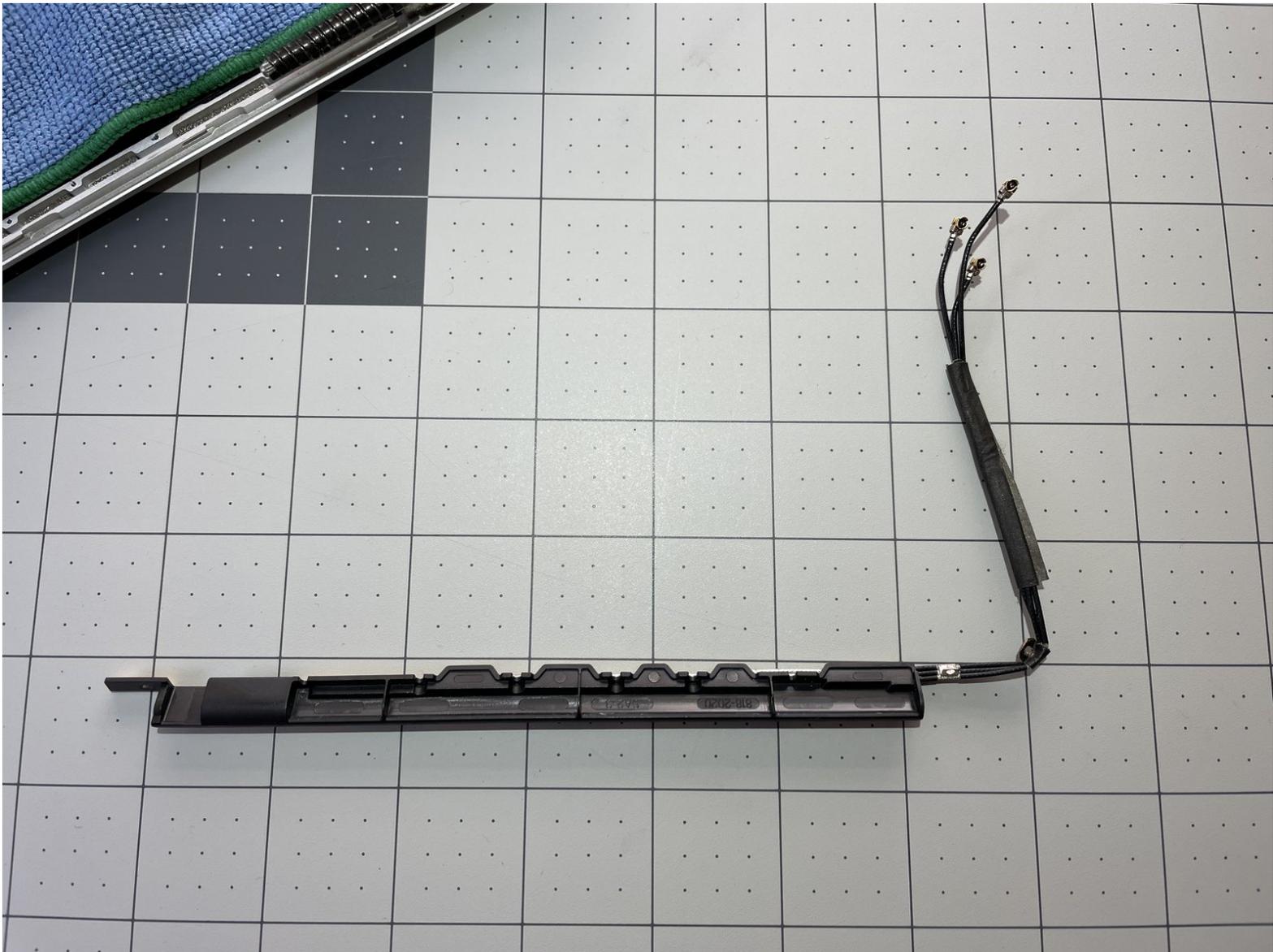




MacBook Pro 15" Unibody Mid 2012 Airport and Bluetooth Antenna Replacement

Use this guide to replace the Airport/Bluetooth antenna that's hidden in the display.

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 **TOOLS:**

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

 **PARTS:**

- [MacBook Pro 15" Unibody Mid-2012 Airport and Bluetooth Antenna](#) (1)

