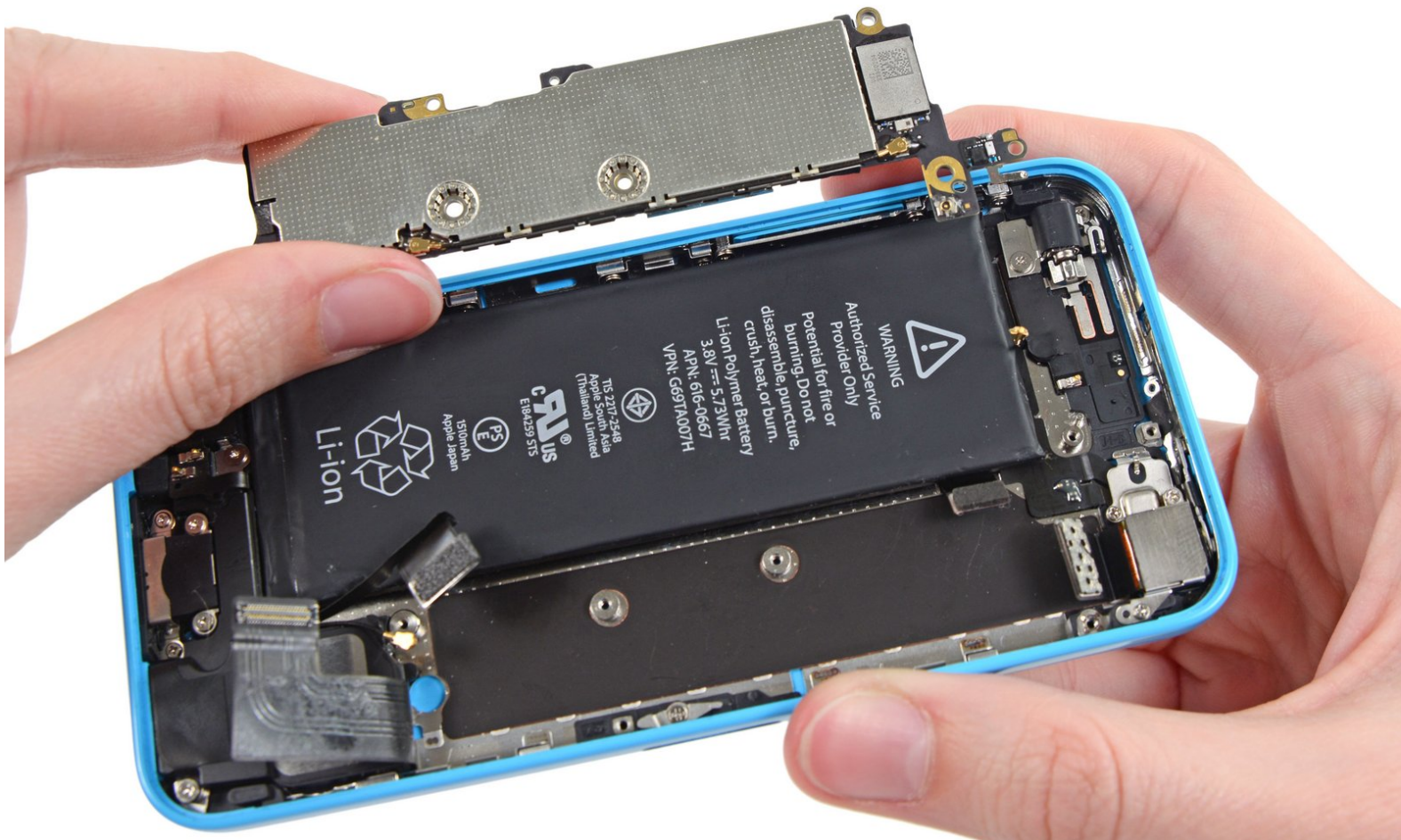




# iPhone 5c Logic Board Replacement

Replace the logic board in your iPhone 5c.

Written By: Andrew Optimus Goldheart



## INTRODUCTION

Use this guide to replace a faulty logic board in your iPhone 5c.

[video: <https://www.youtube.com/watch?v=Zdkk7MYT3-Q>]



### TOOLS:

- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [Phillips #000 Screwdriver](#) (1)
- [iFixit Opening Tools](#) (1)
- [Suction Handle](#) (1)
- [Spudger](#) (1)
- [SIM Card Eject Tool](#) (1)
- [Tweezers](#) (1)
- [iPhone Standoff Screwdriver Bit](#) (1)



### PARTS:

- [iPhone 5c Logic Board](#) (1)

## Step 1 — Taping the display glass



- If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping the glass.
- Lay overlapping strips of clear packing tape over the iPhone's display until the whole face is covered.
- ⓘ This will keep glass shards contained and provide structural integrity when prying and lifting the display.

