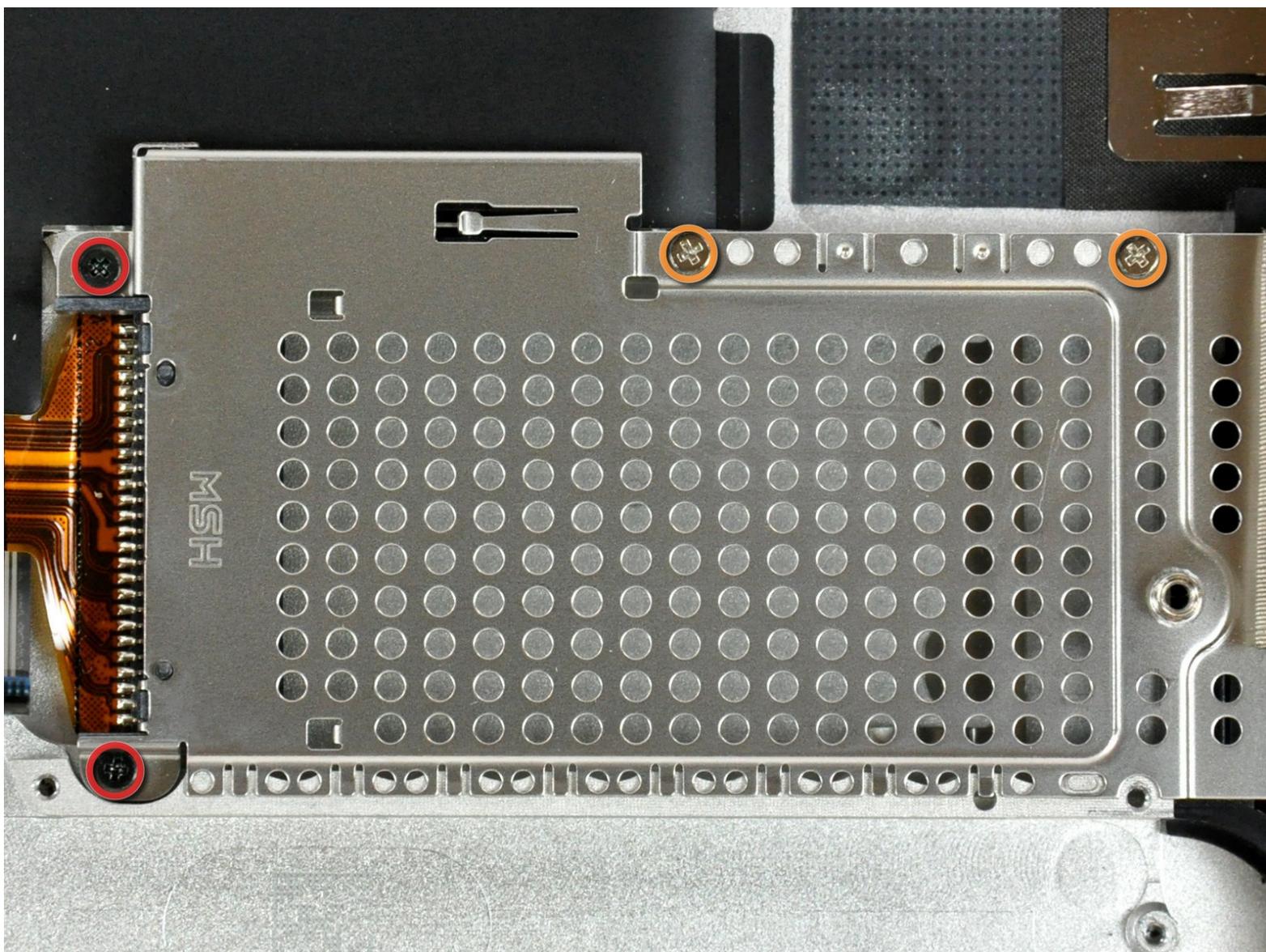




# MacBook Pro 15" Unibody Late 2008 and Early 2009 Upper Case Replacement

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# INTRODUCTION

The ins and outs of replacing your upper case.



## TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)
- [T6 Torx Screwdriver](#) (1)



## PARTS:

- [MacBook Pro 15" Unibody \(Late 2008/Early 2009\) Upper Case](#) (1)

## Step 1 — Access Door



- With the case closed, place the Unibody top-side down on a flat surface.
- Depress the grooved side of the access door release latch enough to grab the free end. Lift the release latch until it is vertical.

## Step 2



- The access door should now be raised enough to lift it up and out of the Unibody.

## Step 3 — Battery



- ⓘ Be sure the access door release latch is vertical before proceeding.
- Grab the translucent plastic tab and pull the battery up and out of the Unibody.
- If the latch is depressed it will lock the battery in place.

## Step 4 — Lower Case



- Remove the following eight screws securing the lower case to the chassis:
  - One 5.4 mm Phillips screw.
  - Three 14 mm Phillips screws.
  - Four 3.5 mm Phillips screws.

## Step 5



- Using both hands, lift and remove the lower case off the upper case.

## Step 6 — Mid Wall



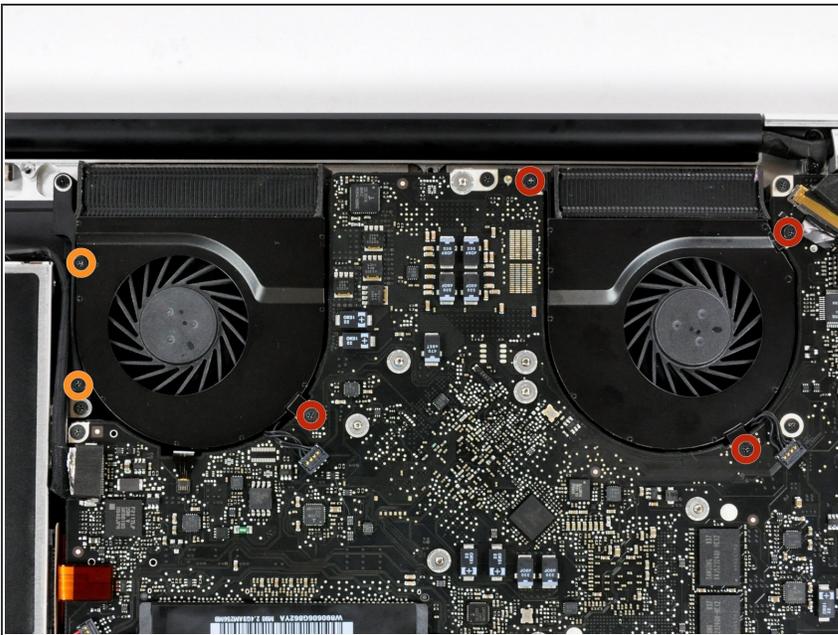
- Remove the following 5 screws securing the mid wall to the upper case:
  - Three 10.5 mm Phillips screws.
  - Two 3.7 mm Phillips screws.

## Step 7



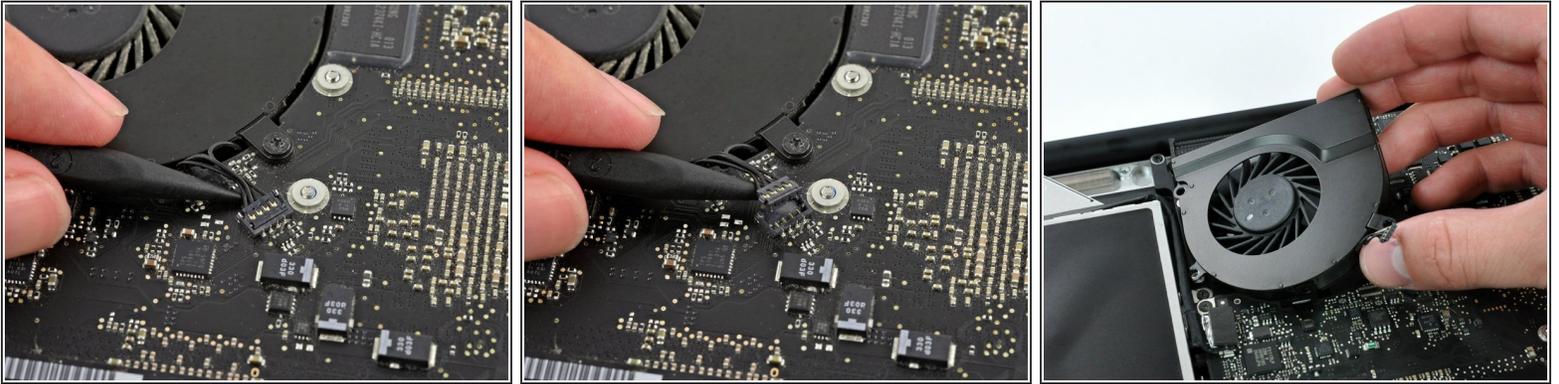
- Lift the mid wall out of the upper case.

