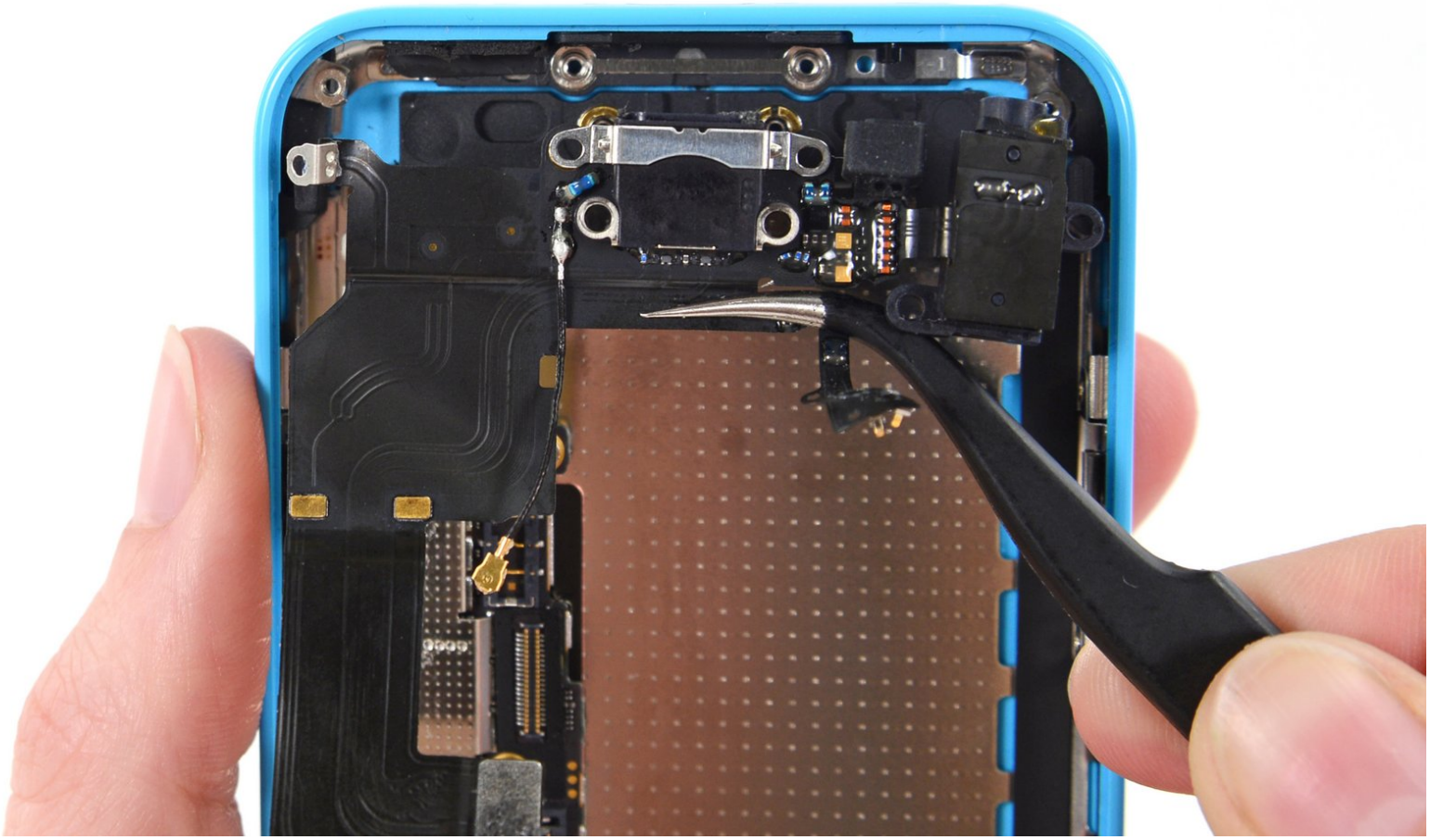
iPhone 5c Lightning Connector Assembly Replacement

Replace the Lightning connector assembly in your iPhone 5c.

Written By: Andrew Optimus Goldheart



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INTRODUCTION

Use this guide to replace the Lightning connector and audio port cable in your iPhone 5c.

You can also use this guide for reference when replacing the **microphone gasket**.

[video: https://www.youtube.com/watch?v=hF4jjLKViIc]

TOOLS:

- P2 Pentalobe Screwdriver iPhone (1)
- iSclack (1)
- iOpener (1)
- Plastic Cards (1)
- iFixit Opening Tools (1)
- Phillips #000 Screwdriver (1)
- Tweezers (1)
- Spudger (1)
- Suction Handle (1)

PARTS:

- iPhone 5c Lightning Connector and Headphone Jack (1)
- iPhone 5c Microphone Gasket (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.

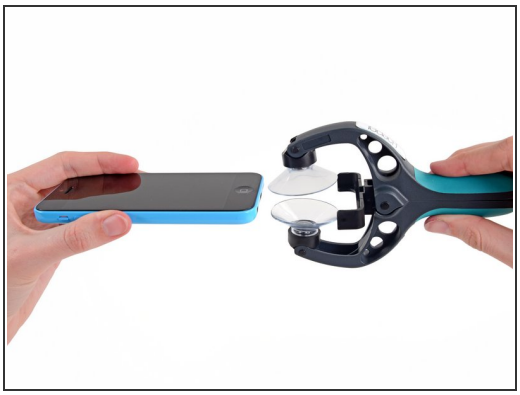
⚠ Wear safety glasses to protect your eyes from any glass shaken free during the repair.

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



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.

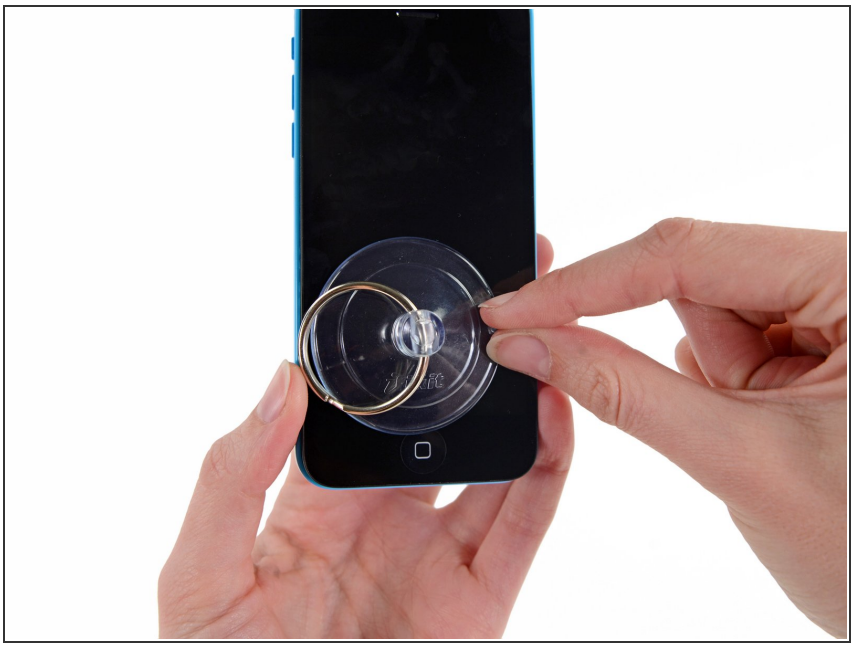
- While holding the iPhone down with one hand, pull up on the suction cup to slightly separate the front panel assembly from the rear case.

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.

