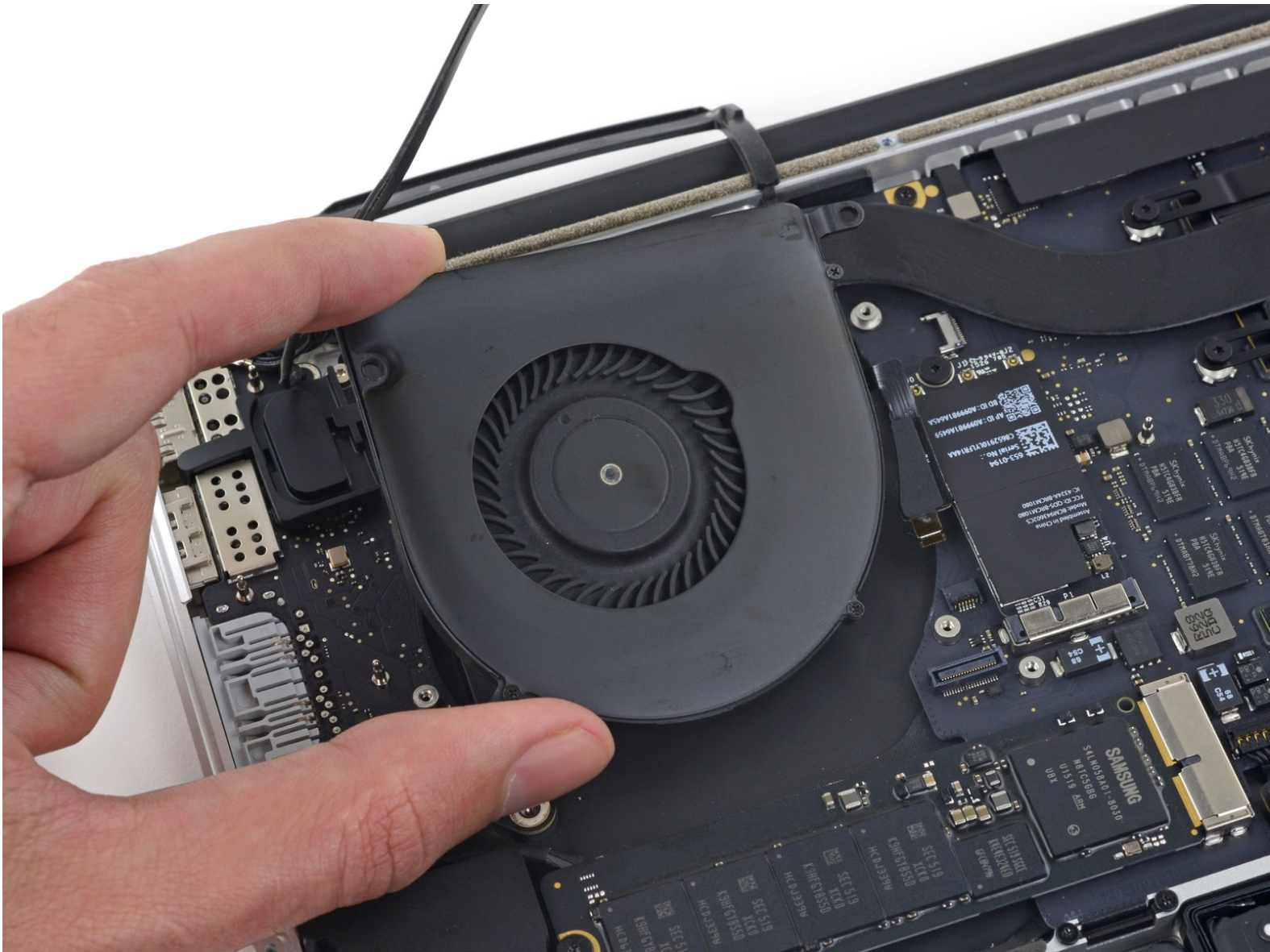


# MacBook Pro 15" Retina Display Mid 2015

## Right Fan Replacement

Replace the Right Fan in your MacBook Pro 15" Retina Display Mid 2015.

Written By: Andrew Optimus Goldheart



## INTRODUCTION

Use this guide to help you replace a damaged, broken, or faulty right fan.

Note that the right fan is on the right of the machine while you're using it, and on the left while you're working on it.



