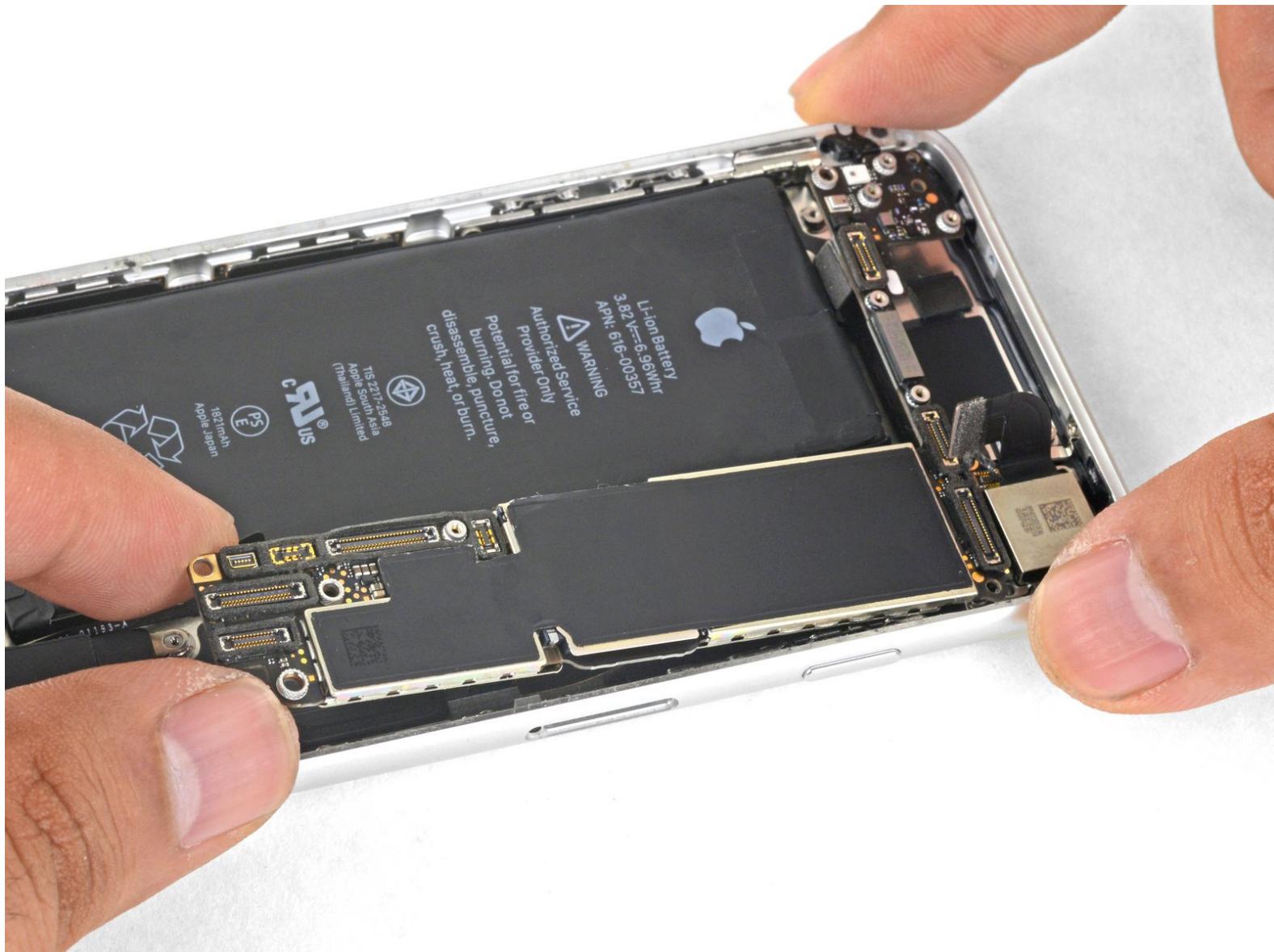




# iPhone 8 Logic Board Replacement

Remove and replace the logic board in the iPhone 8.

Written By: Arthur Shi



# INTRODUCTION

Follow this guide to remove and replace the logic board for the iPhone 8.

**Note:** 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.

## TOOLS:

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

## PARTS:

- [iPhone 8 Display Assembly Adhesive](#) (1)
- [iPhone 8 Screw Set](#) (1)

## Step 1 — Pentalobe Screws



**⚠** Before you begin, discharge your iPhone 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 3.5 mm pentalobe screws on the bottom edge of the iPhone.

**i** Opening the iPhone's display will compromise its waterproof seals. Have [replacement seals](#) ready before you proceed past this step, or take care to avoid liquid exposure if you reassemble your iPhone without replacing the seals.

## Step 2 — Opening Procedure



- Heating the lower edge of the iPhone will help soften the adhesive securing the display, making it easier to open.
- Use a hairdryer or [prepare an iOpener](#) and apply it to the lower edge of the phone for about 90 seconds in order to soften up the adhesive underneath.

## Step 3



- Apply a suction cup to the lower half of the front panel, just above the home button.
  - Be sure the suction cup does not overlap with the home button, as this will prevent a seal from forming between the suction cup and front glass.
  - 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 4



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.
- Insert an opening pick into the gap.
  - *(i)* The watertight adhesive holding the display in place is very strong; creating this initial gap takes a significant amount of force. If you're having a hard time opening a gap, apply more heat, and gently rock the screen up and down to weaken the adhesive until you create enough of a gap to insert your tool.