Step 1 — Lower Case



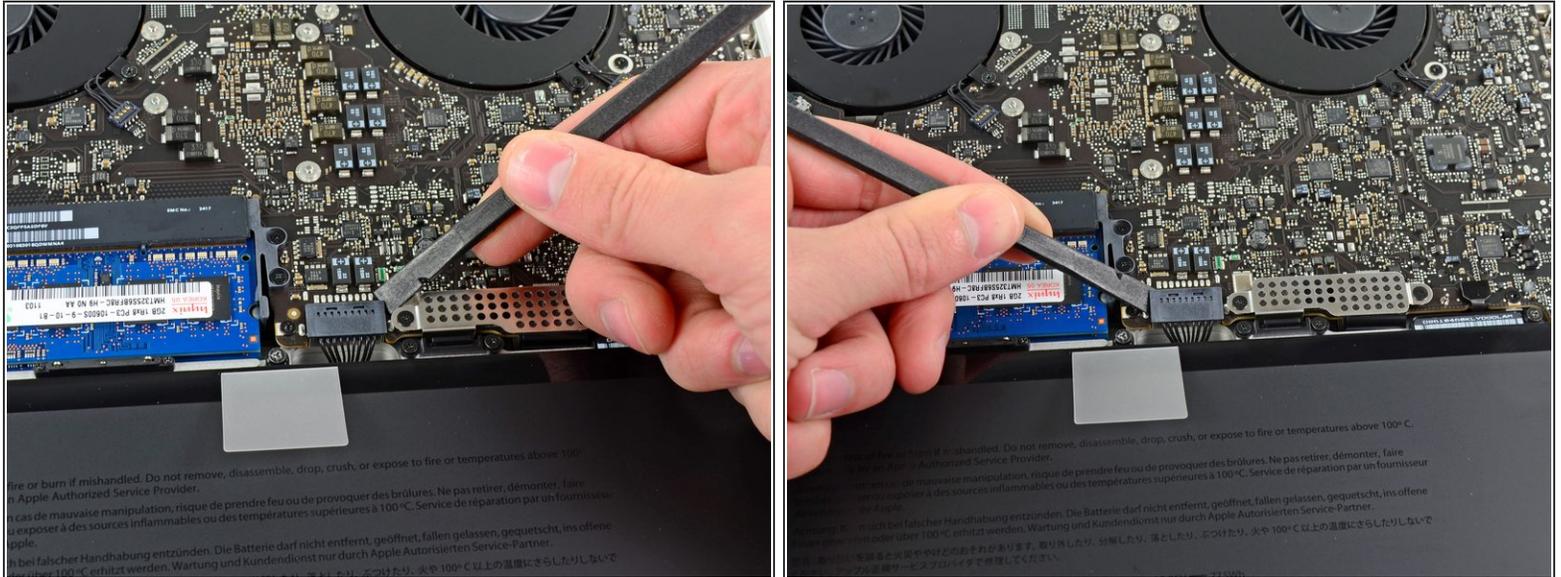
- Remove the following ten screws securing the lower case to the upper case:
 - Three 13.5 mm (14.1 mm) Phillips screws.
 - Seven 3 mm Phillips screws.
- ☑ When removing these screws, note how they come out at a slight angle. They must be reinstalled the same way.

Step 2



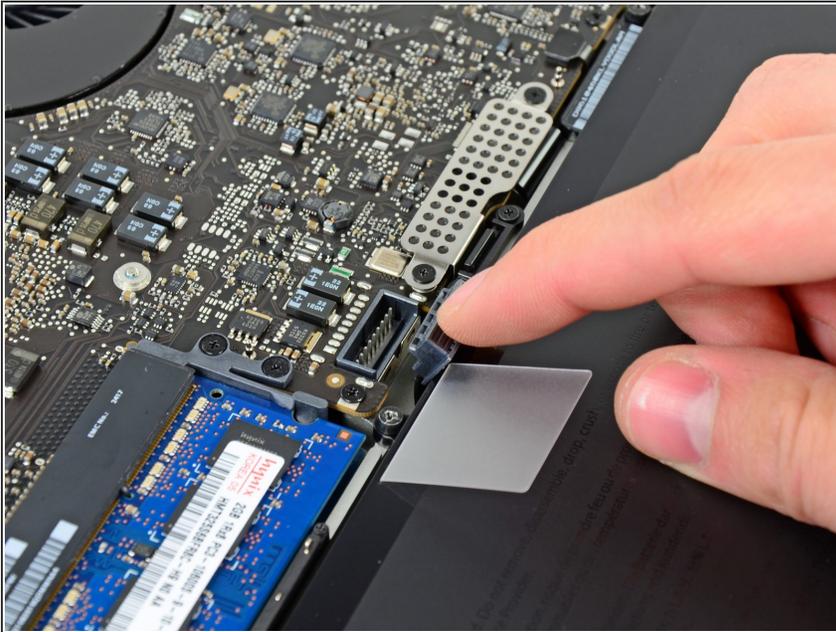
- Using both hands, lift the lower case near the vent to pop it off two clips securing it to the upper case.
- Remove the lower case and set it aside.