### TOOLS:

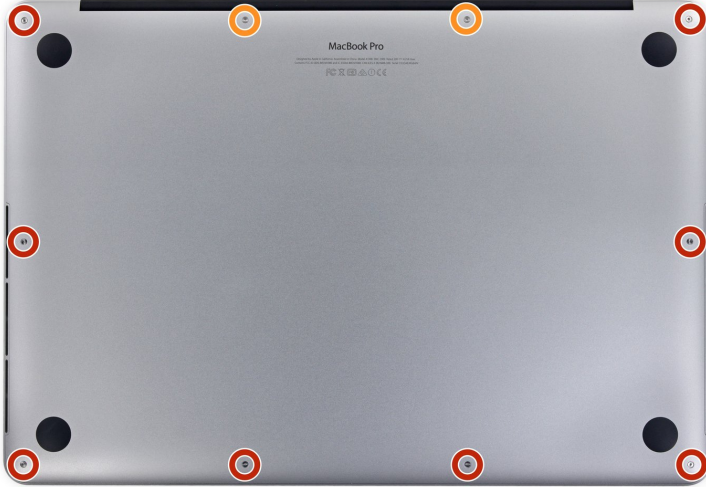
- [P5 Pentalobe Screwdriver Retina MacBook Pro and Air](#) (1)
- [Spudger](#) (1)
- [T5 Torx Screwdriver](#) (1)
- [Tweezers](#) (1)



### PARTS:

- [MacBook Pro 15" Retina \(Late 2013-Mid 2015\) Right Fan](#) (1)

## Step 1 — Lower Case



- Remove the following P5 pentalobe screws securing the lower case to the MacBook Pro:
  - Eight 3.1 mm
  - Two 2.3 mm

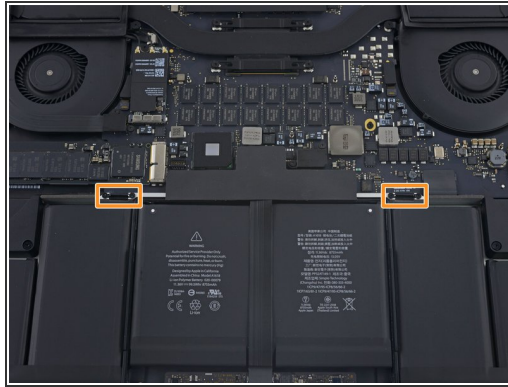
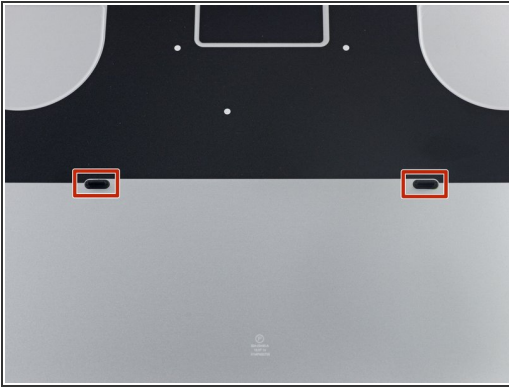
## Step 2





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

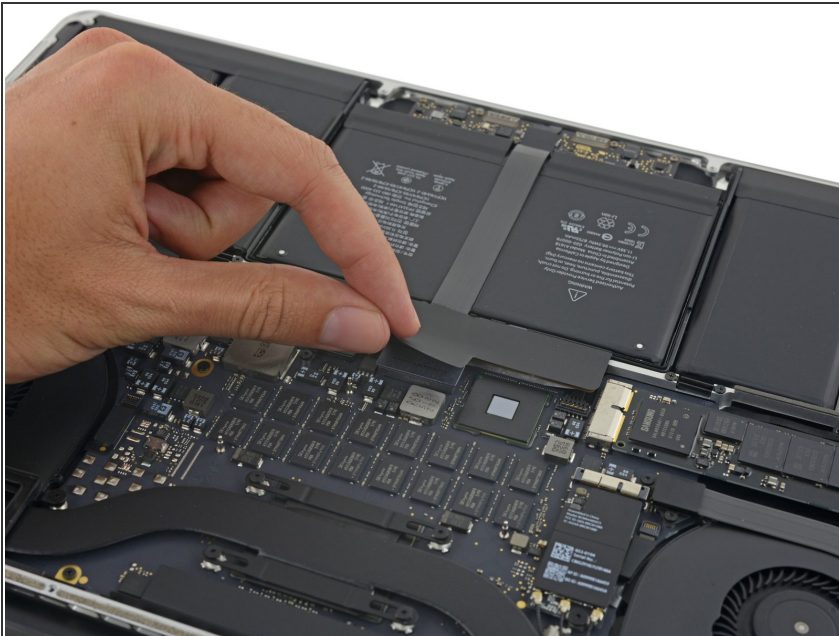


## Step 3



-  The lower case has two plastic pegs (red) that fit into plastic clips in the upper case (orange).
-  During reassembly, gently push down the center of the lower case to reattach the case to its two plastic clips.