⚠ Wear safety glasses to protect your eyes from any glass shaken free during the repair.

## Step 2 — Removing the Pentalobe screws



⚠ Before you proceed, 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 3.8 mm P2 Pentalobe screws on either side of the Lightning connector.

### Step 3 — Starting the iSclack Opening Procedure



**i** The next two steps demonstrate using the [iSclack](#), a great tool for safely opening the iPhone 5c that we recommend for anyone doing more than one repair on an iPhone 5, 5s, or 5c. **If you aren't using the iSclack, skip to [Step 5](#).**

- Close the handle on the iSclack, opening the suction-cup jaws.
- Place the bottom of your iPhone in between the suction cups, against the plastic depth gauge.
  - The top suction cup should rest just above the home button.
- Open the handles to close the jaws of the iSclack. Center the suction cups and press them firmly onto the top and bottom of the iPhone.

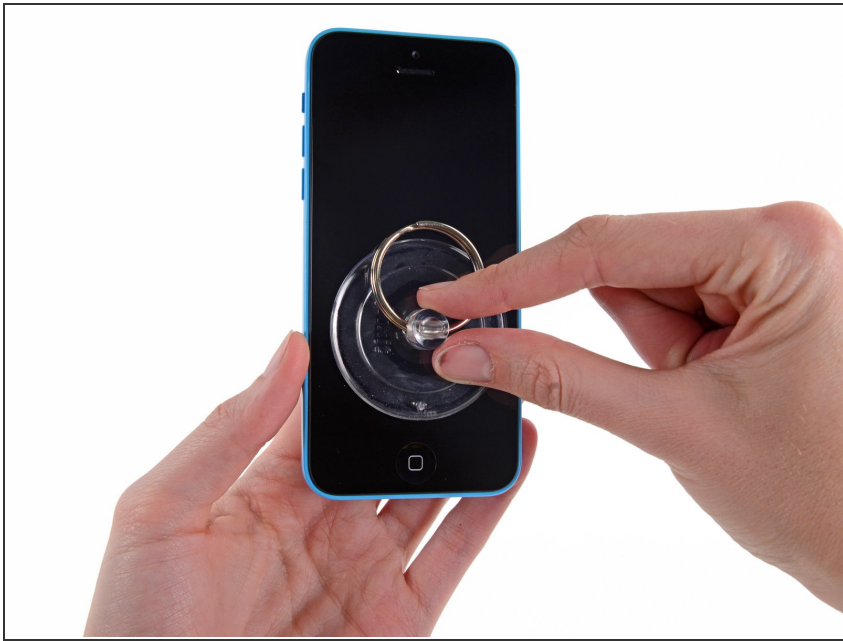
## Step 4 — Finishing the iSclack Opening Procedure



- Hold onto your iPhone securely and close the handle of the iSclack to separate the suction cups, pulling the front panel up from the rear case.
- The iSclack is designed to safely open your iPhone just enough to separate the pieces, but not enough to damage any cables.
- ⓘ Peel the two suction cups off your iPhone.
- **Skip the next three steps and continue on to [Step 8](#).**



## Step 5 — Manual Opening Procedure



- Press a suction cup onto the screen, just above the home button.
- ⓘ Be sure the cup is completely on the screen to get a tight seal.

## Step 6 — Start lifting the front panel assembly



- ⓘ Make sure the suction cup is firmly attached to the front panel assembly.
  - While holding the iPhone down with one hand, pull up on the suction cup to slightly separate the front panel assembly from the rear case.
- ⓘ Take your time and apply firm, constant force. The display assembly is a much tighter fit than most devices.
  - With a plastic opening tool, begin to gently pry the rear case down, away from the display assembly, while you pull up with the suction cup.
- ⓘ There are several clips attaching the front panel assembly to the rear case, so you may need to use a combination of the suction cup and plastic opening tool to free the front panel assembly.

## Step 7



- Pull the plastic nub to release the vacuum seal on the suction cup.
- Remove the suction cup from the display assembly.



