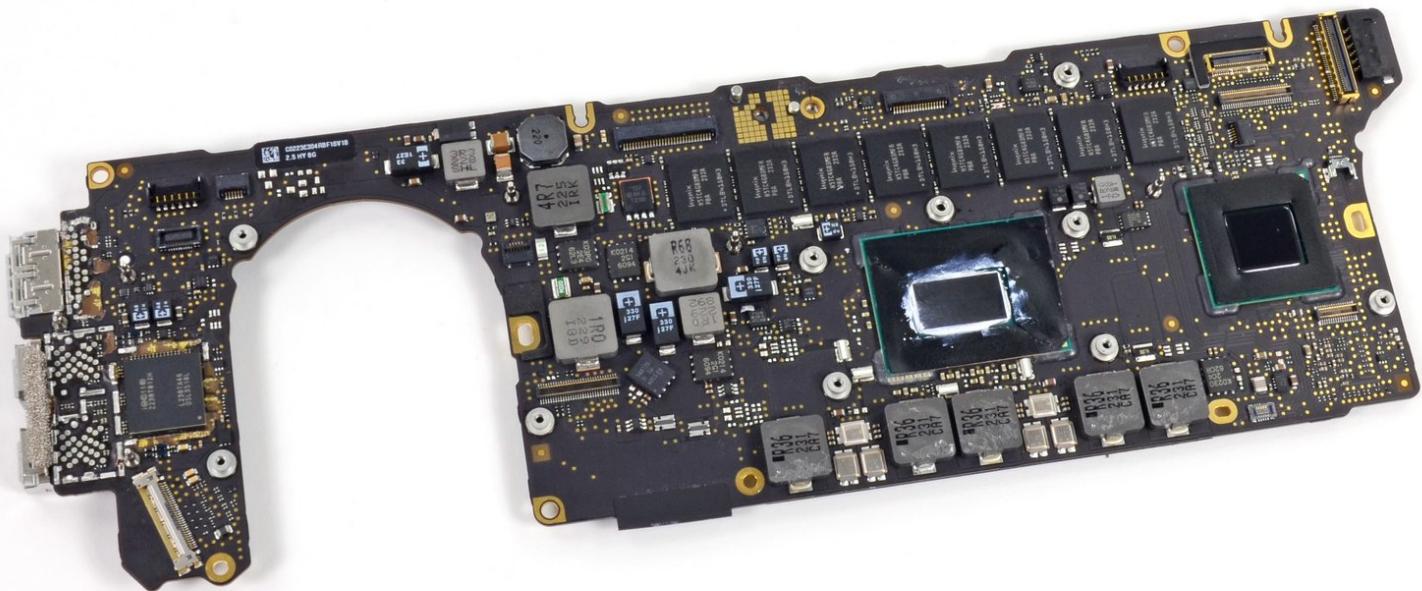




MacBook Pro 13" Retina Display Late 2012 Logic Board Replacement

Replace the Logic Board in your MacBook Pro 13" Retina Display Late 2012.

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INTRODUCTION

Use this guide to replace the logic board.

TOOLS:

- MacBook Pro and Air 5-Point Pentalobe Screwdriver (1)
- Phillips #00 Screwdriver (1)
- iFixit Opening Tools (1)
- Spudger (1)
- T5 Torx Screwdriver (1)
- T6 Torx Screwdriver (1)
- Tweezers (1)

PARTS:

- MacBook Pro 13" Retina 2.5 GHz Logic Board (1)
- MacBook Pro 13" Retina (Late 2012) 2.9 GHz Logic Board (1)
- MacBook Pro 13" Retina (Late 2012 Early 2013) Screw Set (1)

Step 1 — Lower Case



- Remove the following ten screws securing the lower case to the upper case:
 - Two 2.3 mm P5 Pentalobe screws
 - Eight 3.0 mm P5 Pentalobe screws

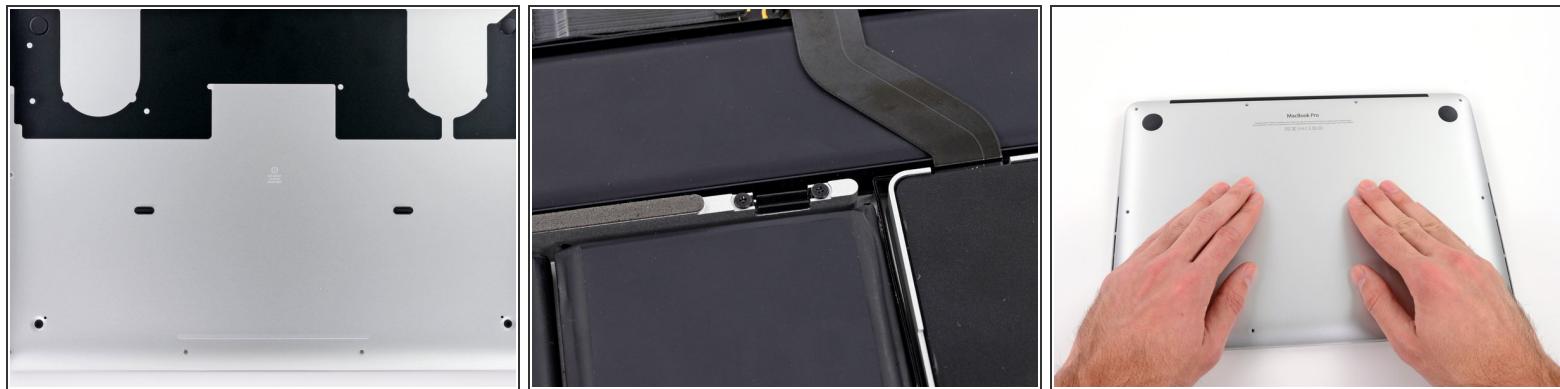
 Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from to avoid damaging your device.

Step 2



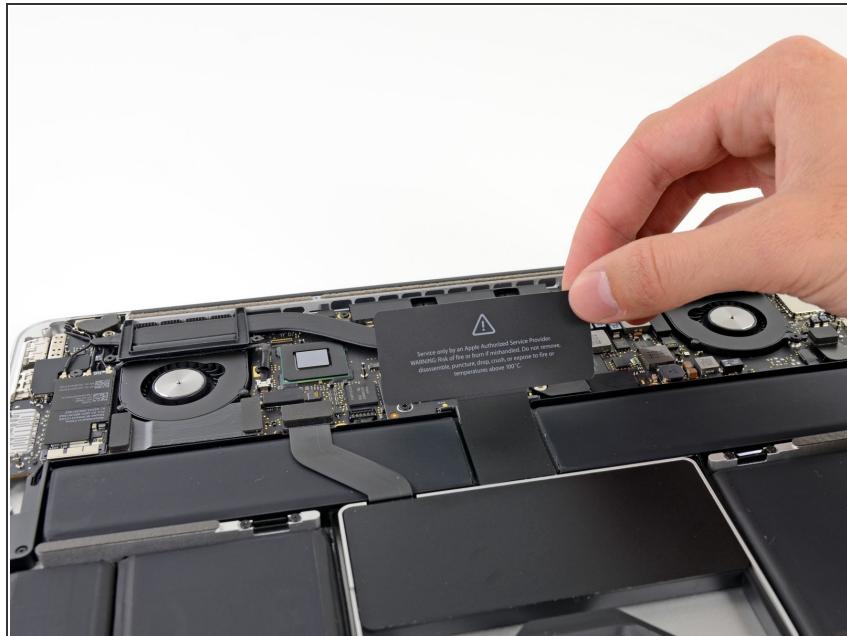
- Wedge your fingers between the upper case and the lower case.
- Gently pull the lower case away from the upper case.
- Remove the lower case and set it aside.