## Step 4 — Battery Connector



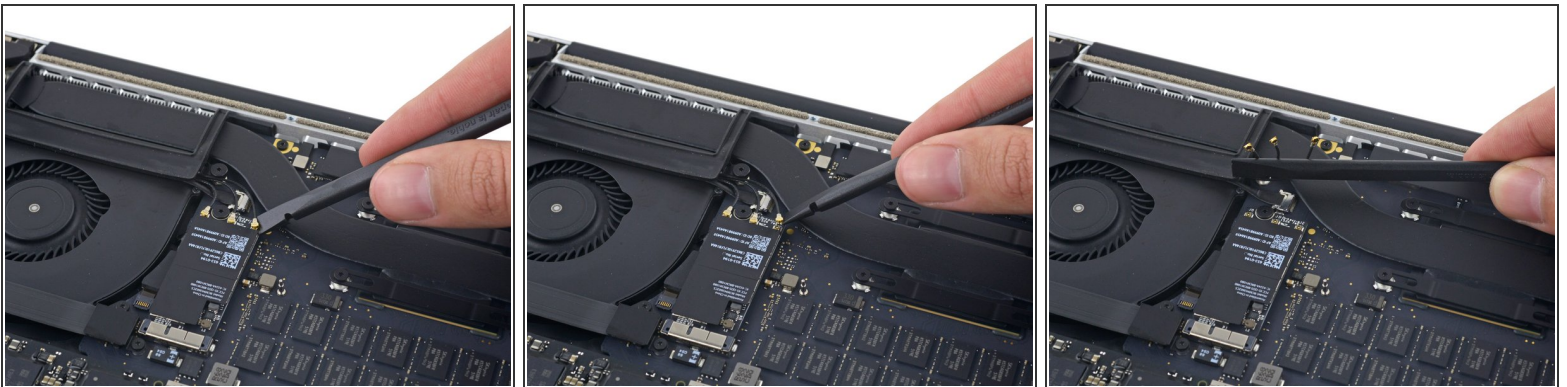
- Peel back the sticker covering the battery connector.

## Step 5





- Gently lift each side of the battery connector to pry the connector out of its socket on the logic board.
- Bend the connector back toward the battery, ensuring that the battery connector doesn't accidentally make contact with the logic board.

## Step 6 — AirPort/Camera Cables



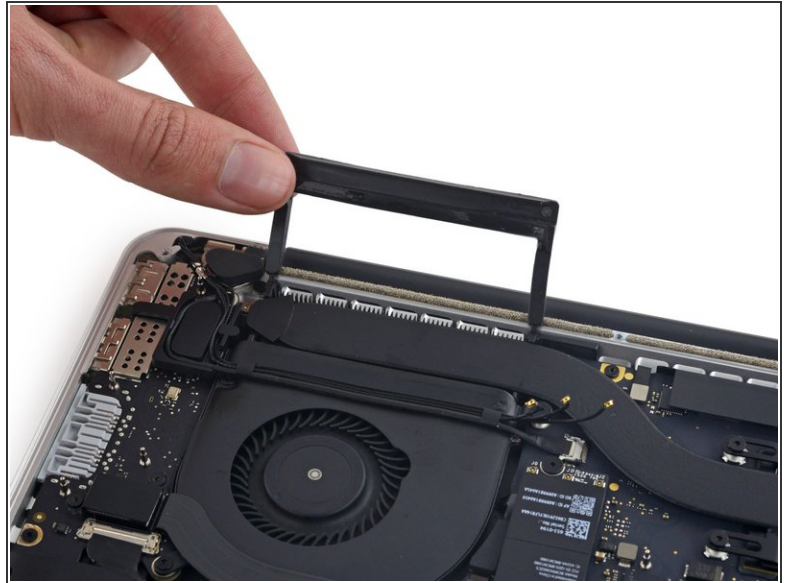
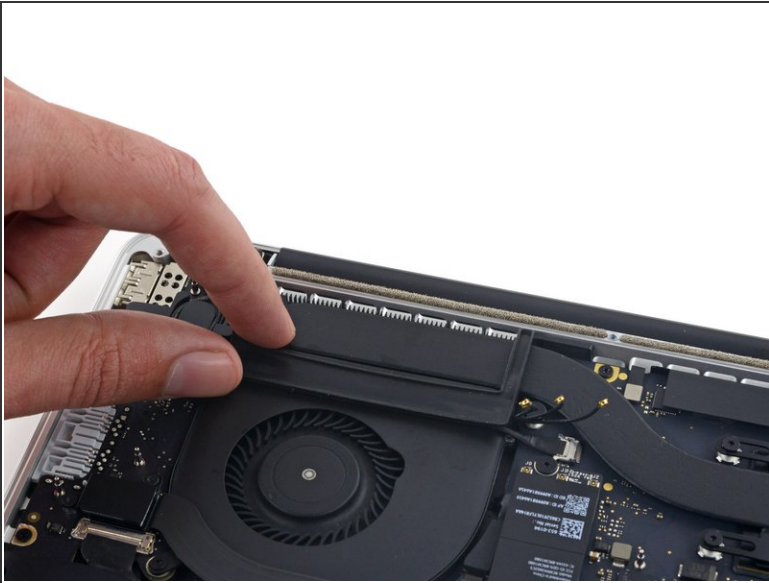
- Use a spudger or tweezers to pry the three AirPort antenna cables straight up off of their sockets on the AirPort board, and bend them up and out of the way.