## Step 8 — Opening up the phone



- Lift the home button end of the front panel up to gain access to the connectors near the top of the phone.
- 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.
  - In a pinch, you can use an unopened canned beverage to hold the display.
- Add a rubber band to keep the display securely in place while you work. This prevents undue strain on the display cables.

## Step 9



- Remove the two 1.6 mm Phillips #000 screws securing the metal battery connector bracket to the logic board.

## Step 10



- Remove the metal battery connector bracket from the iPhone.

## Step 11 — Disconnecting the battery connector



- Use a spudger or a clean fingernail to gently pry the battery connector up from its socket on the logic board.
- ⚠ Be very careful to only pry up on the battery connector itself and not the socket on the logic board. If you pry up on the logic board socket or the board itself, you may destroy the socket or damage nearby components on the board.

## Step 12



- Remove the following Phillips #000 screws securing the front panel assembly cable bracket to the logic board:

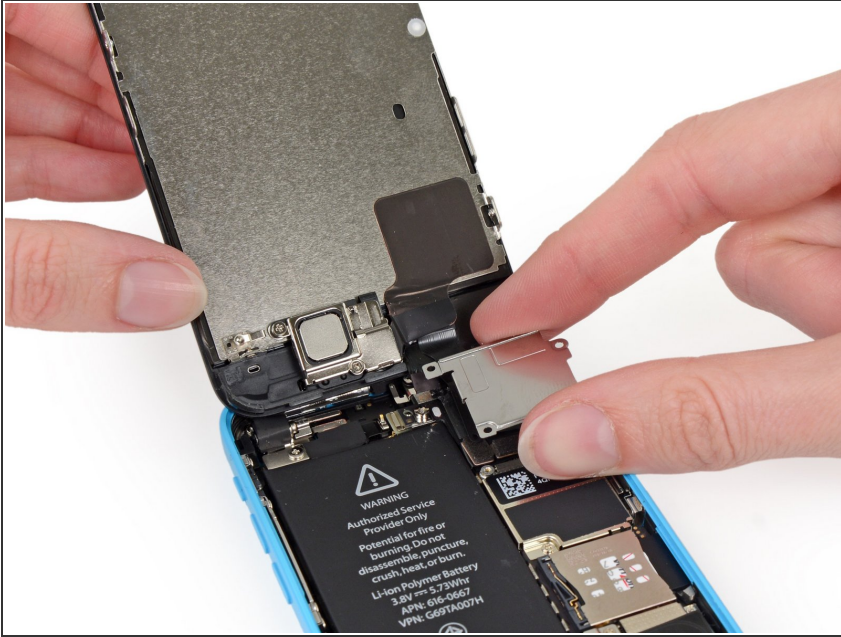
- Two 1.3 mm screws
- One 1.7 mm screw
- One 3.25 mm screw

⚠ It is especially important to keep track of your screws in this step for reassembly. Accidentally using the 3.25 mm screw or the 1.7 mm screw in the bottom right hole will result in significant damage to the logic board causing the phone to no longer boot properly.

⚠ Be careful not to over-tighten the screws. If they don't fit easily when you are securing them, they may be the wrong size—don't force them.



## Step 13



- Remove the front panel assembly cable bracket from the logic board.

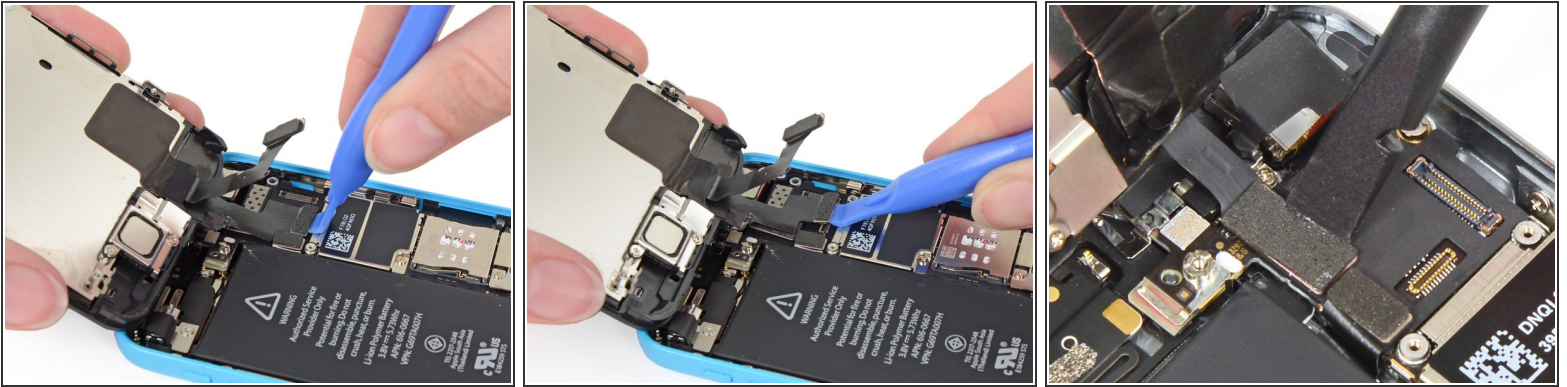
## Step 14 — Disconnecting the front panel assembly cables




