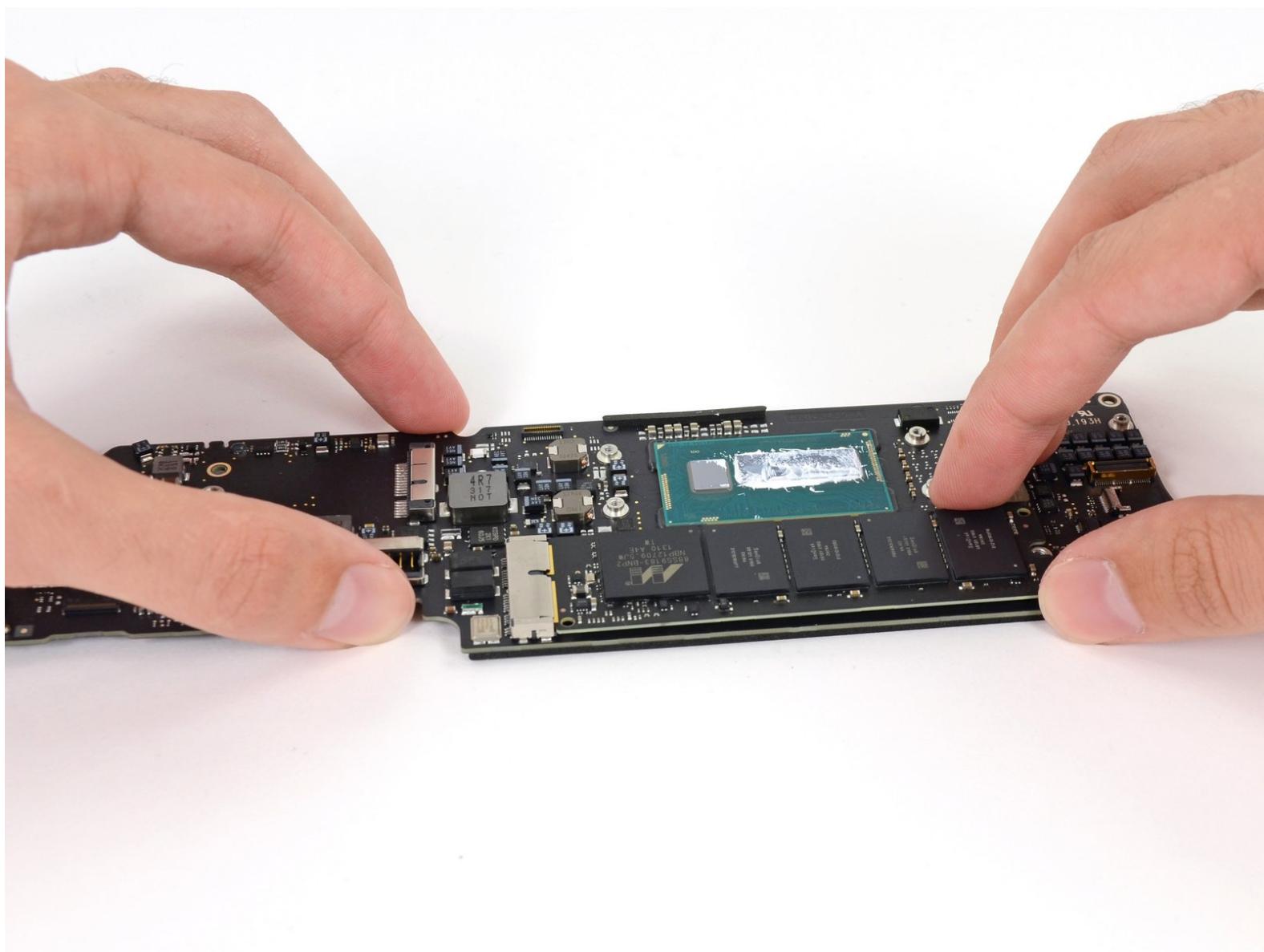




MacBook Air 11" Mid 2013 Logic Board Replacement

Replace the Logic Board in your MacBook Air 11" Mid 2013.

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INTRODUCTION

Use this guide to replace the logic board.

Be sure to [apply a new layer of thermal paste](#) before reinstalling your heat sink on the new board.

TOOLS:

- P5 Pentalobe Screwdriver Retina MacBook Pro and Air (1)
- Spudger (1)
- T5 Torx Screwdriver (1)
- Tweezers (1)
- Arctic Silver Thermal Paste (1)
- Arctic Silver ArctiClean (1)

PARTS:

- MacBook Air 11" (Mid 2013) 1.3 GHz Logic Board (1)
- MacBook Air 11" (Mid 2013) 1.7 GHz Logic Board (1)

Step 1 — Lower Case



- **Shut down and close your computer. Lay it on a soft surface top-side down.**
- Remove the following ten screws:
 - Two 8 mm 5-point Pentalobe screws
 - Eight 2.5 mm 5-point Pentalobe screws
- **The special screwdriver needed to remove the 5-point Pentalobe screws can be found [here](#).**

Step 2



- Wedge your fingers between the display and the lower case and pull upward to pop the lower case off the Air.