Step 3



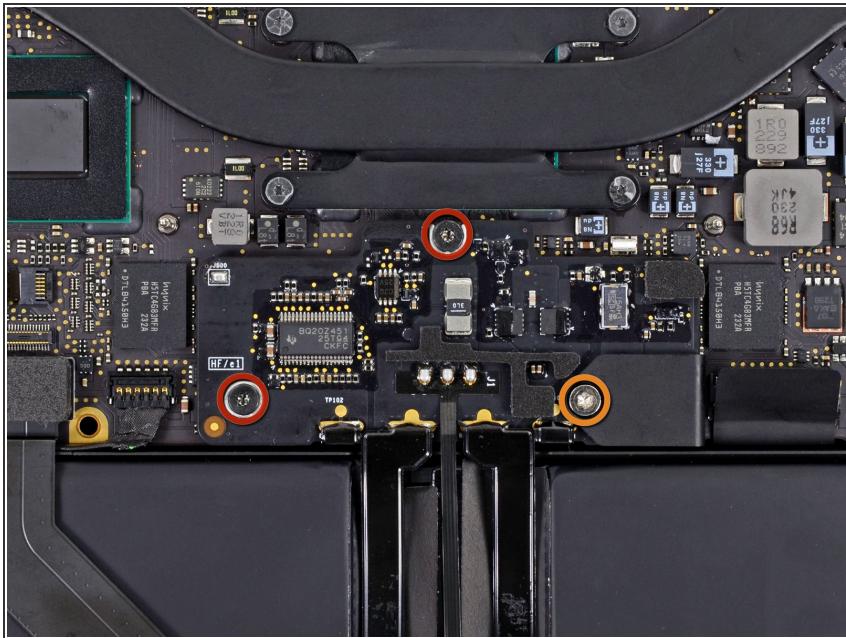
- ⓘ The lower case is connected to the upper case at the center, with two plastic clips.
- ⚡ During reassembly, gently push down the center of the lower case to reattach the two plastic clips.

Step 4 — Battery Connector



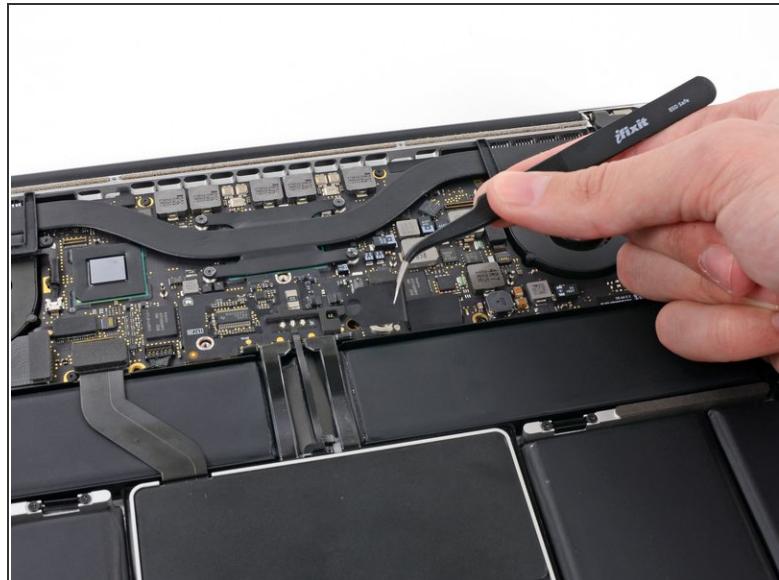
- Remove the plastic cover adhered to the battery contact board.

Step 5



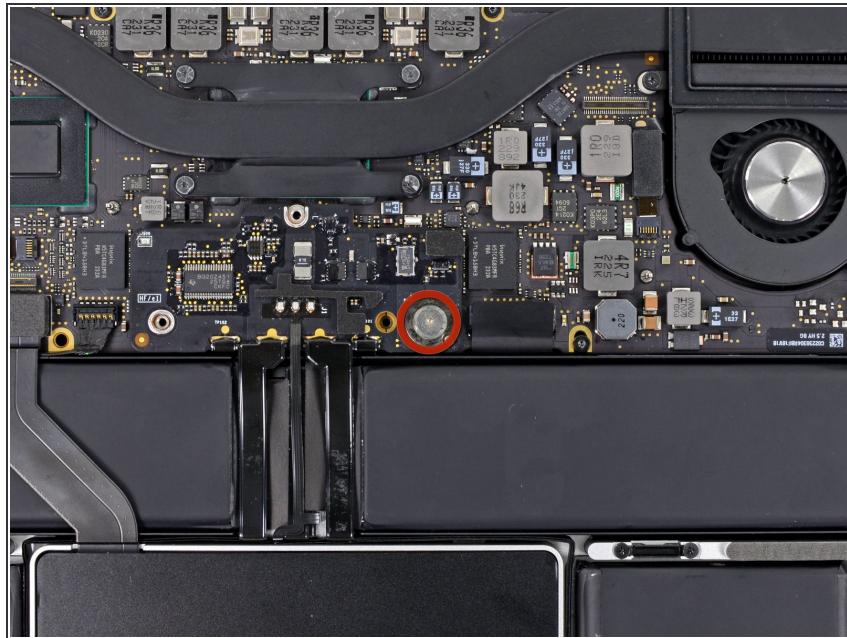
- Remove the following screws securing the battery connector board to the logic board:
 - Two 2.8 mm T6 Torx screws
 - One 7.0 mm T6 Torx shouldered screw

Step 6



- Use tweezers to remove the small plastic cover located near the bottom right of the battery connector board.

Step 7



- Remove the wide head 6.4 mm T6 Torx screw securing the battery connector to the logic board assembly.

Step 8

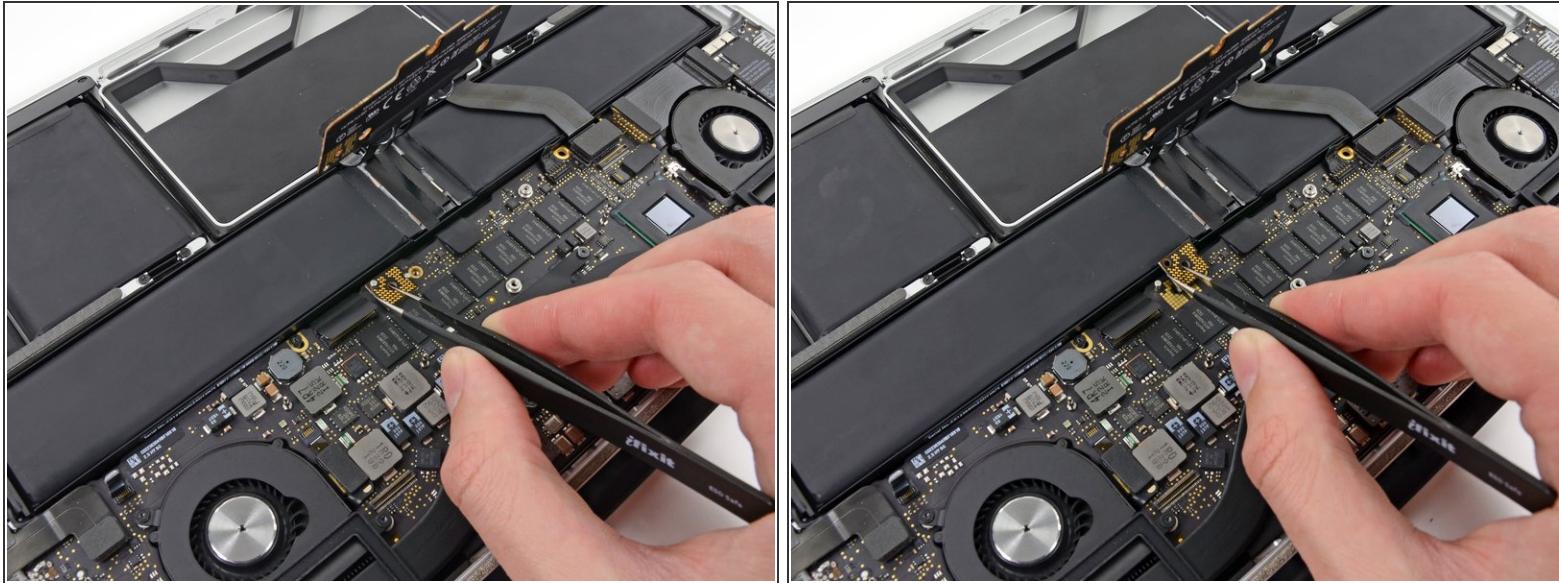


- Carefully lift the battery connector board up off the logic board.
- It is recommended to bend the battery cables just slightly, to keep the board suspended up above the logic board and out of the way.