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


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


## Step 15



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

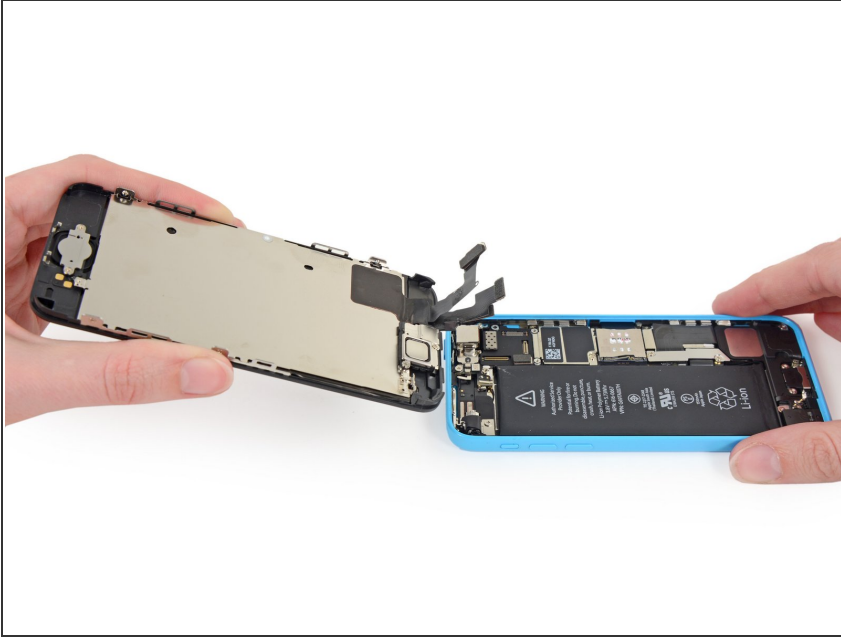
- Use a plastic opening tool or a fingernail to disconnect the LCD cable connector.

 The LCD and Digitizer connectors are on the same cable assembly, so prying the LCD connector up should disconnect both connectors. Double check that the two cables are fully disconnected before removing the display.

-  When reassembling your phone, the LCD cable may pop off its connector. A blank screen, or white lines on the display could be caused by a loose connection. Should this happen, reconnect the cable and power cycle your phone. The best way to power cycle your phone is to disconnect and reconnect the battery.



## Step 16 — Separating front panel assembly and rear case



- Remove the front panel assembly from the rear case.

## Step 17 — SIM Card



- i** Shut your phone down completely before removing the SIM card and tray.
- Insert a SIM card eject tool or a paperclip into the small hole in the SIM card tray.
  - Press the SIM card eject tool inwards to eject the tray.
  - This may require a significant amount of force.

## Step 18



- Remove the SIM Card tray assembly from the iPhone.
- ☑ During reassembly, ensure that the SIM card is in the proper orientation relative to the tray.

## Step 19 — Logic Board



- Disconnect the Lightning connector ribbon cable from its socket on the logic board.