## Step 5



- Slide the opening pick up the left edge of the phone starting at the lower edge and moving towards the volume control buttons and silent switch, breaking up the adhesive holding the display in place.
- Stop near the top left corner of the display.

**⚠** Do not try to pry the top edge of the display away from the rear case, as it is held in place by plastic clips that may break.

## Step 6



- Re-insert your tool at the lower right corner of the iPhone, and slide it around the corner and up the right side of the phone to separate the adhesive.

**⚠** Don't insert the pick very far, or you may damage the display cables along this side of the iPhone. Insert it only a few millimeters, or about the width of the display bezel.

## Step 7



- Gently pull up on the suction cup to lift up the bottom edge of the display.
- ⚠** **Do not raise the display more than 15°** or you'll risk straining or tearing the ribbon cables connecting the display.
- Pull on the small nub on the suction cup to remove it from the front panel.

## Step 8



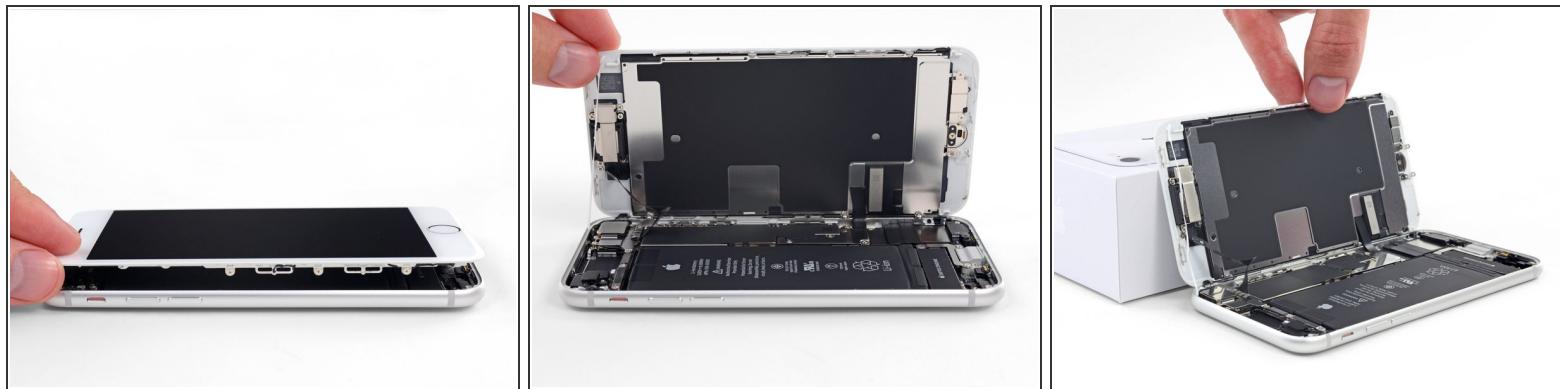
- Slide an opening pick underneath the display around the top left corner and along the top edge of the phone to loosen the last of the adhesive.

## Step 9



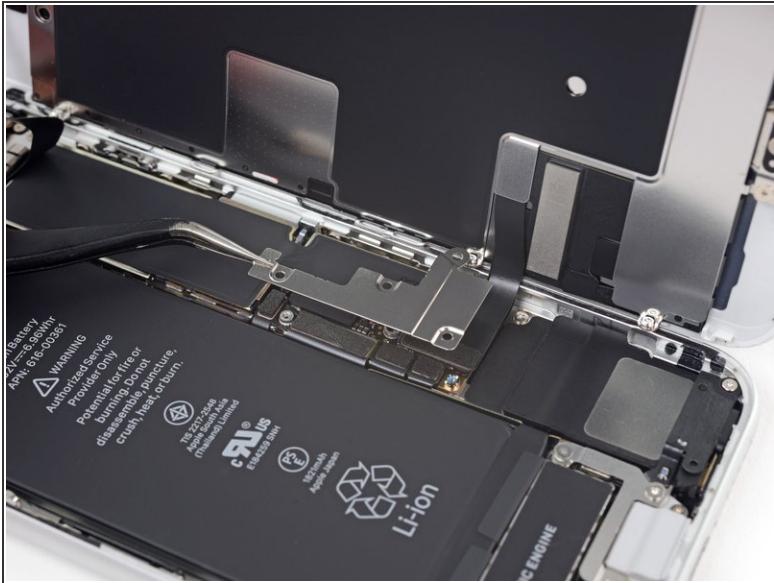
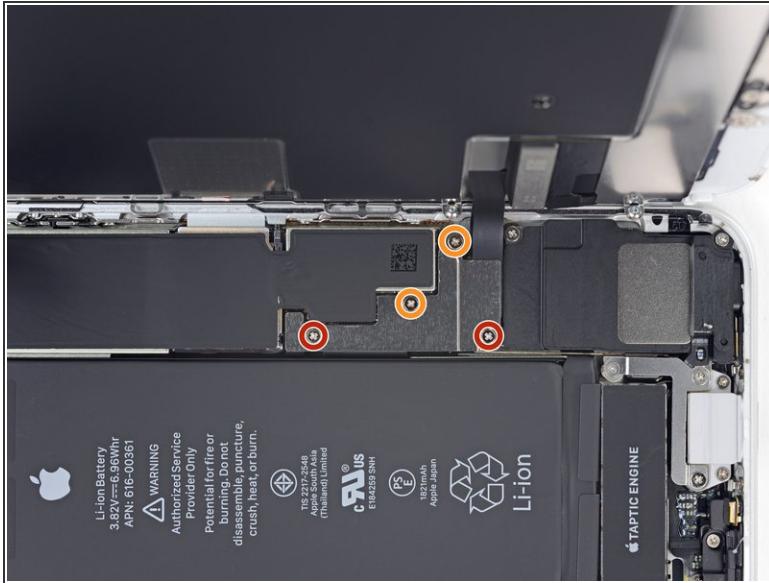
- Slide the display assembly slightly down (away from the top edge of the phone) to disengage the clips holding it to the rear case.