⚠ Do not fold the board completely over, or crease the cables, as this may damage the battery.

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Step 9 — Battery Contact Board



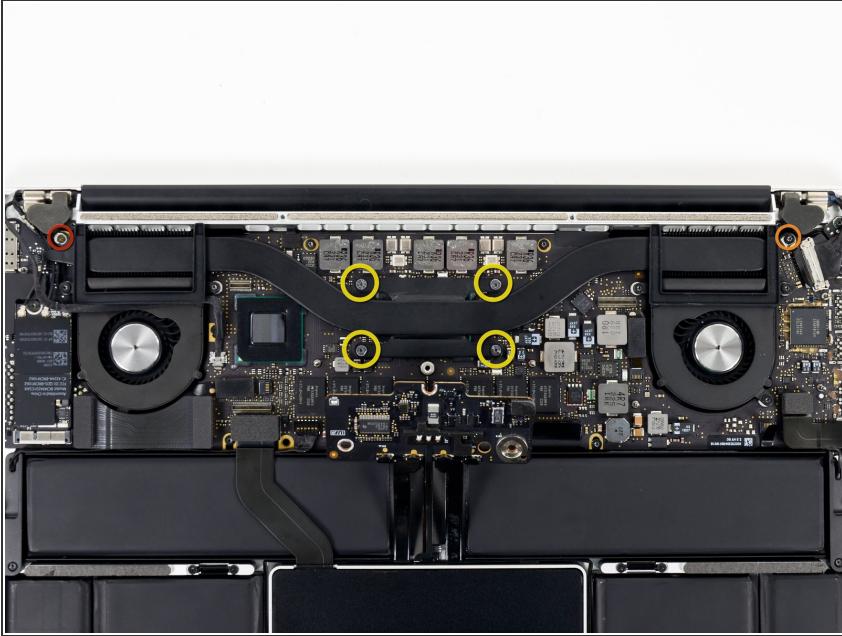
- Grasp the Interposer with tweezers.

(i) An interposer is the name for an interface that links one electrical connection to another. In this repair, it is the board connecting the battery to logic board.

- Lift the Interposer off the logic board and remove it.

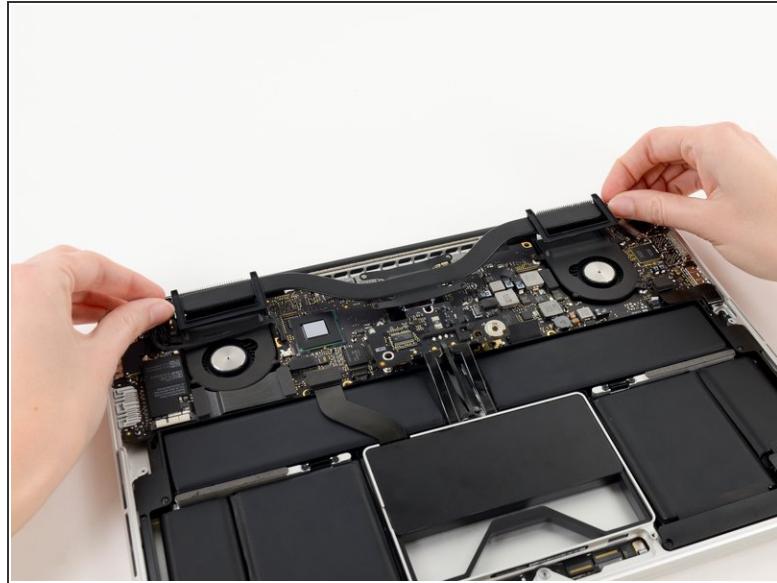
⚠ Removing this board will ensure that the battery remains disconnected throughout your repair, preventing your computer from accidentally powering on. It's also a good idea to take it out so it doesn't fall out unexpectedly.

Step 10 — Heat Sink Assembly



- Remove the following screws securing the heat sink to the logic board assembly:
 - One 2.4 mm Phillips #00 screw
 - One 3.4 mm T5 Torx screw
 - Four 2.7 mm T5 Torx screws

Step 11



- Lift and remove the heat sink up off the logic board assembly.

⚠ When reinstalling the heat sink, be sure to apply a new layer of [thermal paste](#). If you have never applied thermal paste before, we have a [guide](#) that makes it easy.

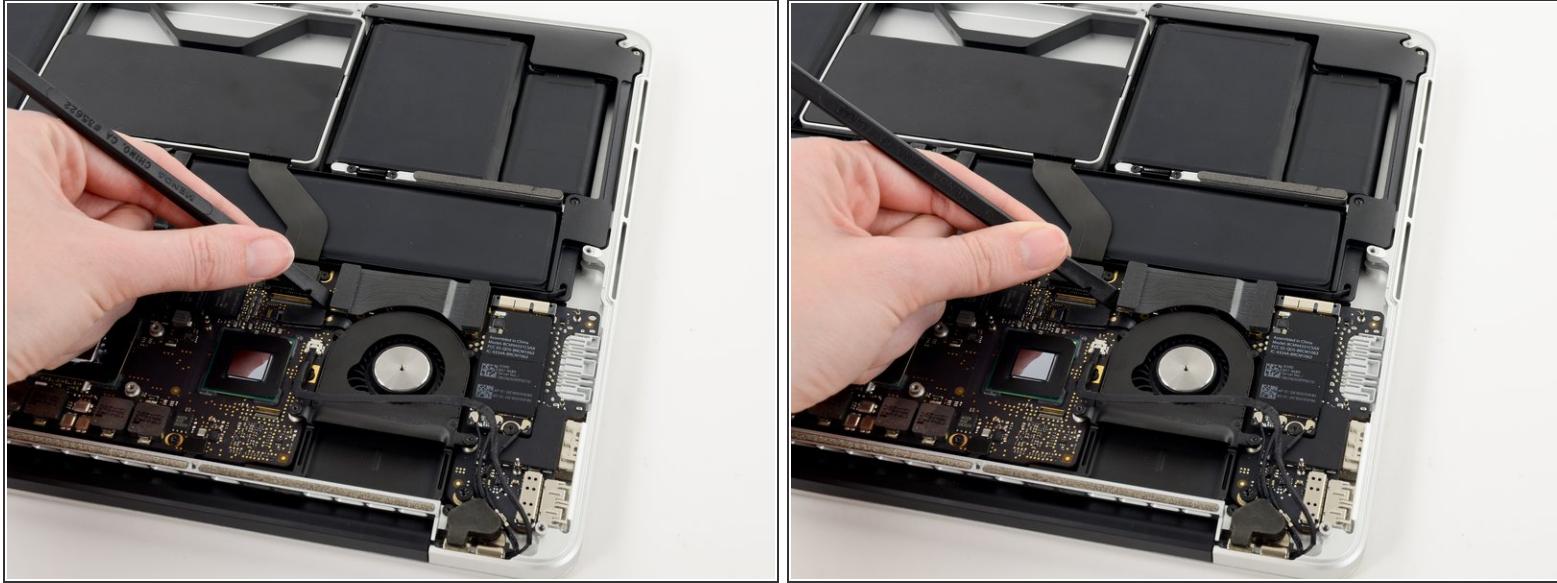
Step 12 — I/O Board Data Cable



- Use the flat end of a spudger to pry the right side of the I/O board data cable connector up off its socket on the I/O board.