 The cable connection points are **very** 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.

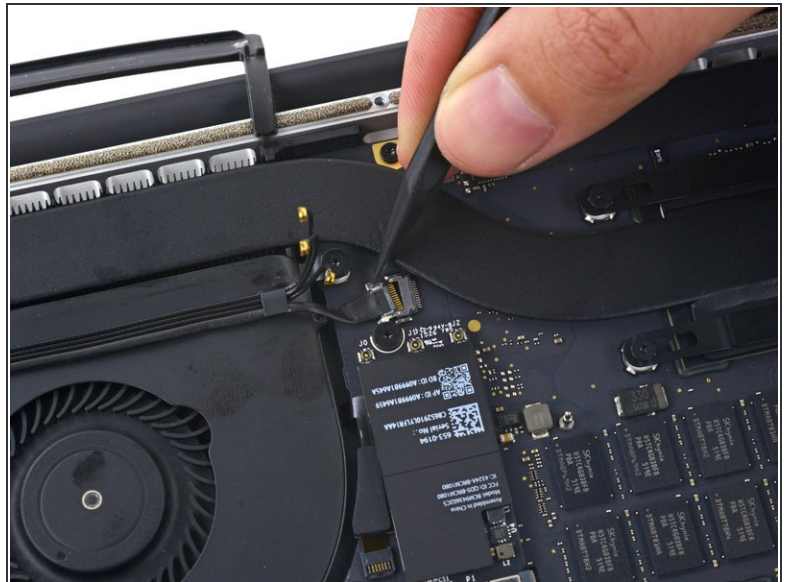
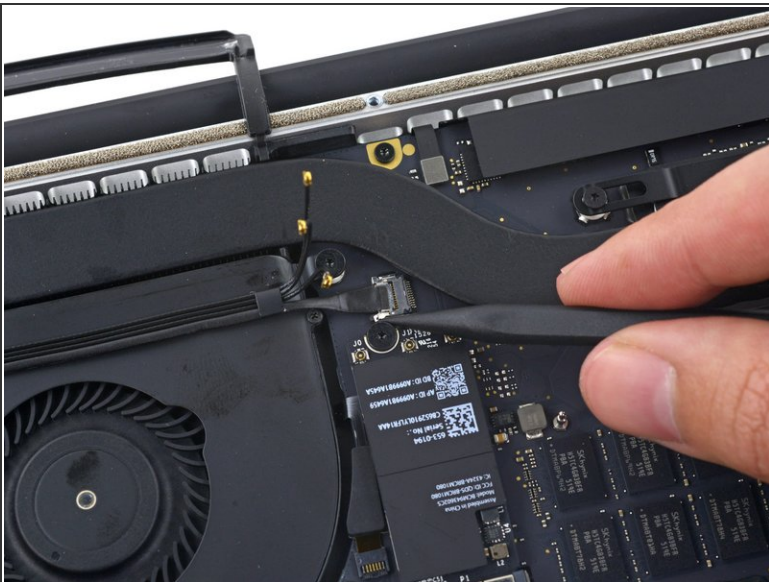