Step 3 — Battery Connector



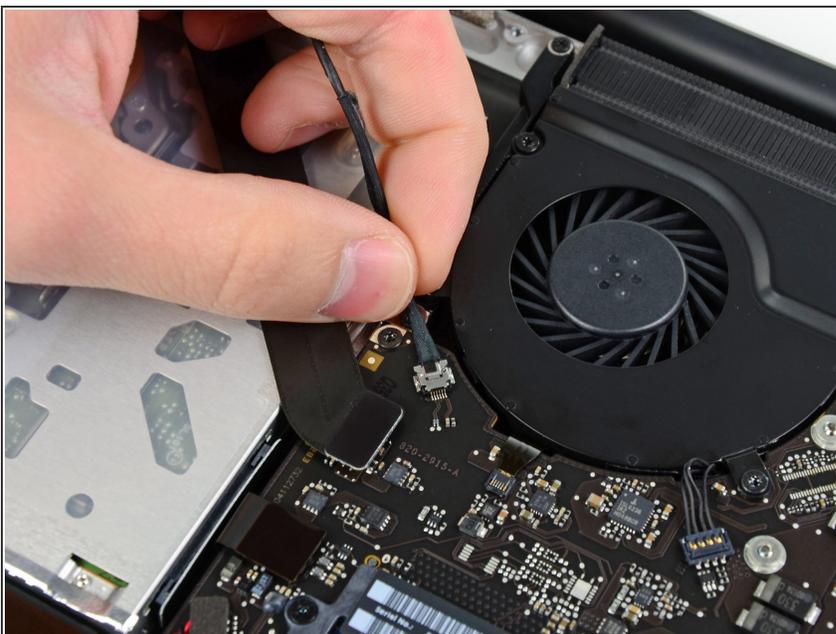
- ✦ For certain repairs (e.g. hard drive), disconnecting the battery connector is not necessary but is recommended as it prevents any accidental shorting of electronics on the motherboard. If you do not disconnect the battery connector, please be careful as parts of the motherboard might be electrified.
 - Use the edge of a spudger to pry the battery connector upwards from its socket on the logic board.
 - i It is useful to pry upward on both short sides of the connector to "walk" it out of its socket.

Step 4



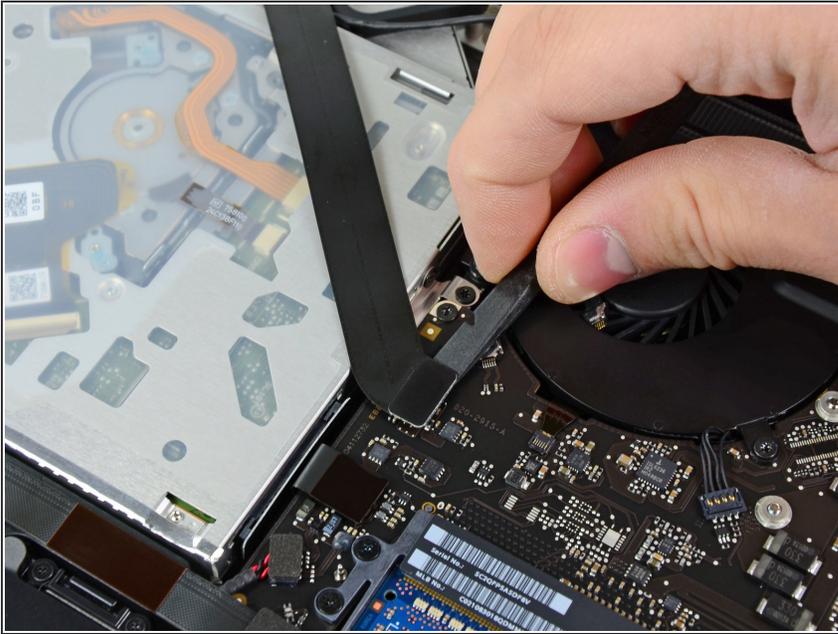
- Bend the battery cable slightly away from its socket on the logic board so it does not accidentally connect itself while you work.

Step 5 — AirPort/Bluetooth Board Assembly



- Pull the camera cable connector straight out of its socket on the logic board.
- ⓘ Pull the cable parallel to the face of the logic board toward the optical drive opening.

Step 6



- Use the flat end of a spudger to carefully pry the AirPort/Bluetooth ribbon cable up off its socket on the logic board.

Step 7



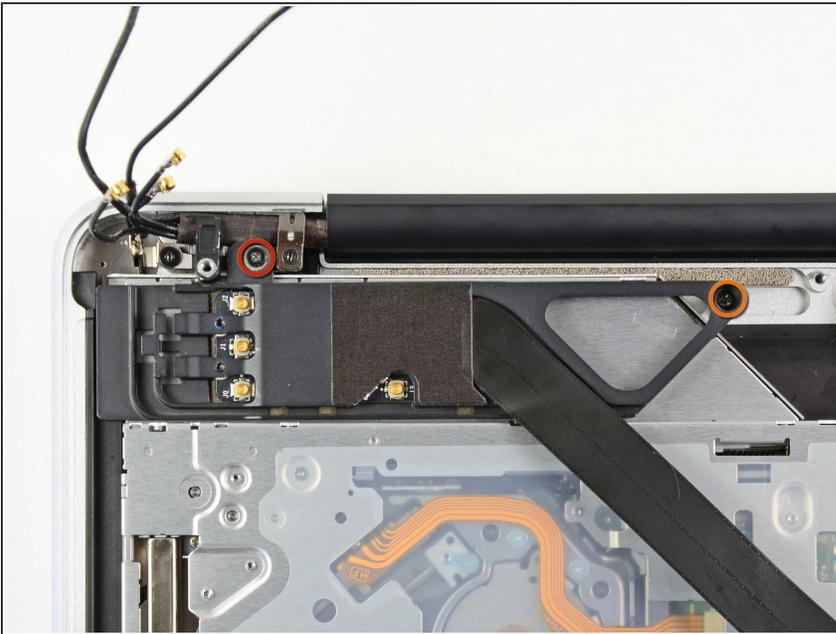
- Use the tip of a spudger to pry the four antenna connectors up from their sockets on the AirPort/Bluetooth board.