⚠ When prying the I/O board data cable connector from its socket, make sure to pry the connector itself and **not** the socket. Prying the socket may cause irreversible damage to the I/O board.

Step 13



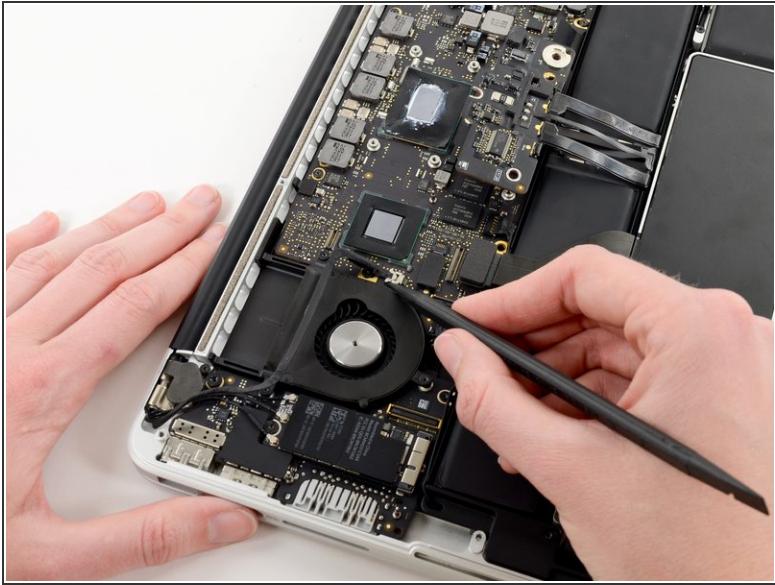
- Wedge the flat end of a spudger beneath the left side of the I/O board data cable connector.
- Gently twist the spudger to disconnect the I/O board data cable connector from its socket on the logic board.

Step 14



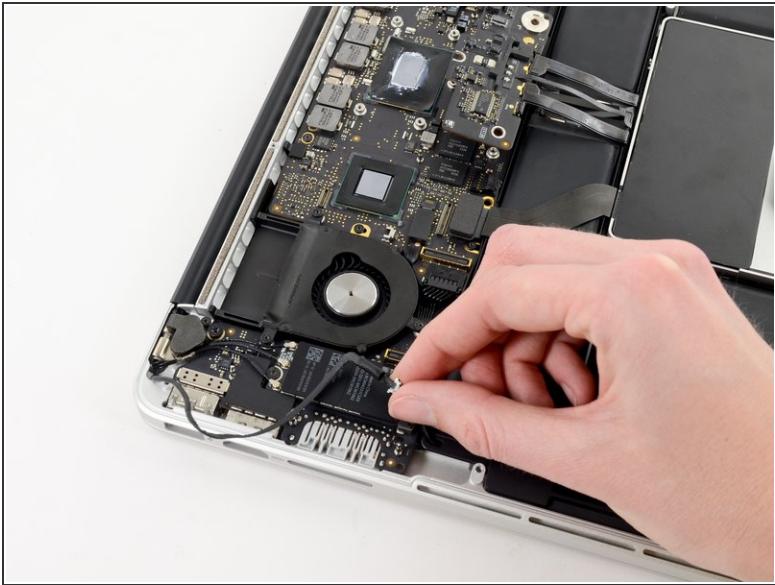
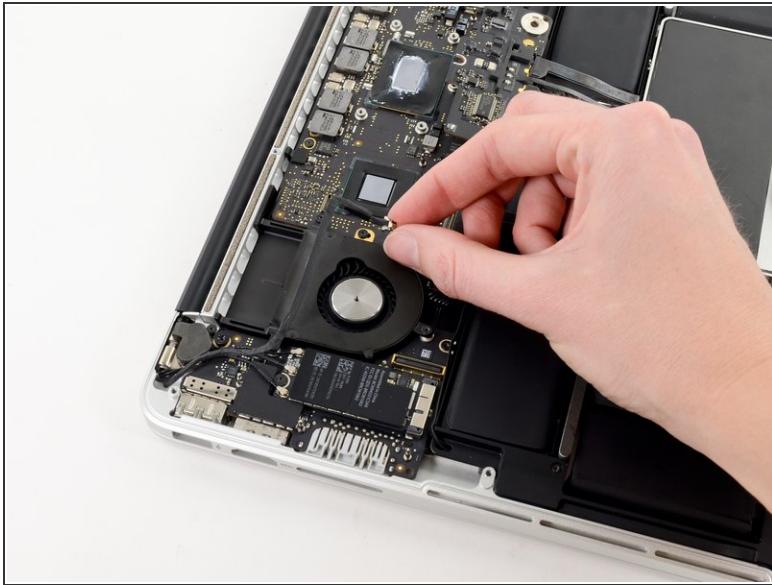
- Lift and remove the I/O board data cable from the MacBook Pro.

Step 15 — iSight Camera Cable



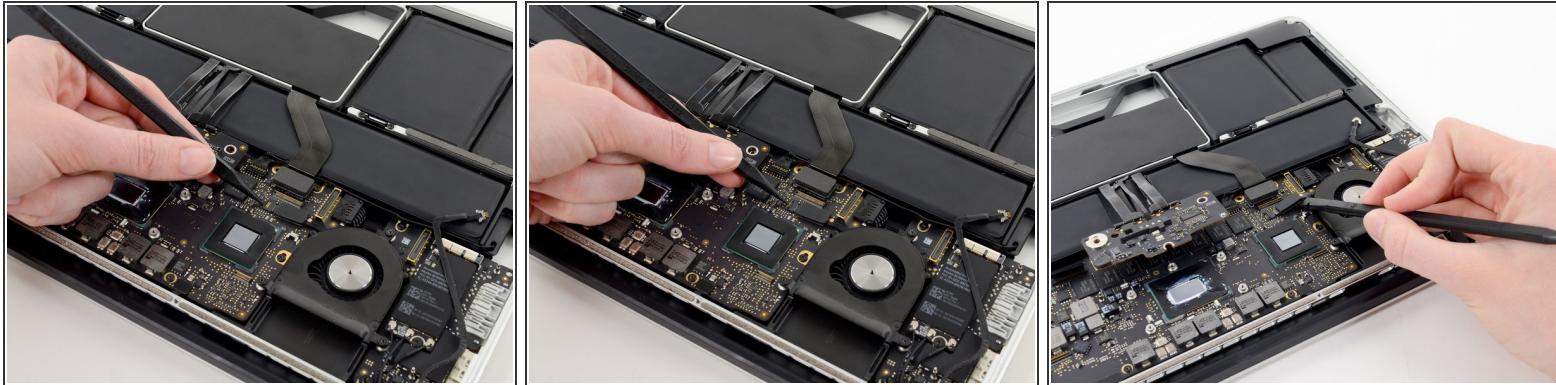
- Use the tip of a spudger to push the iSight camera cable connector straight away from its socket on the logic board.
(i) It is recommended to carefully push on both sides of the connector to "walk" it out of its socket.

Step 16



- Move the iSight camera cable aside.

Step 17 — Right Fan



- 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.
- Pull the right fan ribbon cable straight out of its socket on the logic board.