## Step 7



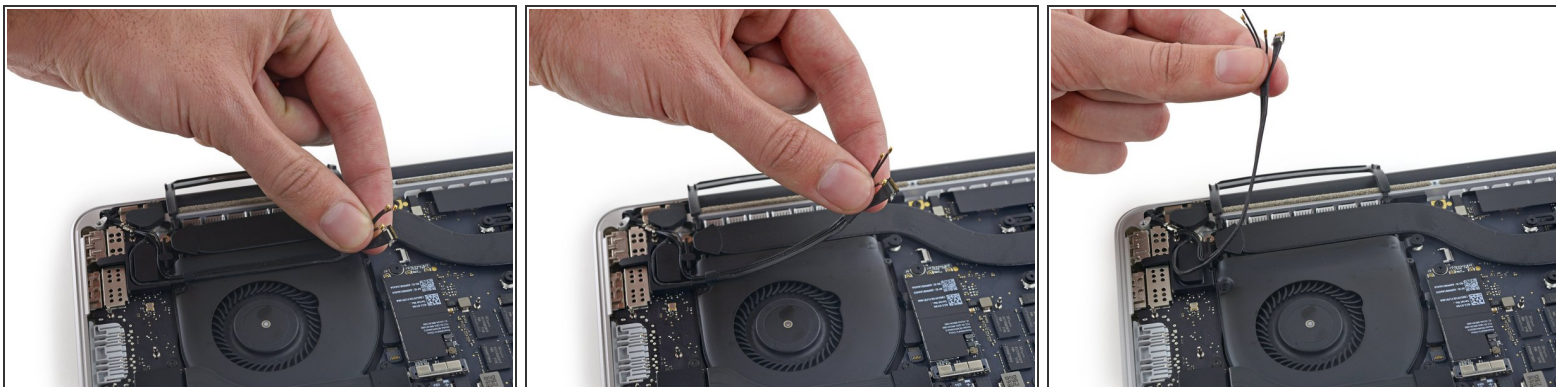
- Peel the right rubber cover up off the fan and fold it out of the way.

## Step 8



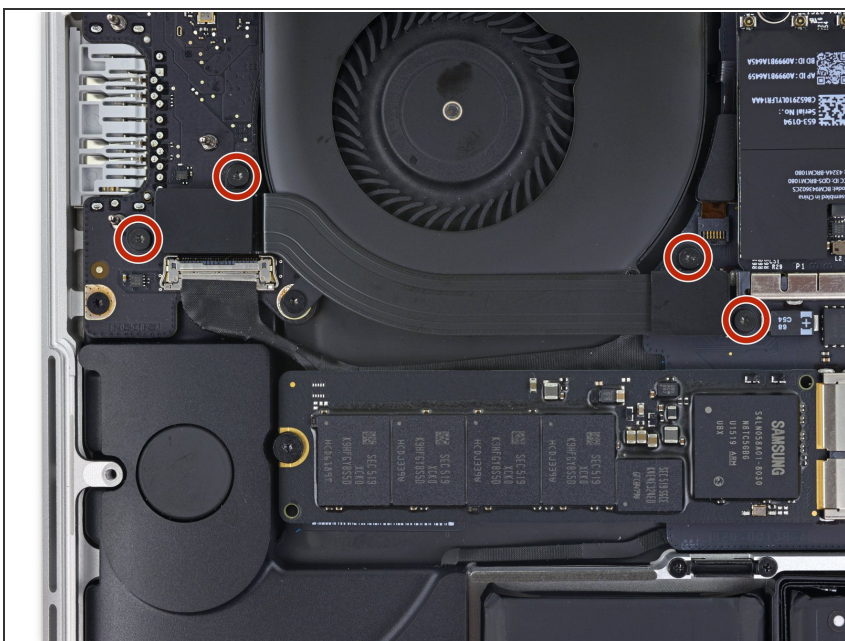
- Use the tip of a spudger to push the camera cable connector out of its socket on the logic board.
  - ⓘ Be sure to push parallel to the board, pushing first on one side, then the other to "walk" the connector out of its socket.

## Step 9



- 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.
- 🔧 On reassembly, there should be enough adhesive still on these cables to stick them back down to the fan.