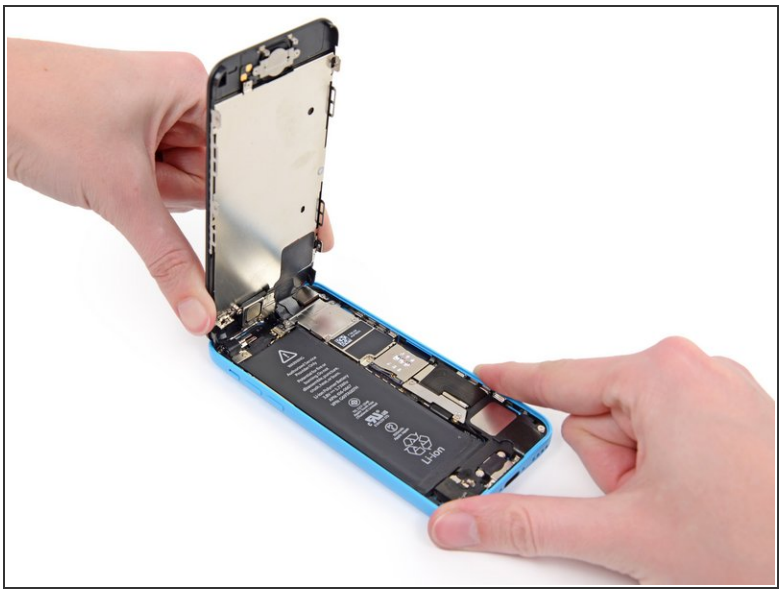
There are several clips attaching the front panel assembly to the rear case, so you may need to use a combination of the suction cup and plastic opening tool to free the front panel assembly.

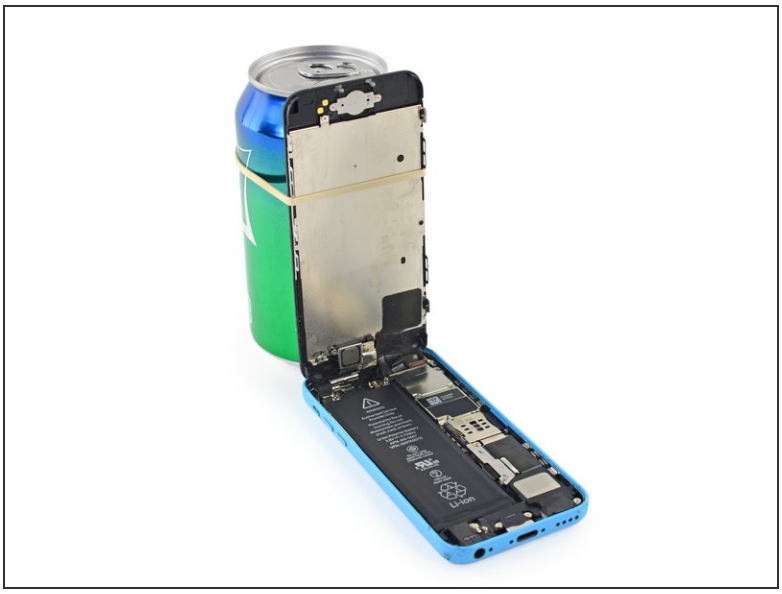
Step 7



- 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



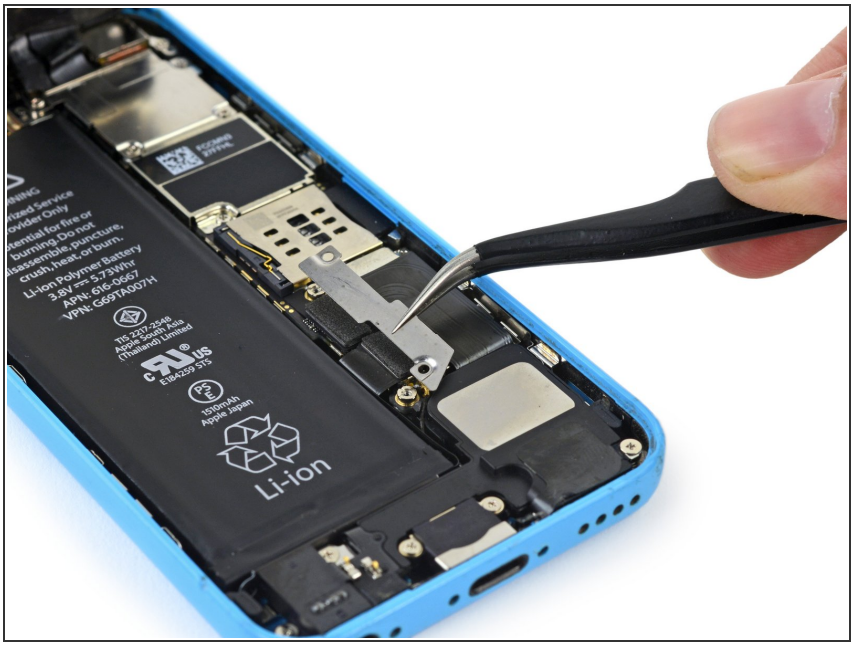


- Lift the home button end of the front panel up to gain access to the connectors near the top of the phone.
- Open the display to about a 90º angle, and lean it against something to keep it propped up while you're working on the phone.
  - In a pinch, you can use an unopened canned beverage to hold 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.

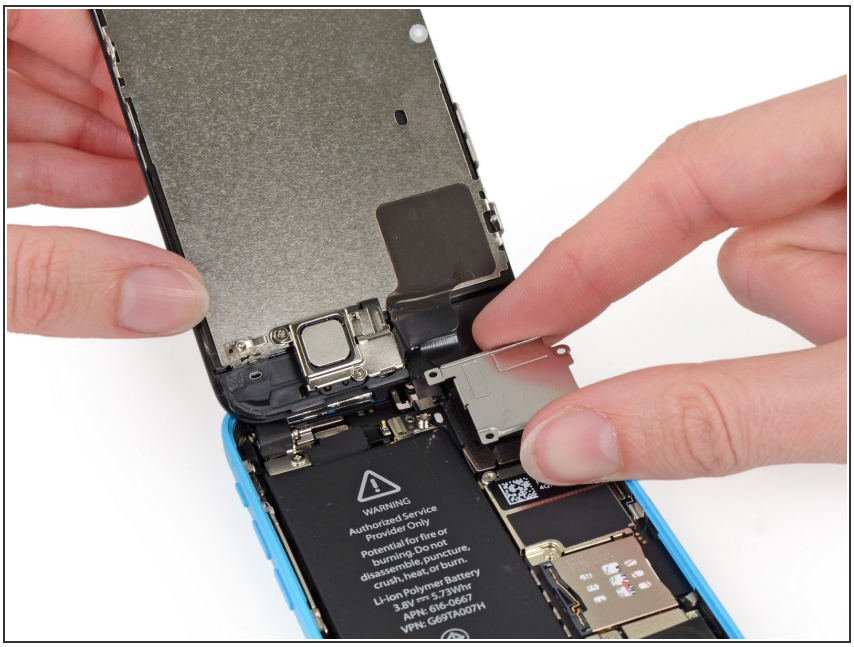
Step 12

- 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



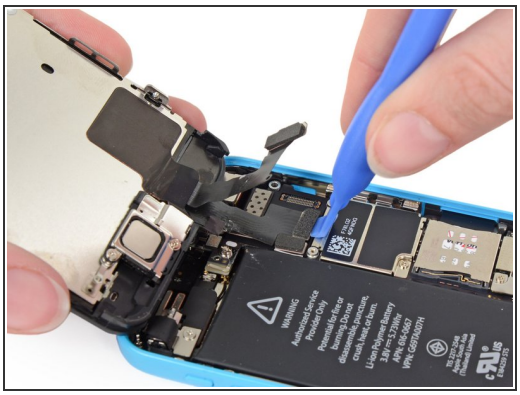
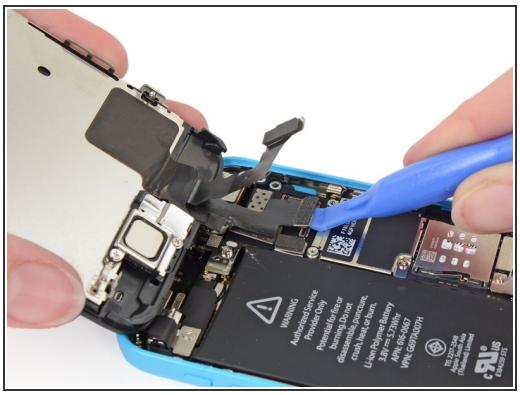
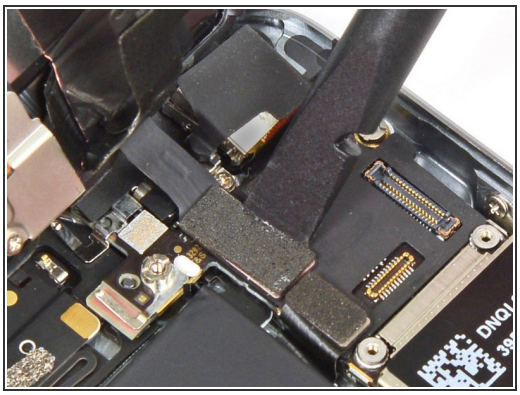
- Remove the front panel assembly cable bracket from the logic board.