Step 8



- De-route all four antenna cables from their channels in the AirPort/Bluetooth housing.
- De-route the camera cable from its channel in the AirPort/Bluetooth housing.

Step 9



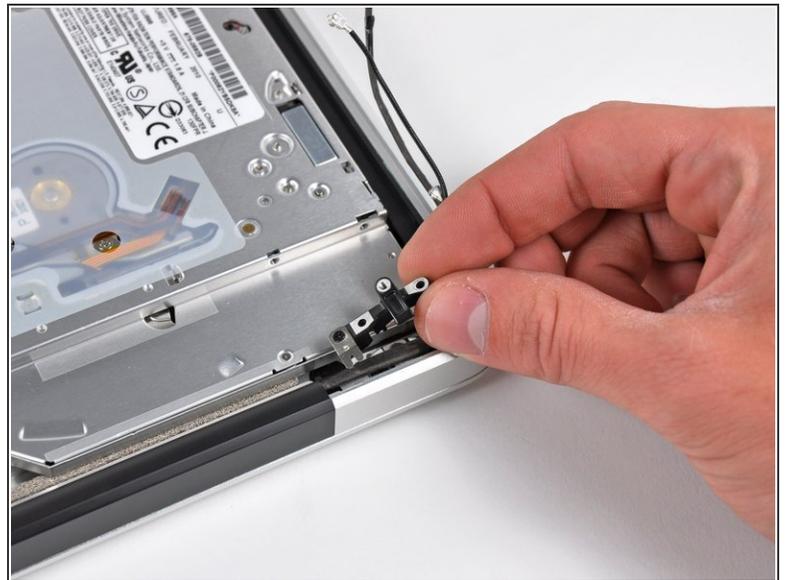
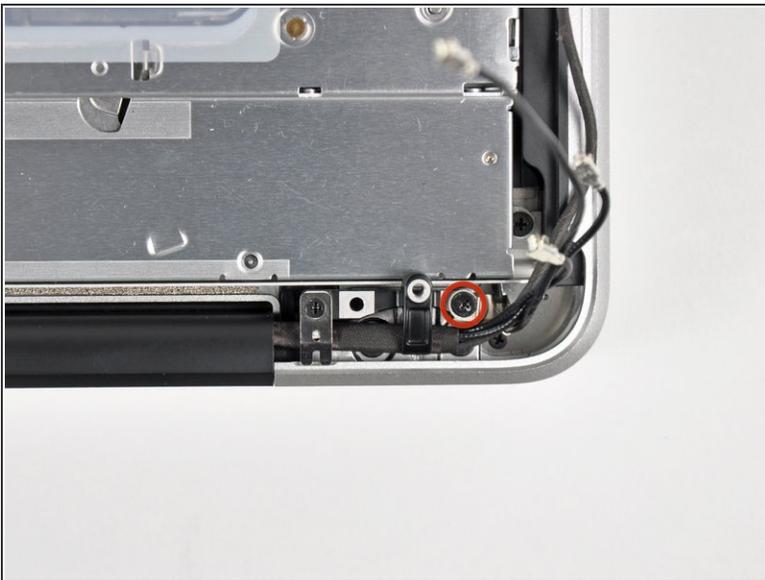
- Remove the following two screws securing the AirPort/Bluetooth assembly to the upper case:
 - One 8.6 mm Phillips screw
 - One 3.9 mm Phillips screw

Step 10



- Remove the AirPort/Bluetooth assembly from the upper case, minding any cables that may get caught.

Step 11 — Display



- Remove the 8.6 mm Phillips screw securing the antenna/camera cable retainer to the upper case.
- Remove the antenna/camera cable retainer from the upper case.
- ☑ During reassembly, place the nearby metal grounding tab on top of the hole that the Phillips screw goes into, and then install the screw.

