



iPhone 7 Power and Volume Control Cable Replacement

Replace the power and volume control cable in an iPhone 7.

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INTRODUCTION

Use this guide to replace a malfunctioning power and volume button cable—this includes the switches responsible for volume up and down, the ring/silent control and the power switch, as well as a microphone and the dual-LED flash. Follow [this guide](#) if you are looking to replace the exterior power button cover and [this guide](#) for the exterior volume control button cover.

TOOLS:

- P2 Pentalobe Screwdriver iPhone (1)
- iOpener (1)
- Suction Handle (1)
- Spudger (1)
- iFixit Opening Picks set of 6 (1)
- Tri-point Y000 Screwdriver Bit (1)
- Tweezers (1)
- Phillips #000 Screwdriver (1)
- SIM Card Eject Tool (1)
- Halberd Spudger (1)
- Plastic Cards (1)
- ESD Safe Tweezers Blunt Nose (1)
- iPhone Standoff Screwdriver (1)

PARTS:

- iPhone 7 Audio Control Cable and Brackets (1)
- iPhone 7 Upper Cable Bracket (1)
- iPhone 7 Top Left Antenna (1)
- iPhone 7 Flash Bracket (1)
- iPhone 7 Display Assembly Adhesive (1)
- iPhone 7 Volume Button Bracket (1)
- iPhone 7 Power Button Bracket (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 3.4 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 — iPhone 7 Opening Procedure



i 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 iPhone for about a minute in order to soften up the adhesive underneath.

Step 3



- Attach a suction cup to the lower half of the display assembly, just above the home button.
- i** 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.

Step 4



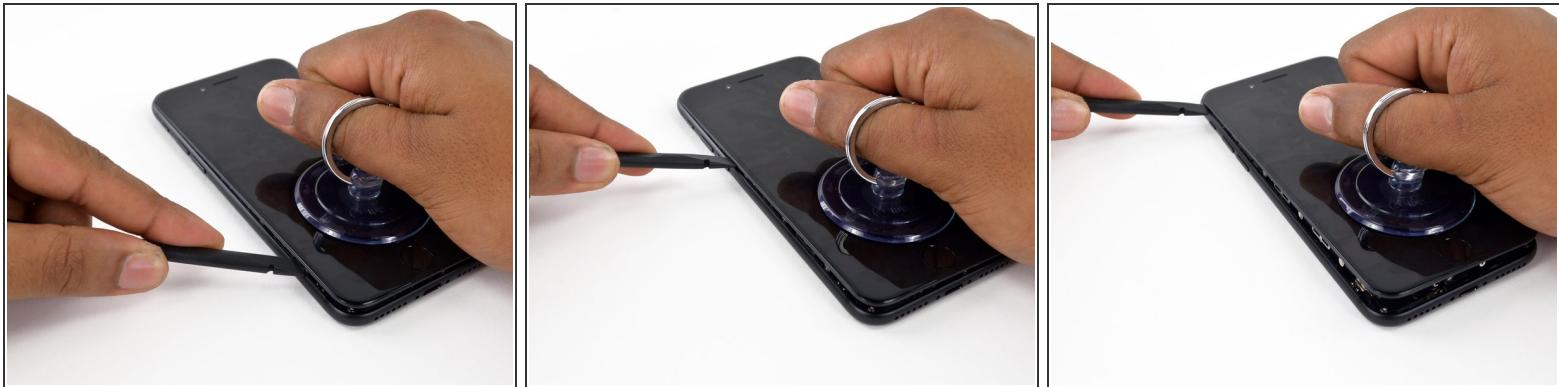
- Pull up on the suction cup to create a small gap between the display assembly and the rear case.
- Insert the flat end of a spudger into the gap.
- *(i)* The watertight adhesive holding the display in place is very strong, and creating this initial gap takes a significant amount of force. If you're having a hard time opening a gap, rock the screen up and down to weaken the adhesive until you can fit a spudger inside.

Step 5



- Slide the spudger to the left along the lower edge of the iPhone.
- Twist the spudger to widen the gap between the display and rear case.

Step 6



- Slide the spudger up the left side of the iPhone, starting at the lower edge and moving towards the volume control buttons and silent switch.

⚠ Do not pry along the top edge of the phone, you risk damaging the plastic clips securing the display.

