



iPhone 6s Plus Logic Board Replacement

Follow the steps in this guide to replace the l...

Written By: Dante Mazzanti



INTRODUCTION

Follow the steps in this guide to replace the logic board in your iPhone 6s Plus.

It's important to note that each iPhone's logic board and Touch ID fingerprint sensor are paired at the factory, so replacing the logic board will disable Touch ID *unless* you also install a replacement home button that has been properly paired to your new logic board.

You can also use this guide to replace the following parts:

- [Audio Control Cable Bracket](#)
- [Top Center Cell Antenna Bracket](#)
- [NFC Bracket](#)

TOOLS:

[Anti-Clamp](#) (1)
[SIM Card Eject Tool](#) (1)
[P2 Pentalobe Screwdriver iPhone](#) (1)
[Suction Handle](#) (1)
[Spudger](#) (1)
[Tweezers](#) (1)
[Phillips #000 Screwdriver](#) (1)
[iFixit Opening Tool](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[Standoff Screwdriver for iPhones](#) (1)
[iOpener](#) (1)

PARTS:

[iPhone 6s Plus Logic Board](#) (1)
[iPhone 6s Plus Audio Control Cable Bracket](#) (1)
[iPhone 6s Plus Top Center Cell Antenna Bracket](#) (1)
[iPhone 6s Plus NFC Bracket](#) (1)
[iPhone 6s Plus Screw Set](#) (1)
[iPhone 6s Plus Display Assembly Adhesive](#) (1)

Step 1 — Pentalobe Screws



⚠ Before disassembling your iPhone, discharge the battery below 25%. A charged lithium-ion battery can catch fire and/or explode if accidentally punctured.

- Power off your iPhone before beginning disassembly.
- Remove the two 3.4 mm Pentalobe screws on either side of the Lightning port.

Step 2 — Anti-Clamp instructions



- ① The next two steps demonstrate the [Anti-Clamp](#), a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Slide the arms over either the left or right edge of your iPhone.
- Position the suction cups near the bottom edge of the iPhone just above the home button—one on the front, and one on the back.
- Squeeze the cups together to apply suction to the desired area.
- ① If you find that the surface of your iPhone is too slippery for the Anti-Clamp to hold onto, you can [use tape](#) to create a grippier surface.

Step 3



- Pull the blue handle forwards to lock the arms.
 - Turn the handle clockwise 360 degrees or until the cups start to stretch.
 - ⓘ Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.
 - Insert an opening pick under the screen when the Anti-Clamp creates a large enough gap.
 - ⓘ If the Anti-Clamp doesn't create a sufficient gap, rotate the handle a quarter turn.
- ⚠ Don't crank more than a quarter turn at a time, and wait a few seconds between turns. Let the Anti-Clamp and time do the work for you.**
- **Skip the next three steps.**

Step 4 — Opening Procedure



- If you don't have an [Anti-Clamp](#), follow the next three steps to use a suction handle.
- Apply mild heat to the lower edge of the iPhone using an [iOpener](#) or hair dryer for about a minute.
- ⓘ Heat softens the adhesive securing the display, making it easier to open.

Step 5



- ① Opening the display on the 6s Plus separates a thin strip of adhesive around the perimeter of the display. If you prefer to replace the adhesive, have a set of new adhesive strips ready before you continue. It's possible to complete the repair without replacing the adhesive, and you probably won't notice any difference in functionality.
- Apply a suction cup to the lower left corner of the display assembly.
- ① If your display is badly cracked, [covering it with a layer of clear packing tape](#) may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken screen.

Step 6



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.

⚠ Pulling too hard may damage the display assembly. Apply just enough pressure to create a small gap between the display assembly and the rear case.

Step 7



- The safest place to pry from is the notch in the front panel above the headphone jack.
- While still maintaining pressure on the suction cup, insert the flat tip of a spudger into the gap, directly above the headphone jack.

Step 8



- Twist the spudger to widen the gap between the front panel and the rear case.

Step 9



- While firmly pulling up on the suction cup, slide the edge of the spudger under the bottom left corner of the display.

Step 10



- Slide the tip of the spudger up the left side of the phone, between the front panel and the rear case.

Step 11



- Insert the flat tip of the spudger under the right edge of the display.
- Slide the spudger up the right side.

Step 12



- Use a plastic opening tool to hold down the rear case while pulling up the suction cup to open the phone.