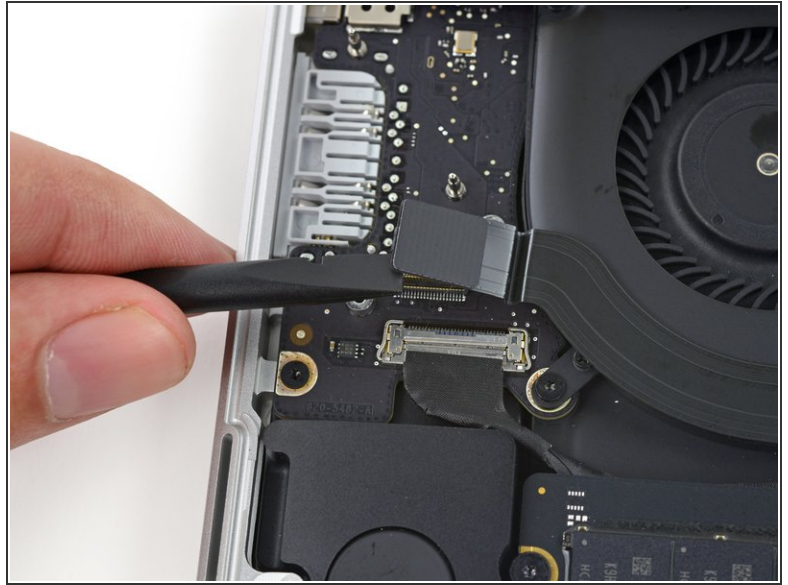
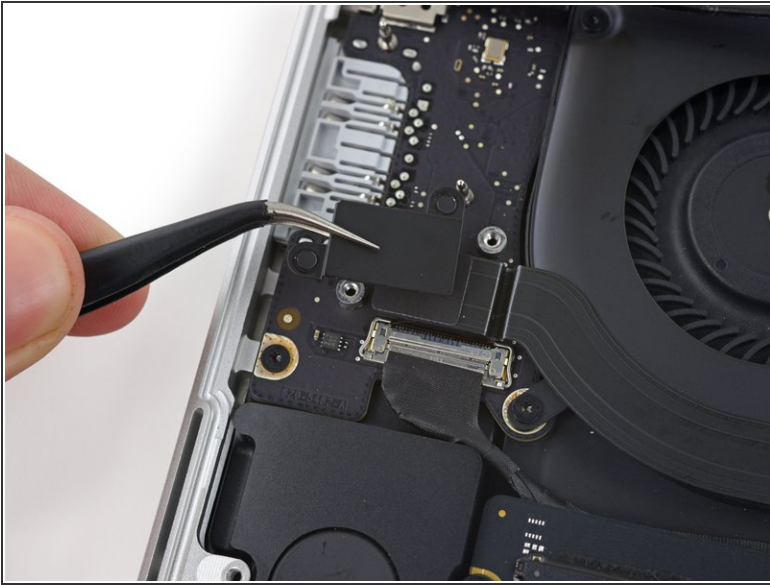
## Step 10 — I/O Board Cable (Top)



- Remove the four 2.2 mm T5 Torx screws securing the I/O board cable connector covers.



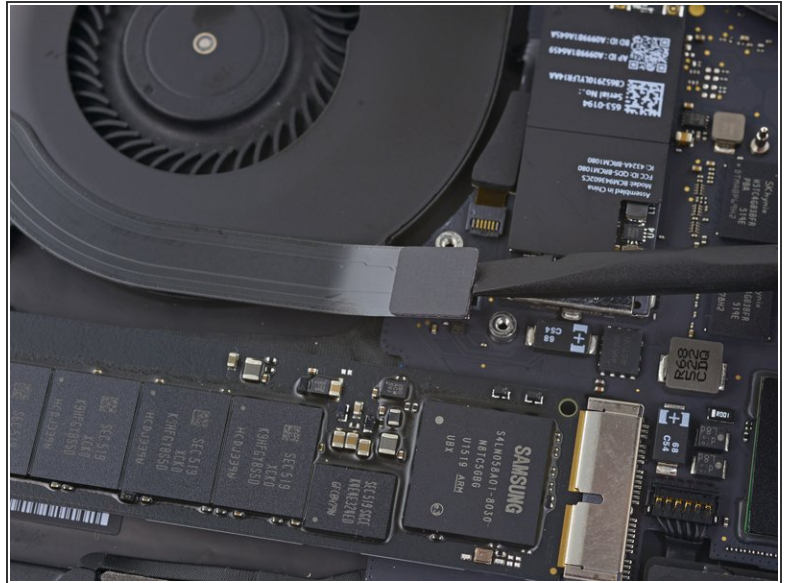
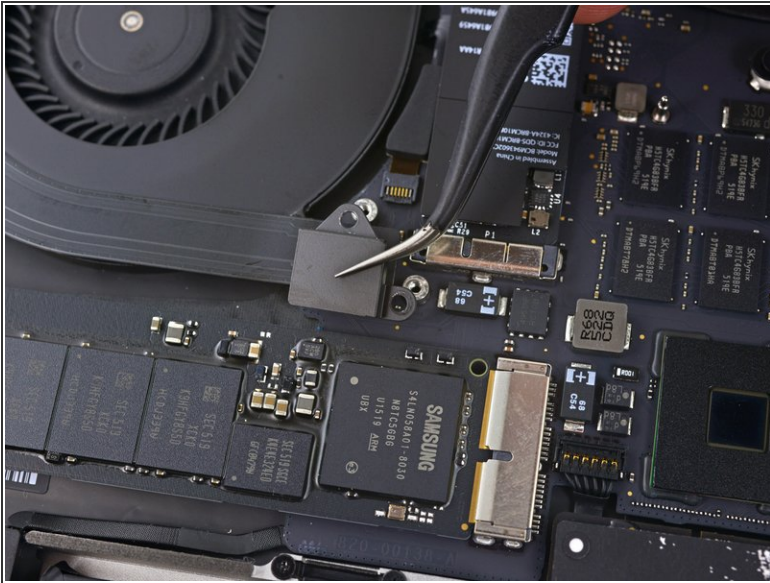
## Step 11



- Remove the left connector cover.
- Use the flat end of a spudger to pry the left end of the I/O board cable up from its socket on the logic board.