Step 18



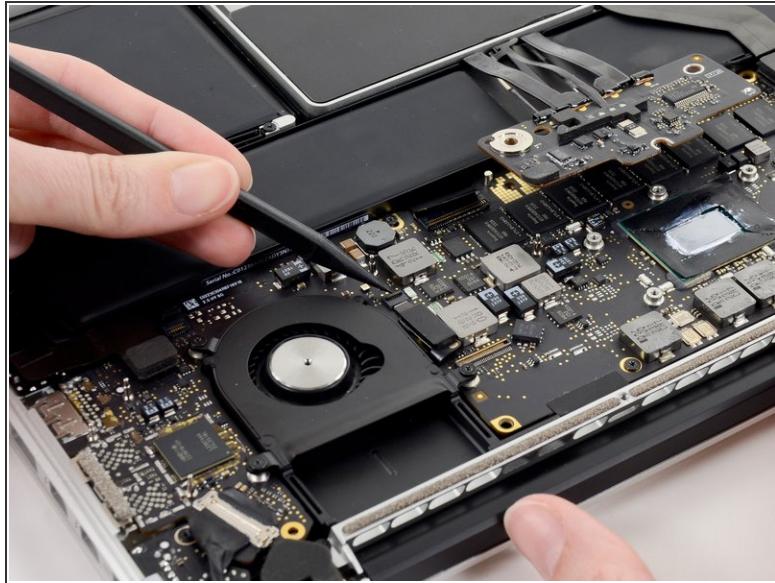
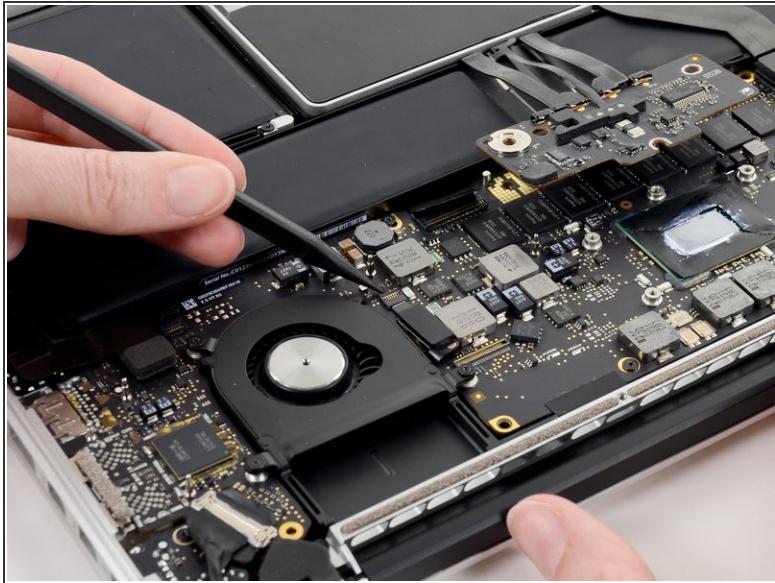
- Remove the three 3.1 mm T5 Torx screws securing the right fan to the logic board assembly.

Step 19



- Lift and remove the right fan out of the upper case.

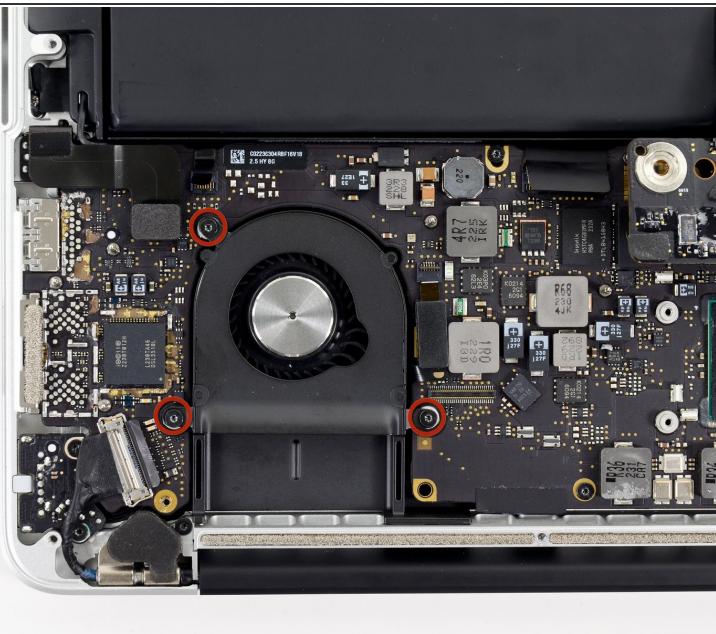
Step 20 — Left Fan



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

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

Step 21



- Remove the three 3.1 mm T5 Torx screws securing the left fan to the logic board assembly.

Step 22



- Lift and remove the left fan out of the upper case.

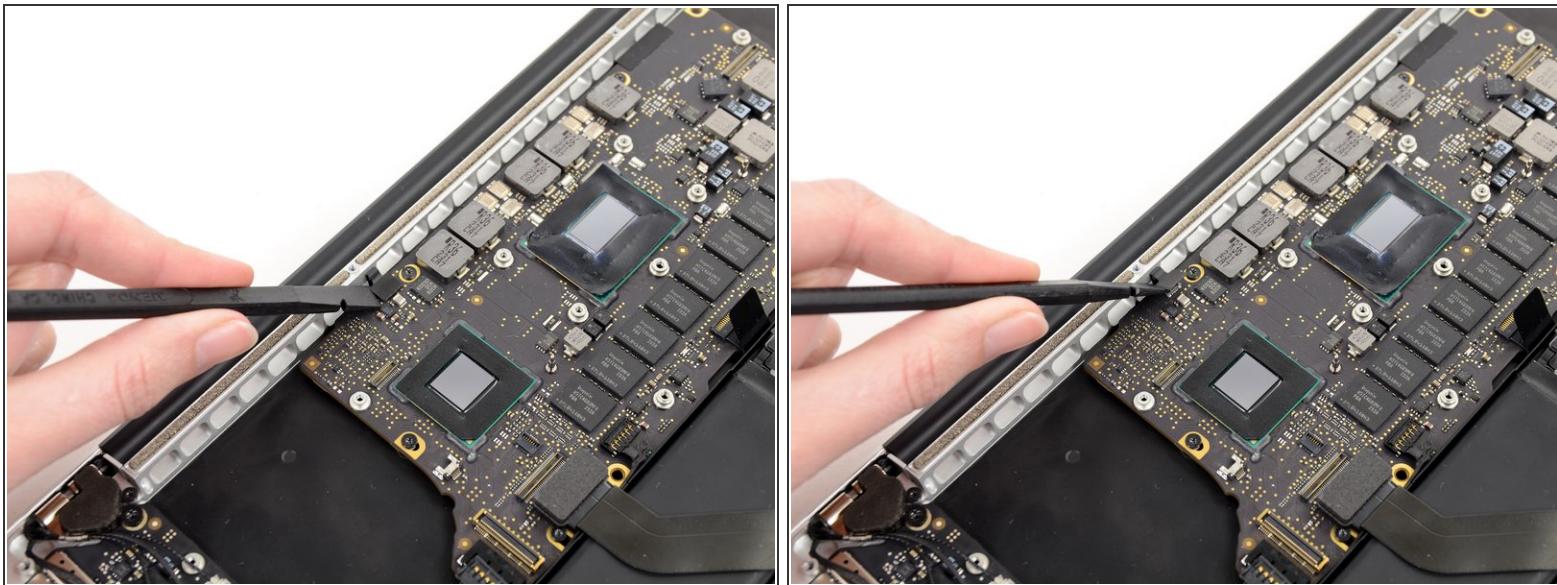
- Make sure to pull the left fan straight away to simultaneously pull the left fan ribbon cable out of its socket on the logic board.