## Step 10



- Open the iPhone by swinging the display up from the left side, like the back cover of a book.
- ⚠ Don't try to fully separate the display yet, as several fragile ribbon cables still connect it to the iPhone's logic board.
- Lean the display against something to keep it propped up while you're working on the phone.

## Step 11 — Battery Disconnection



- Remove four Phillips screws securing the lower display cable bracket to the logic board, of the following lengths:
  - Two 1.3 mm screws
  - Two 2.8 mm screws
- 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.
- Remove the bracket.

## Step 12



- Use the point of a spudger to pry the battery connector out of its socket in the logic board.
- Bend the battery connector cable slightly away from the logic board to prevent it from accidentally making contact with the socket and providing power to the phone during your repair.

## Step 13 — Display Assembly



- Use the point of a spudger to pry the lower display connector out of its socket.
- ★ To re-attach [press connectors](#) like this one, press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.

## Step 14



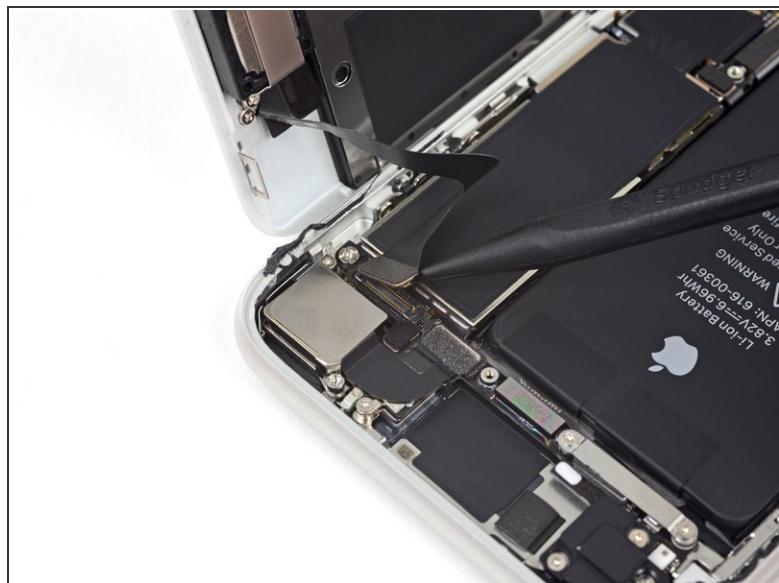
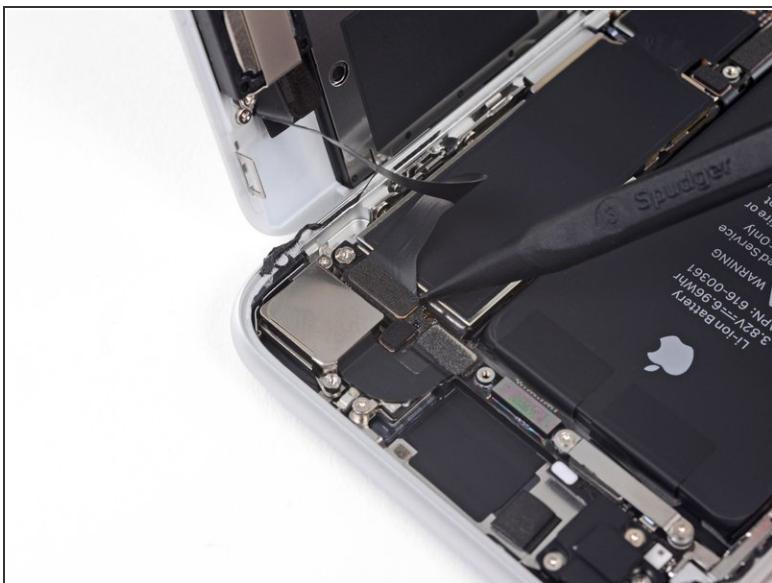
- Use the point of a spudger to disconnect the second lower display cable.

## Step 15



- Remove the three 1.3 mm Phillips screws securing the bracket over the front panel sensor assembly connector.
- Remove the bracket.

## Step 16



- Use the point of a spudger to disconnect the front panel sensor assembly connector.

## Step 17



- Remove the display assembly.

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

## Step 18 — SIM Card



- Insert a SIM card eject tool, bit, or a straightened paperclip into the small hole in the SIM card tray.
- Press to eject the tray.

 This may require a significant amount of force.