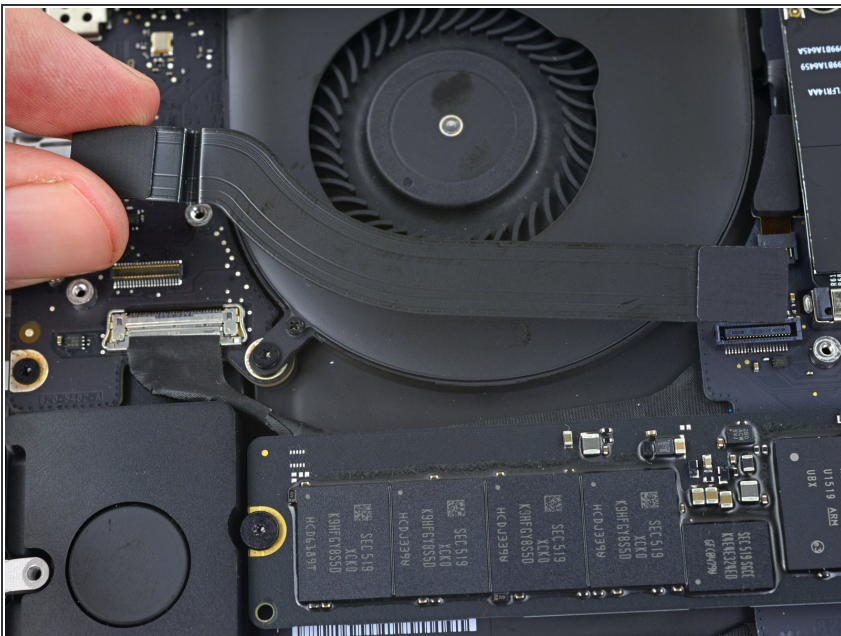


## Step 12



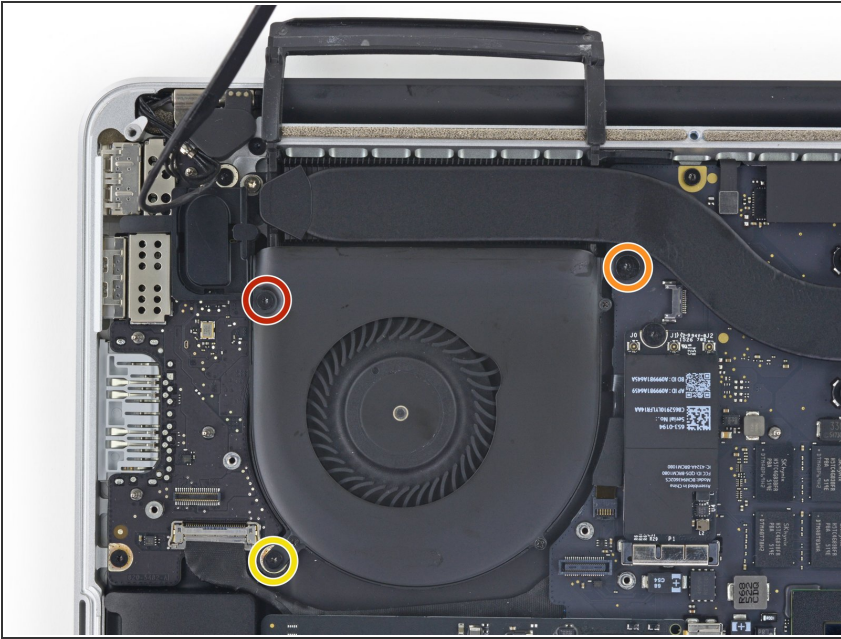
- Remove the right connector cover.
- Use the flat end of a spudger to pry the right end of the I/O board cable up from its socket on the logic board.