## Step 20



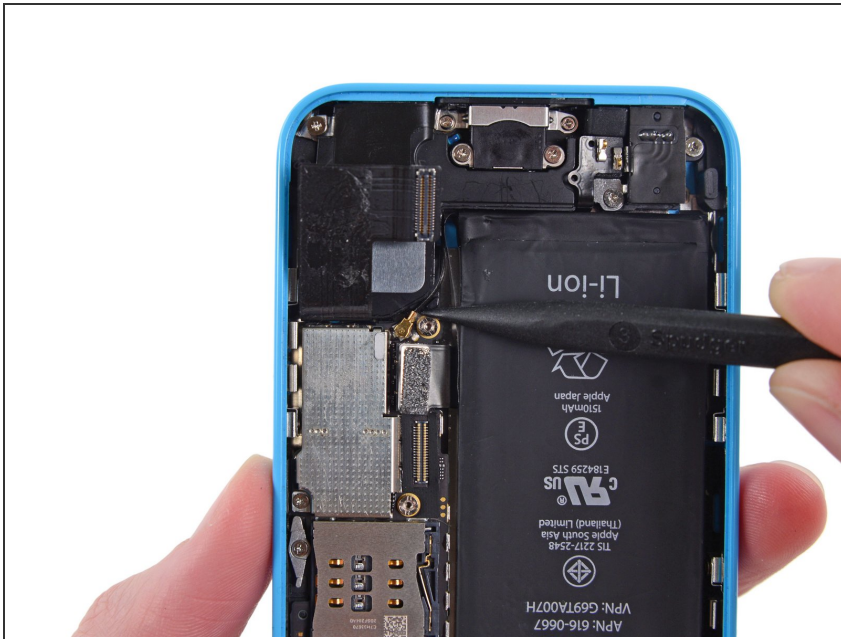
- The Lightning connector cable is lightly adhered to a shield on the logic board. Use the flat end of a spudger to gently peel the cable up.

## Step 21



- Fold the cable up out of the way of the logic board.

## Step 22



- Disconnect the antenna connector from the base of the logic board.

## Step 23



- Use the flat end of a spudger to disconnect the audio control cable connector from its socket on the logic board.

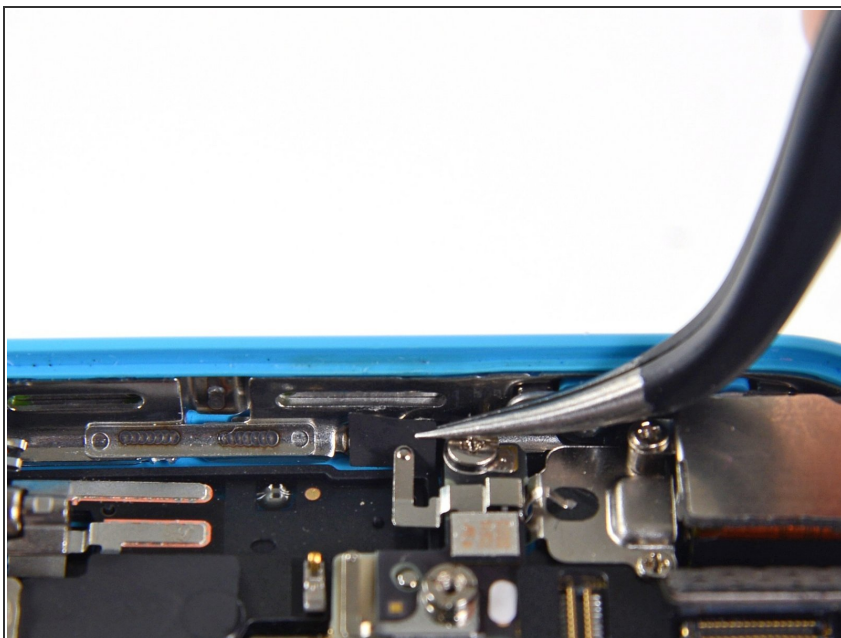


## Step 24



- Disconnect the rear facing camera cable connector from its socket on the logic board.

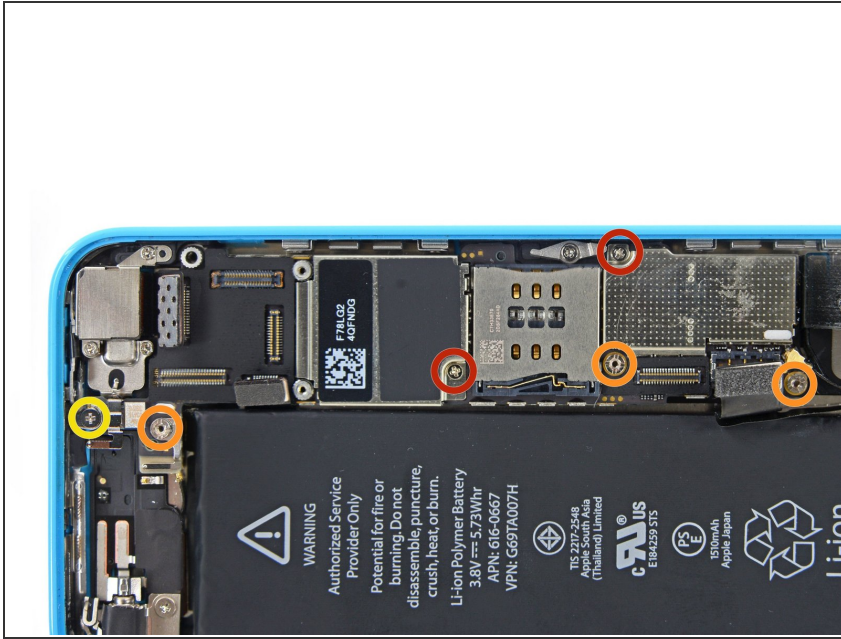
## Step 25



- A small piece of tape may obscure the logic board grounding clip. If so, use a pair of tweezers to remove the tape.