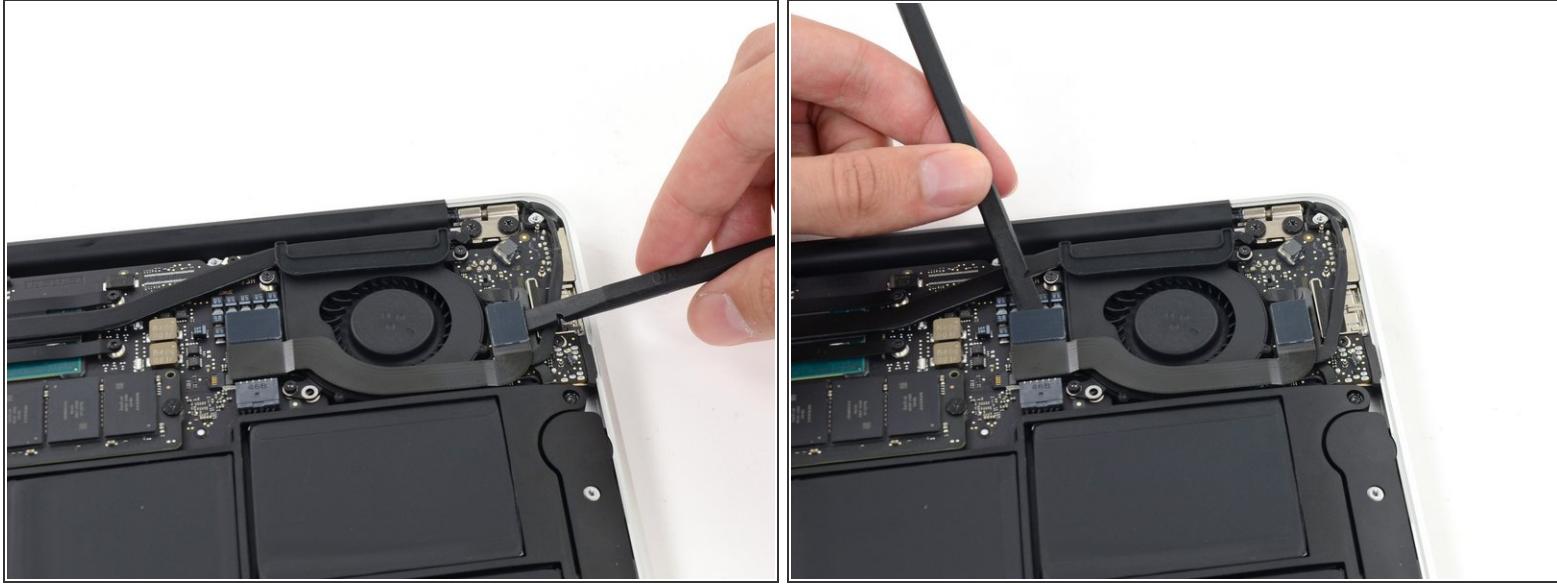
Step 3 — Battery Connector



⚠ In this step you will disconnect the battery to help avoid shorting out any components during service.

- Use the flat end of a spudger to pry both short sides of the battery connector upward to disconnect it from its socket on the logic board.
- Bend the battery cable slightly away from the logic board so the connector will not accidentally bend back and make contact with its socket.

Step 4 — I/O Board Cable



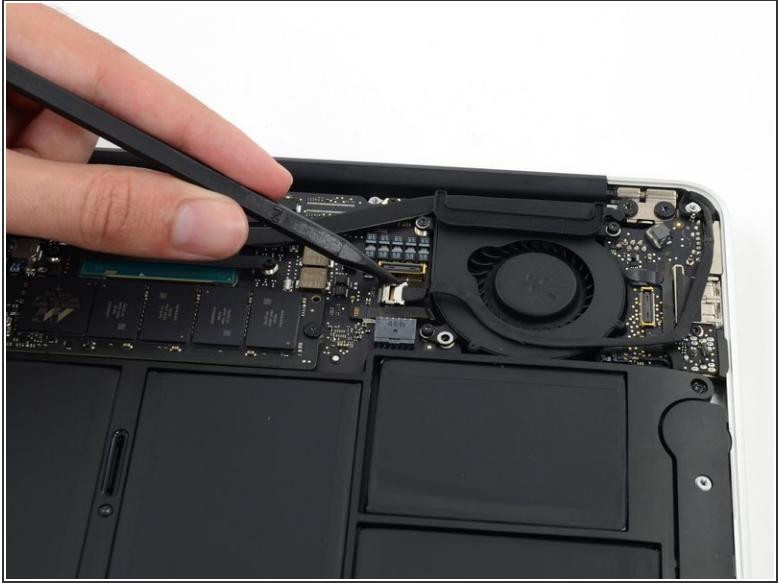
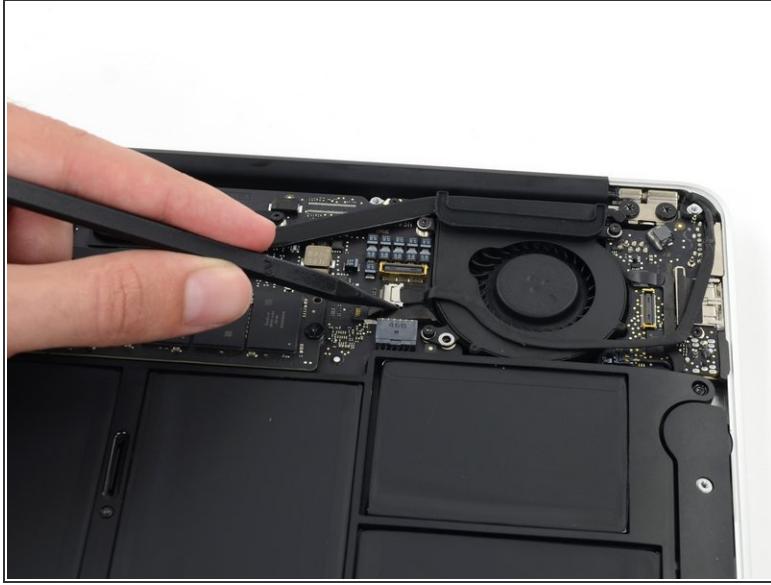
- Use the flat end of a spudger to pry the left and right I/O board cable connectors up off their respective sockets on the I/O board.