Step 7



- Insert the flat edge of a spudger into the bottom right corner of the device.
- Twist the spudger to widen the gap between the display assembly and the rear case.
- Slide the flat end of the spudger up the right side of the phone to break up the adhesive holding the display in place.

⚠ Do not insert the spudger further than the adhesive to avoid damaging delicate ribbon cables along the right edge.

Step 8



- Pull up on the suction cup to lift up the display and open the iPhone.

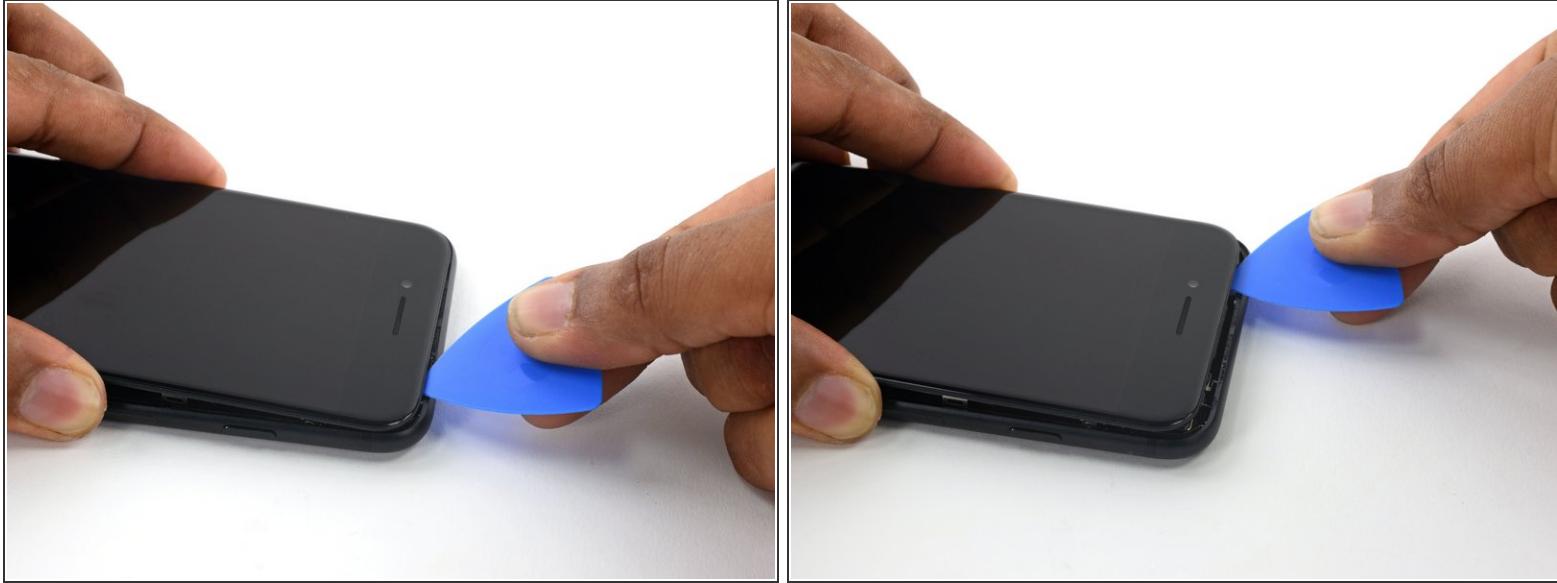
⚠ Do not raise the display more than 10° as there are ribbon cables along the right edge of the device connecting the display to the logic board.

Step 9



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

Step 10



- Slide an opening pick along the top edge of the iPhone, between the rear case and front panel, to break up the remaining adhesive holding the screen in place.

⚠ Be careful not to damage the plastic clips on the top edge of the phone.

Step 11



- Pull the display assembly slightly away from the top edge of the phone to disengage the clips holding it to the rear case.
- 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.

Step 12 — Battery Disconnection



- Remove four tri-point Y000 screws securing the lower connector bracket, of the following lengths:
 - Three 1.2 mm screws
 - One 2.4 mm screw
- **(i)** Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from to avoid damaging your iPhone.

Step 13



- Remove the lower connector bracket.