## Step 19



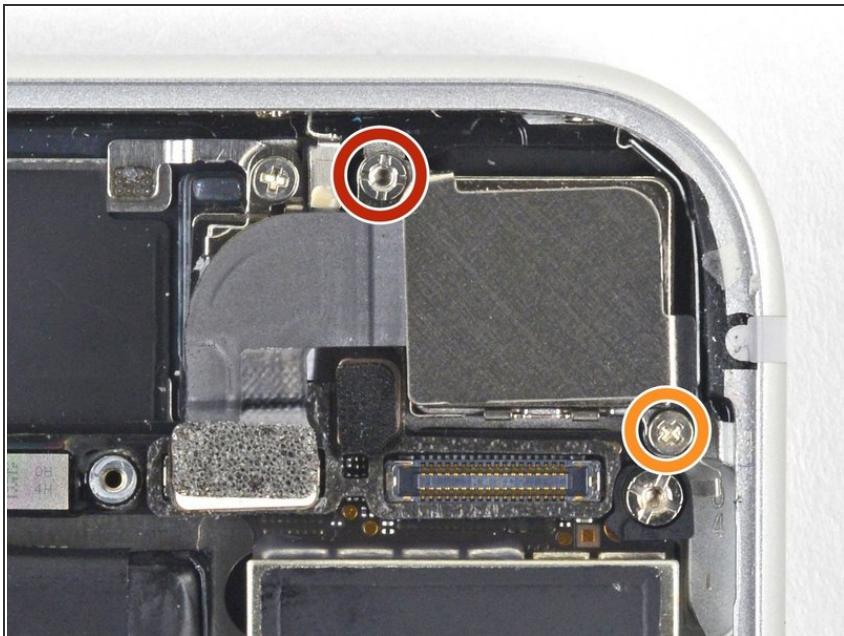
- Remove the SIM card tray from the iPhone.
- ⓘ The SIM card will fall out of the tray easily.
- ⚡ When reinserting the SIM card, ensure that it is in the proper orientation relative to the tray.
- ⚡ A thin rubber gasket around the SIM card tray provides water and dust protection. If this gasket is damaged or missing, replace the gasket or the entire SIM card tray to protect your iPhone's internal components.

## Step 20 — iPhone 8 Logic Board Connectors



- Use the flat end of a spudger to disconnect the camera cable connector by prying it straight up from its socket.

## Step 21



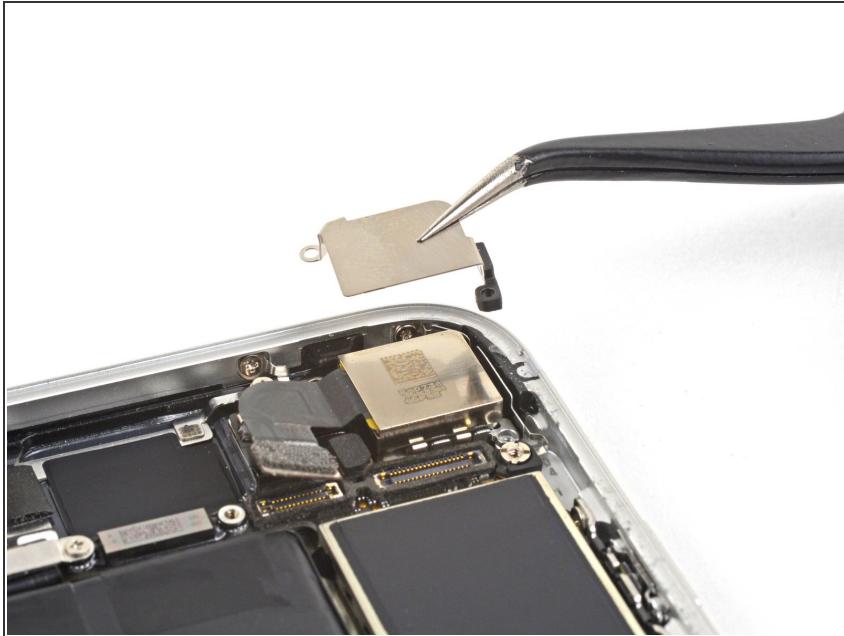
- Remove the two screws securing the rear-facing camera bracket:

- One 3.0 mm standoff screw
- One 3.1 mm Phillips screw

**i** Standoff screws are best removed using an [iPhone Standoff Screwdriver Bit](#) and [driver handle](#).

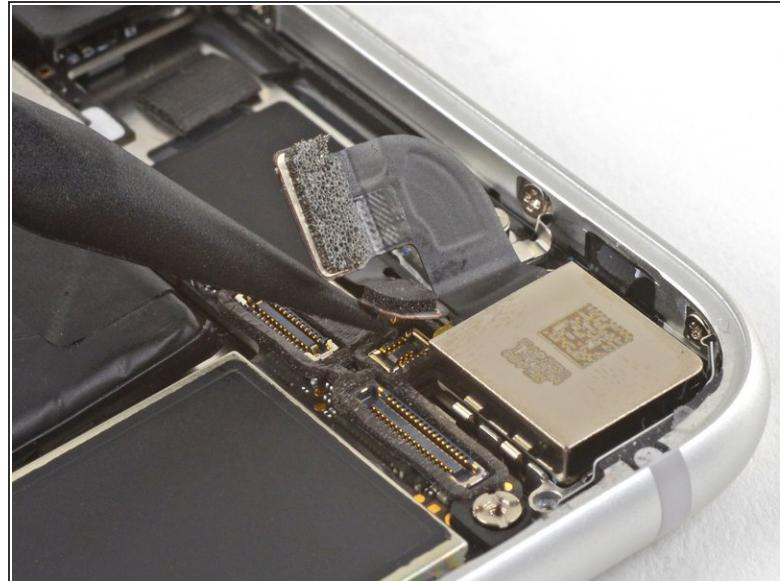
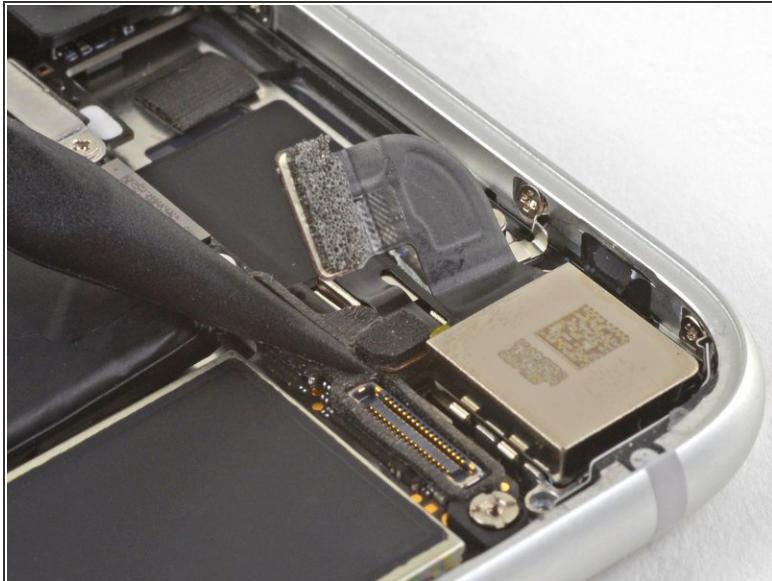
**!** In a pinch, a small flathead screwdriver will do the job—but use extra caution to ensure it doesn't slip and damage surrounding components.

## Step 22



- Remove the rear-facing camera bracket.

## Step 23



- Use the point of a spudger to disconnect the flash connector from its socket by prying it straight up.

## Step 24



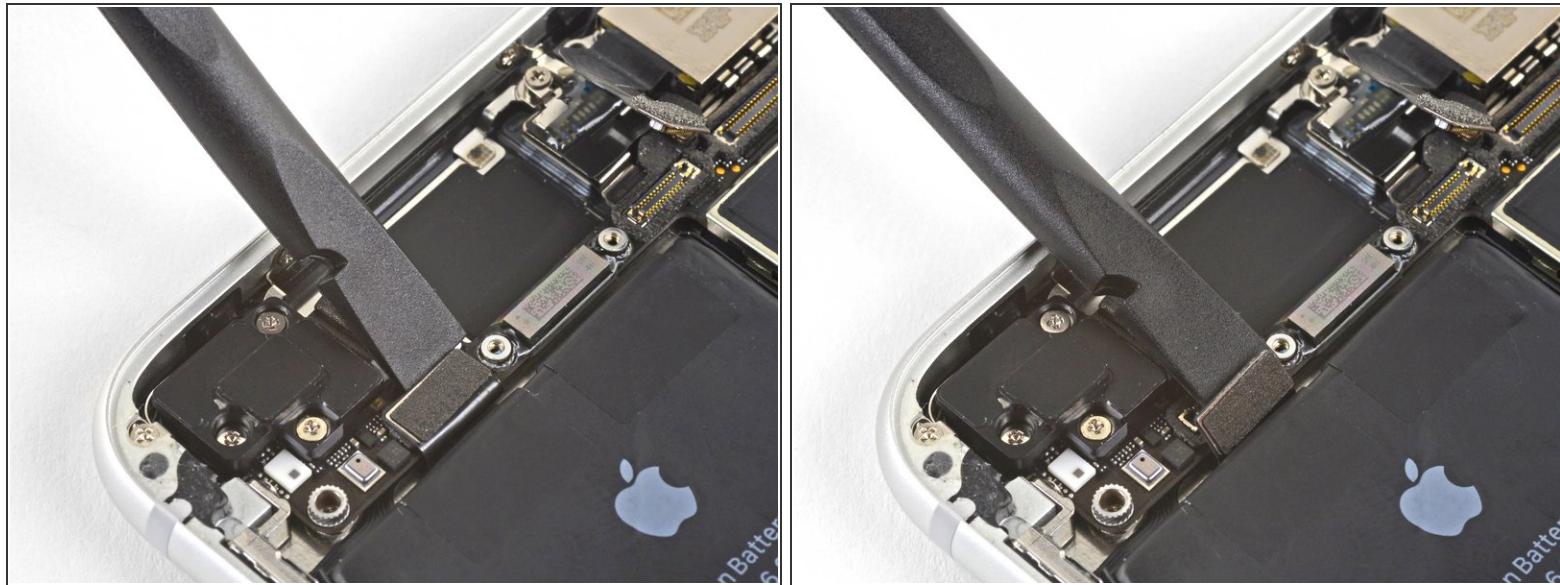
- Remove the two screws securing the upper cable bracket:
  - One 2.9 mm Phillips screw
  - One 1.3 mm Phillips screw

## Step 25



- Remove the upper cable bracket.