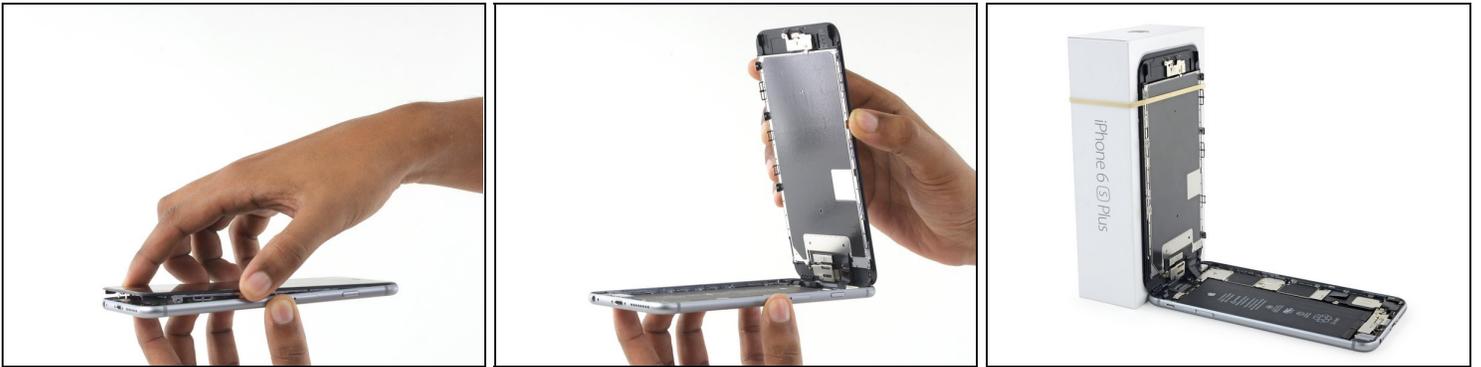
⚠ Do *not* remove the display completely, or you will damage the data cables connecting the display near the top edge of the iPhone.

Step 13



- Pull up on the small nub on the suction cup to remove it from the display.

Step 14



- Gently grasp the display assembly and lift it up to open the phone, using the clips at the top of the front panel as a hinge.
- Open the display to about a 90° angle, and lean it against something to keep it propped up while you're working on the phone.
 - ⚠ Don't open the display more than 90°—it is still connected to the top of the phone by the display, digitizer, and front camera cables which can tear easily.
- Add a rubber band to keep the display securely in place while you work. This prevents undue strain on the display cables.
- ⓘ In a pinch, you can use an unopened canned beverage to support the display.

Step 15 — Battery Connector



- Remove two Phillips screws securing the battery connector bracket to the logic board, of the following lengths:
 - One 2.9 mm screw
 - One 2.3 mm screw
- ☑ Throughout this guide, [keep careful track of your screws](#) so that each one goes back where it came from during reassembly. Installing a screw in the wrong place can cause permanent damage.

Step 16



- Remove the battery connector bracket.

Step 17



- Use a spudger or a clean fingernail to disconnect the battery connector by prying it straight up off the logic board.

Step 18



- Bend the connector back to ensure it doesn't make contact and power the iPhone on while you're working on it.

Step 19 — Display Assembly



- Remove the following Phillips screws:
 - Three 1.3 mm screws
 - One 1.6 mm screw
 - One 3.0 mm screw
- ☑ During reassembly, it's critical to place this 3.0 mm screw in the top-right corner of the bracket. Placing it anywhere else may damage the logic board.

Step 20



- Remove the display cable bracket.

Step 21



⚠ Be careful to only pry up on the connector itself and not the socket on the logic board.