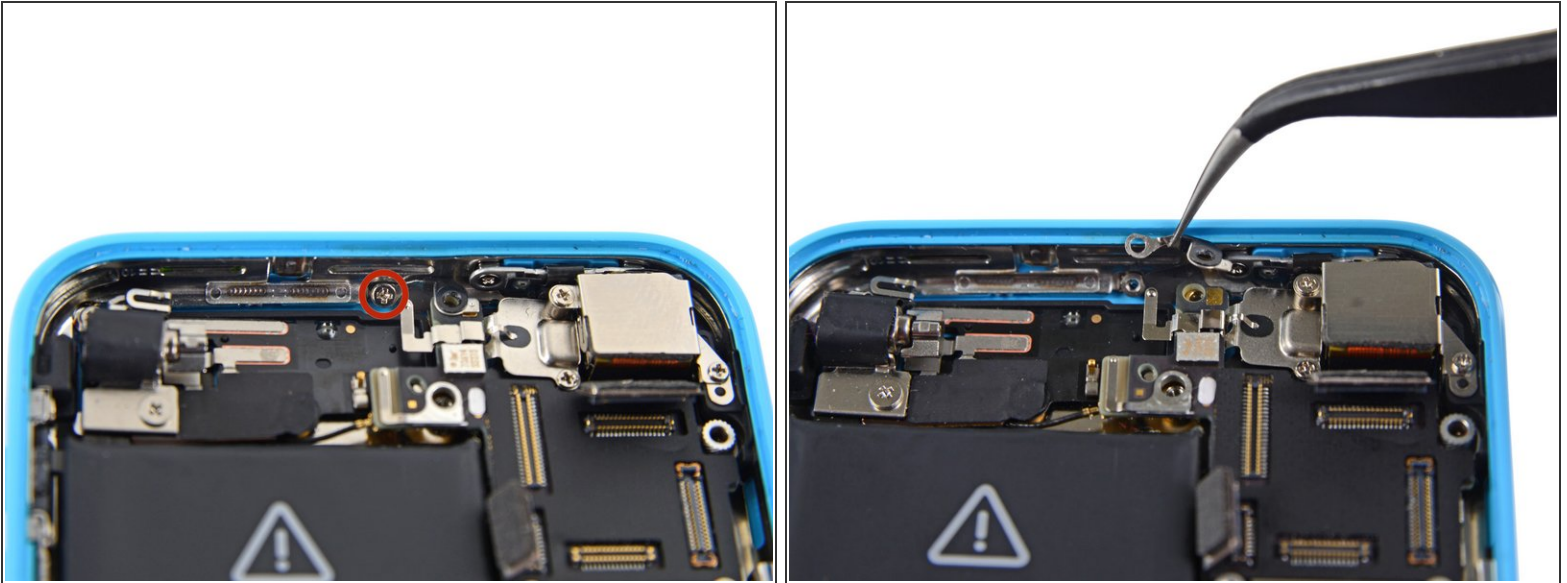


## Step 26



- Remove the following screws securing the logic board to the rear case:
  - Two 2.3 mm Phillips screws
  - Three 2.7 mm standoff screws
    - ⓘ Standoff screws are best removed with a [standoff screwdriver](#) or [standoff driver bit](#). A small flathead screwdriver can also do the job—but use extra caution to ensure it doesn't slip and damage surrounding components.
  - One 2.5 mm Phillips #000 screw