## Step 13



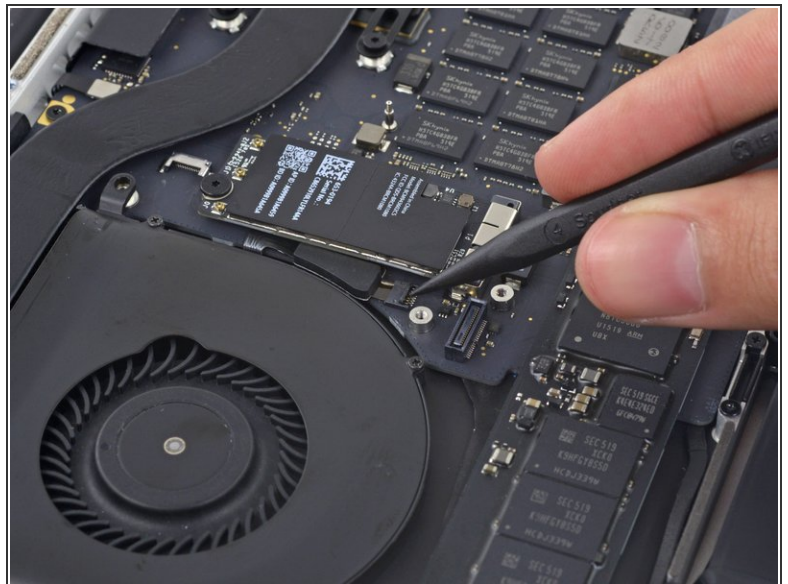
- Peel the top I/O board cable up from the adhesive securing it to the fan.
- Remove the cable.

## Step 14 — Right Fan



- Use a T5 Torx driver to remove the following three screws securing the right fan to the logic board:
  - One 5.0 mm screw with a 2.0 mm long shoulder
  - One 4.0 mm screw with a wide head
  - One 4.4 mm screw

## Step 15

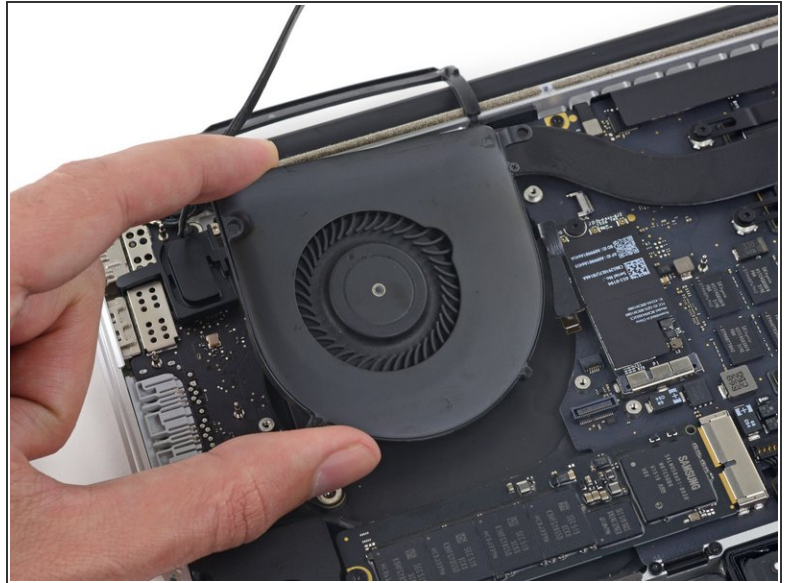
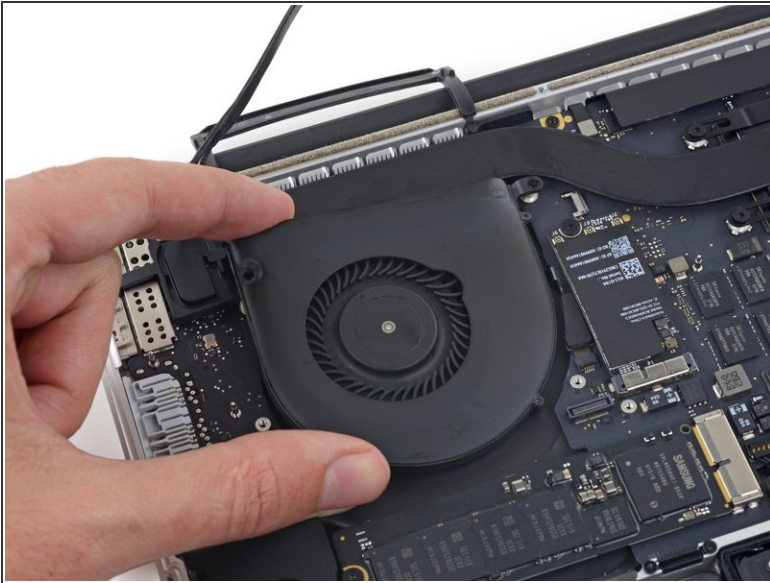


- Use the tip of a spudger to flip up the retaining flap on the right fan ribbon cable ZIF socket.

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



## Step 16



- Lift the fan and push it gently towards the back edge of the MacBook to free the fan cable from its socket.
  - ⚠ The fan cable may be adhered to the logic board—to avoid tearing the cable, gently peel it up while lifting the fan.
- Remove the fan.

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