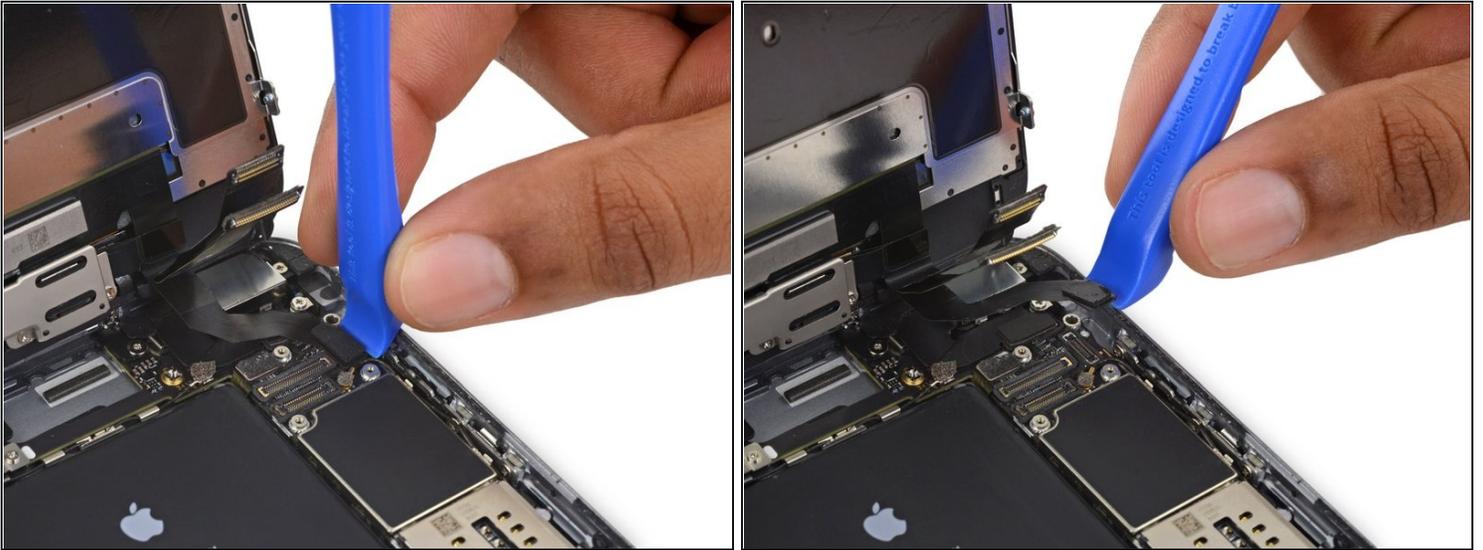
- Use a plastic opening tool to disconnect the front-facing camera and sensor cable connector.

Step 22



- Use a plastic opening tool to disconnect the digitizer cable by prying it straight up from its socket on the logic board.
- ☑ When reconnecting the digitizer cable, **do not press the center of the connector**. Press one end of the connector, then press the opposite end. Pressing in the center of the connector can bend the component and cause digitizer damage.

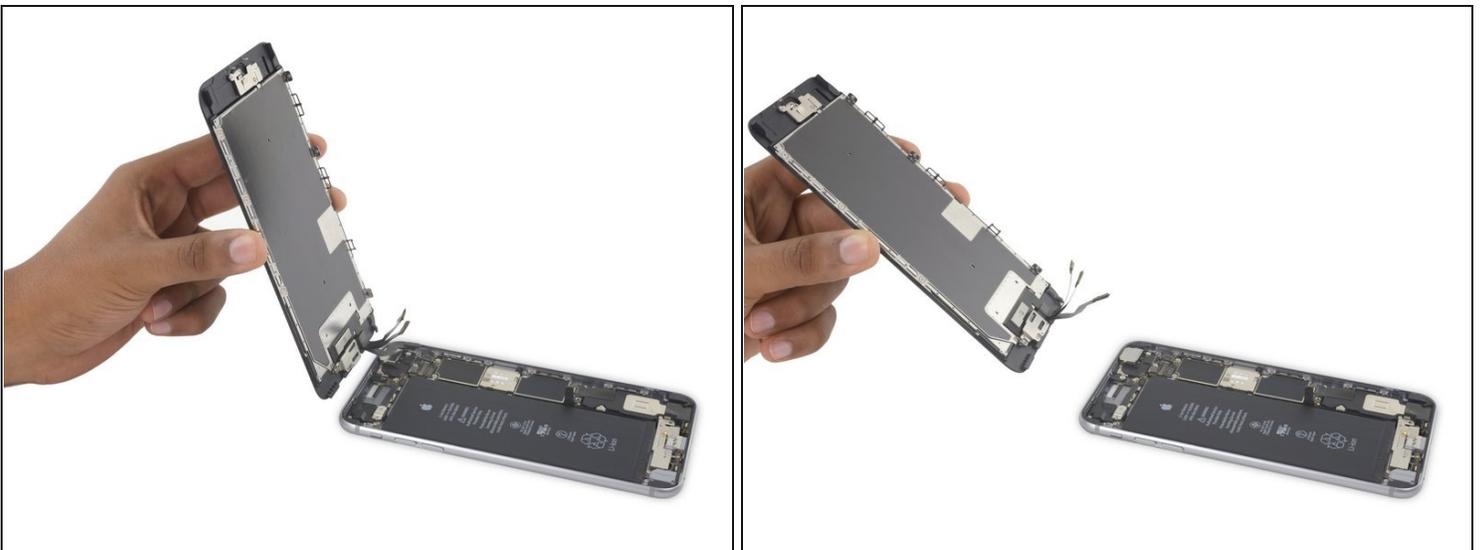
Step 23



⚠ Make sure the battery is disconnected before you disconnect or reconnect the cable in this step.