Step 23 — Logic Board Assembly



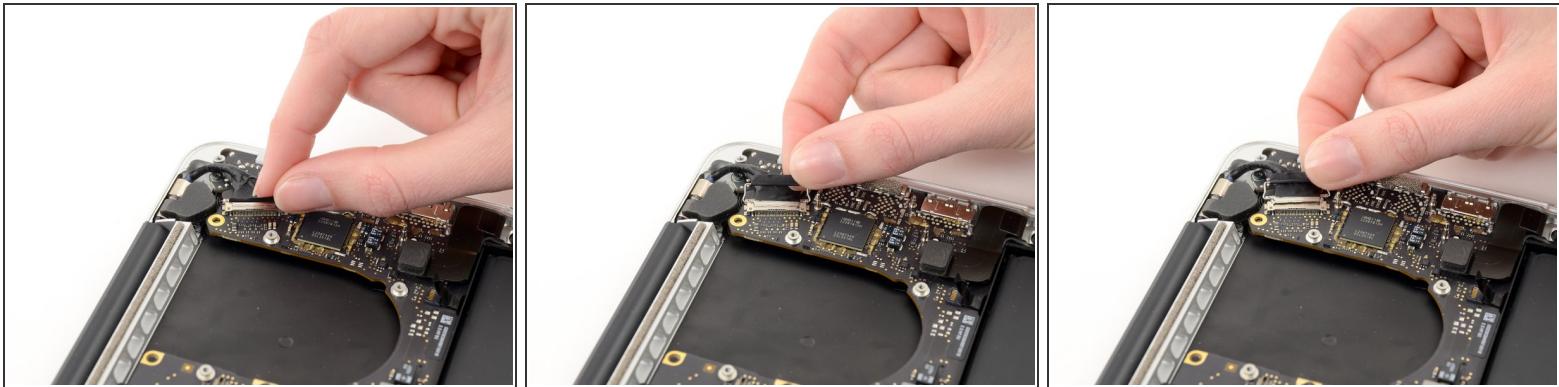
- Use the tip of a spudger to push the edges of the I/O board connector straight out of its socket on the logic board.
- *(i)* It is recommended to carefully push on both sides of the connector to "walk" it out of its socket.

Step 24



- Wedge the flat end of a spudger underneath the keyboard backlight connector and the logic board.
- Gently twist the flat end of a spudger upwards to pry the keyboard backlight connector up off its socket on the logic board.

Step 25



- Grab the black pull tab secured to the display data cable lock and rotate it toward the DC-In side of the computer.
- Pull the display data cable straight out of its socket on the logic board.

⚠ Do not lift up on the display data cable, as its socket is very fragile. Pull the cable parallel to the face of the logic board.

Step 26



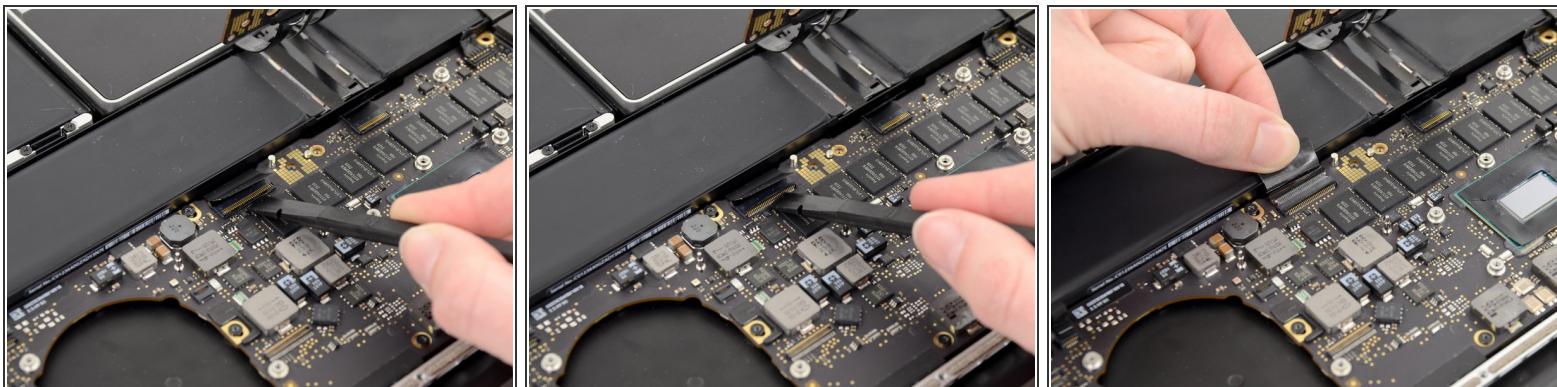
- Pry the headphone jack cable connector up off its socket on the logic board.

Step 27



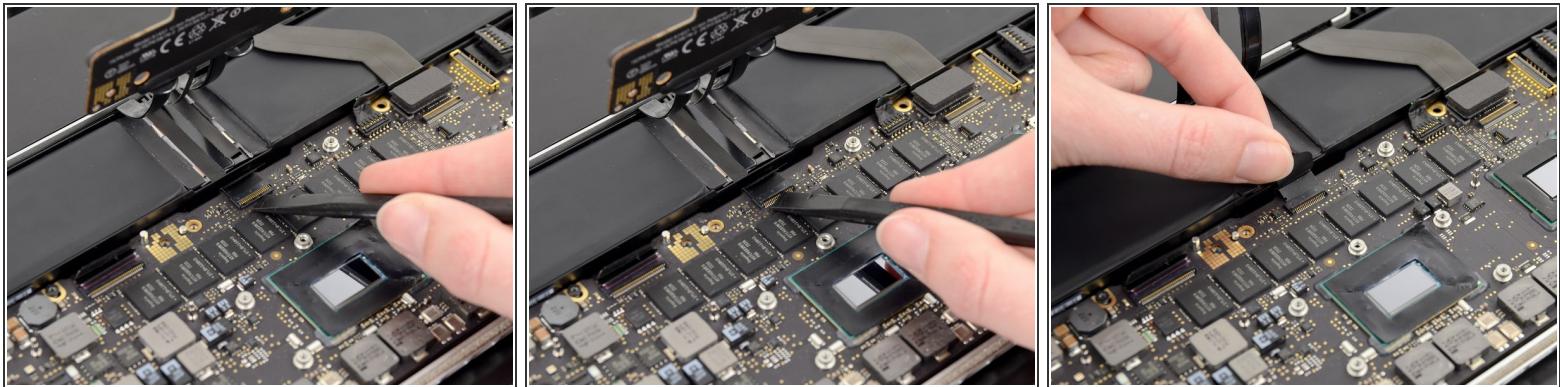
- Use the tip of a spudger to flip up the retaining flap on the microphone ribbon cable ZIF socket.
- ⚠ Be sure you are prying up on the hinged retaining flap, **not** the socket itself.
- Grasp the plastic pull tab and pull the microphone ribbon cable out of its socket.