## Step 26



- Use the flat end of a spudger to pry the upper cable connector up from its socket.

## Step 27



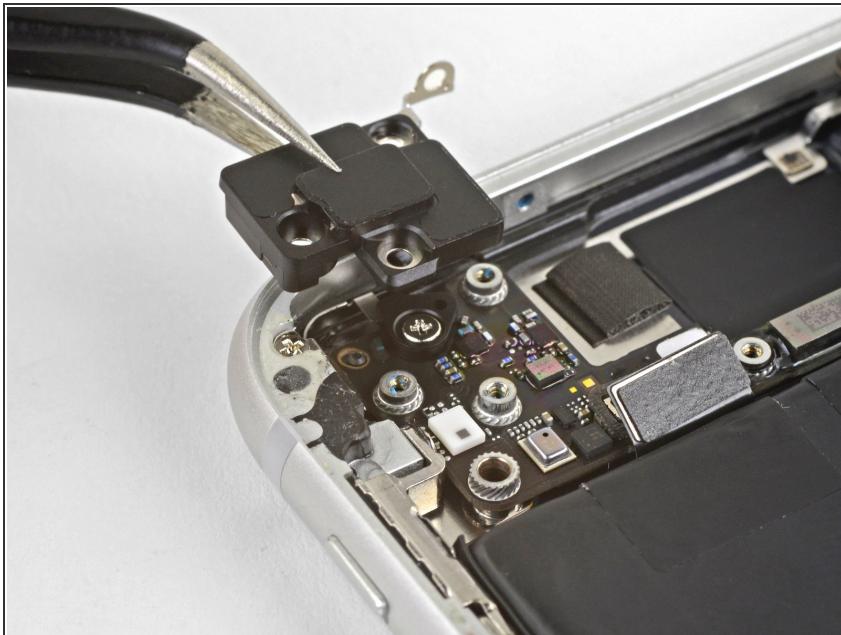
- Remove the three Phillips 1.3 mm screws securing the top left antenna component.

## Step 28



- Remove the 1.4 mm Phillips screw securing the antenna component to the top of edge of the case.

## Step 29



- Remove the antenna component.

## Step 30



- Remove the two Phillips screws securing the grounding clip at the top left edge of the logic board:
  - One 1.5 mm Phillips screw
  - One 2.6 mm Phillips screw

## Step 31



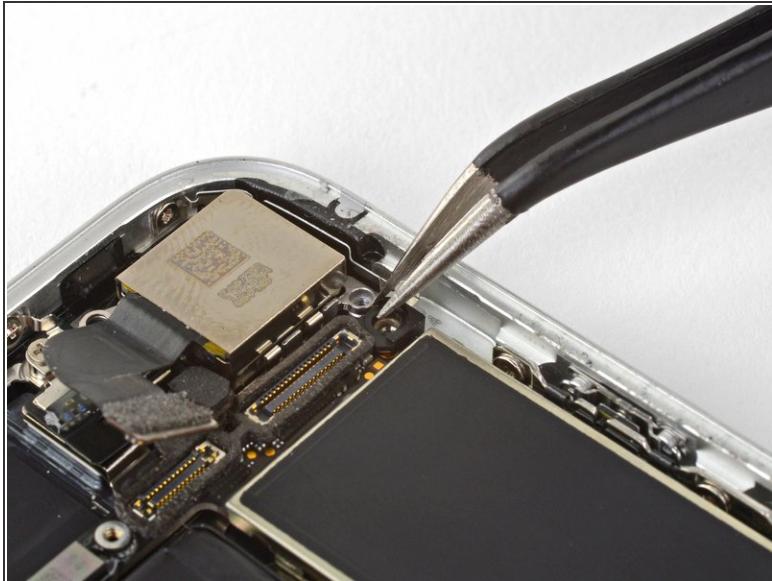
- Remove the grounding clip.