- Disconnect the home button/fingerprint sensor cable by prying it straight up from its socket on the logic board.

Step 24



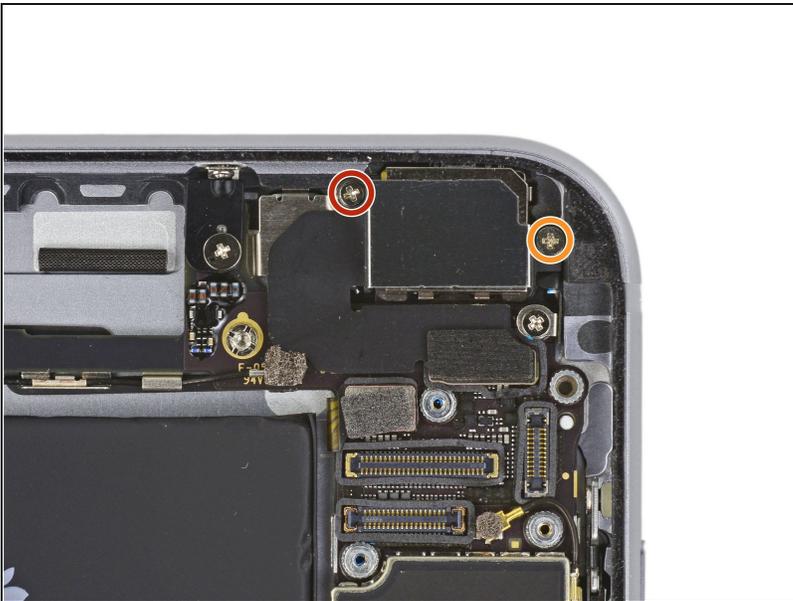
- Remove the display assembly.
- During reassembly, pause here if you wish to [replace the adhesive around the edges of the display](#).

Step 25 — iSight Camera



- Peel up any tape covering the iSight camera bracket screws.

Step 26



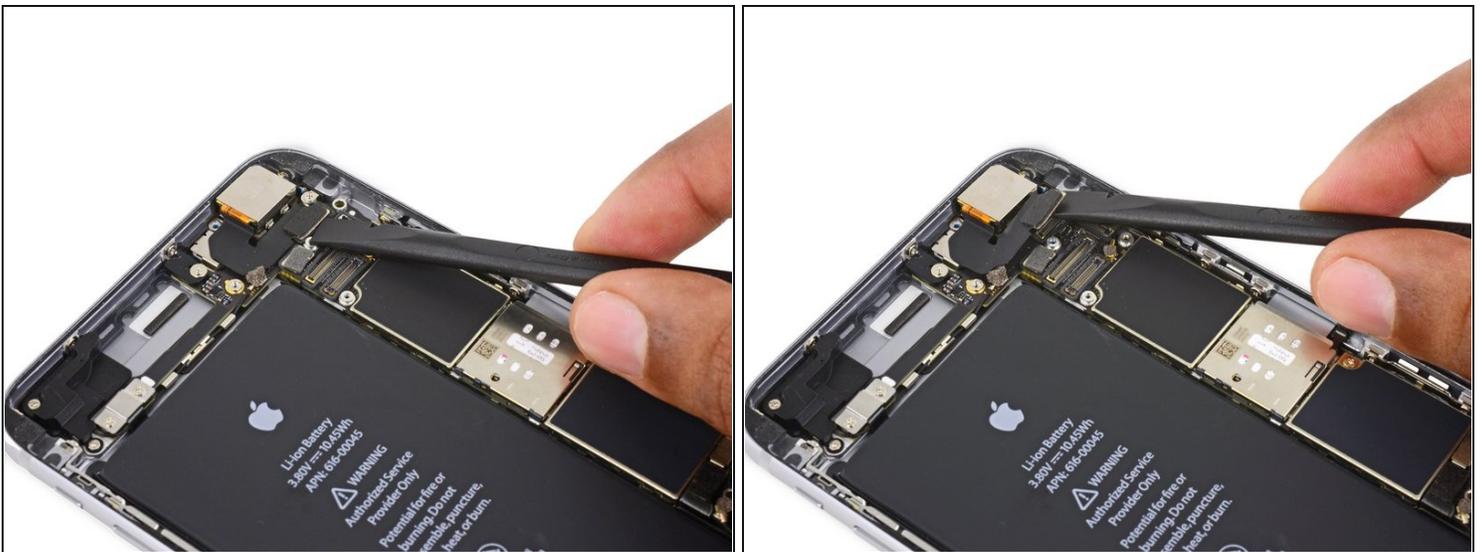
- Remove the following Phillips screws over the camera bracket:
 - One 1.9 mm screw
 - One 2.4 mm screw