## Step 8 — Logic Board



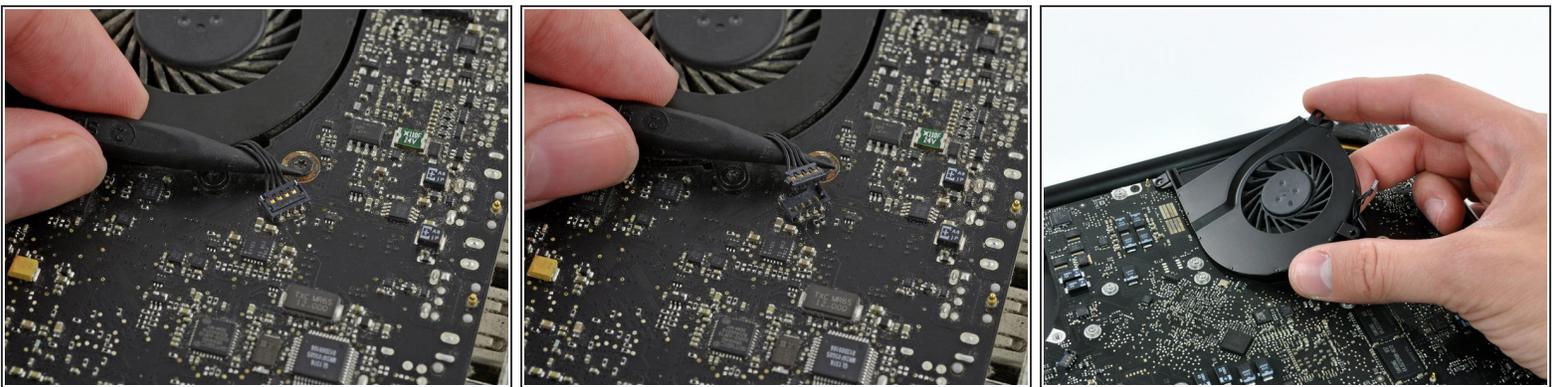
- Remove the following six screws securing both the right fan and the left fan to the logic board:
  - Four 3.5 mm Phillips screws.
  - Two 3.2 mm Phillips screws.

## Step 9



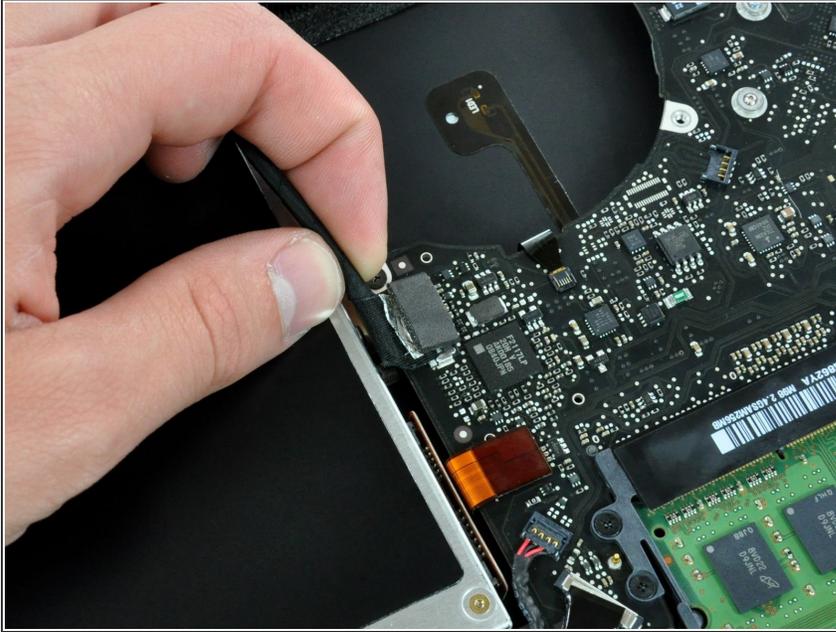
- Use the tip of a spudger to lift the right fan connector straight up from its socket on the logic board.
  - ⚠ Be sure to only pry up on the connector itself **not on the socket** or you may damage the machine.
  - ℹ It is useful to twist the spudger axially from beneath the fan cable wires to release the connector.
- Remove the right fan from the case.

## Step 10



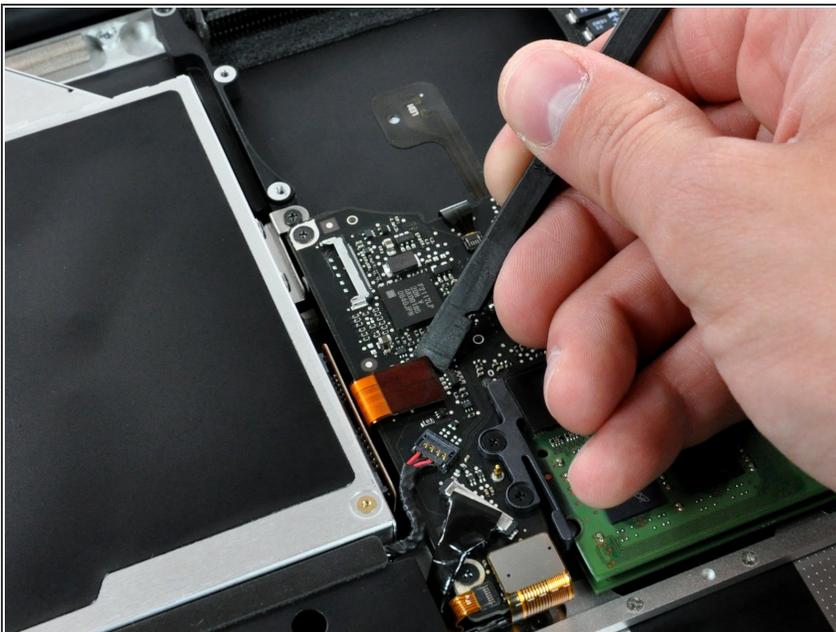
- Use the tip of a spudger to lift the left fan connector straight up from its socket on the logic board.
  - ⚠ Be sure to only pry up on the connector itself **not on the socket** or you may damage the machine.
  - ℹ It is useful to twist the spudger axially from beneath the fan cable wires to release the connector.
- Remove the left fan from the case.

## Step 11



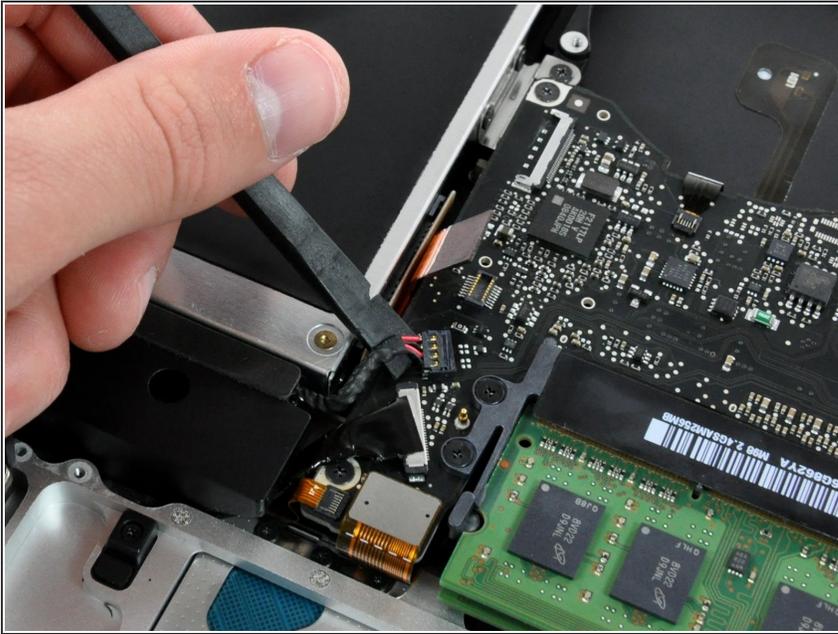
- Remove any adhesive from the camera cable connector.
- Disconnect the camera cable by pulling the male end out of its socket, parallel to the logic board, **do not** lift it upwards.

## Step 12



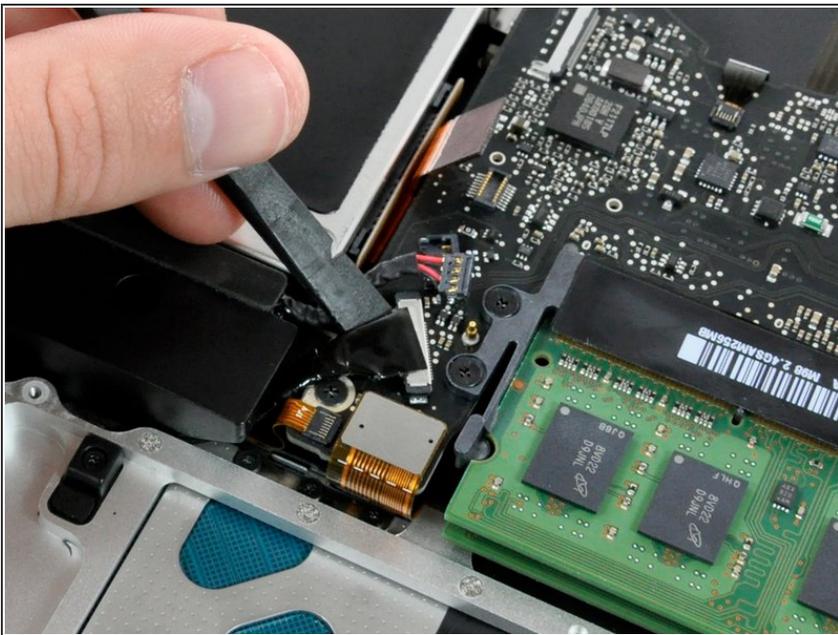
- Use a spudger to carefully pry the optical drive connector straight up off its socket on the logic board.