## Step 27



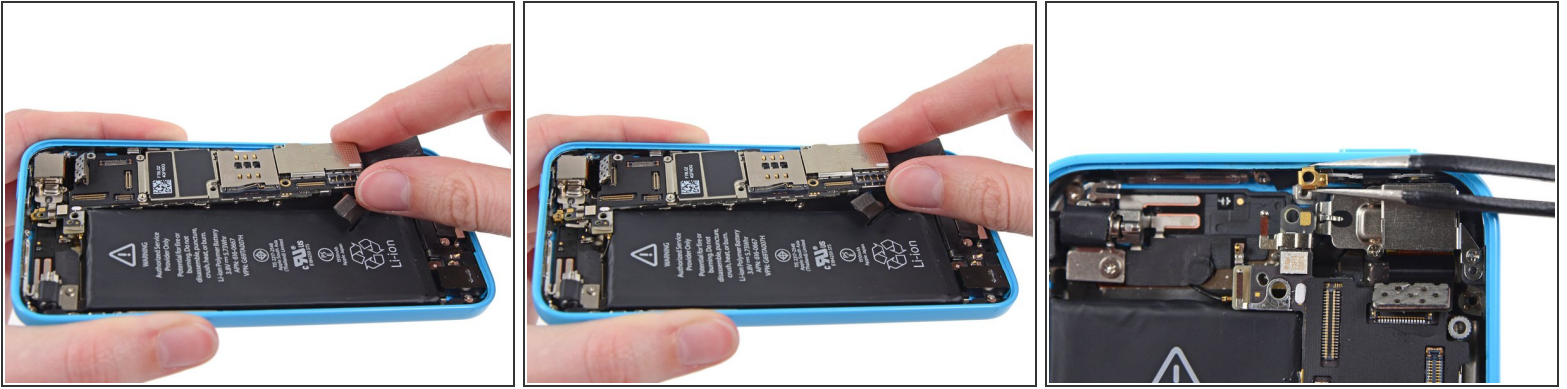
- Remove the 1.2 mm Phillips #000 screw securing the grounding clip to the top side-wall.
- Use tweezers to remove the logic board grounding clip.

## Step 28



- Use a plastic opening tool to gently lift the lower end of the logic board up from the rear case enough for you to grab it with your fingers.

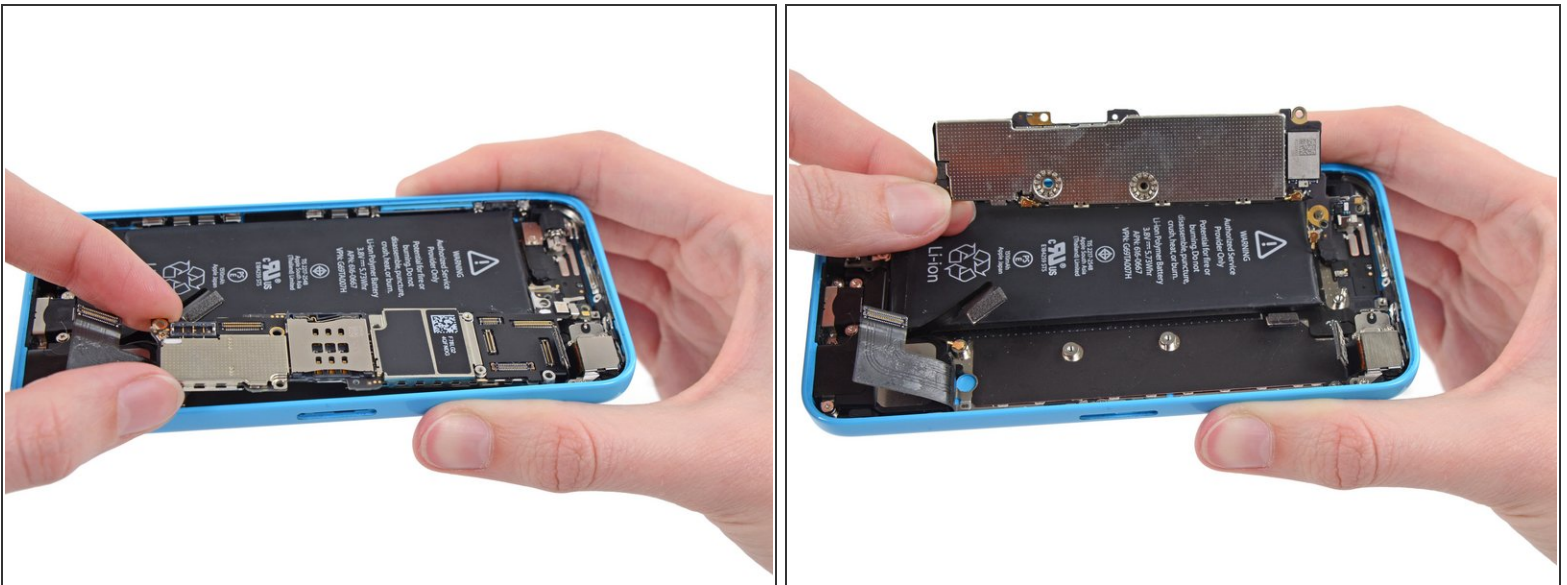
## Step 29



- Pull the logic board away from the rear-facing camera just enough to expose the gold contact cap under the top end of the board.