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

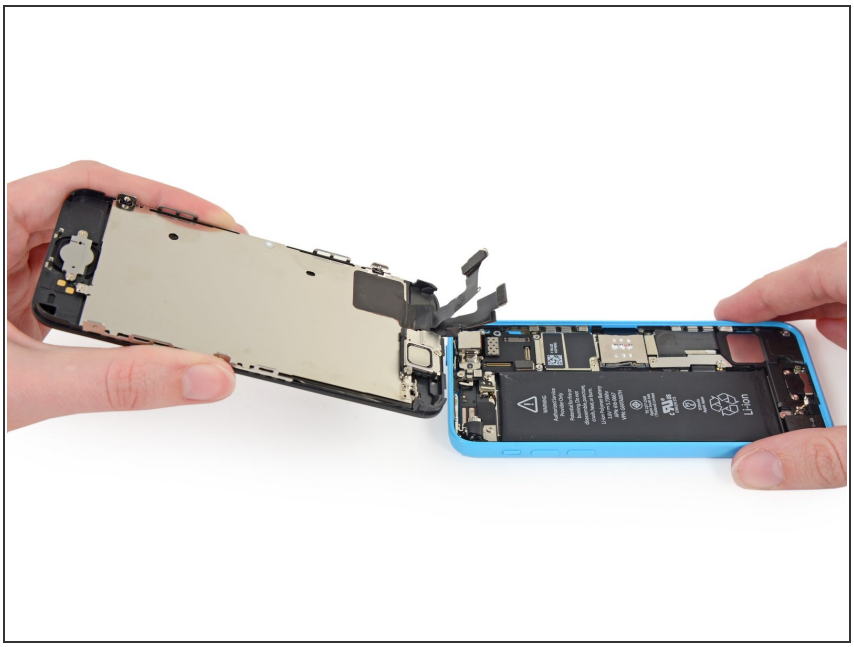
Make sure the battery is disconnected before you disconnect or reconnect the cables in this step.

- 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.

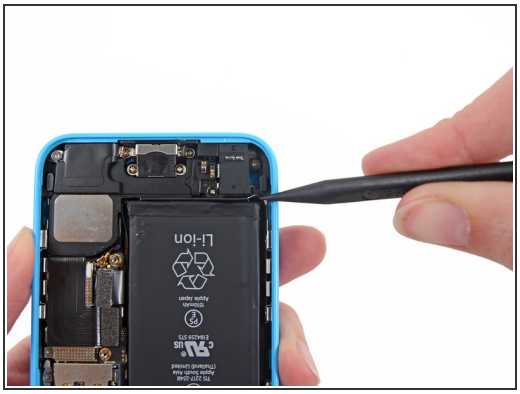
When reassembling your phone, the LCD cable may pop off its connector. A blank screen, or white lines on the display could be caused by a loose connection. Should this happen, reconnect the cable and power cycle your phone. The best way to power cycle your phone is to disconnect and reconnect the battery.

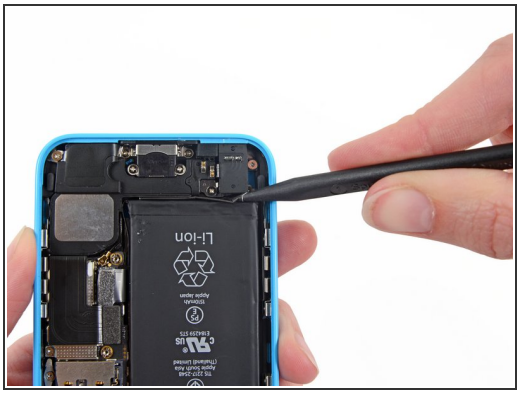
Step 16 — Separating front panel assembly and rear case



- Remove the front panel assembly from the rear case.

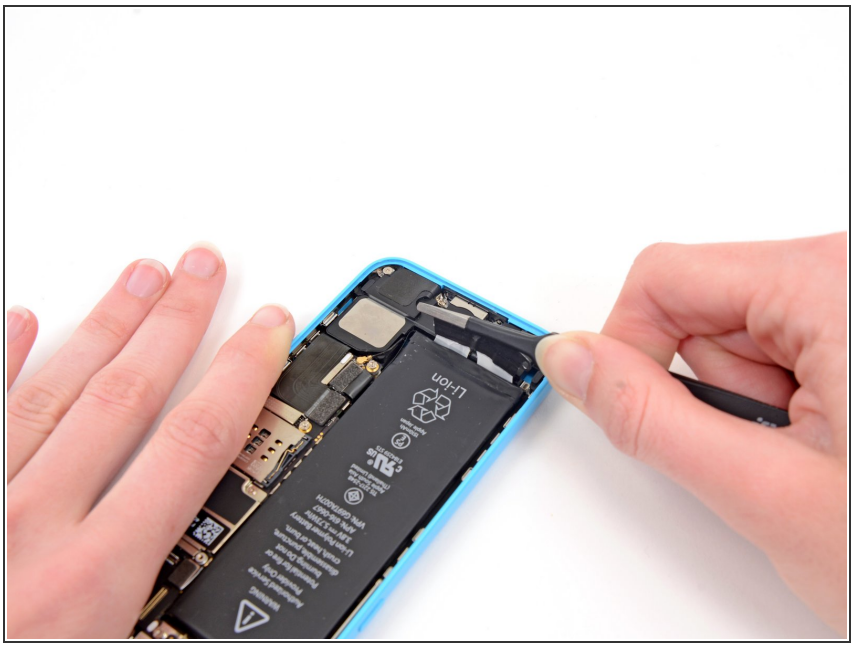
Step 17 — Battery





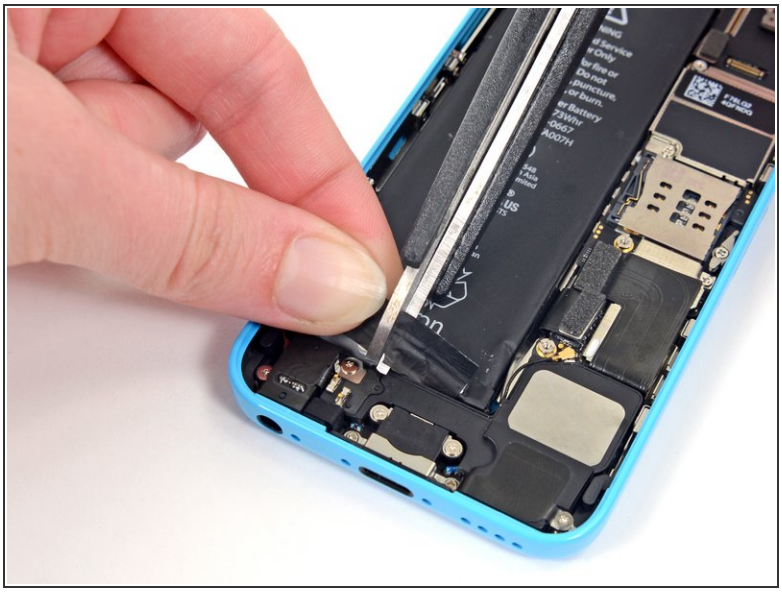
- Run the tip of a spudger between the battery and the headphone jack to unfold the battery adhesive tab.