## Step 13



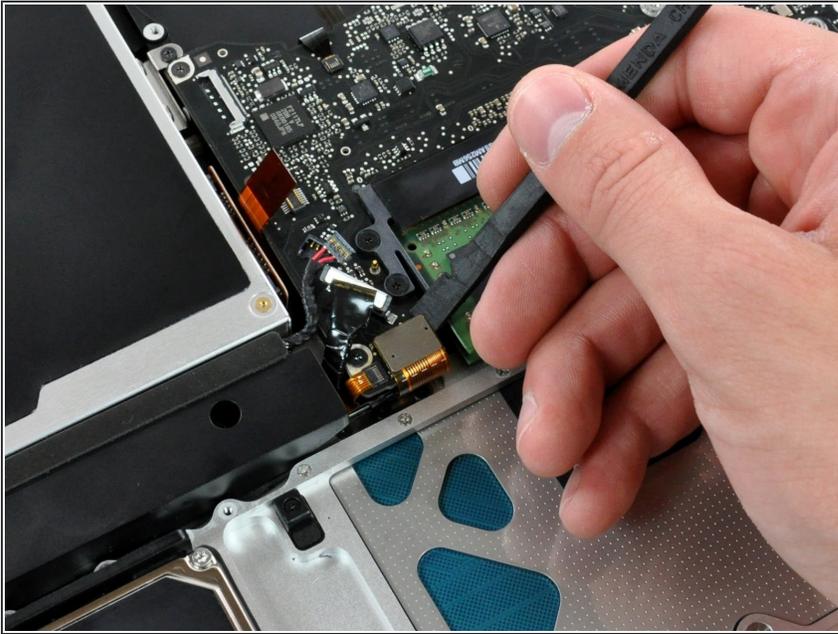
- ⓘ If necessary, peel off the foam bumper covering the subwoofer connector.
- Using the flat end of a spudger, pry the subwoofer connector straight up off its socket on the logic board.
- ⚠ Be very careful. This connection is delicate, the socket can be easily broken off the logic board.

## Step 14



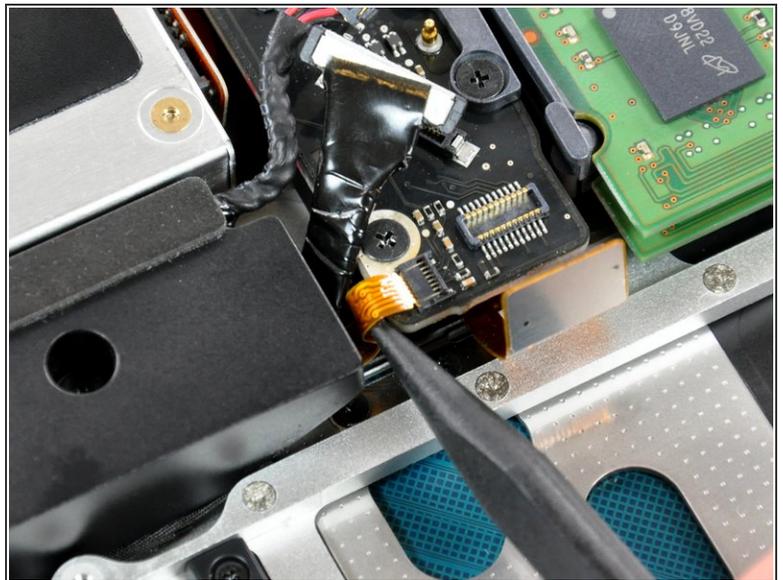
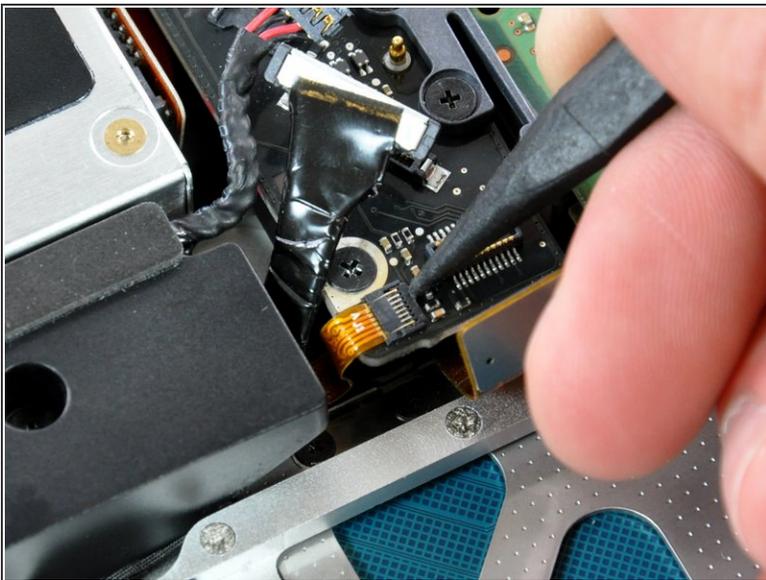
- Use the flat end of a spudger to pry the silver-colored hard drive cable connector straight up out of its socket on the logic board.

## Step 15



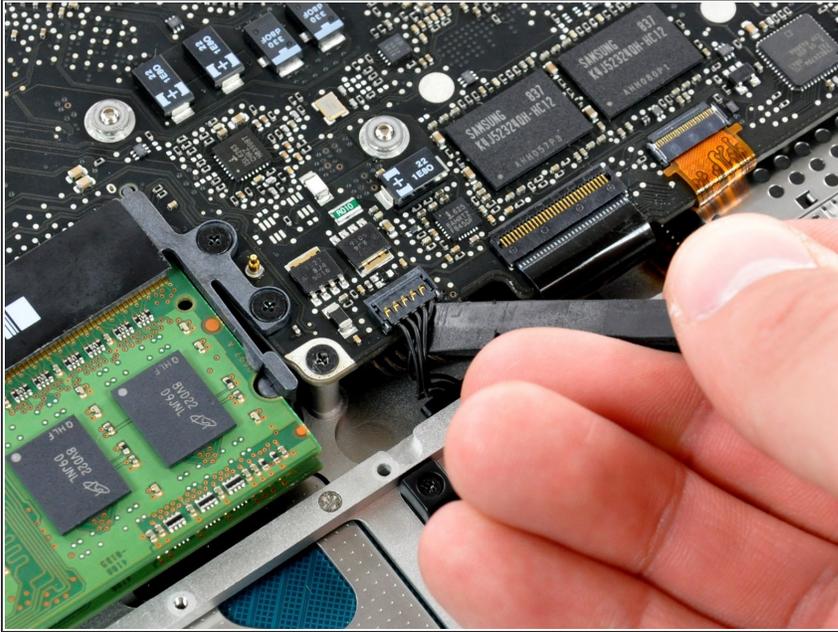
- Use a spudger to pry the trackpad connector straight up out of its socket on the logic board.