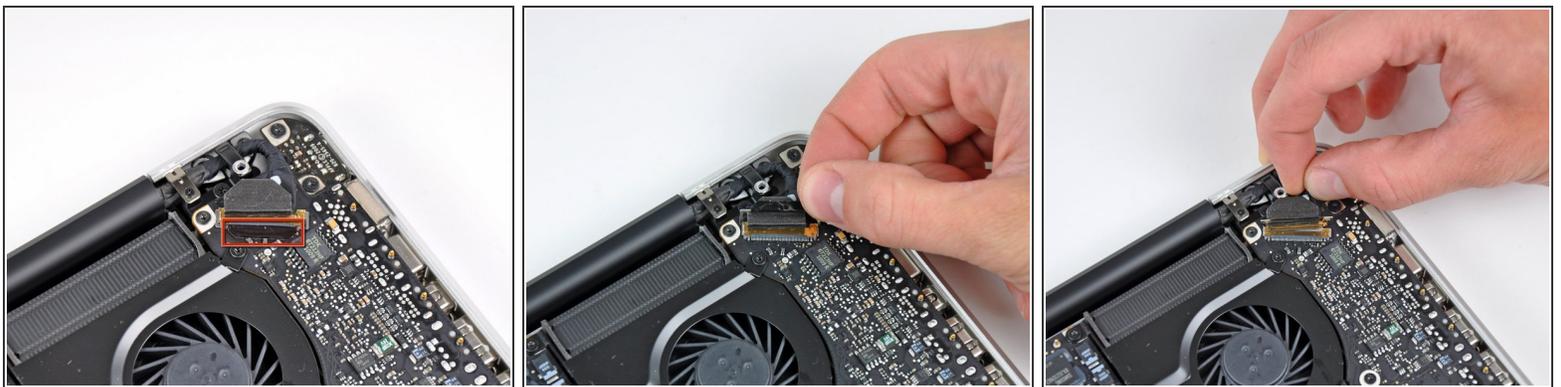
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Step 12



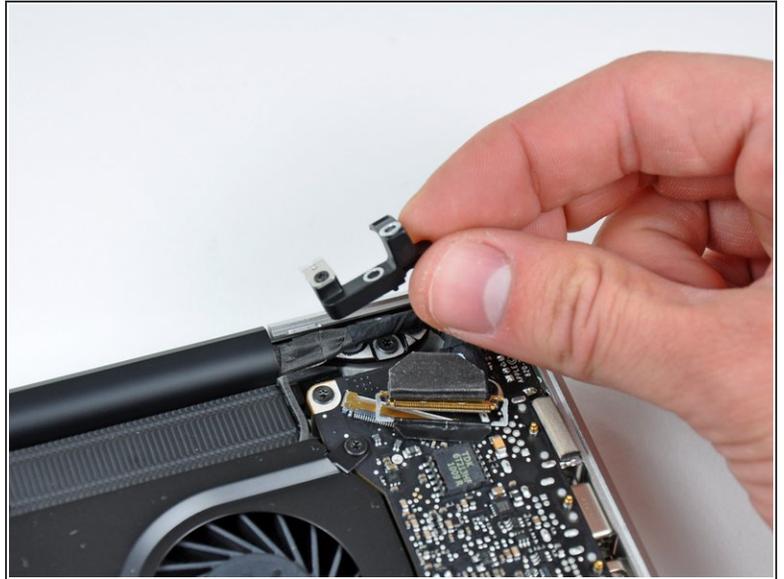
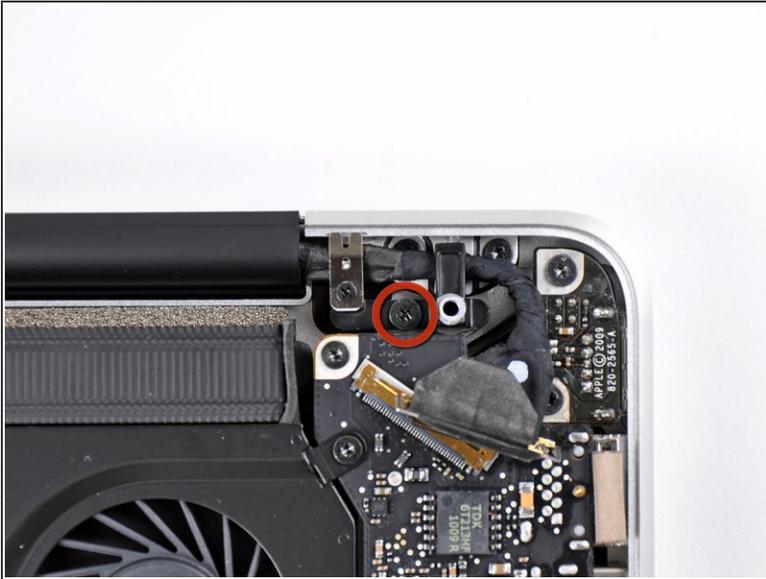
- Remove two of the three 6 mm T6 Torx screws securing the right side of the display to the upper case.
- ⓘ We purposely have you leave one screw attaching the display to the upper case to aid in future steps.
- ★ Before reinstalling the screw nearest to the corner of the case, make sure the nearby metal grounding tab doesn't get caught under the hinge.