Step 5



- Lift and remove the I/O board cable.

Step 6 — Fan



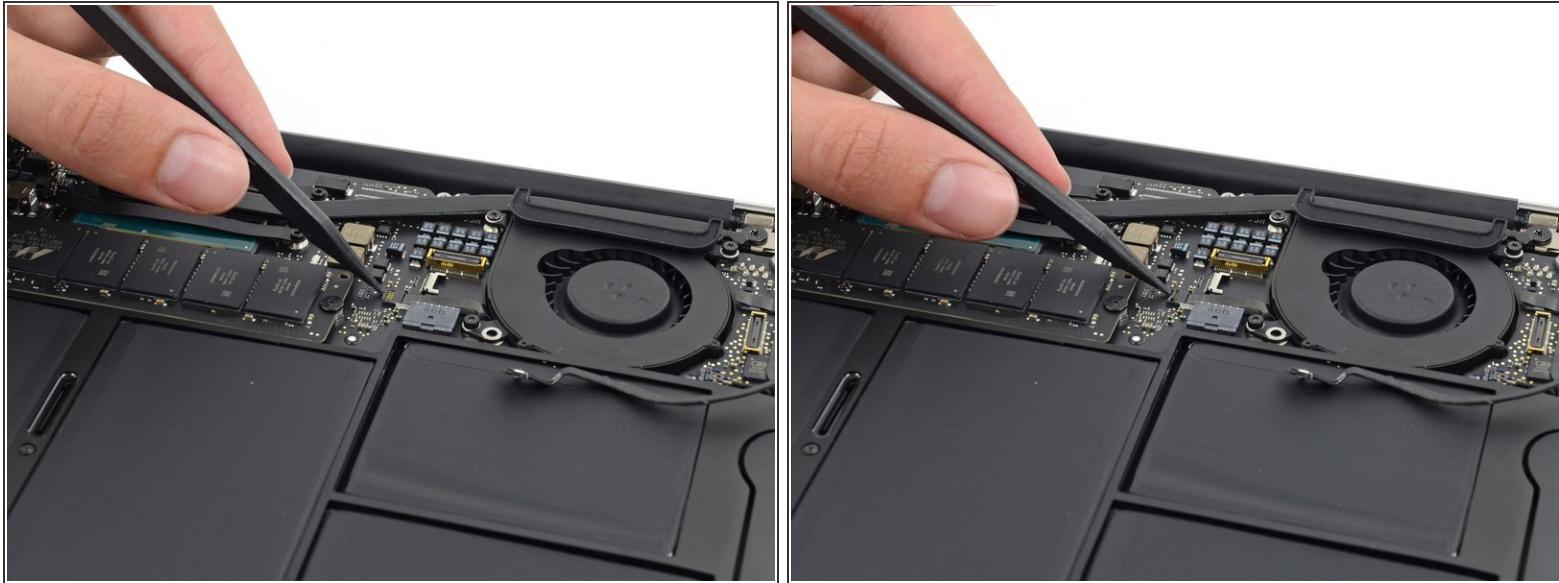
- Use the tip of a spudger to carefully push on each side of the iSight camera cable connector to loosen it out of its socket on the logic board.
- *(i)* We recommend you gently "walk" the connector out of its socket.

Step 7



- Peel the iSight camera cable up off the adhesive securing it to the fan.

Step 8



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

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

Step 9



- Remove the following three screws securing the fan to the upper case:
 - Two 5.5 mm T5 Torx screws
 - One 4.6 mm T5 Torx screw