## Step 16



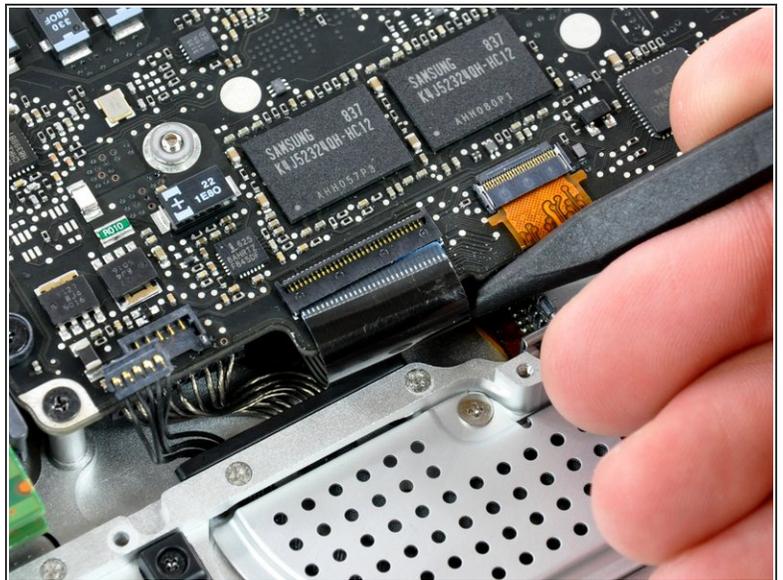
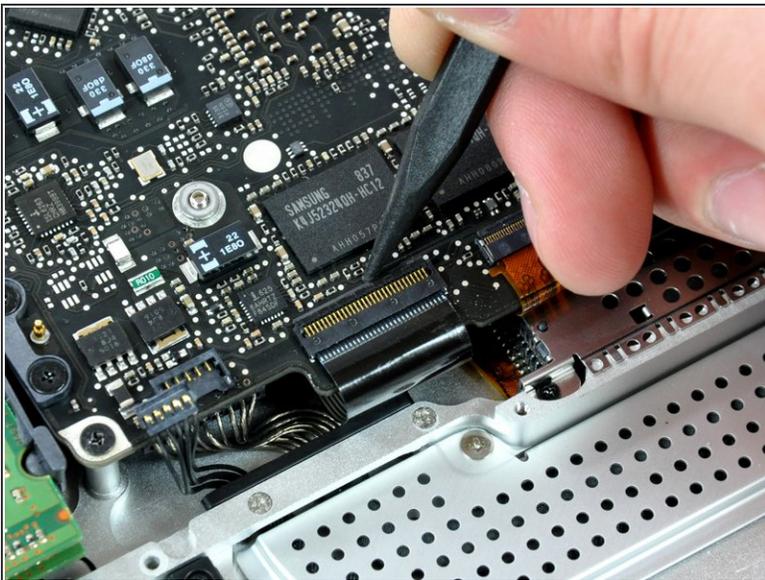
- Using the tip of a spudger, flip up the IR/sleep LED ribbon cable retaining flap.
- Pull the IR/sleep LED ribbon cable straight out of its socket.

## Step 17



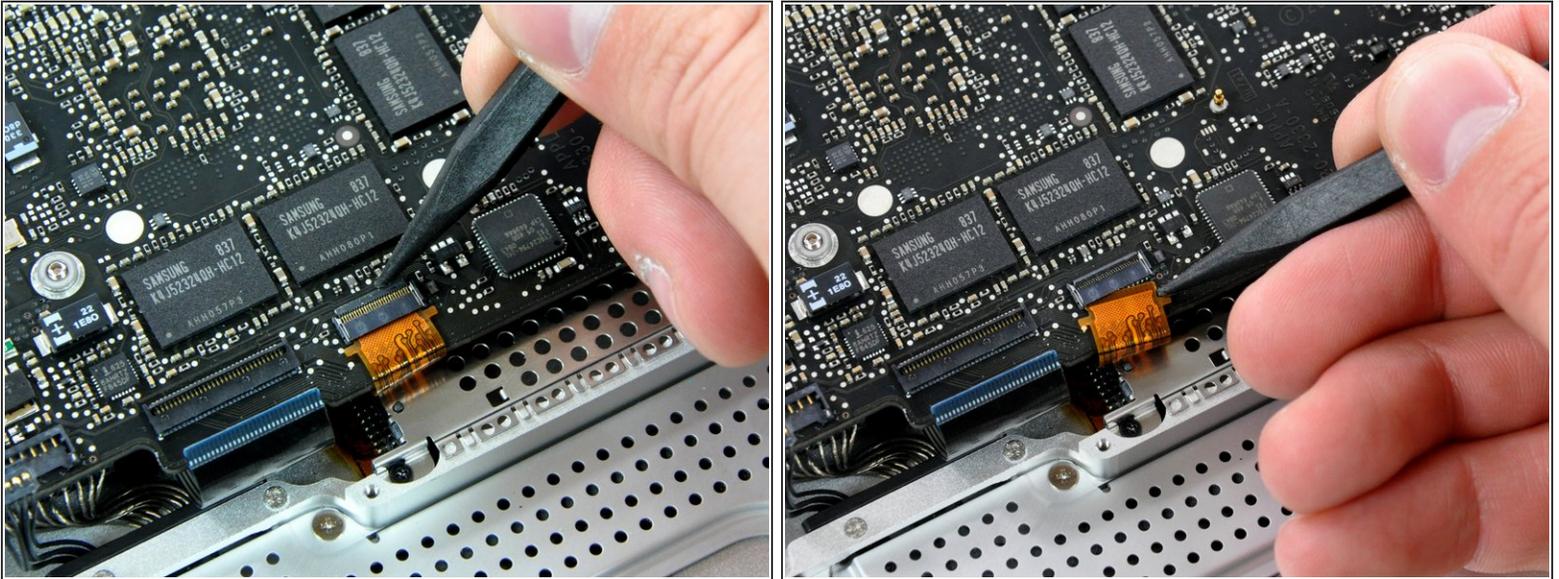
- Use a spudger to pry the battery indicator light connector straight up out of its socket on the logic board.
- ⓘ Pry up under the cable wires to avoid pulling the socket itself off of the logic board.

## Step 18



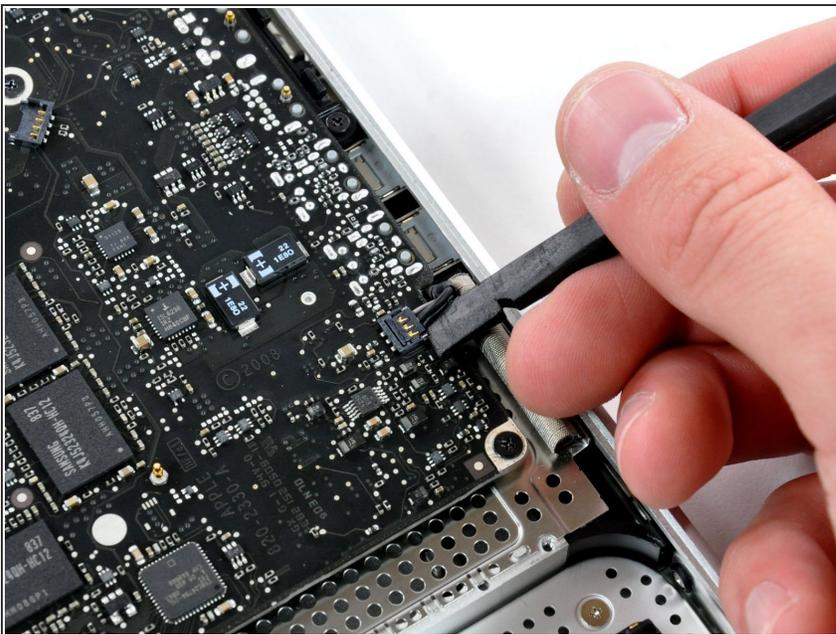
- Using the tip of a spudger, flip up the keyboard ribbon cable retaining flap.
- Pull the keyboard ribbon cable straight out of its socket.
- ☑ During reassembly, make sure to fully insert the keyboard ribbon cable back into the ZIF socket.

## Step 19



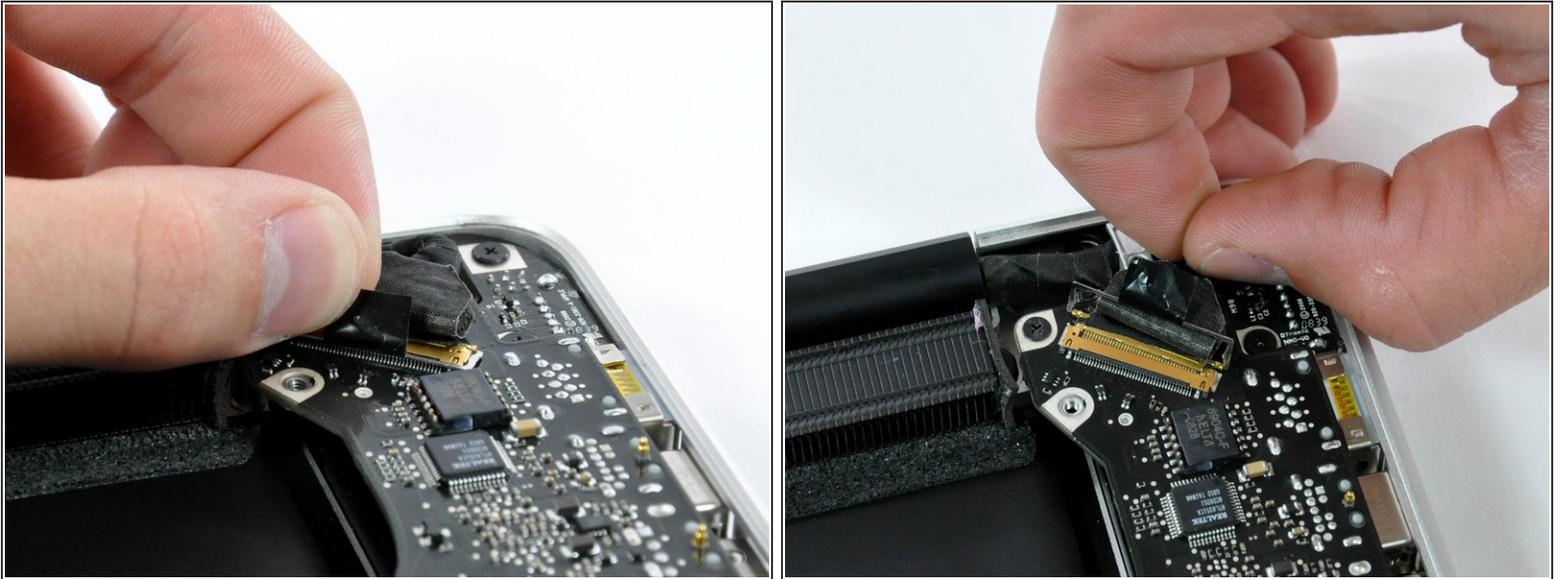
- Using the tip of a spudger, flip up the express card cage ribbon cable retaining flap.
- Pull the express card cage ribbon cable straight out of its socket.