Step 28



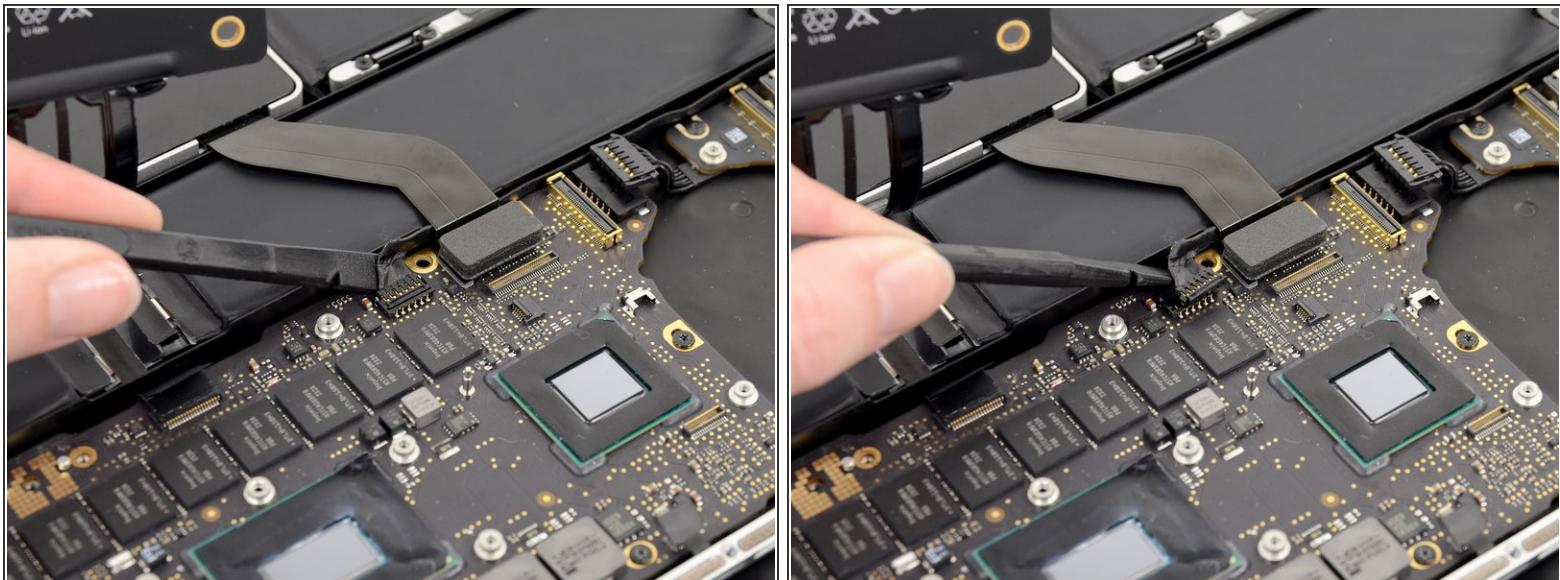
- Use the flat edge of a spudger to flip up the retaining flap on the keyboard ribbon cable ZIF socket.
- ⚠ Be sure you are prying up on the hinged retaining flap, **not** the socket itself.
- Grasp the plastic pull tab and pull the keyboard ribbon cable out of its socket.

Step 29



- Repeat the previous procedure to disconnect the Trackpad ribbon cable from its socket on the logic board.

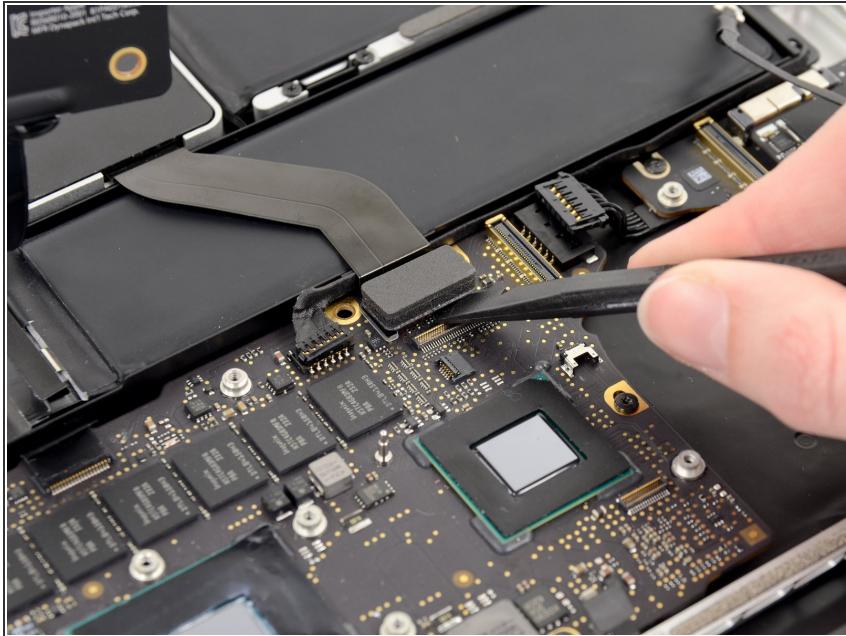
Step 30



- Wedge the flat end of a spudger beneath the right speaker cable connector.
- Gently pry the right speaker cable connector up off from its socket on the logic board.

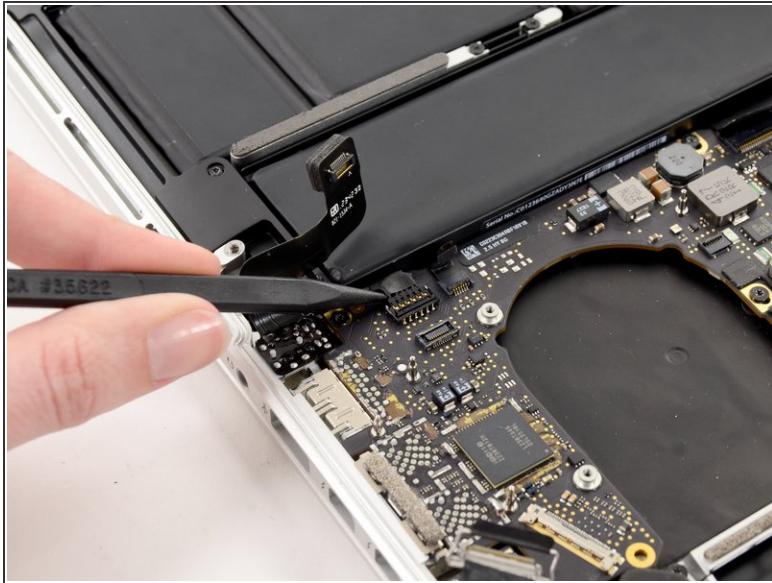
! Be sure you are prying up on the connector, **not** the socket itself.

Step 31



- Use the flat end of a spudger to pry the SSD cable connector up off its socket on the logic board.

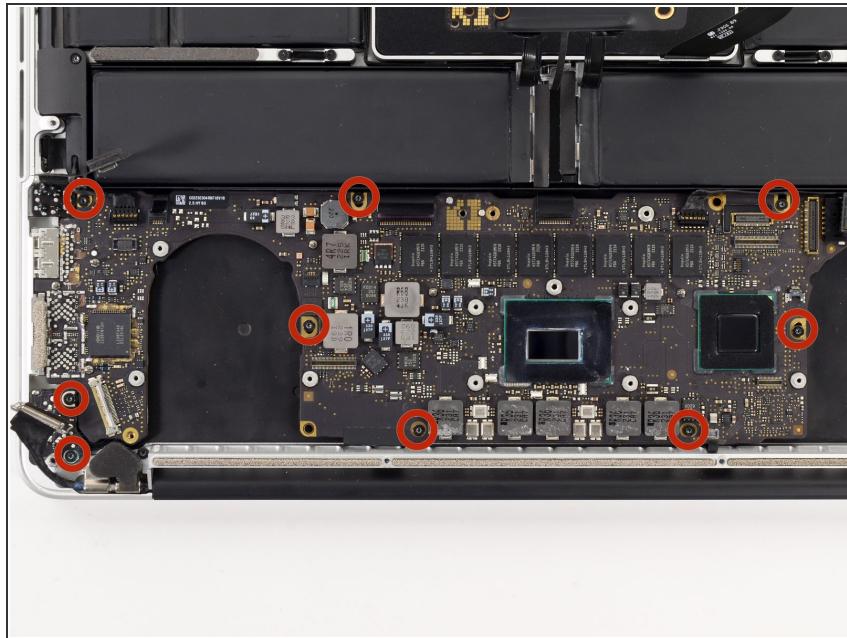
Step 32



- Wedge the tip of a spudger beneath the left speaker cable connector.
- Gently pry the left speaker cable connector up off from its socket on the logic board.