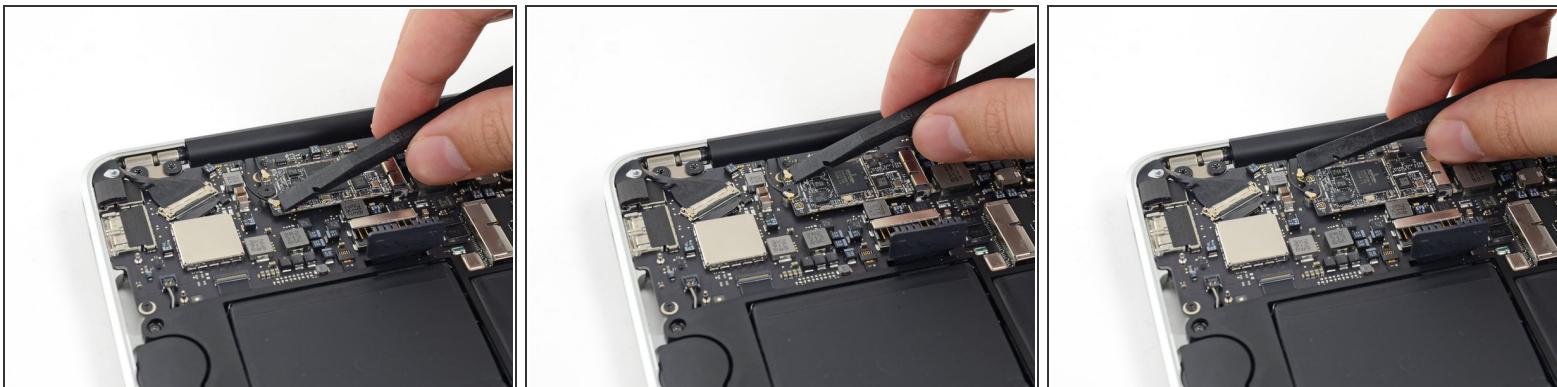
ⓘ In some models this is a 3.6 mm T5 Torx screw.

Step 10



- Lift, but **do not** remove the fan out of its recess in the upper case.
- Carefully pull the fan ribbon cable out of its socket as you remove the fan from the Air.

Step 11 — Logic Board Assembly



- Use the flat end of a spudger to pry both antenna connectors up from their sockets on the AirPort/Bluetooth card, and move them out of the way.

Step 12



- Remove the following five screws securing the battery to the upper case:
 - Two 5.2 mm T5 Torx screws
 - One 6 mm T5 Torx screw
 - Two 2.6 mm T5 Torx screws

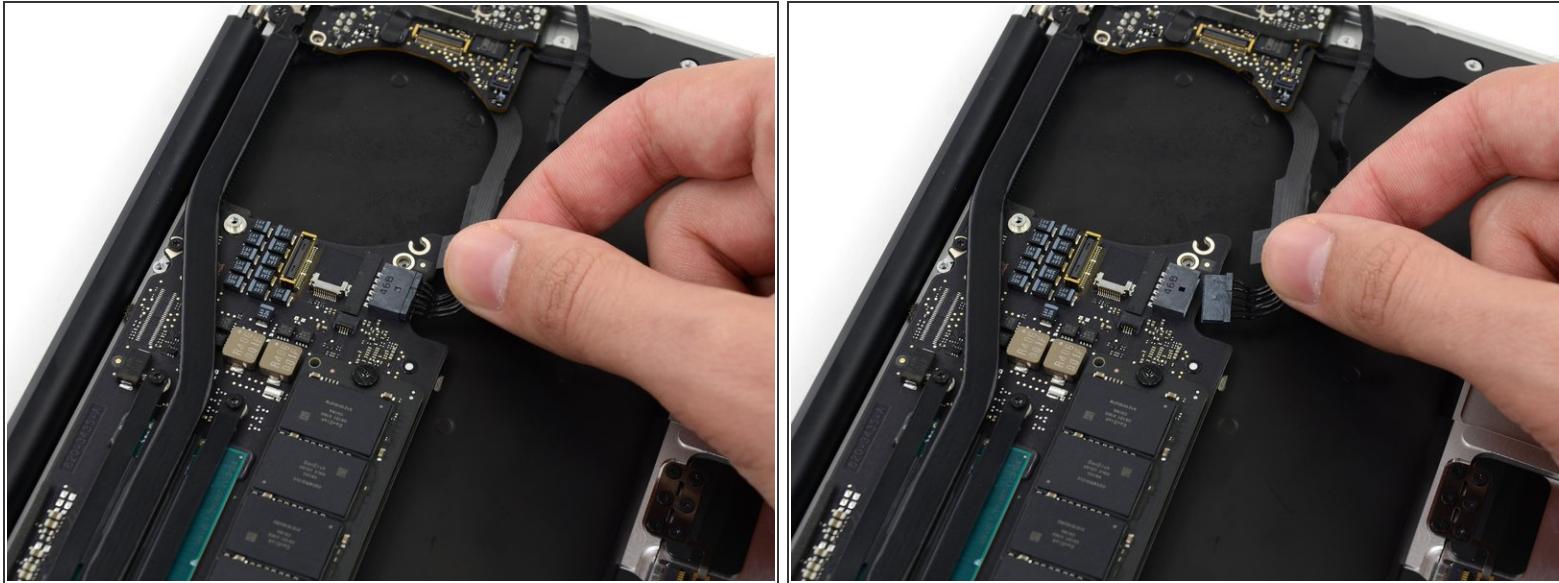
Step 13



⚠ When handling the battery, avoid squeezing or touching the six exposed lithium polymer cells.