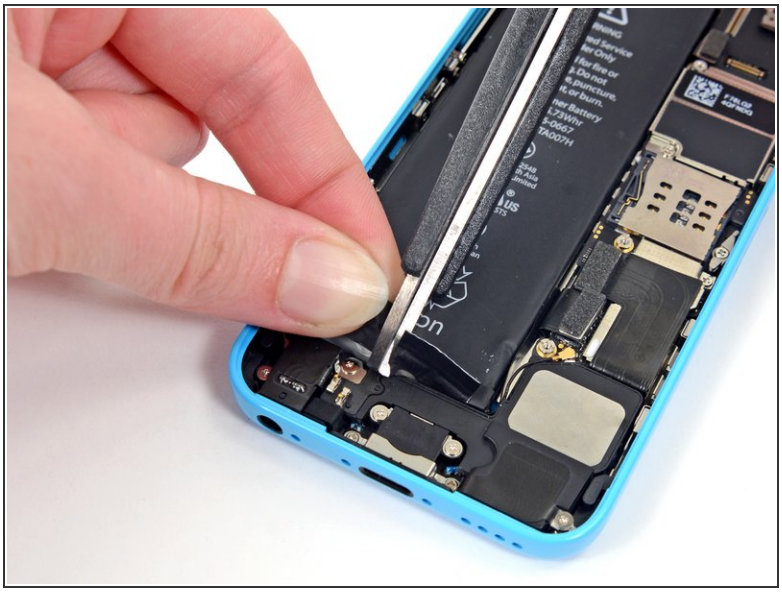
Step 18



- Pull the battery adhesive tab away from the phone.

Step 19





- Cut the black battery adhesive tab between the two white adhesive strips, separating them.

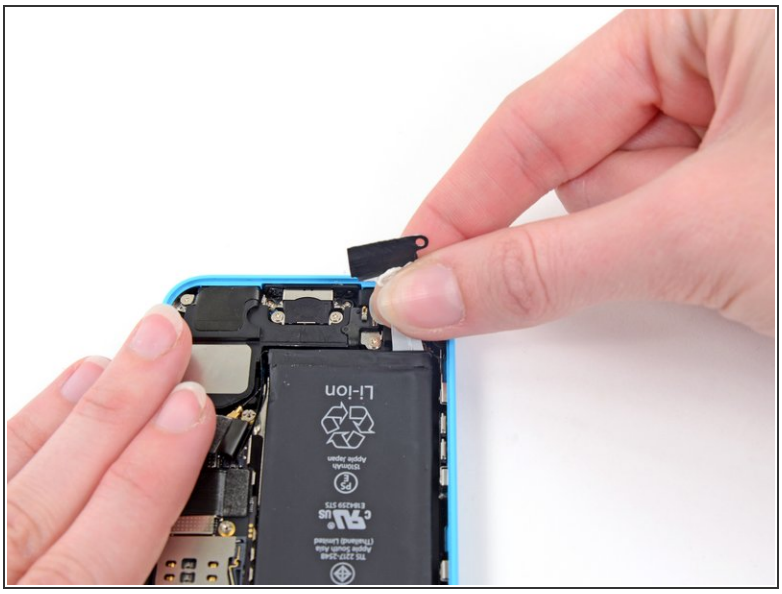
Step 20

⚠ Try to keep the strips flat and unwrinkled during this procedure; wrinkled strips will stick together and break instead of pulling out cleanly.

- Slowly pull one of the battery adhesive strips away from the battery, toward the bottom of the iPhone.
- Pull steadily, maintaining constant tension on the strip as it slips out from between the battery and the rear case. For best results, pull the strip at a 60º angle or less.
- Guide the strip carefully around the corner and up the side of the battery. Be careful not to snag it on any of the other internal iPhone components.

ⓘ The strip will stretch to many times its original length. Continue pulling, re-grabbing the strip near the battery if necessary, until the entire strip comes free.

Step 21



- Repeat to remove the second strip.

Step 22

- Remove the battery from your iPhone.

⚠ If one, or both, of the adhesive strips tears, and you are unable to retrieve it with a set of tweezers, **do not pry** the battery out of the phone. Continue on to the next steps to safely remove your battery.

Step 23 — Battery removal with latent adhesive

- Follow our iOpener heating instructions or use a hair dryer to heat the adhesive securing your battery to the rear case.
  - Lay the iOpener flat on the backside of the iPhone to the right of the camera. Smooth it out so that there is good contact between the back of the iPhone and the iOpener.
  - Let the bag sit on the iPhone for approximately 90 seconds before attempting to remove the battery.
  - If using a hair dryer or heat gun, heat the back of the iPhone until it's slightly too hot to touch.

⚠ Do not apply heat directly to the battery.

Step 24

- Carefully wedge a plastic card under the battery on the side nearest the logic board.

  ⚠ Do not pry against the logic board or you may damage the phone.

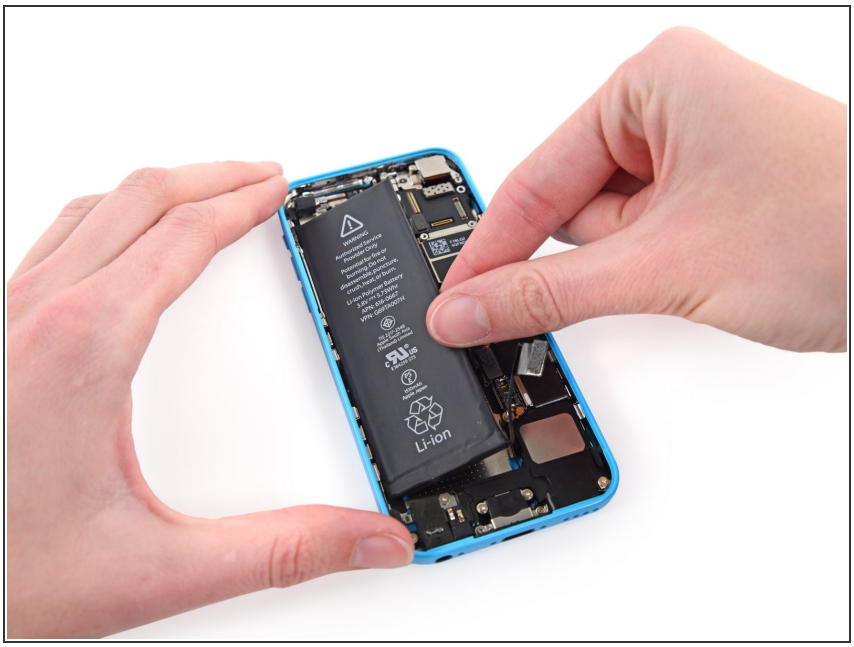
  ⚠ Avoid prying near the top edge of the battery, or you may damage the upper component ribbon cable.

- Slide the card from the top of the battery to the bottom, pushing toward the edge of the case.

ⓘ If you still trouble, apply some isopropyl alcohol (90% or greater) under the battery and let it flow around the adhesive to help weaken it. High concentration isopropyl alcohol acts as a solvent and dries without leaving any residue, so it will not hurt your iPhone.

ⓘ If necessary, repeat the same procedure with the case side of the battery.

Step 25



- Lift and remove the battery from the iPhone.