Step 27



- Remove the iSight camera bracket.

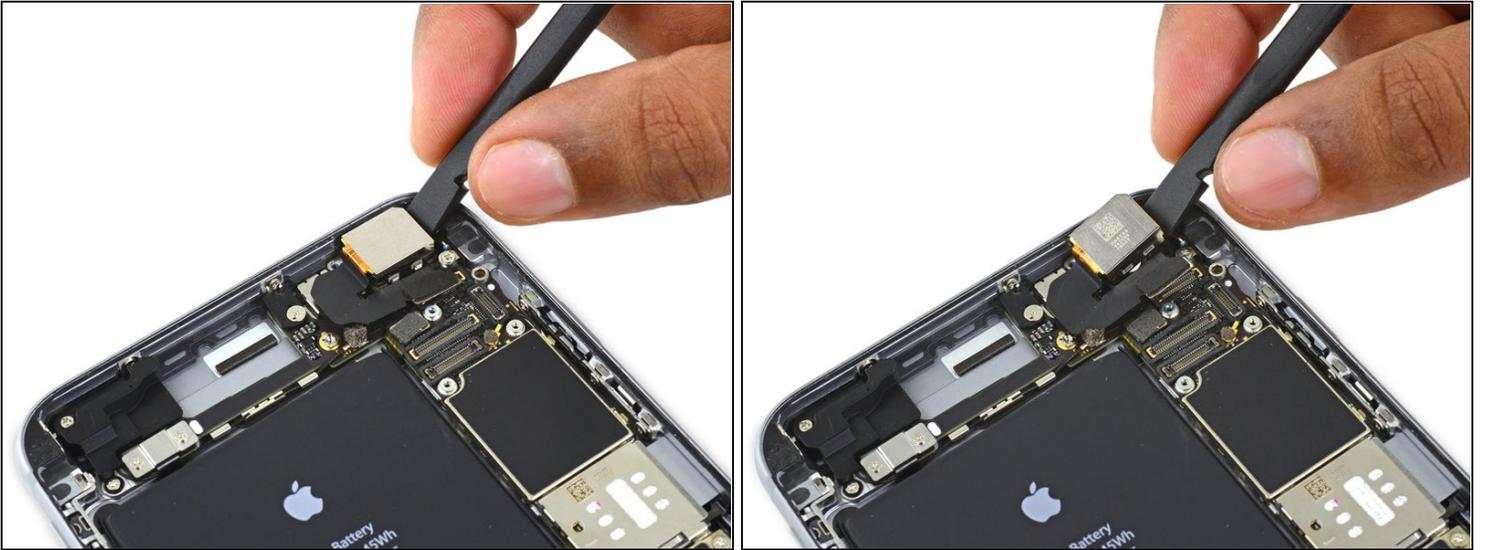
Step 28



- Disconnect the iSight camera connector from its socket on the logic board.