⚠ Remove the gold-colored contact cap from the threaded post in the rear case, and set it aside.

## Step 30

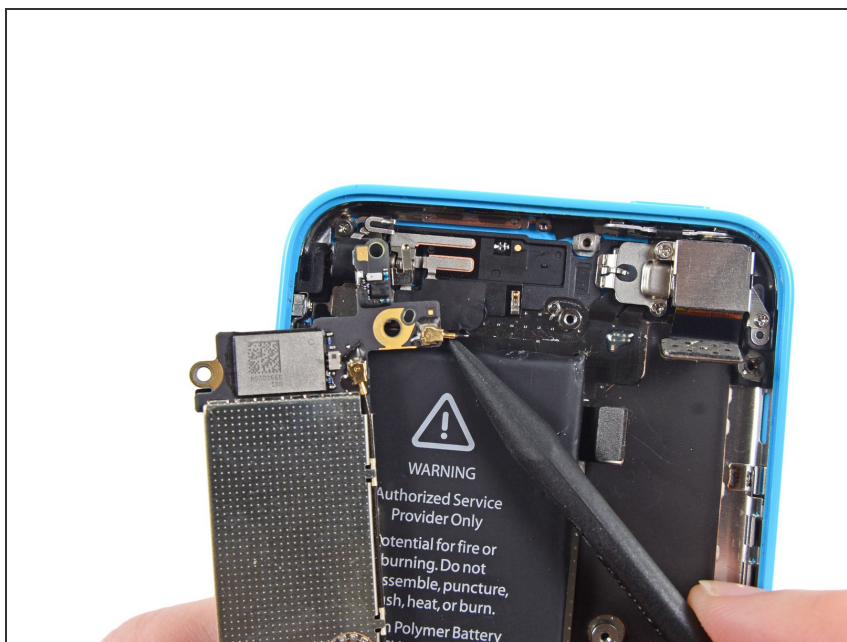


- Flip the logic board up toward the volume control buttons to expose the antenna connector.

⚠ Do not try to remove the logic board from the rear case yet, as it is still connected by an antenna cable on the back.

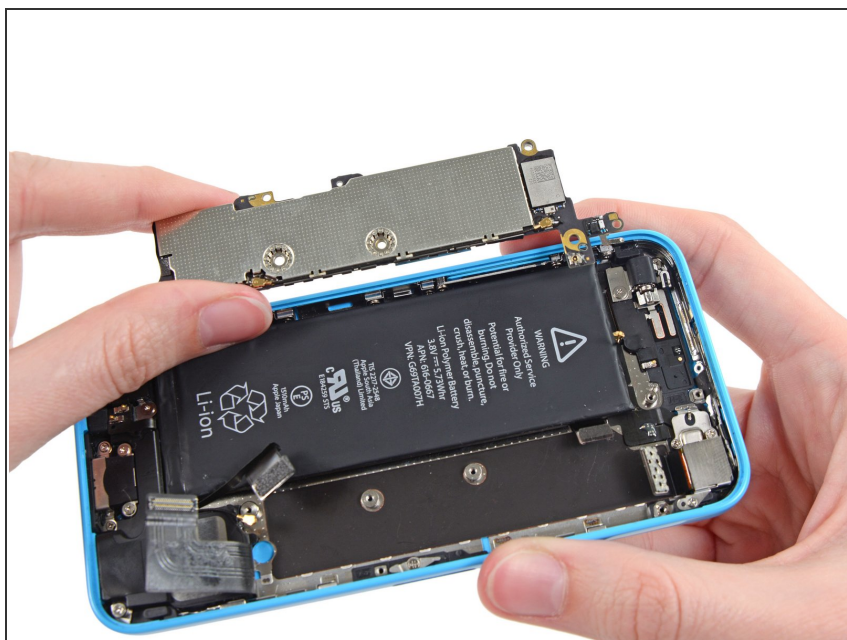


## Step 31



- Disconnect the antenna connector from the back of the logic board.

## Step 32



- Remove the logic board from the iPhone.

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