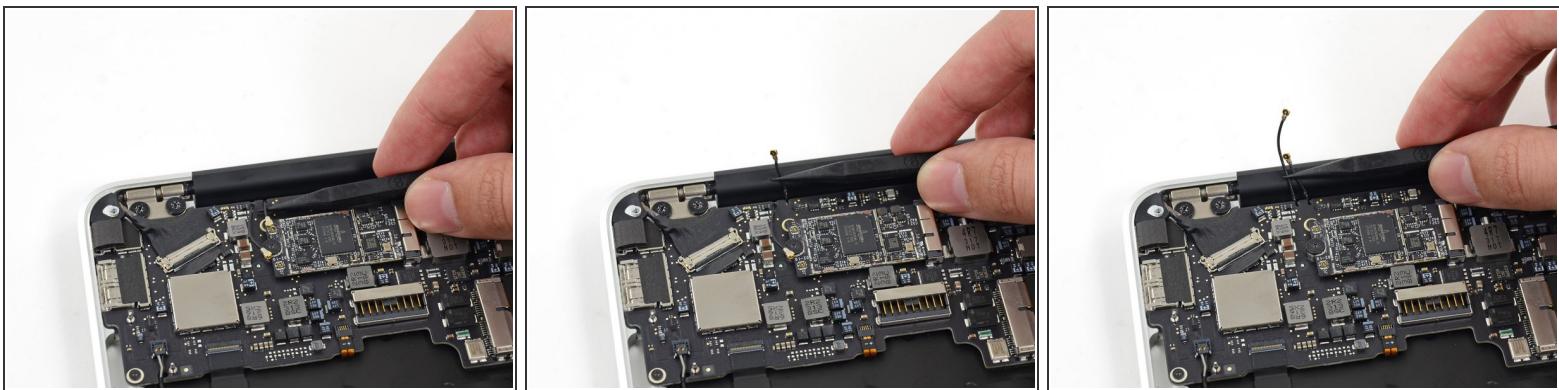
- Lift the battery from its edge nearest the logic board and remove it from the upper case.

Step 14



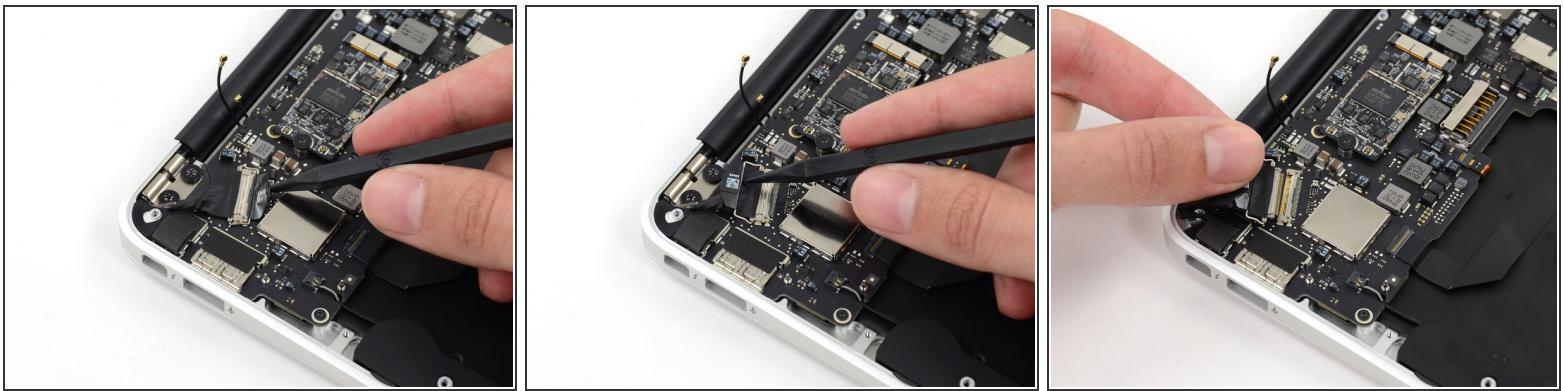
- Disconnect the I/O board by pulling the power cable away from its socket on the logic board.
- *i* Pull the cable parallel to the face of the logic board toward the front edge of the Air.

Step 15



- Use the tip of a spudger to de-route the antenna cables from their notches in the logic board.

Step 16



- Gently push the tip of a spudger under the black plastic flap stuck to the display data cable lock to make the lock pop upward and away from the socket.
- While holding the lock away from the socket, gently pull the display data cable out of its socket.