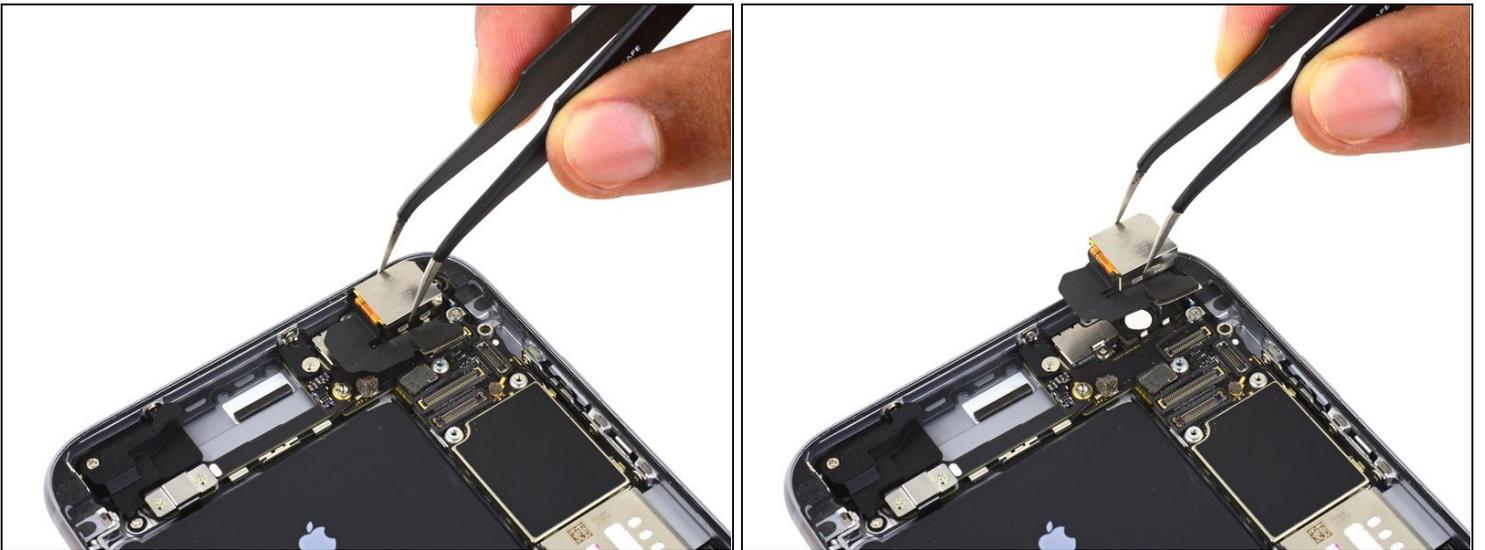
⚠ Be sure to pry up *only* the connector and not the socket on the logic board.

Step 29



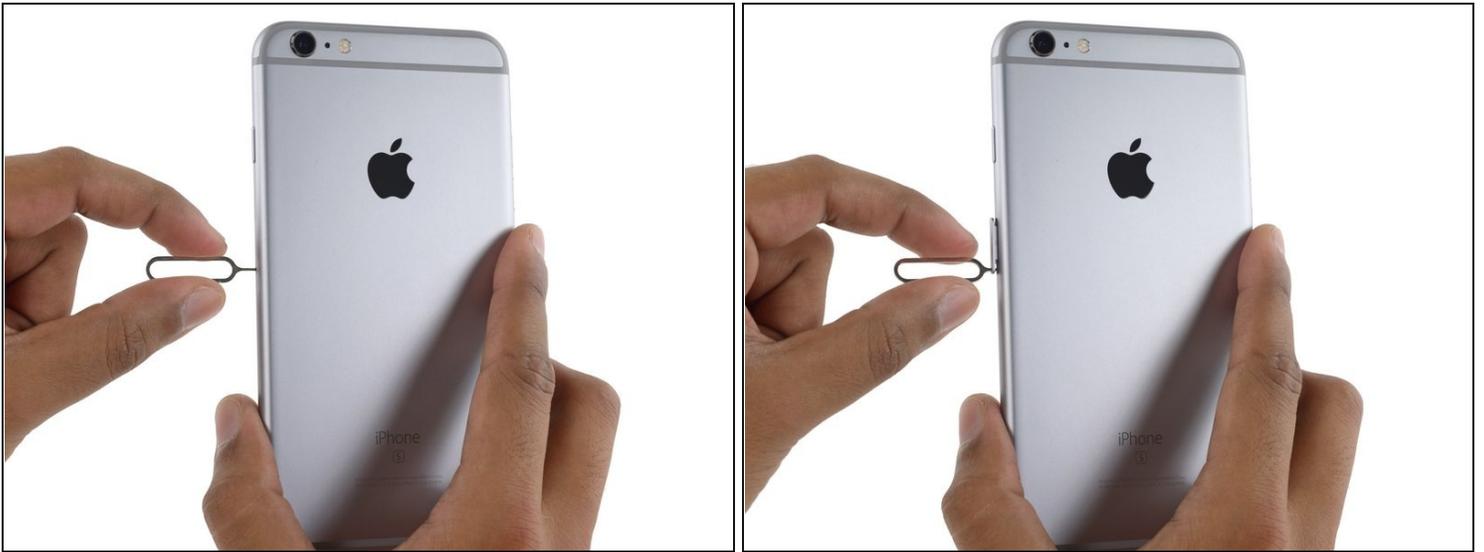
- Insert the flat end of the spudger between the iSight camera and rear casing.
- Gently pry the camera out from its housing.