Step 13



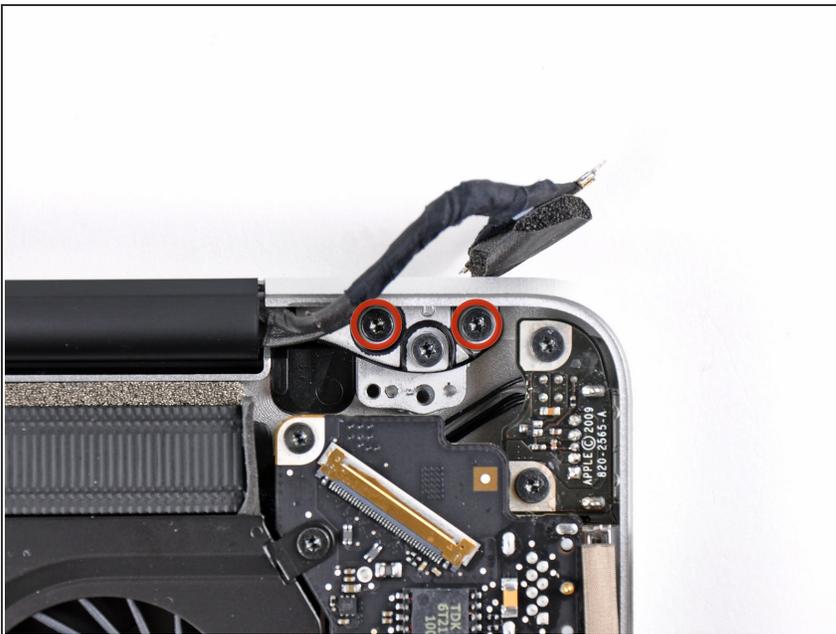
- Grab the plastic pull tab secured to the display data cable lock and rotate it up and over the connector, toward the DC-In side of the computer.
- Pull the display data cable straight back (not up) out of its socket on the logic board.
- ⓘ Do not lift up on the display data cable, as its socket is very fragile. Pull the cable parallel to the face of the logic board.

Step 14



- Remove the 8.6 mm Phillips screw securing the display data cable retainer to the upper case.
- Remove the display data cable retainer from the upper case.

Step 15



- Remove two of the three 6 mm T6 Torx screws securing the left side of the display to the upper case.
- ⓘ We purposely have you leave one screw attaching the display to the upper case to aid in future steps.

- ✦ The display assembly and MacBook body can be subtly misaligned on reassembly. With all six T6 Torx screws in place and the notebook closed, check for alignment. Loosen these six screws to correct the alignment if necessary, and then re-tighten them.

Step 16



- 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 left hand, remove the remaining T6 Torx screw from the upper display bracket.

Step 17



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

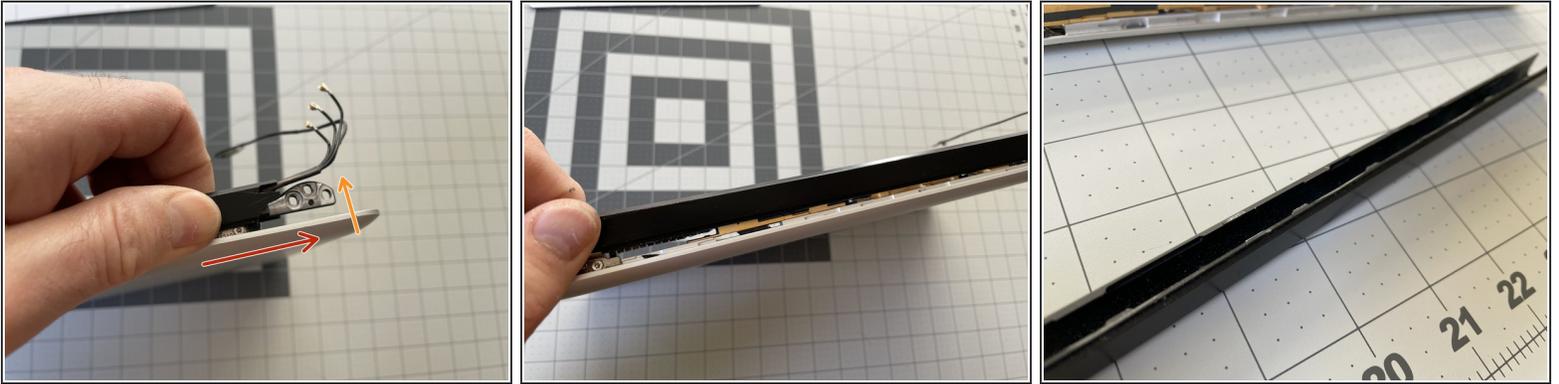
- Remove the last remaining T6 Torx screw securing the display to the upper case.