## Step 20



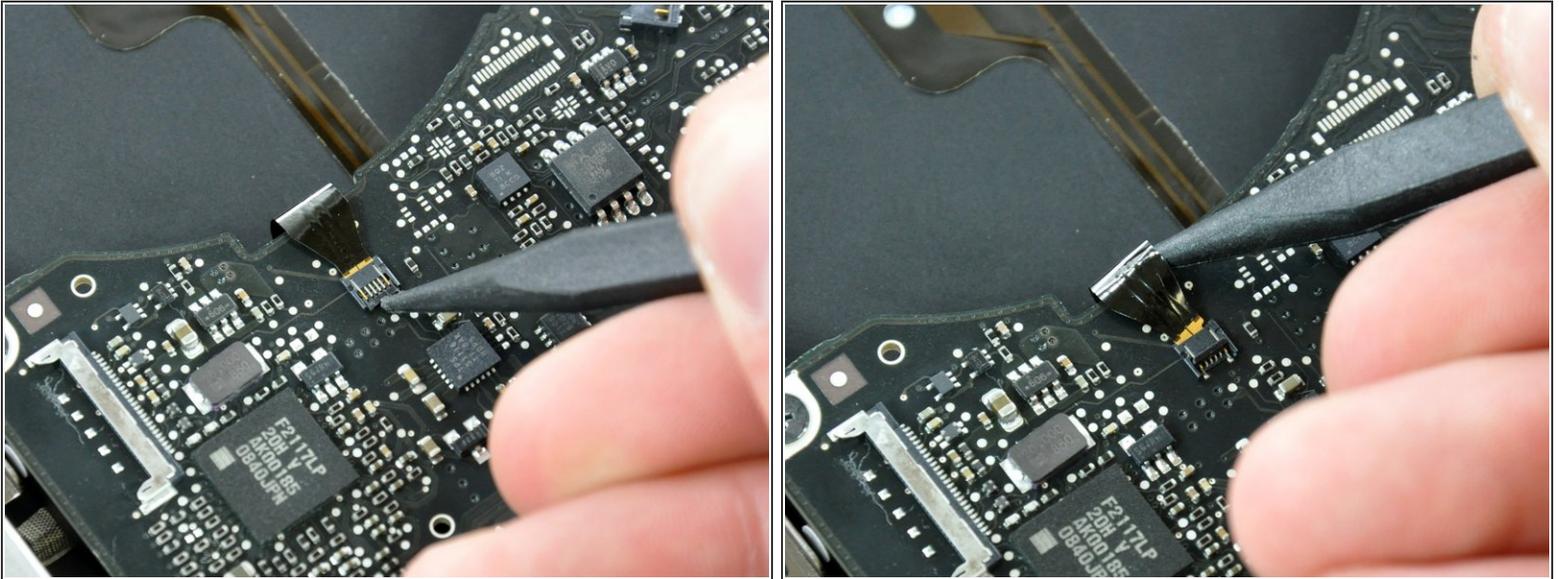
- Using the flat end of a spudger, pry the microphone cable connector straight up out of its socket on the logic board.
- ⓘ Pry up under the cable wires to avoid pulling the socket itself off of the logic board.

## Step 21



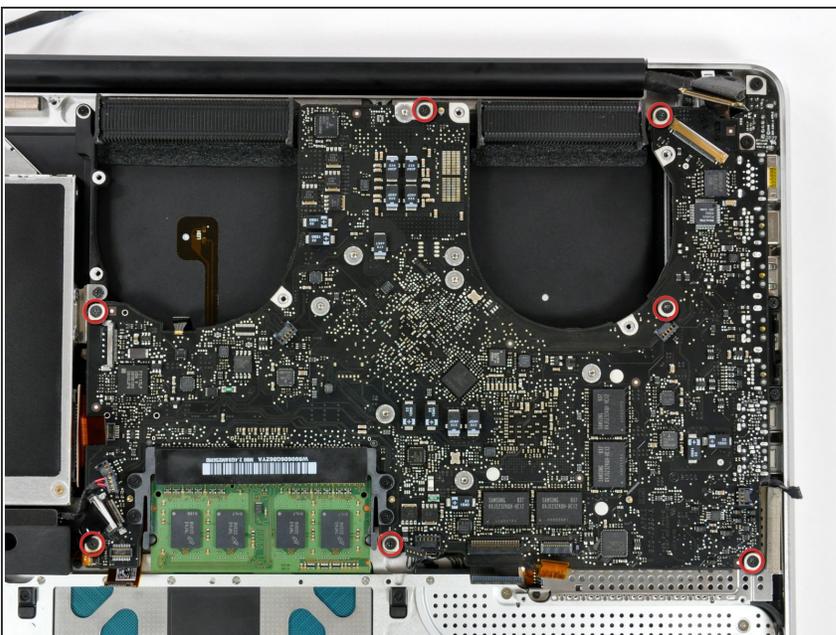
- Grab the plastic pull tab secured to the display data cable lock and rotate it toward the DC-in side of the computer.
- Pull the display data cable connector straight away from its socket.
- ⓘ When disconnecting the display data cable, do not pull on the black tab secured to the cable lock. We recommend wiggling the cable while applying tension to slowly "walk" the connector out of its socket.
- ☞ Make sure the display data cable is placed correctly in its socket during reassembly. Failure to do so will result in a partially visible display or no display image at all.

## Step 22



- Locate the keyboard backlight ribbon cable (near the left fan space).
- Using the tip of a spudger, flip up the keyboard backlight ribbon cable retaining flap.
- Pull the keyboard backlight ribbon cable straight out of its socket.

## Step 23



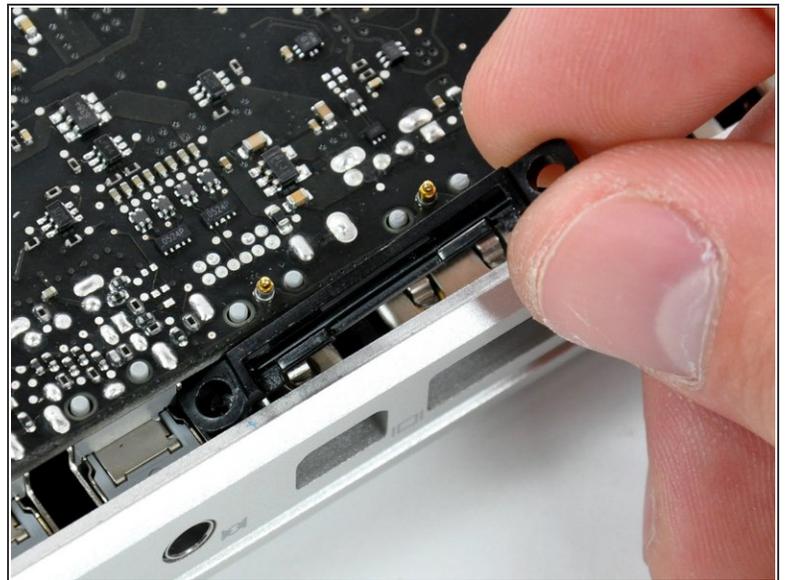
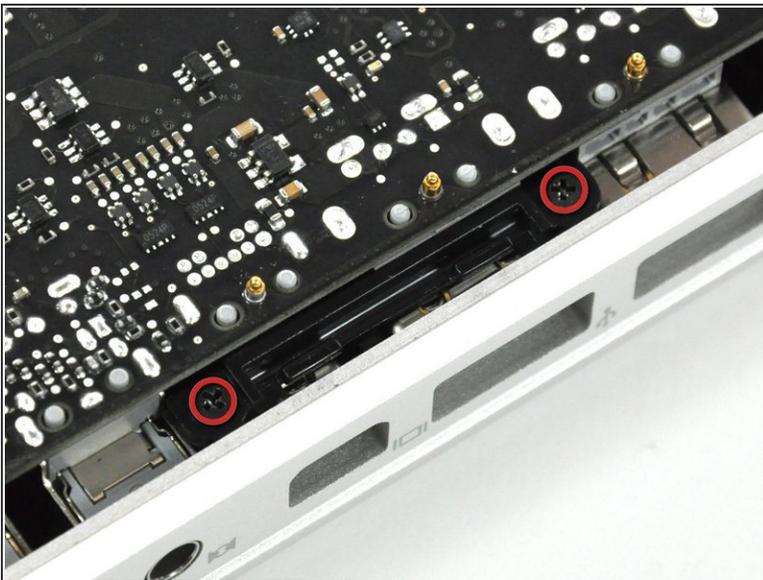
- Remove seven 3.2 mm Phillips screws securing the logic board to the upper case.
- ⚠ Do not remove the logic board yet! There are connectors attached to the underside of the logic board that must first be disconnected.