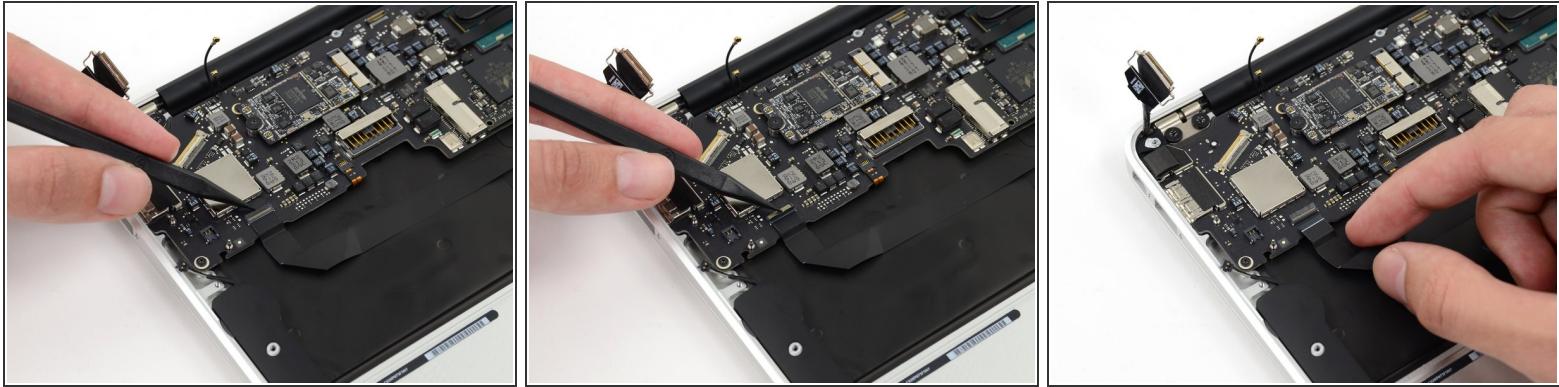
⚠ Do not pull upward on the display data cable as you disconnect it, as its socket may break off the logic board.

Step 17



- Use the tip of a spudger to pry under the speaker cable connector, lifting it straight up from its socket.
- De-route the cable from its notch in the logic board.

Step 18



- Use the tip of a spudger or your fingernail to flip up the retaining flap on the trackpad ribbon cable ZIF socket.

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

- Pull the trackpad ribbon cable straight out of its socket toward the front edge of the Air.

Step 19

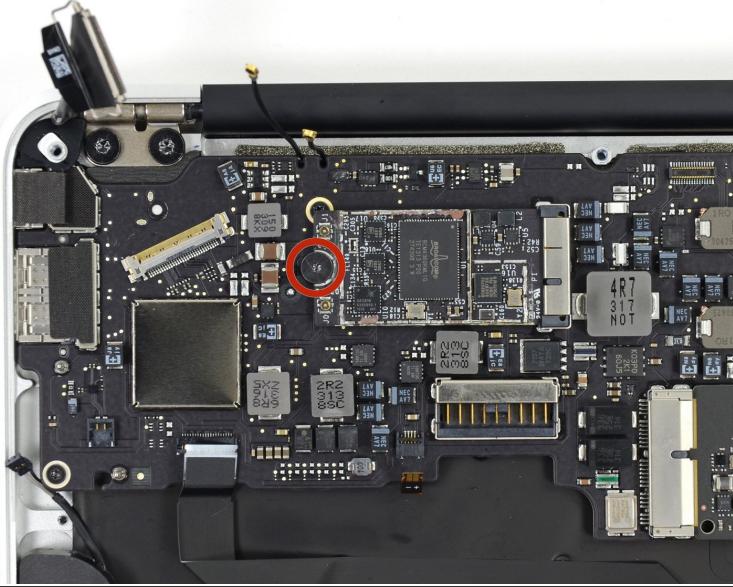


- Use the tip of a spudger to flip up the retaining flap on the keyboard backlight ribbon cable ZIF socket.

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

- Pull the keyboard backlight ribbon cable out of its socket.

Step 20



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

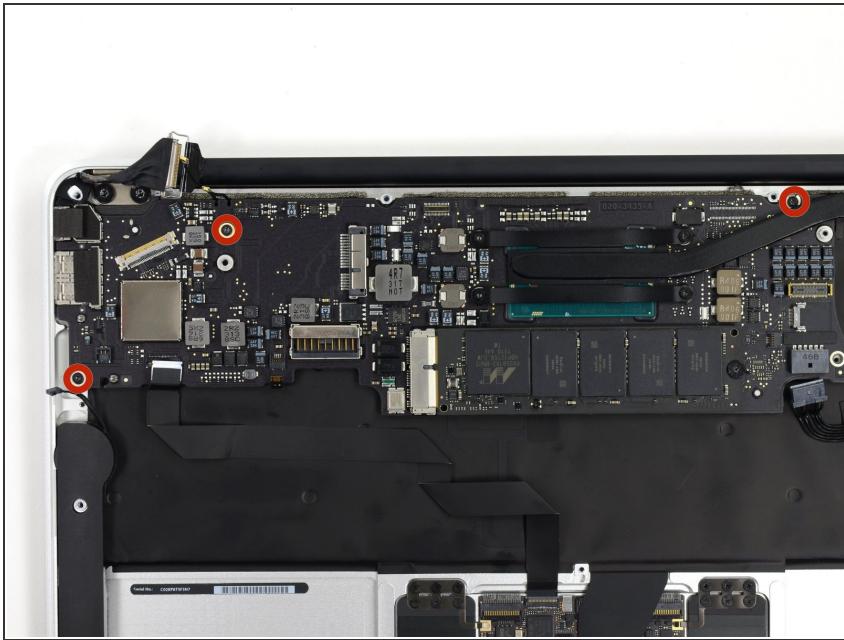
Step 21



- Slightly lift the free end of the AirPort/Bluetooth board and pull it out of its socket on the logic board.