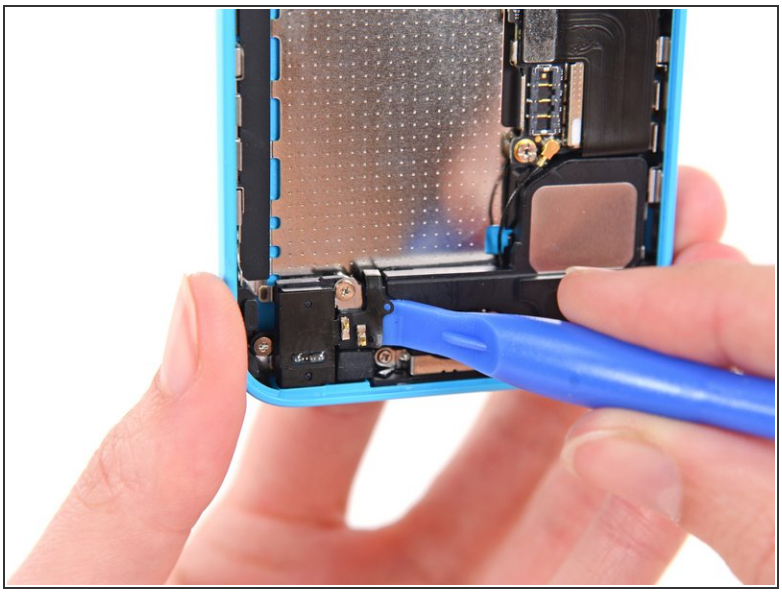
⚠ There should be no resistance. If the battery remains stuck, reheat the iOpener and pry again.

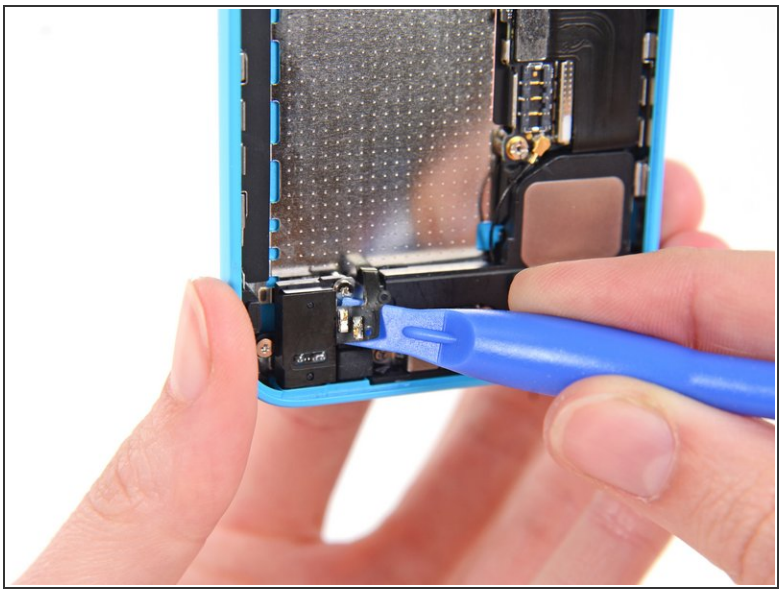
ⓘ If your replacement battery came in a plastic sleeve, remove it before installation by pulling it away from the the ribbon cable.

If your new battery doesn't have adhesive preinstalled, refer to this guide to replace the adhesive strips.

Perform a hard reset after reassembly. This can prevent several issues and simplify troubleshooting.

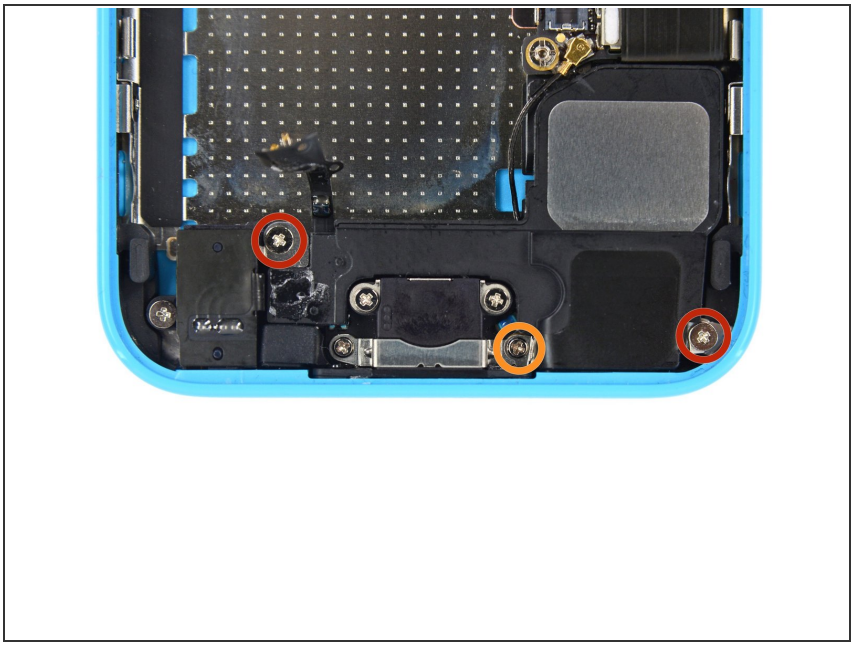
Step 26 — Lightning Connector Assembly





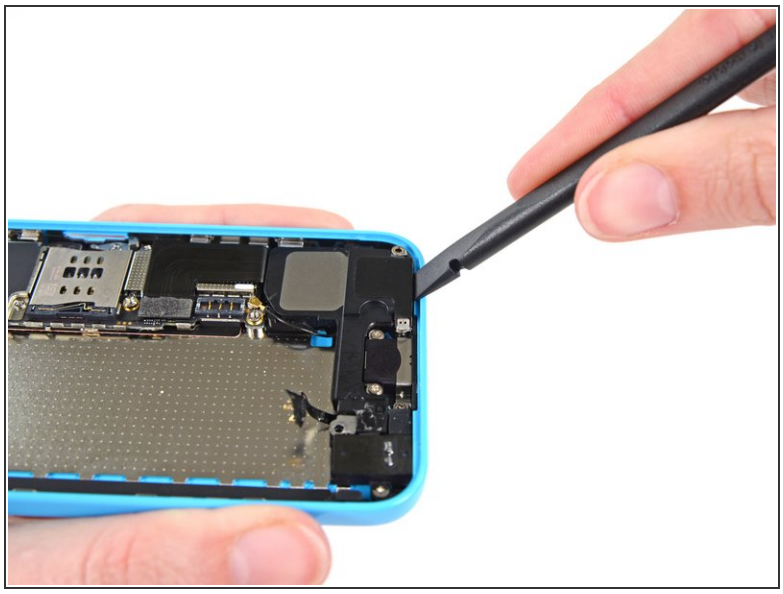
- Use a plastic opening tool to peel the home button spring contact cable up from the speaker enclosure.

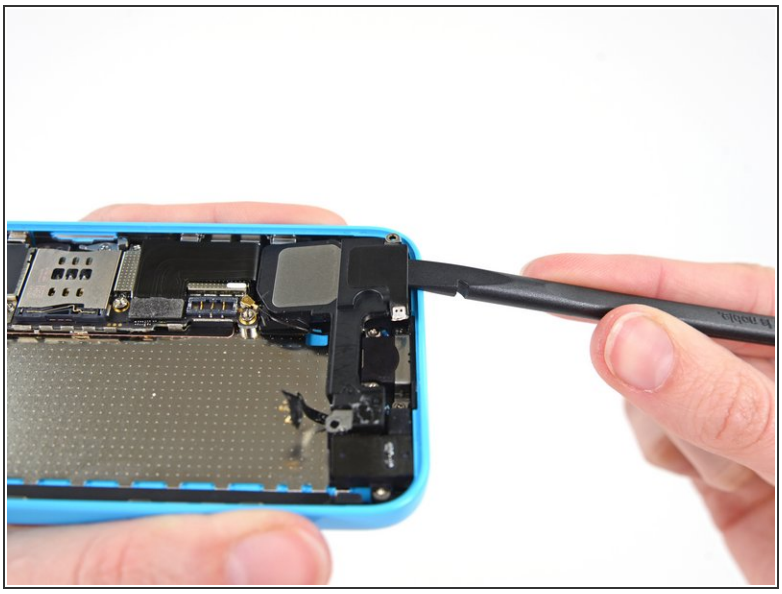
Step 27



- Remove the following screws securing the speaker enclosure to the rear case:
  - Two 2.7 mm Phillips #000 screws
  - One 2.2 mm Phillips #000 screw