Step 18



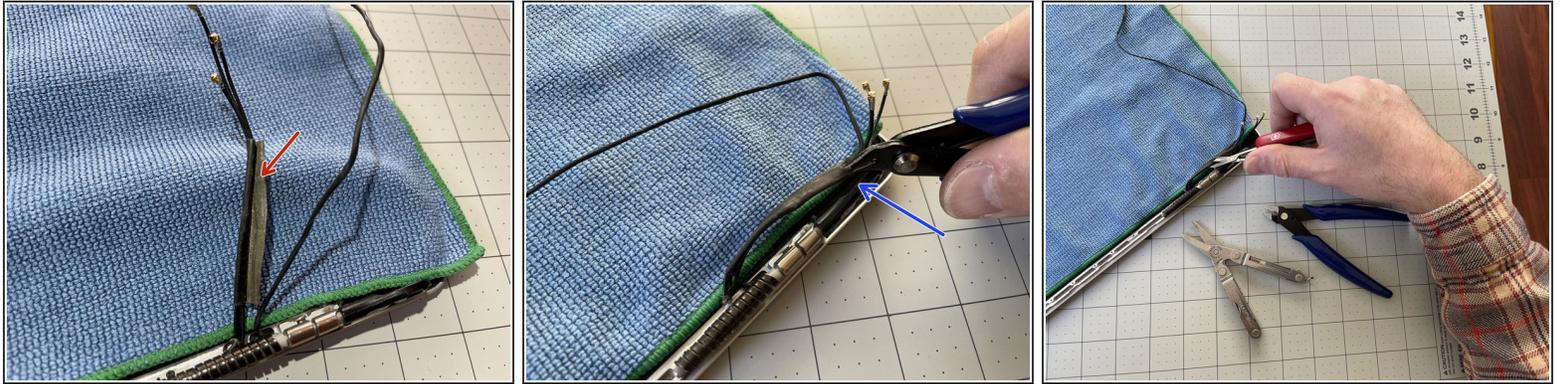
- Grab the upper case with your right hand and rotate it slightly toward the top of the display so the upper display bracket clears the edge of the upper case.
- Rotate the display slightly away from the upper case.
- Lift the display up and away from the upper case, minding any brackets or cables that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

Step 19 — Airport and Bluetooth Antenna



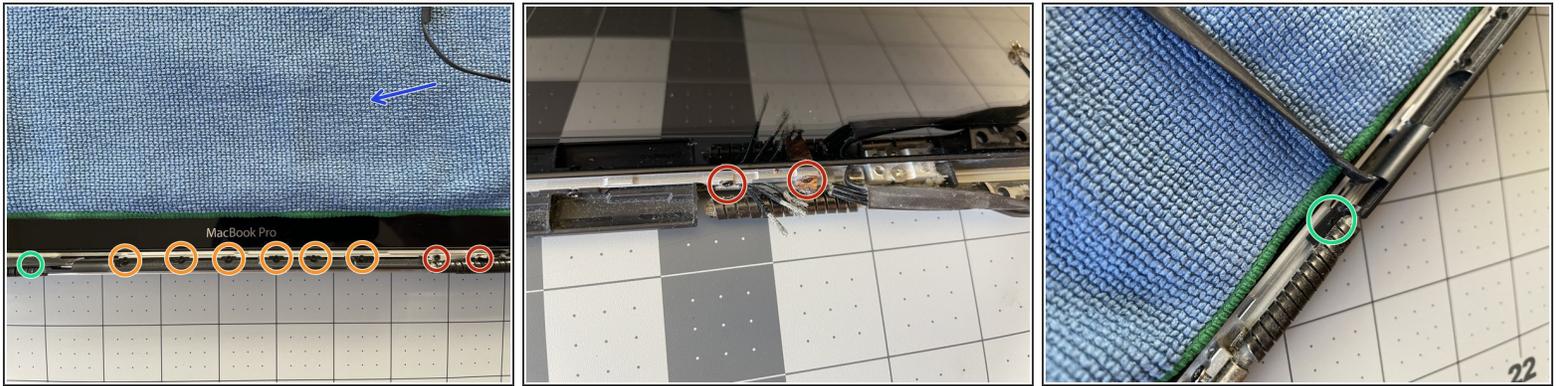
- i** The plastic cover has retaining tabs on its bottom -- see the third picture.
- Starting on the right side of the display, slide the antenna's plastic cover approximately 1/4" to the right.
 - Then, lift up the right edge of the plastic cover just enough to separate it from the display.
 - Continue lifting the cover along its length, until the entire cover is separated.
 - Remove the plastic cover and retain for reassembly.
- 🔗** When putting back the cover, follow the instructions in reverse -- put it into its channel about 1/4" to the right of where it should normally reside, then slide it into its location.

Step 20



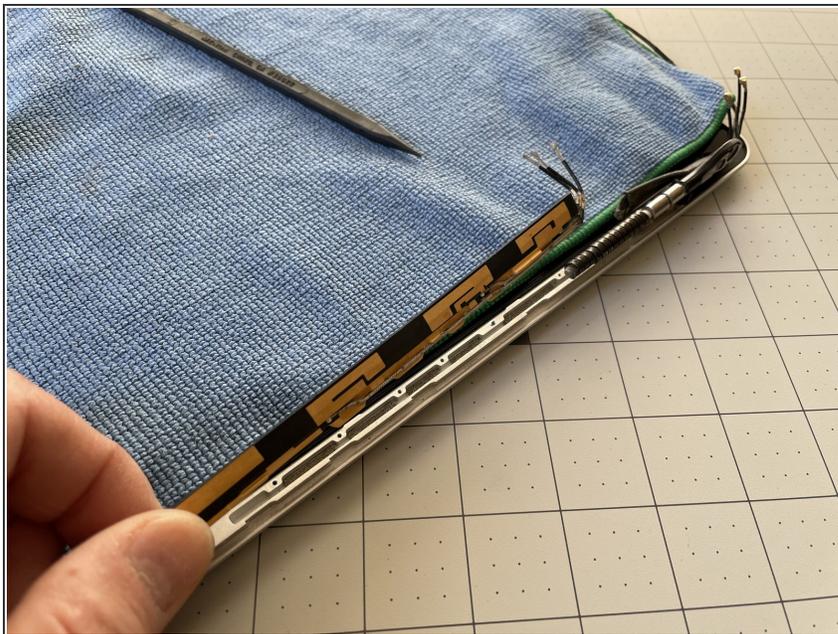
- Unwrap the black tape to separate the iSight camera cable from the Airport/Bluetooth cables.
- If unwrapping is not possible, **carefully** cut the black tape lengthwise, making sure not to accidentally cut any of the cables -- especially the iSight cable.
- ⓘ A variety of tools can be used for this cut, but the smaller the cutting instrument, the better. I found that the scissors from a mini Swiss Army pocketknife worked best, although iFixit's Flush Cutter worked fine as well.