## Step 24



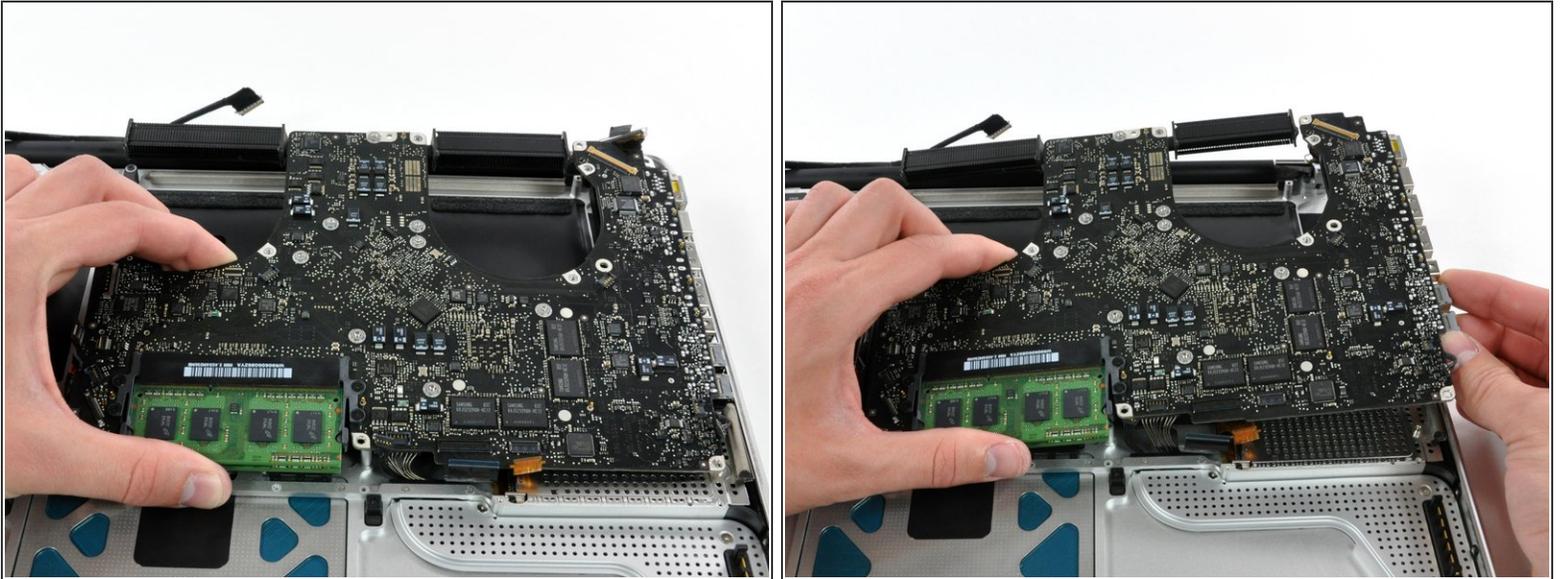
- Remove two 7 mm Phillips screws securing the DC-in board to the upper case.
- ⓘ Note: This step is not completely necessary, but it will make it easier to disconnect the cable that is connected to the DC-in board.

## Step 25



- Remove two 3.5 mm Phillips screws securing the bottom case clip to the upper case.
- Lift the bottom case clip out of the upper case.
- ☑ Some MacBook Pro Unibodies do not have a bottom case clip and do not require this step.

## Step 26

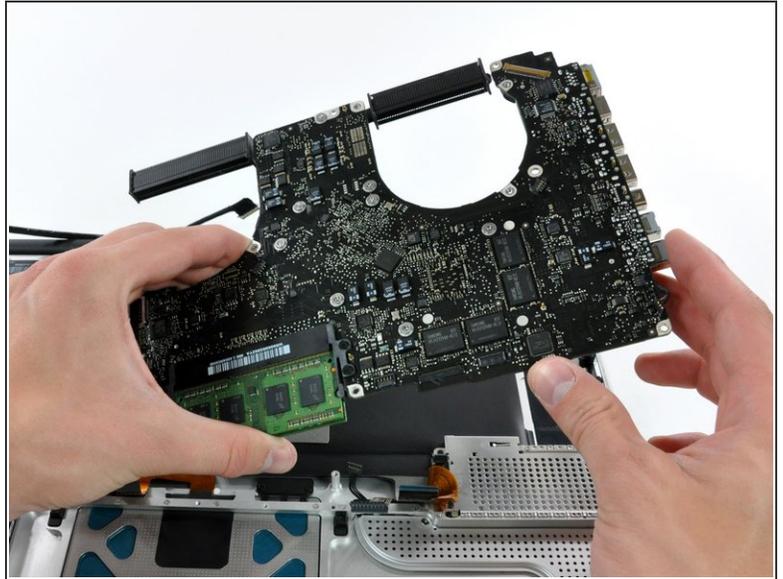


- Carefully lift the logic board assembly from the left side and work it out of the upper case, minding the port side that may get caught during removal.

**⚠ Do not** entirely remove the logic board yet!

- i** Ensure that the logic board is free from all connections to the upper case (except the battery connector) before proceeding.
- ➡** During reassembly, ensure all connectors and cables are not placed underneath the logic board. Some of the ribbon cables are very thin and fragile.

## Step 27



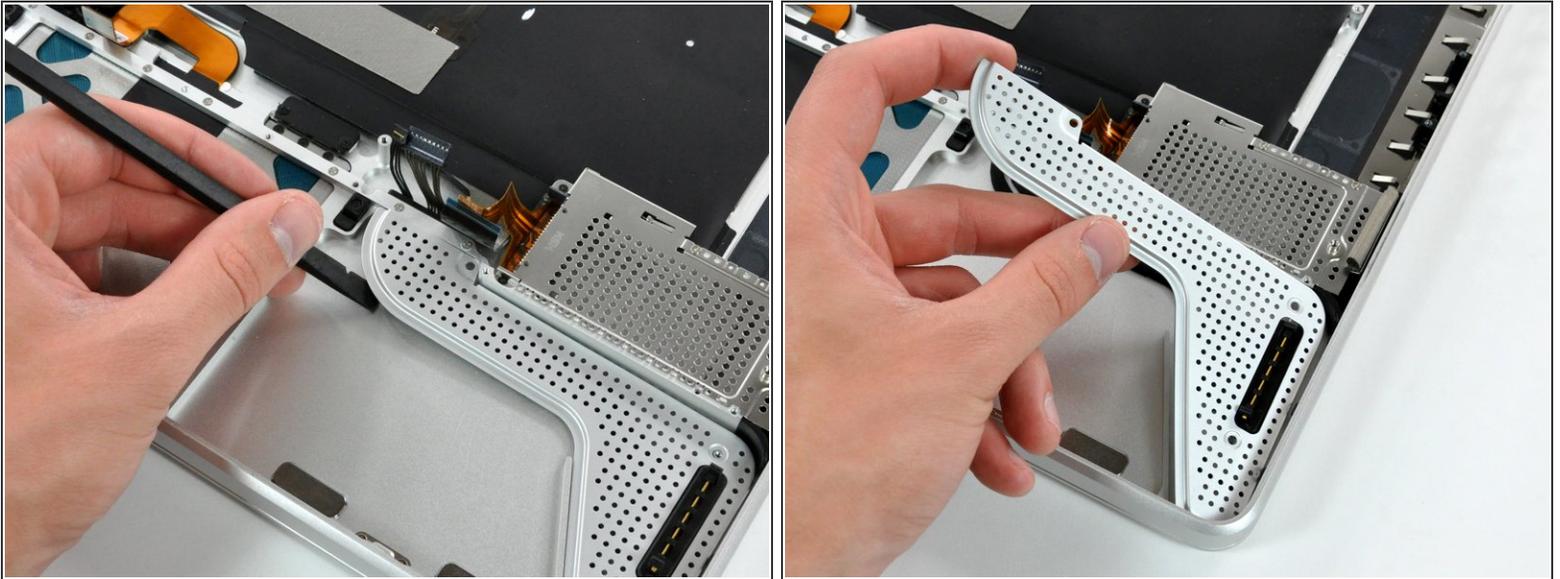
- Lift the logic board enough to grab the battery connector and pull it straight away from its socket on the logic board.
- Lift the logic board assembly out of the upper case.