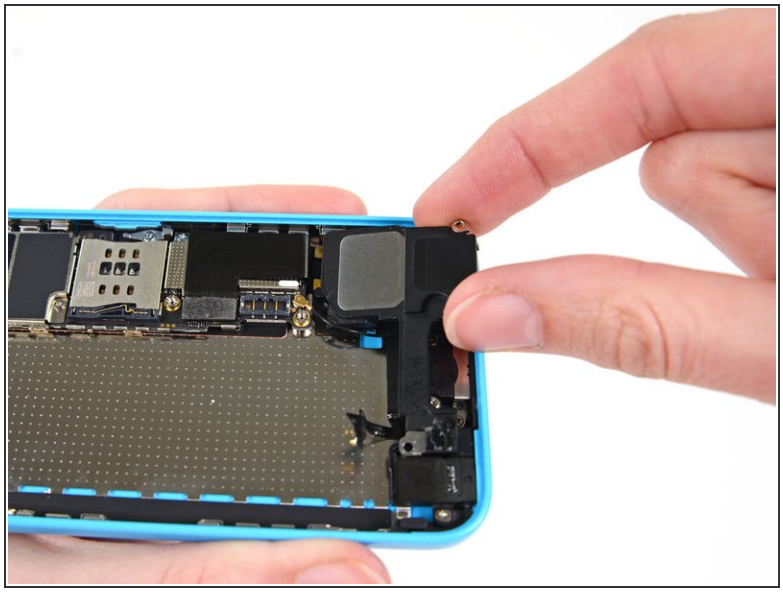
Step 28

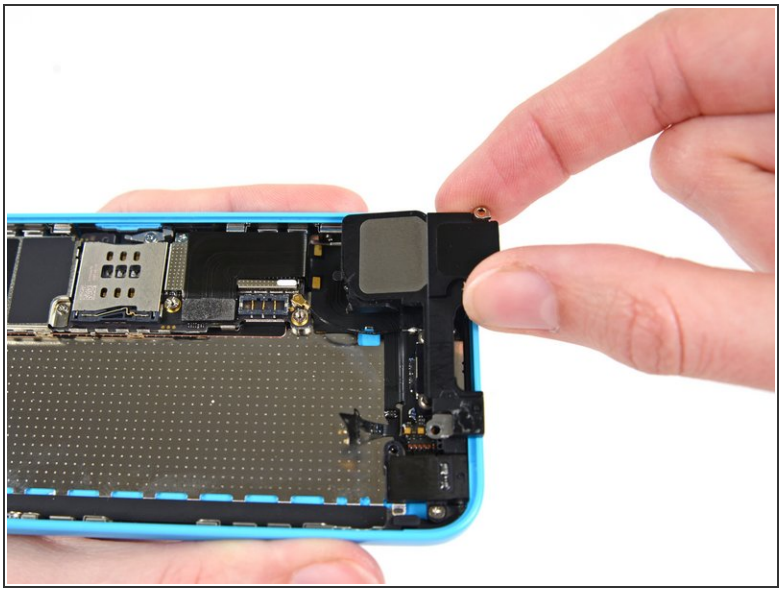




- Use the flat end of a spudger to gently pry the speaker enclosure up from the rear case.

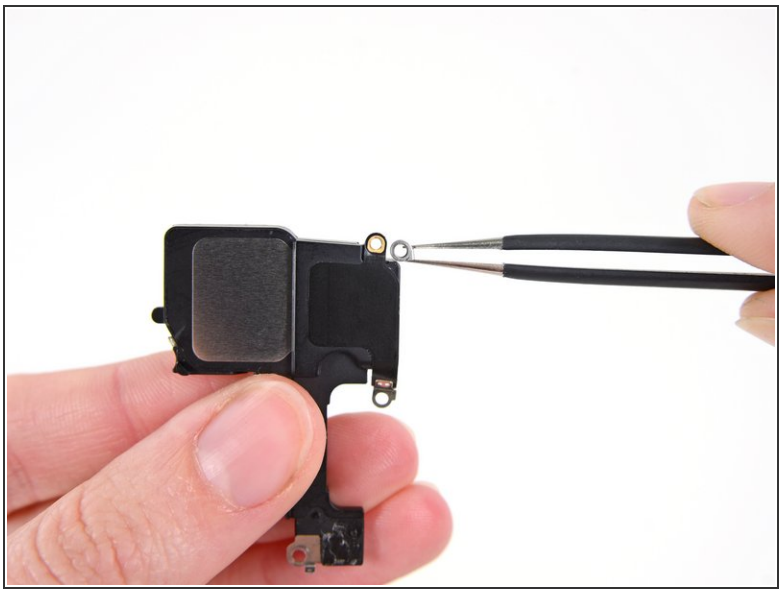
Step 29

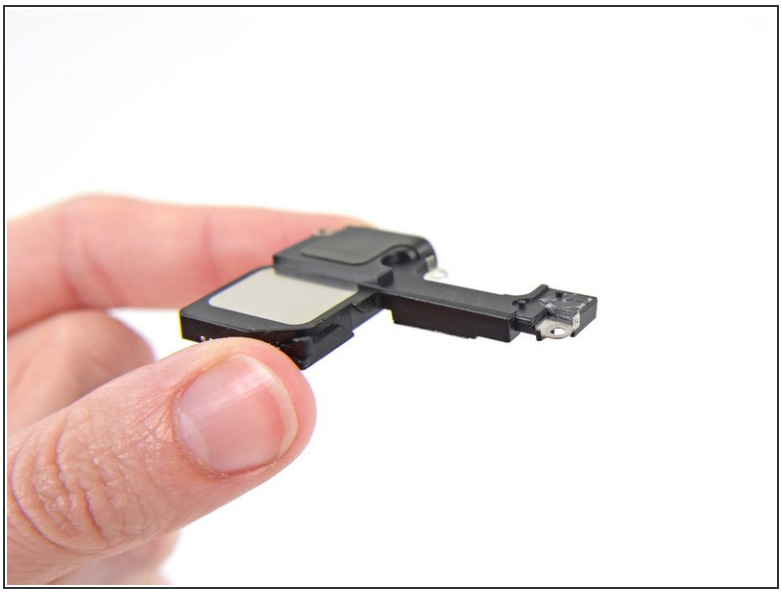




- Remove the speaker enclosure. Be careful not to snag it on the antenna cable.

Step 30





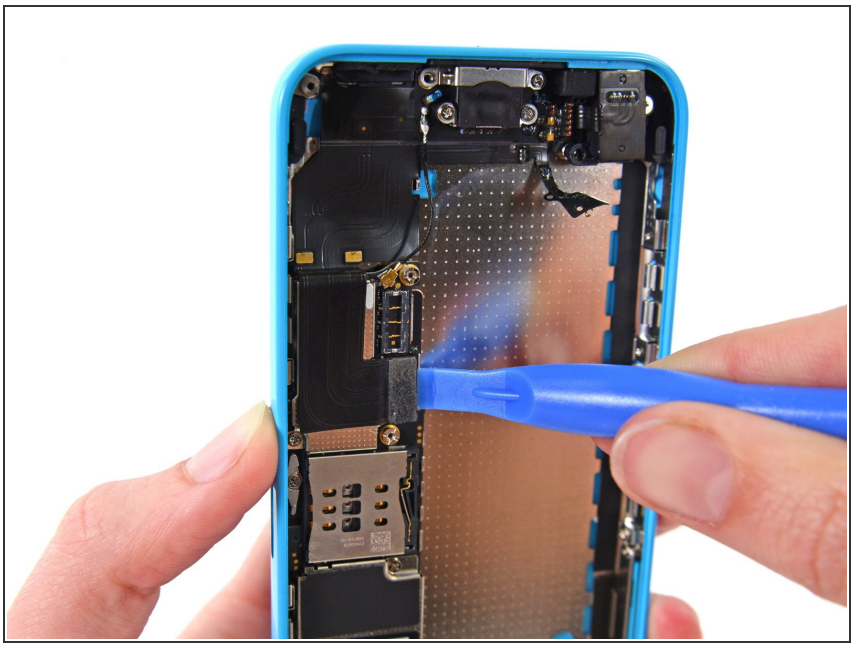
The far right screw hole on the speaker has a contact bracket wrapped around it. This small part may fall off unexpectedly, so it's best to remove it and note the orientation for reassembly.