Step 30



- Remove the iSight camera.

Step 31 — SIM Tray



- Insert a SIM eject tool into the hole in the SIM tray.
- Press to eject the SIM tray.

Step 32



- Remove the SIM tray.
- When reinserting the SIM tray, be sure to orient the tray such that the SIM eject hole is on the bottom.

Step 33 — Logic Board



- Remove the single 1.4 mm Phillips screw holding the NFC bracket in place.

Step 34



- Remove the NFC bracket.

Step 35



- Remove the two 2.7 mm Phillips screws securing the audio control cable bracket to the logic board.

Step 36



- Remove the audio control cable bracket.

Step 37



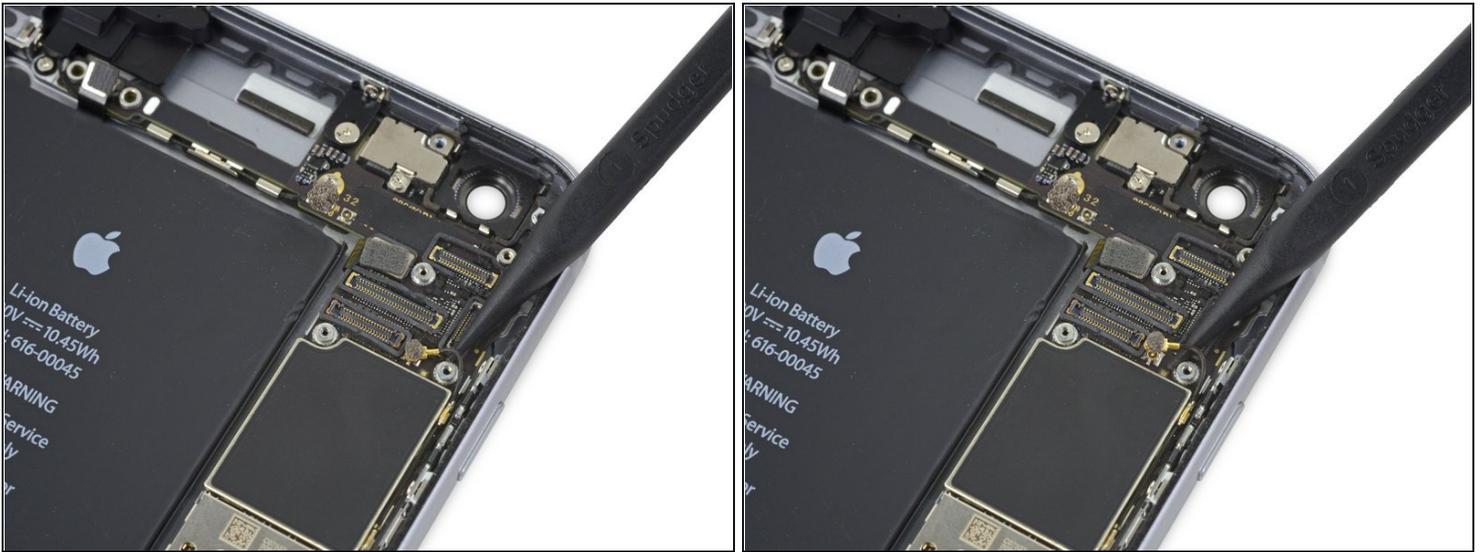
- Disconnect the audio control cable by prying its connector straight up from its socket on the logic board.

Step 38



- Disconnect the cellular antenna cable by prying its connector straight up from its respective socket on the logic board.

Step 39



- Disconnect the Wi-Fi diversity antenna cable by prying its connector up from the logic board.

Step 40



- Disconnect the power button flex cable from its socket on the logic board.

Step 41



- Disconnect the antenna cable by prying it up from the logic board.

Step 42



- Use the flat end of a spudger to disconnect the Lightning connector flex cable from the logic board.