## Step 28 — Battery Connector



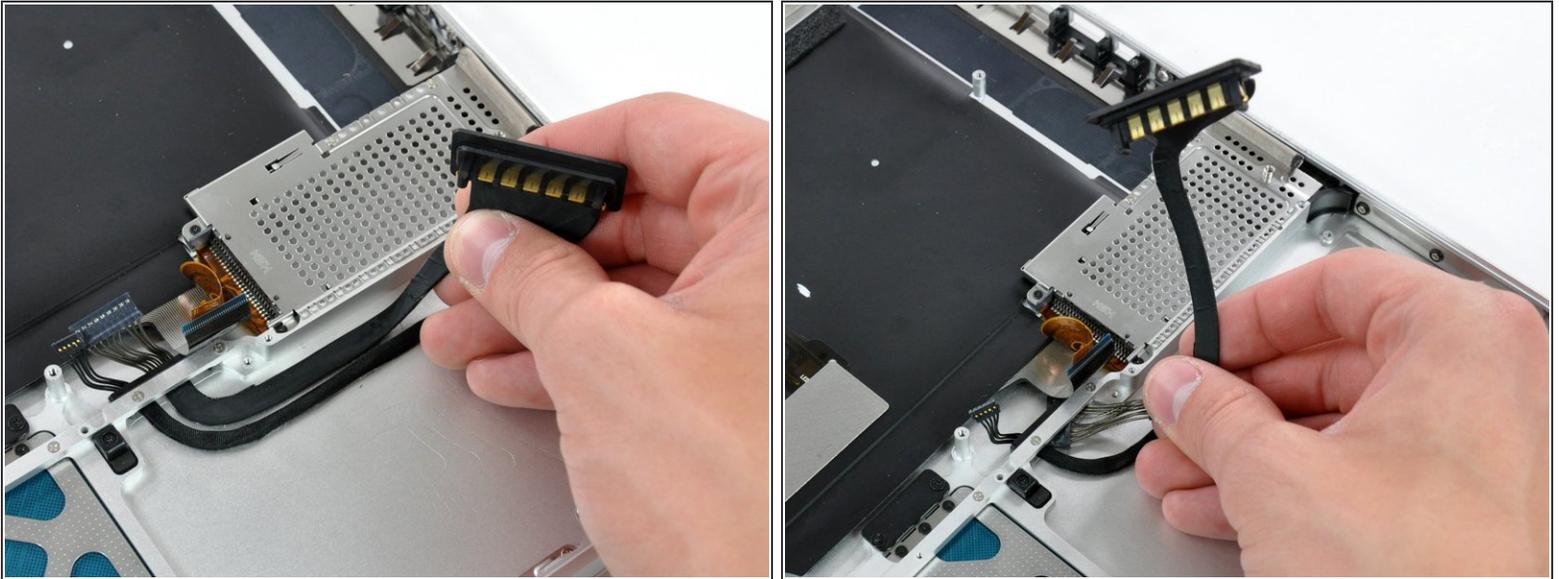
- Remove three 2 mm Phillips screws securing the battery connector cover to the upper case.

## Step 29



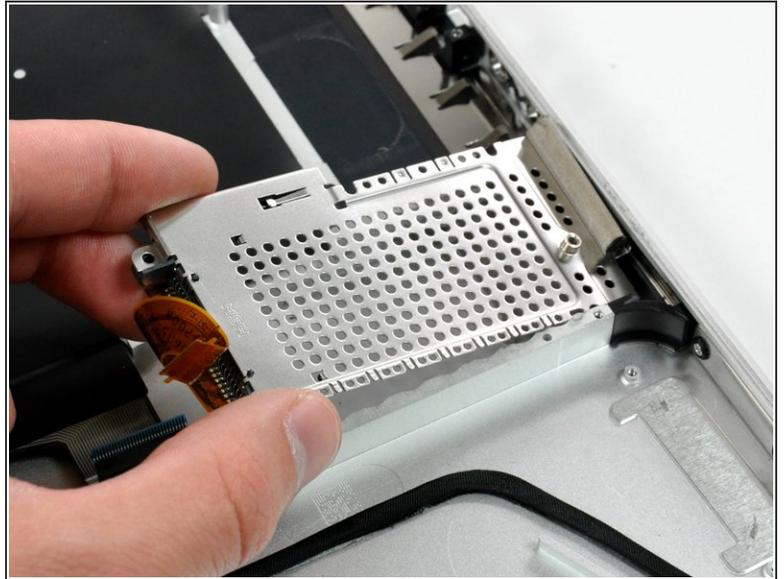
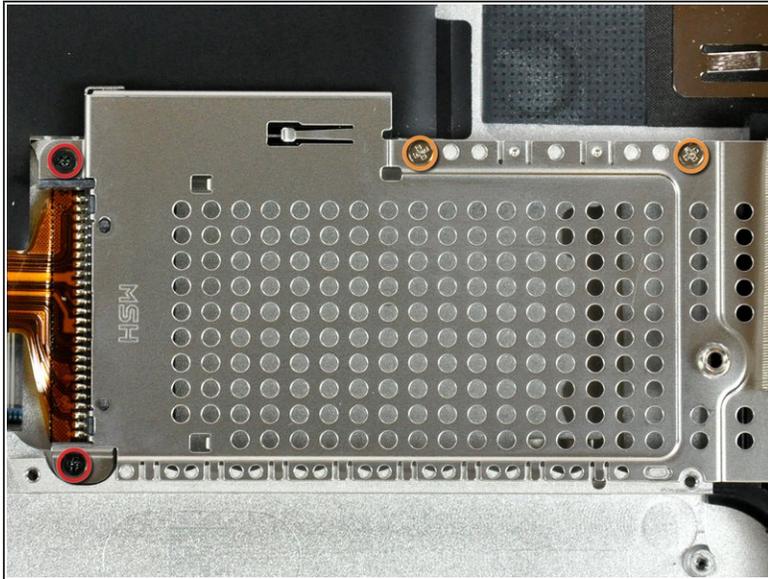
- ⓘ The battery connector cover is held onto the upper case by a strong adhesive. Use a spudger to loosen the adhesive around the edges of the battery connector.
- Lift the battery connector cover out of the upper case.

## Step 30



- Peel the battery connector cable off the adhesive securing it to the upper case.
- De-route the battery connector cable through the gap in the upper case and remove it from the computer.

## Step 31 — Upper Case



- Remove the following screws securing the ExpressCard Cage to the upper case:
  - Two 4 mm Phillips screws.
  - Two 1.9 mm Phillips screws.
- Lift the the ExpressCard Cage out of the upper case.

## Step 32



- Remove the single Phillips screw securing the hard drive bracket to the upper case.
- ☑ This screw is captive to the hard drive bracket.

## Step 33



- Lift the hard drive by its pull tab enough to grab and remove the retaining bracket.
- Lift the hard drive out of the upper case, minding the cable attaching it to the computer.

## Step 34



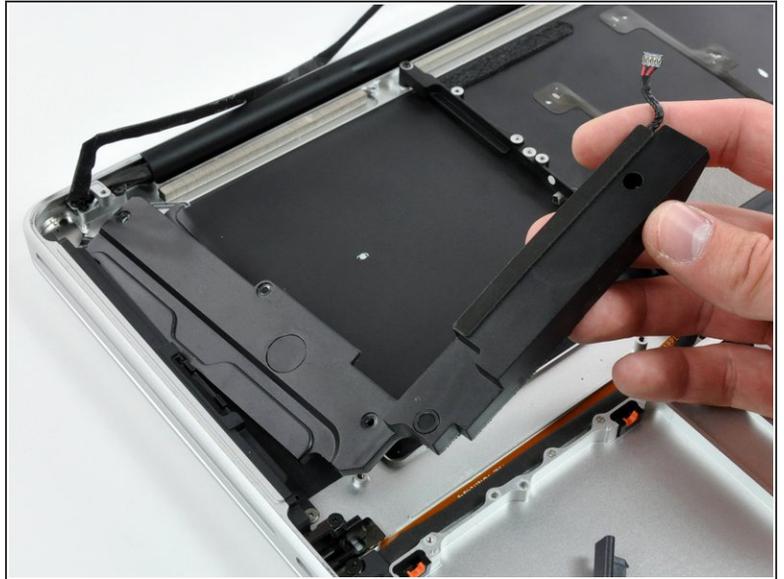
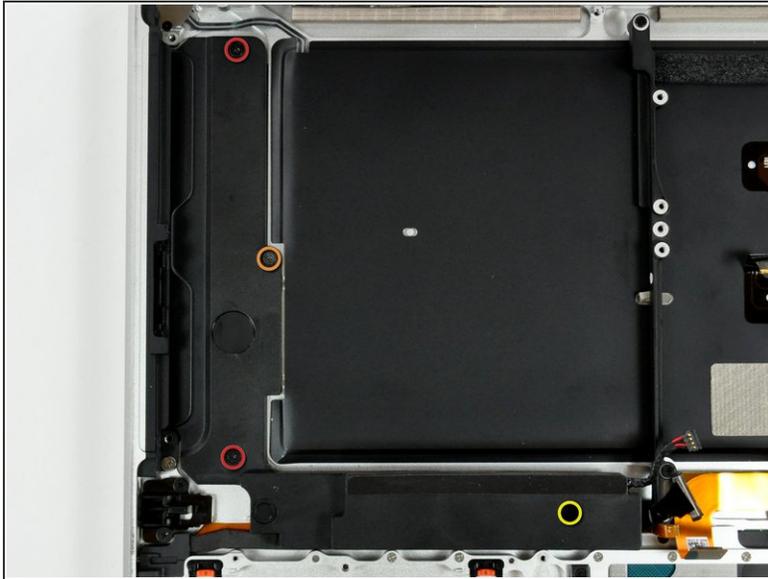
- Remove the hard drive from its cable by pulling the cable connector straight away from the drive.