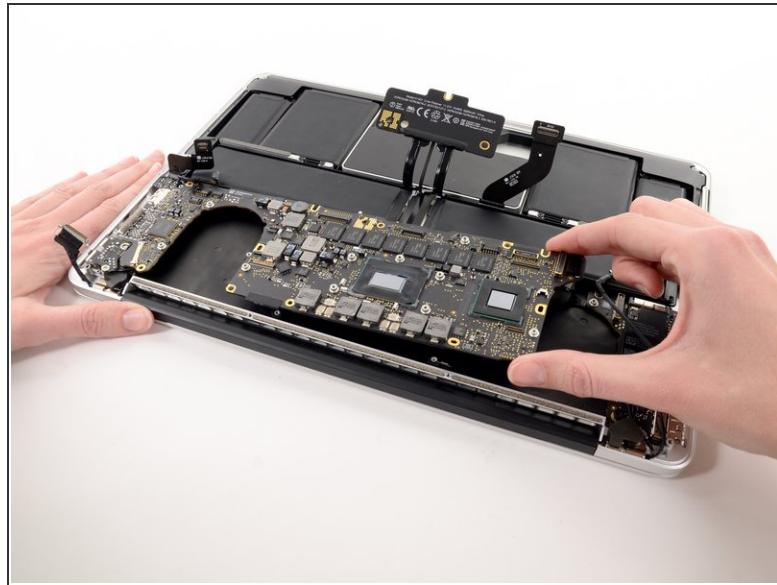
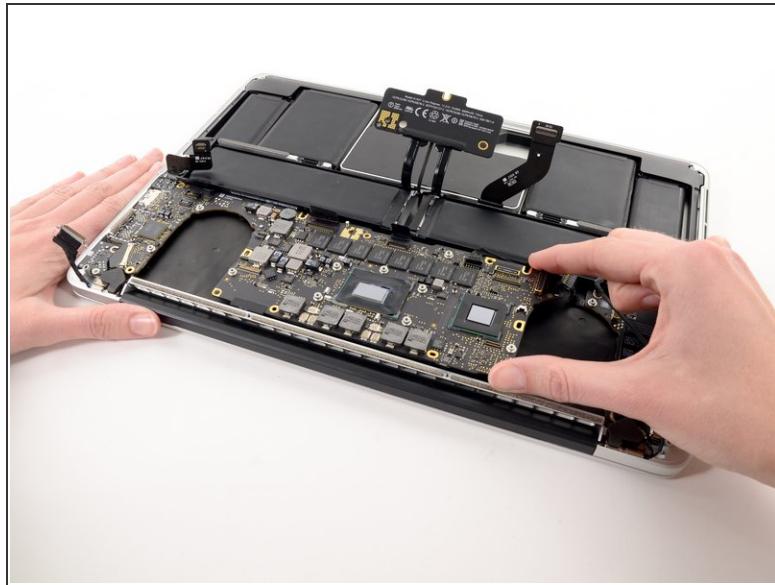
⚠ Be sure you are prying up on the connector, **not** the socket itself.

Step 33



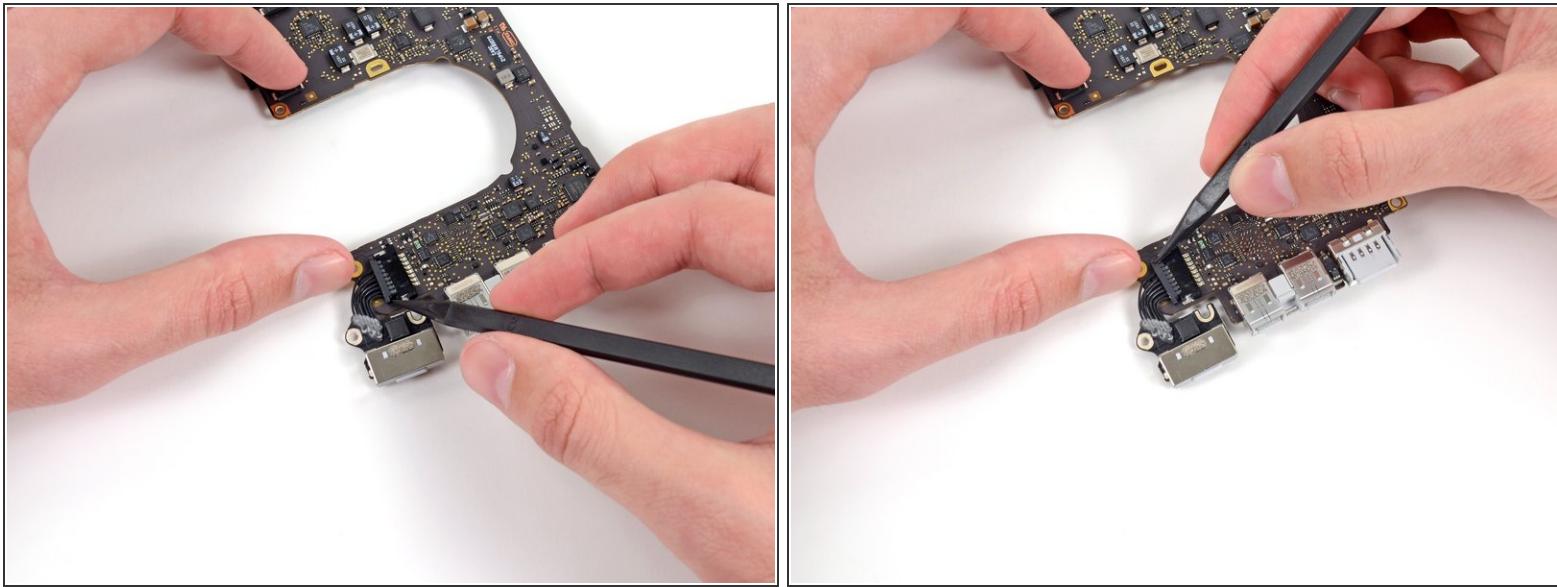
- Remove the nine 3.3 mm T5 Torx screws securing the logic board and MagSafe DC-in board to the upper case.

Step 34



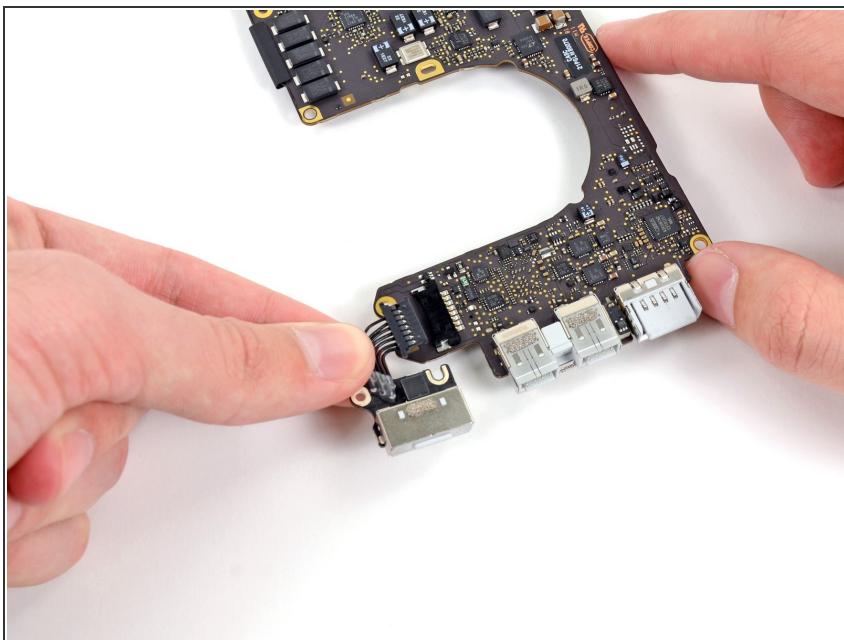
- Carefully grasp the corner of the logic board (opposite of the I/O ports) and lift the logic board out of the upper case.

Step 35 — MagSafe DC-In Board



- Gently push the edges of the MagSafe cable connector away from its socket on the logic board.
- *i* It is recommended "walk" the connector out of its socket. Simply push the top and bottom corners of the connector and carefully "walk it out" of its socket.

Step 36



- Pull the MagSafe cable connector straight out of its socket on the logic board.

Step 37 — Logic Board



- Logic board remains.

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