Step 43



- Deroute the antenna cable from the two clips on the right edge of the logic board.

Step 44



- Remove the following screws:
 - One 1.3 mm Phillips screw
 - One 2.6 mm Phillips screw
 - One 2.2 mm standoff screw
- ① Standoff screws are best removed using a [standoff screwdriver](#) or bit.

⚠ In a pinch, a small flathead screwdriver will do the job—but use extra caution to ensure it doesn't slip and damage surrounding components.

Step 45



- Remove the bracket.

Step 46



- Deroute the upper left cellular antenna cable from the first logic board clip by nudging it out from under the clip, towards the battery.

Step 47



- Continue derouting the cellular antenna cable from the second and third logic board clips.
 - Use the pointed tip of a spudger to gently pry the cellular antenna cable from the middle logic board clip.
⚠ Don't try to remove it by pulling on the cable, as it will tear easily.
- ☑ In order for the cable to reach its socket on the logic board, you must route it above the logic board and underneath the audio control flex cable, as shown in the first photo.

Step 48



- Remove the final 2.0 mm Phillips screw directly below the SIM card reader.

Step 49



- Carefully raise—but do **not** remove—the logic board, lifting it from the bottom edge nearest the Lightning connector.

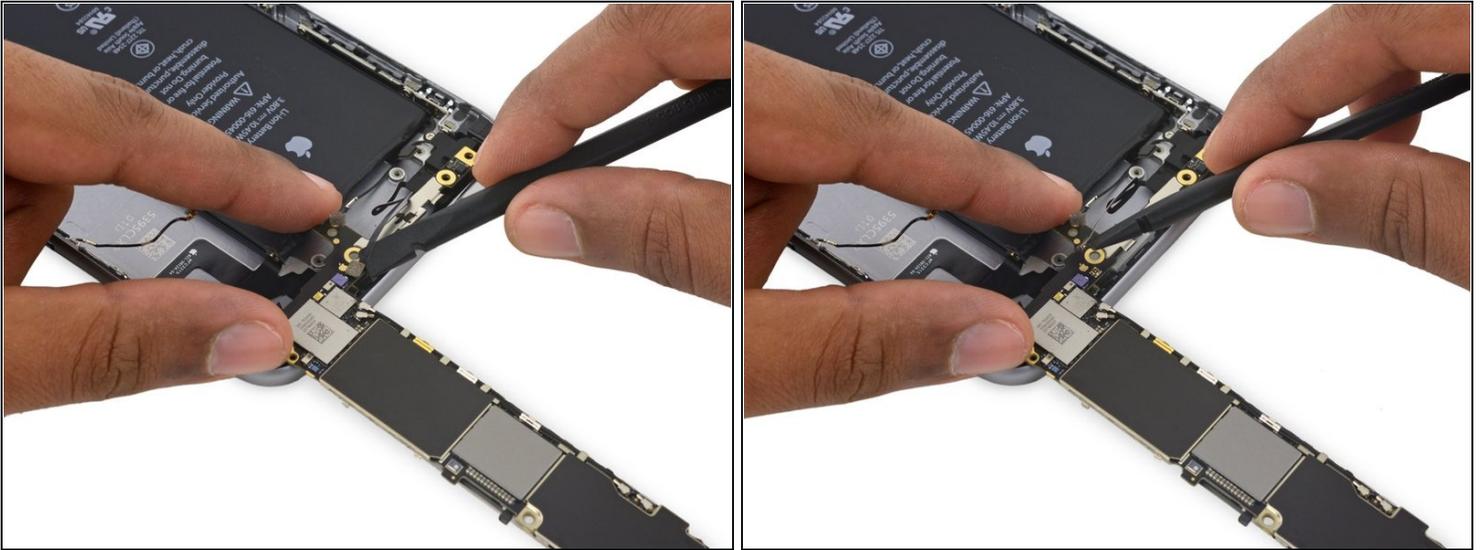
Step 50



- Tip the logic board up to a vertical position to expose the single antenna connector on the underside, near the top edge of the board.

⚠ Do not attempt to fully remove the logic board yet, as the Wi-Fi/Bluetooth antenna is still connected to the underside of the board.

Step 51



- Gently lay the logic board upside-down, with the top portion resting against the rear case of the iPhone.
- Use the flat end of the spudger to disconnect the Wi-Fi/Bluetooth antenna cable from its socket on the back of the logic board.

Step 52



- Remove the logic board.

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