## Step 32



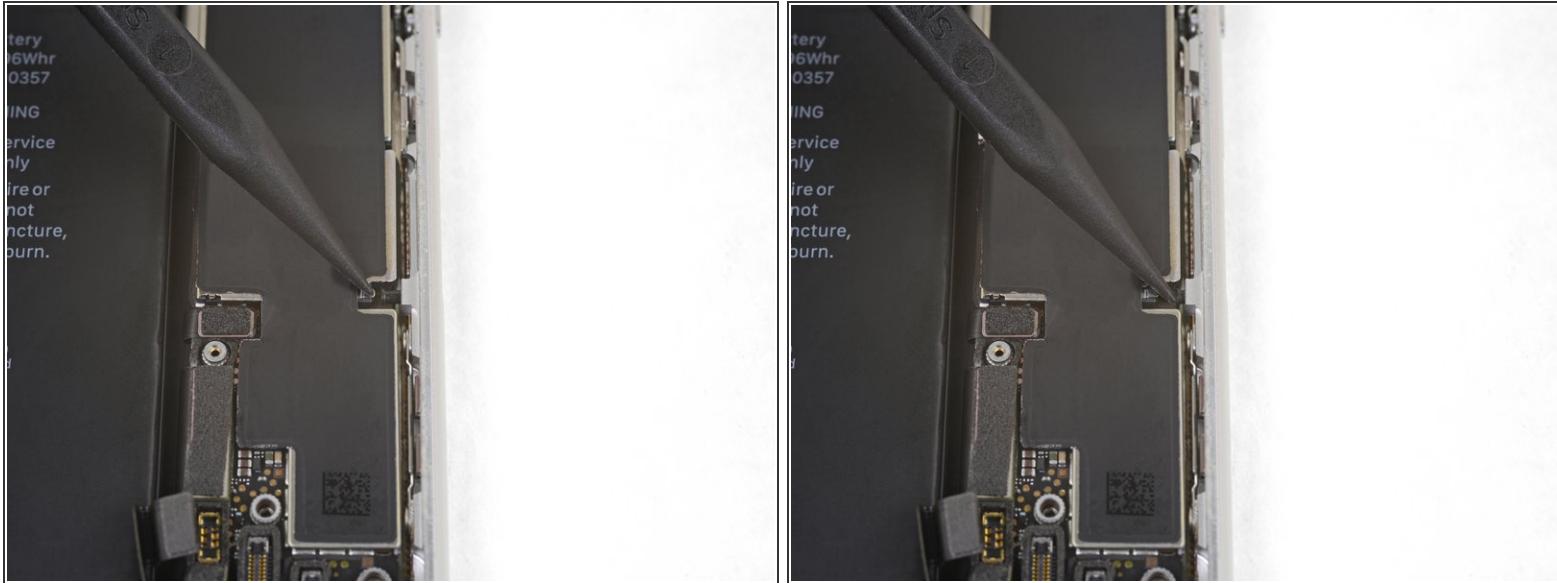
- Remove the three screws securing the motherboard:
  - One 1.8 mm Phillips screw
  - One 2.5 mm standoff screw
  - One 2.2 mm standoff screw

## Step 33



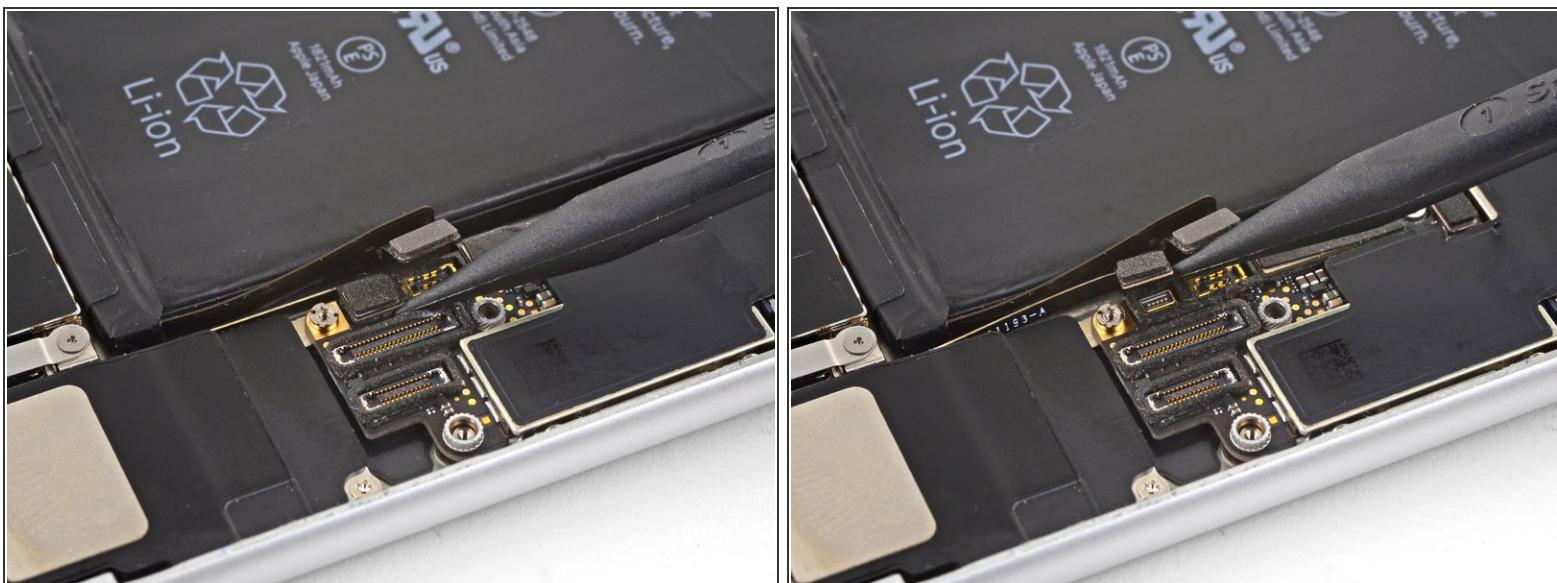
- Use tweezers to gently bend the logic board grounding bracket out of the way.