- The flat portion of the contact clip should rest against the speaker, as shown.

The alignment bracket on the far end of the speaker assembly is adhered, but may fall off if handled aggressively.

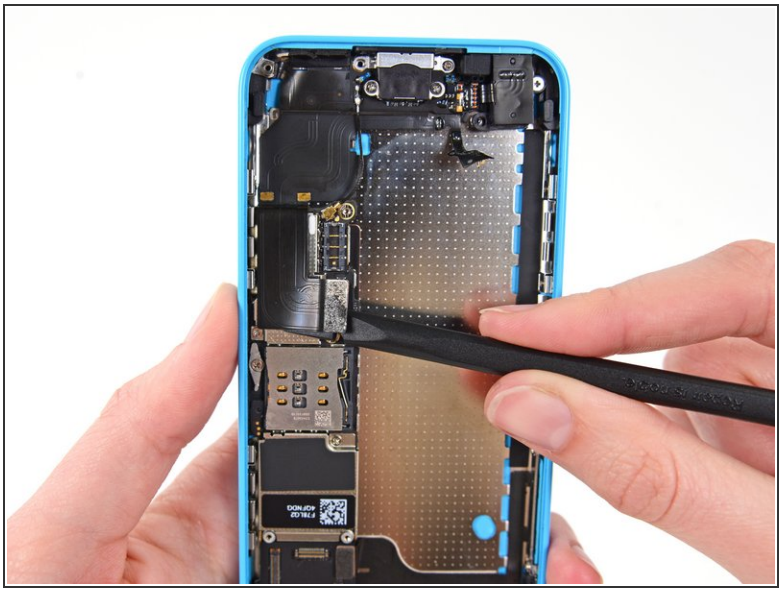
- The angled end should face up and line up with the outside edge of the speaker.

Step 31



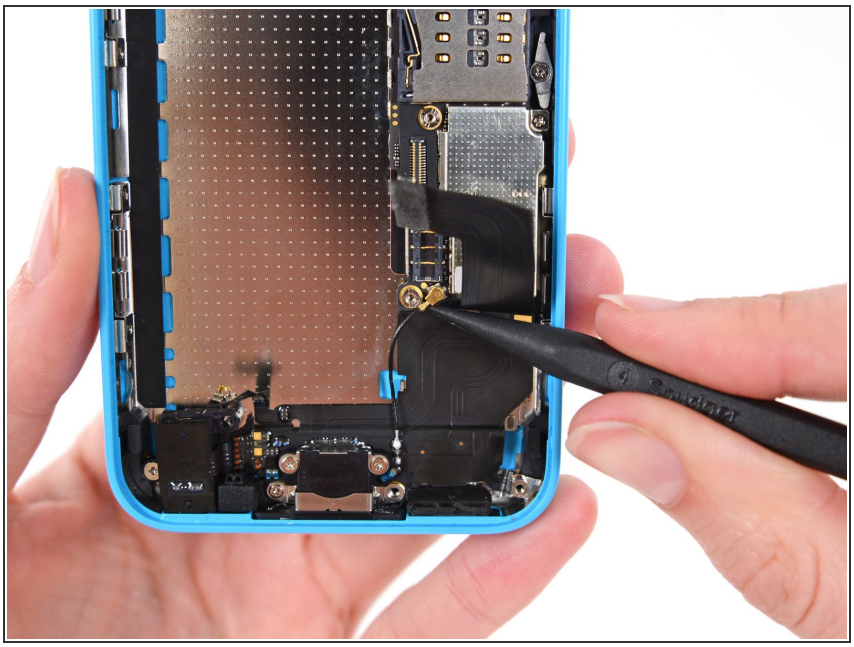
- Use a plastic opening tool to disconnect the Lightning connector ribbon cable from its socket on the logic board.

Step 32



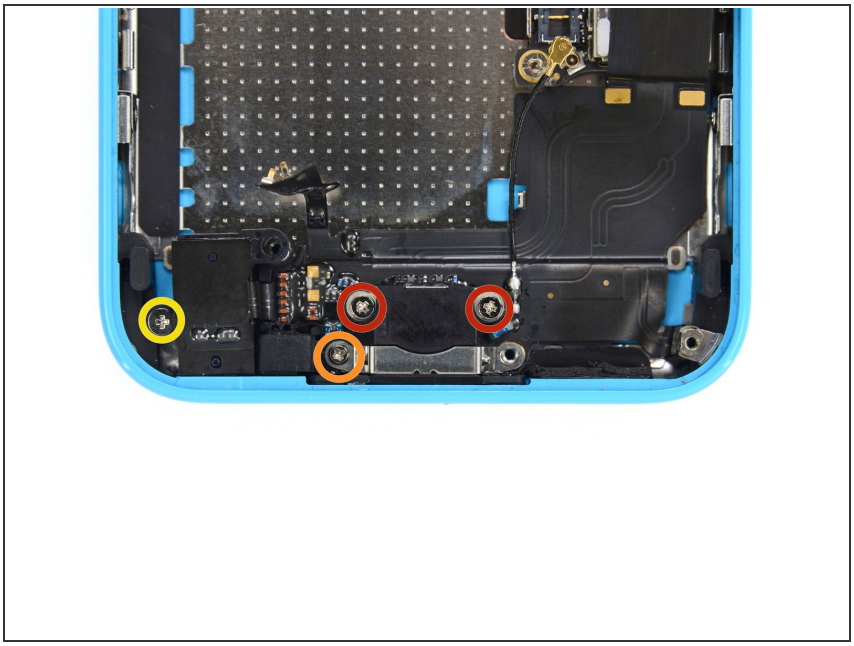
- The Lightning connector cable is lightly adhered to a shield on the logic board. Use the flat end of a spudger to gently peel the cable up.

Step 33



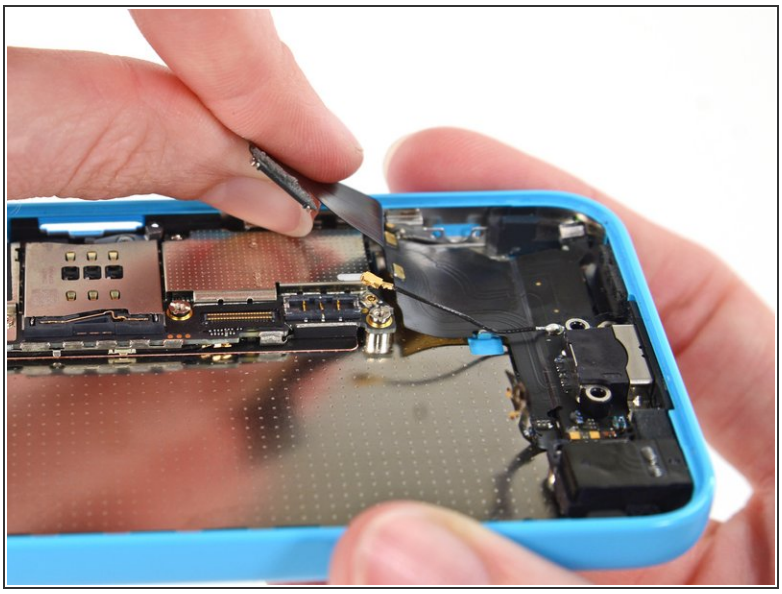
- Disconnect the cellular antenna connector from the base of the logic board.