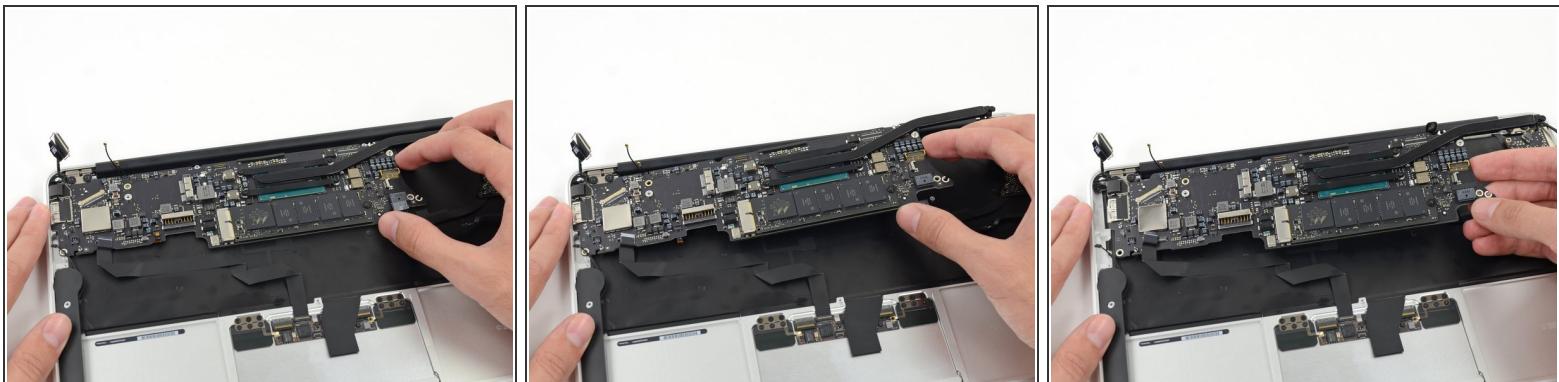
⚠ To avoid damaging its socket on the logic board, do **not** excessively lift the free end of the AirPort/Bluetooth card.

Step 22



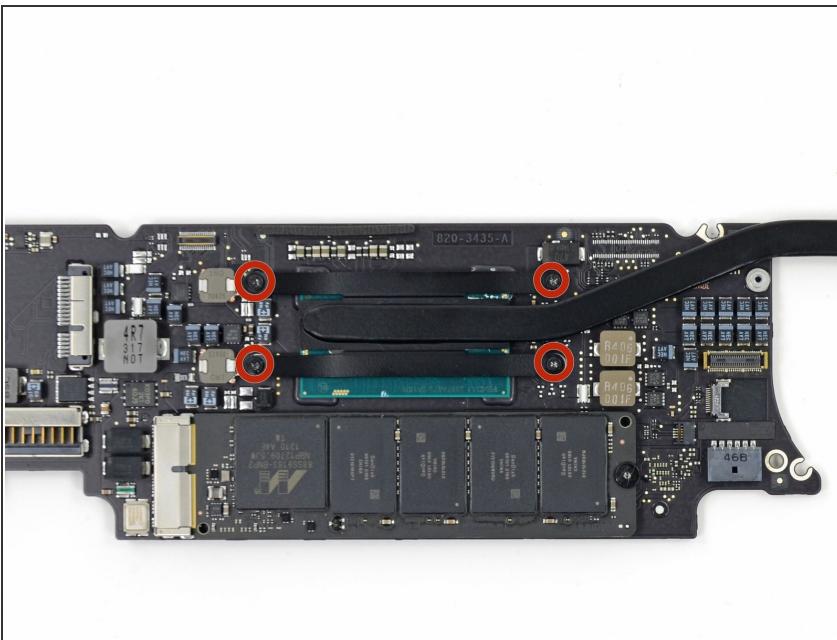
- Remove the three 3.6 mm T5 Torx screws securing the logic board to the upper case.
- In some models these are 3.1 mm T5 Torx screws.

Step 23



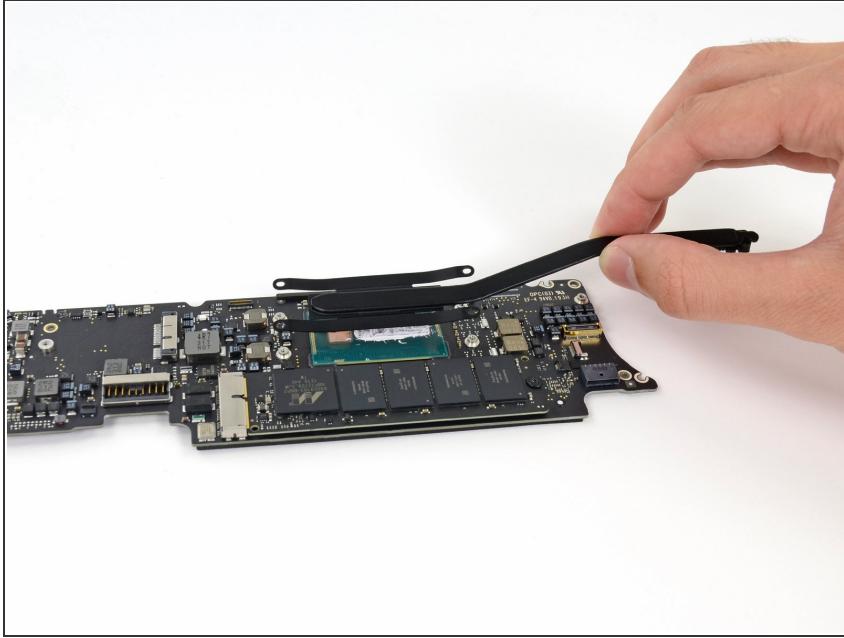
- Gently lift the logic board assembly from the heat sink end and pull it away from the port side of the case to remove it from the Air.
- When replacing the logic board, insert the board's rubber edge under the port-side rubber gasket, then lower the board into place.