## Step 34



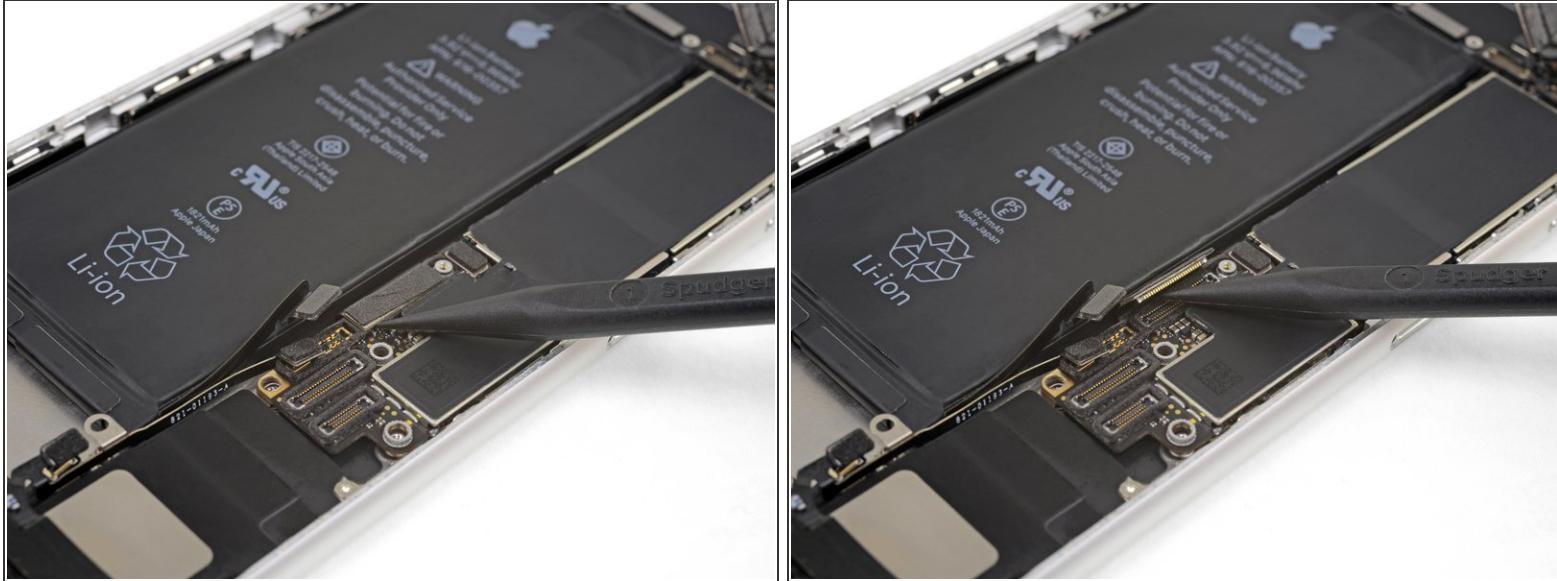
- Use the point of a spudger to move the SIM card eject plunger out of the logic board's way.

## Step 35 — Logic Board



- Use the point of a spudger to pry up and disconnect the Wi-Fi diversity antenna cable.

## Step 36



- Use the point of a spudger to pry up and disconnect the Lightning cable connector.

## Step 37



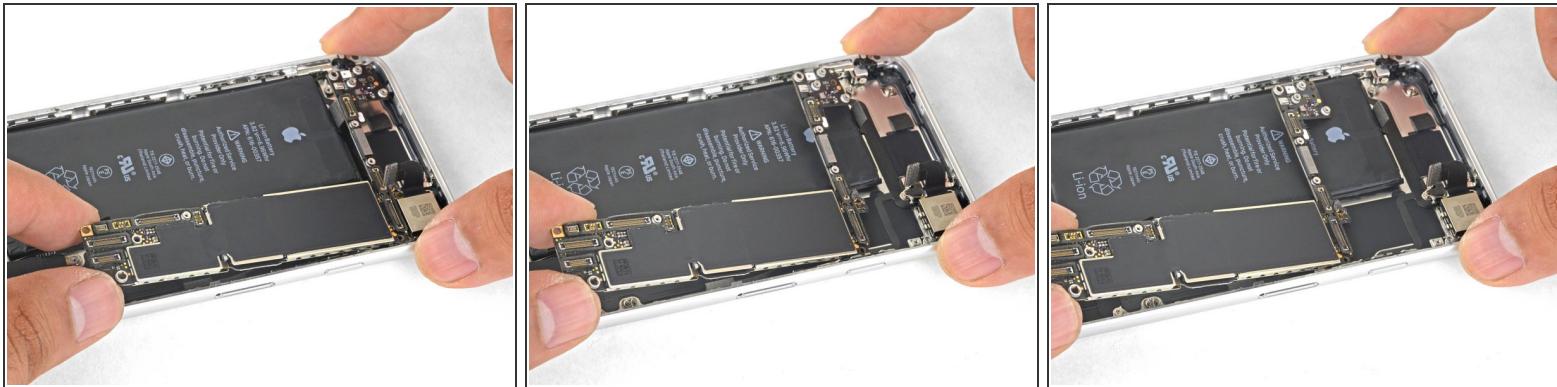
- Use the point of a spudger to pry up and disconnect the wireless charging coil connector.

## Step 38



- Use the flat end of a spudger to gently lift the battery connector end of the logic board up.
- Be careful not to pull against any cables. If you feel resistance, check that all cables, connectors, and components are clear of the board.

## Step 39



- Grasping it by the edges, lift the logic board near the battery connector and remove it.
- ⚠ Be careful not to snag the logic board on any cables.

**To reassemble your device, follow the above steps in reverse order.**

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Check out our [Answers community](#) for troubleshooting help.