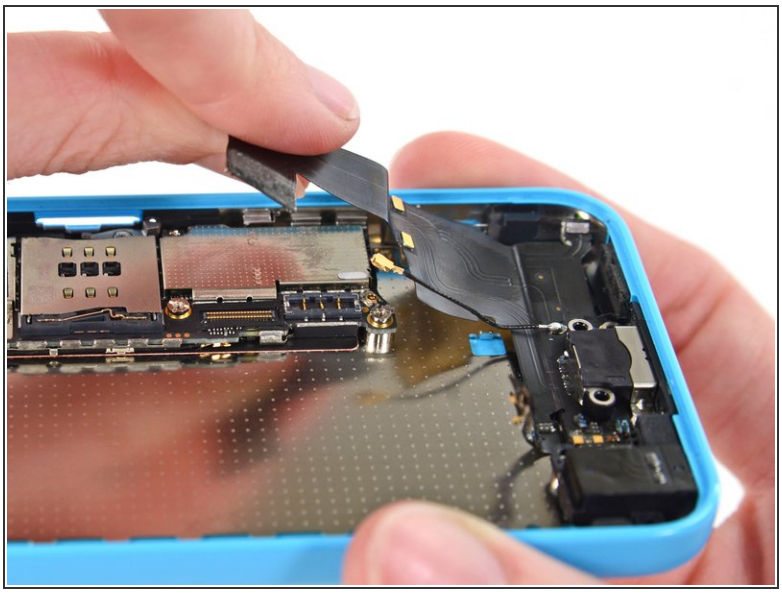
Step 34



- Remove the following screws securing the Lightning connector to the rear case:
  - Two 3.4 mm Phillips #000 screws
  - One 2.2 mm Phillips #000 screw
  - One 2.7 mm Phillips #000 screw

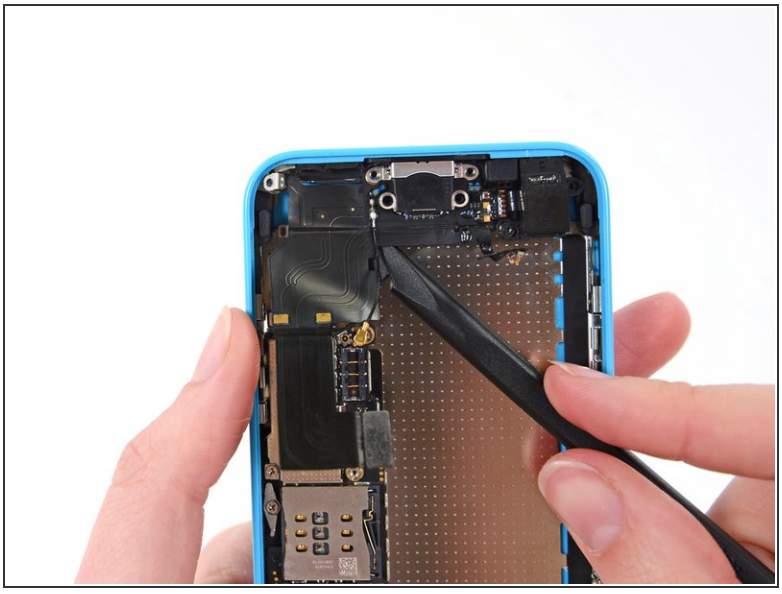
Step 35

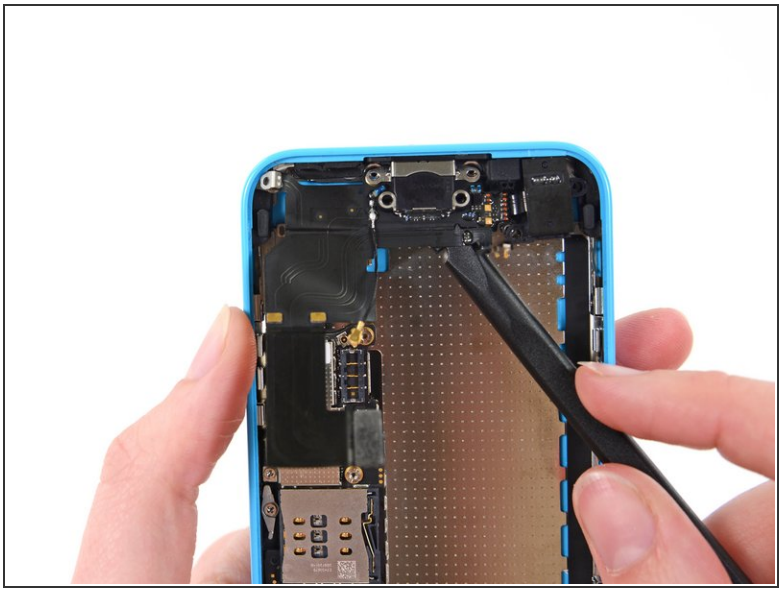




- Gently peel the Lightning connector assembly up from the rear case.

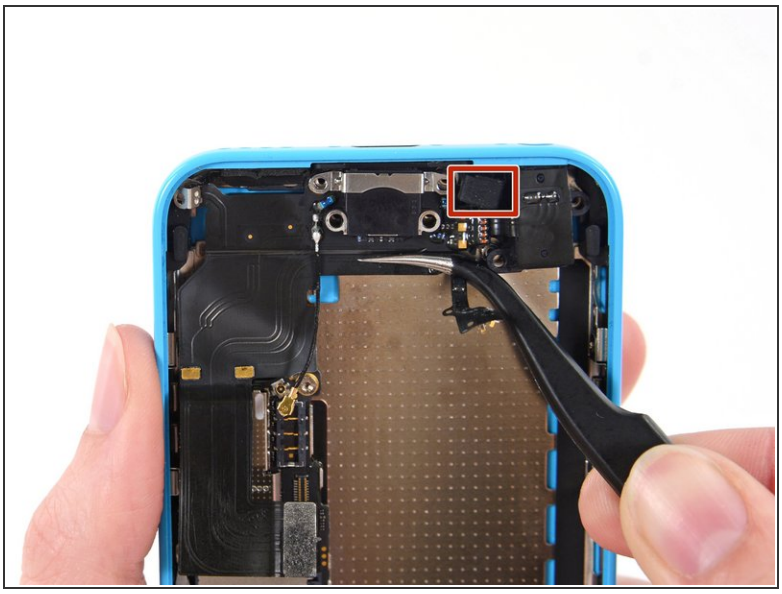
Step 36

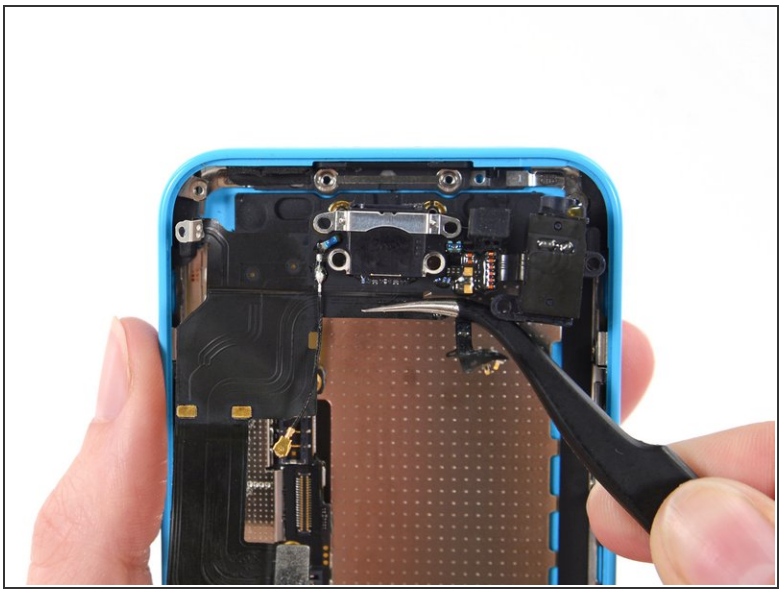




- You may need to use the flat end of a spudger to completely free the assembly.

Step 37





- Remove the Lightning connector assembly.
- There is a small rubber gasket attached to the microphone. Be sure to transfer it to the new assembly.

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