Step 24 — Logic Board



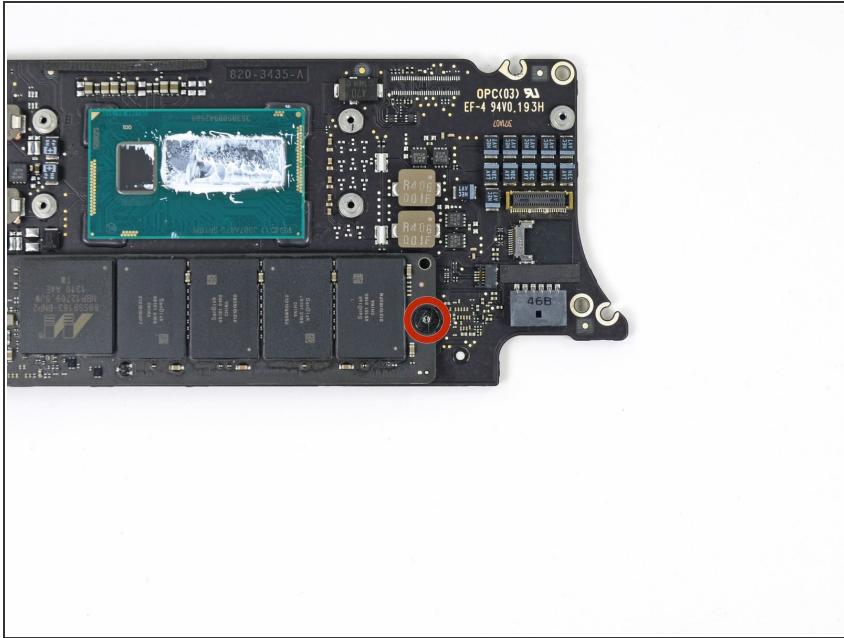
- Remove the four 2.5 mm T5 Torx screws securing the heat sink to the logic board.

Step 25



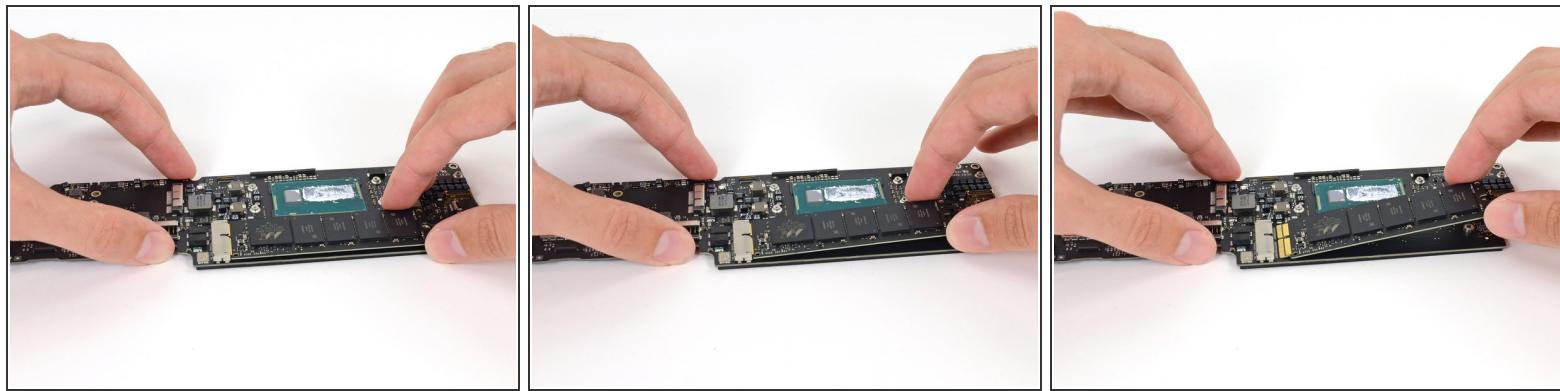
- If the heat sink seems to be stuck to the logic board after removing all four screws, use a spudger to carefully separate the heat sink from the faces of the CPU.
- Remove the heat sink from the logic board.
- When reinstalling the heat sink, be sure to apply a new layer of [thermal paste](#). If you have never applied thermal paste before, we have a [guide](#) that makes it easy.

Step 26



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

Step 27



- Lift the free end of the SSD just enough to get a good hold of it.

 Do not excessively lift the end of the SSD.

- Pull the drive straight out of its socket and remove it from the logic board.

 When reinstalling the SSD, be sure it is properly seated before reinstalling its retaining screw.

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