## Step 35



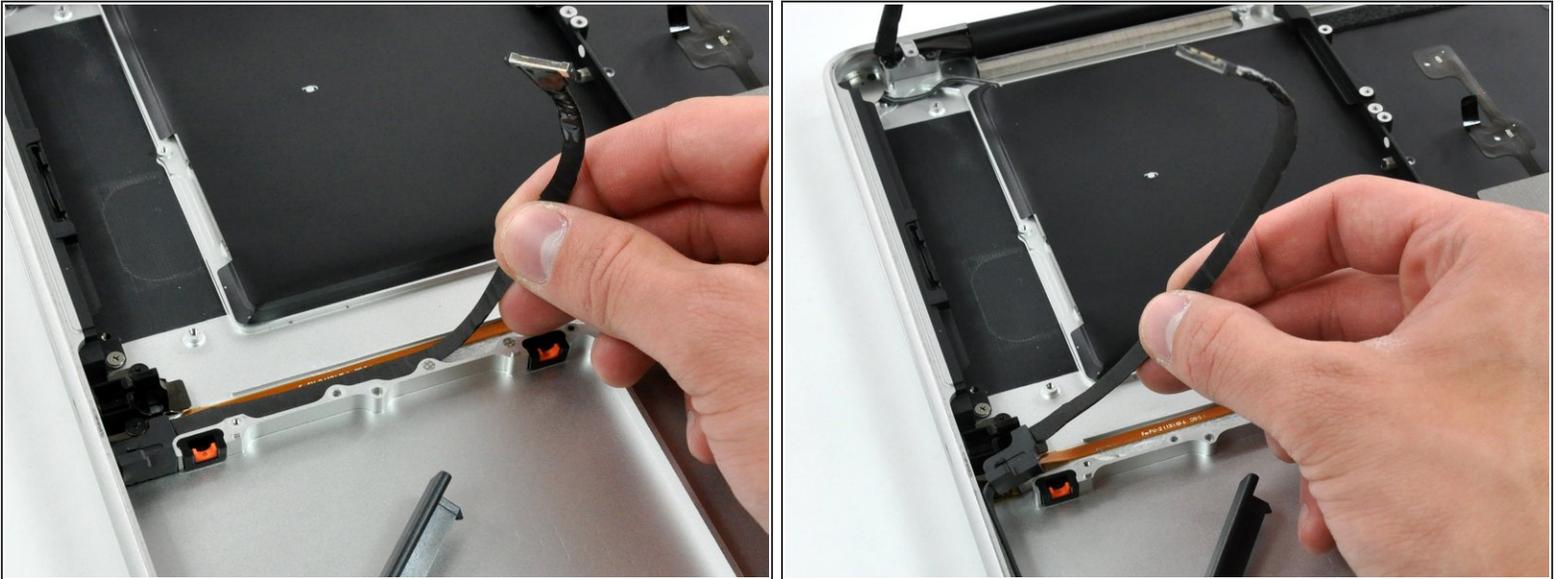
- Remove the following three Phillips screws securing the optical drive to the upper case:
  - One 3.5 mm Phillips screw.
  - Two 2.5 mm Phillips screws.
- Lift the optical drive from its right edge and pull it out of the computer.

## Step 36



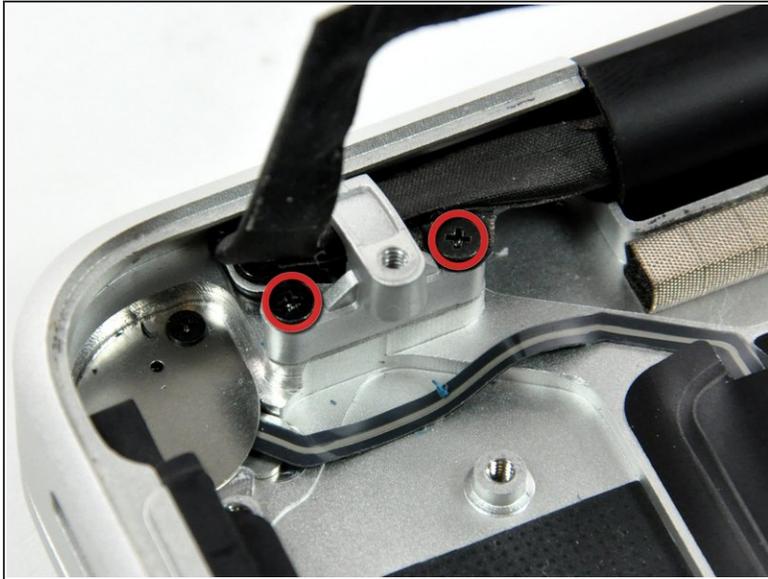
- Remove the following four screws securing the subwoofer and right speaker to the upper case:
  - Two 3.2 mm Phillips screws.
  - One 2.6 mm Phillips screw.
  - One 5.0 mm Phillips screw.
- Lift the subwoofer and right speaker assembly out of the upper case.

## Step 37



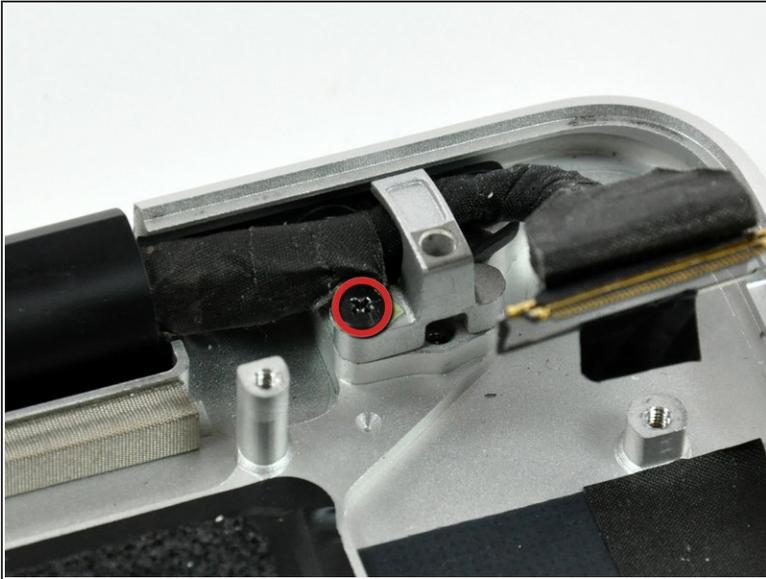
- Peel the hard drive cable from the adhesive securing it to the upper case, and maneuver the plastic retaining block out of the upper case.

## Step 38



- Remove two 8 mm Phillips screws securing the camera cable bracket to the upper case.
- ⓘ The rightmost screw may remain captive in the camera cable.
- Separate the camera cable bracket from the camera cable and remove it from the computer.

## Step 39



- Remove the 7 mm Phillips screw from the LVDS cable bracket.
- ⓘ This screw may remain captive in the LVDS cable.
- Lift the LVDS cable bracket out of the upper case.

## Step 40



- Remove two outer 6 mm T6 Torx screws securing each side of the display to the upper case (4 screws total).
- ⓘ We intentionally have you leave one screw in each hinge to aid in the following steps.

## Step 41



- Open your MacBook Pro so the display is perpendicular to the upper case.
- Place your opened MacBook Pro on a table as pictured.
- While holding the display and upper case together with your other hand, remove the 6 mm Torx screw from the lower display bracket.

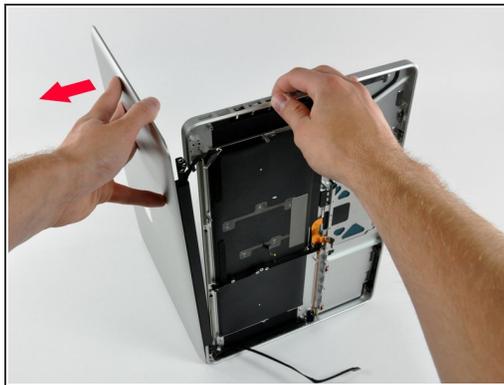
## Step 42



**⚠** Be sure to hold the display and upper case together with your other hand. Failure to do so may cause the freed display/upper case to fall, potentially damaging each component.

- Remove the last remaining 6 mm Torx screw securing the display to the upper case.

## Step 43



- Grab the upper case with your right hand and rotate it slightly toward the top of the display so the upper display bracket clears the edge of the upper case.
- Rotate the display slightly away from the upper case.
- Lift the display away from the upper case, minding any brackets or cables that may get caught.

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