Step 21



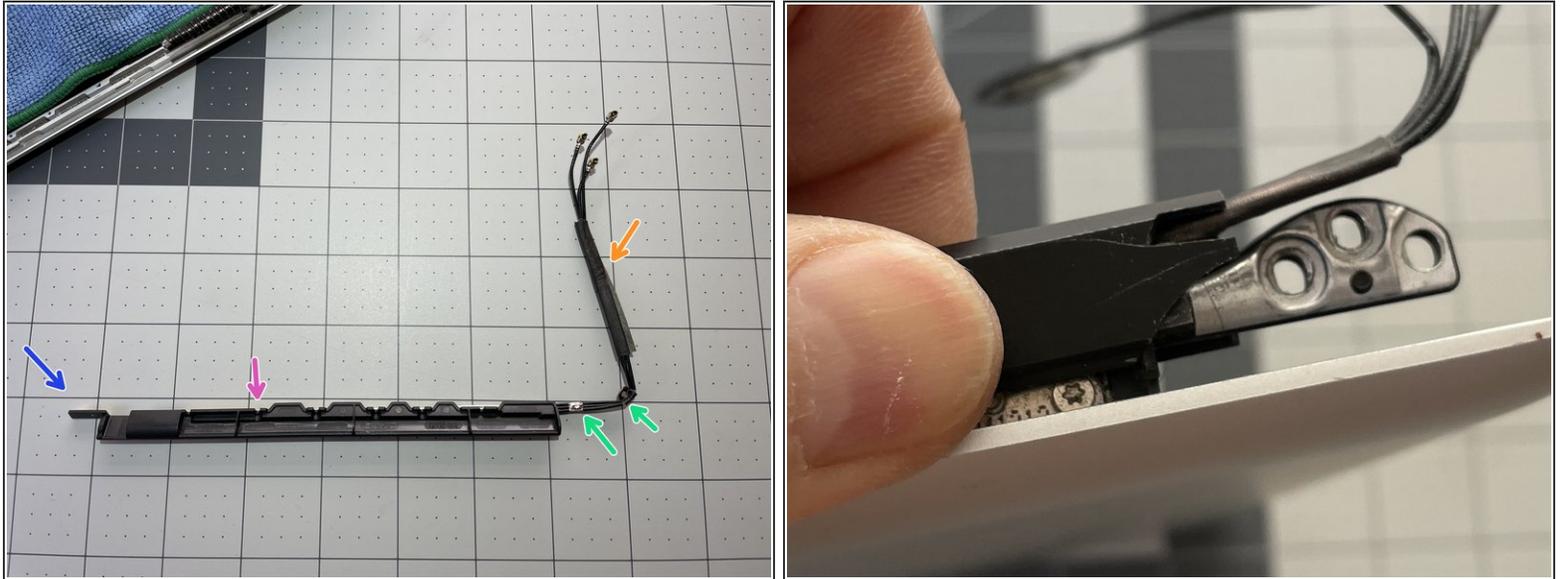
- Optional: Place a cover on top of your display, just in case your screwdriver slips.
- ⓘ The following screws are different lengths, so keep them separate for easy reassembly.
- Remove the two #000 Phillips screws on the far-right (see detail photo).
- Remove the somewhat-hidden #000 Phillips screw on the far-left of the display (see detail photo).
- Remove the six #000 Phillips screws in the middle of the antenna board.

Step 22



- Lift up the antenna board up and out of the display.

Step 23 — Reinstallation Tips



- Make sure to re-wrap the Antenna/iSight cables back with some tape. If your replacement part did not include any, reuse the one you took off. My replacement part came with tape, but I still put a bit of Kapton tape around the black tape to completely close the fold.
- The new antenna hopefully came with the small grounding straps that go around the cables, and get screwed in on the far-right of the display. If they didn't, you'll need to remove them from the old antenna.
- Insert the replacement board starting with the far-left side. Once inserted, the board should sit loosely in the grooves of the display.
- When installing the new antenna, first screw in one of the six center screws -- that will help align the far-left screw over its hole.

⚠ Be very careful when reinstalling the plastic cover for the antenna. Mine was already brittle and crumbling, and I had to super-glue some pieces together after reassembly.

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