Step 14



- Use the point of a spudger to lift the battery connector out of its socket on the logic board.
- ⓘ Bend the connector cable up slightly to prevent it from making contact with the socket and providing power to the phone.

Step 15 — Display Assembly



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

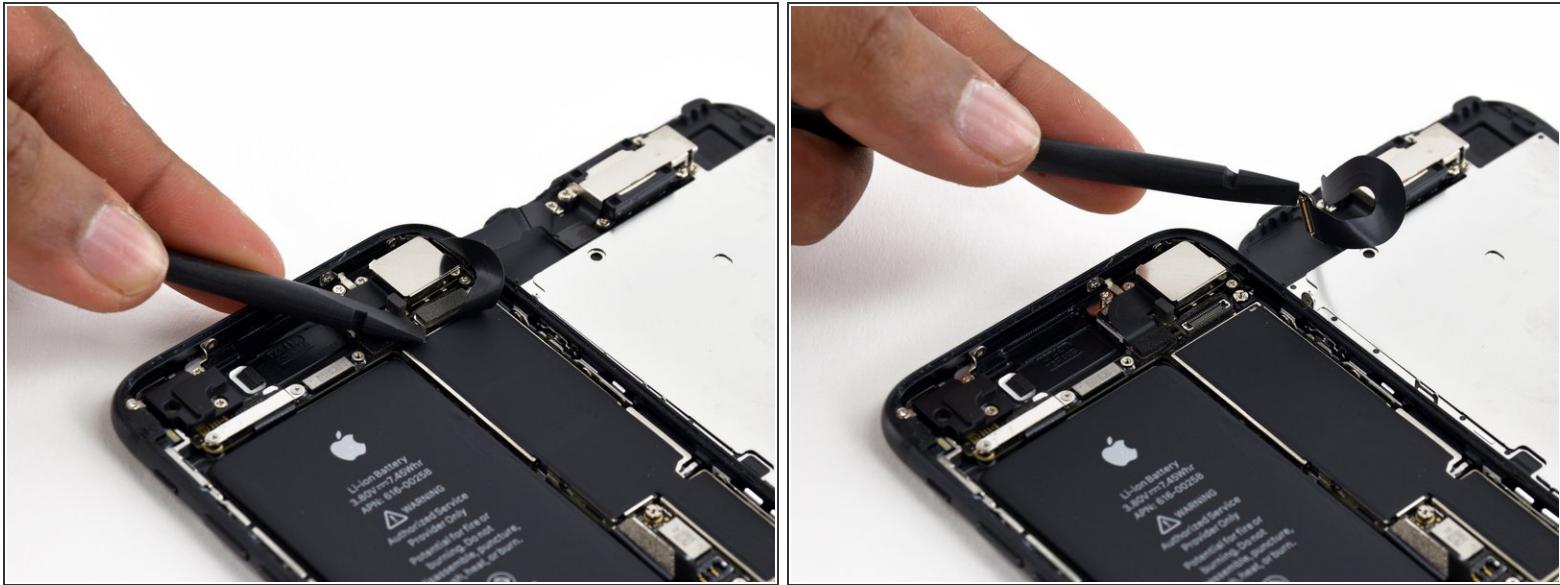
- Use a spudger or a fingernail to disconnect the two lower display connectors by prying them straight up from their sockets on the logic board.
- ☒ To reconnect these cables, press down on one end until it clicks into place, then repeat on the opposite end. **Do not** press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.
- ☒ If you have a blank screen, white lines on the display, or partial or complete lack of touch response after reassembling your phone, try disconnecting and carefully reconnecting both of these cables and make sure they are fully seated.

Step 16



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

Step 17



- Disconnect the front panel sensor assembly connector from its socket on the logic board.

This press connector should also be reconnected one end at a time to minimize the risk of bending.

Step 18



- Remove the display assembly.

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

Step 19 — SIM Card



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

This may require a significant amount of force.

- Remove the SIM card tray assembly from the iPhone.

When reinserting the SIM card, ensure that it is in the proper orientation relative to the tray.

Step 20 — Logic Board Connectors



- Use the flat end of a spudger to disconnect the rear-facing camera connector.

Step 21



- Remove the following Phillips screws securing the rear camera bracket to the rear case:
 - One 1.3 mm screw
 - One 2.5 mm screw

Step 22



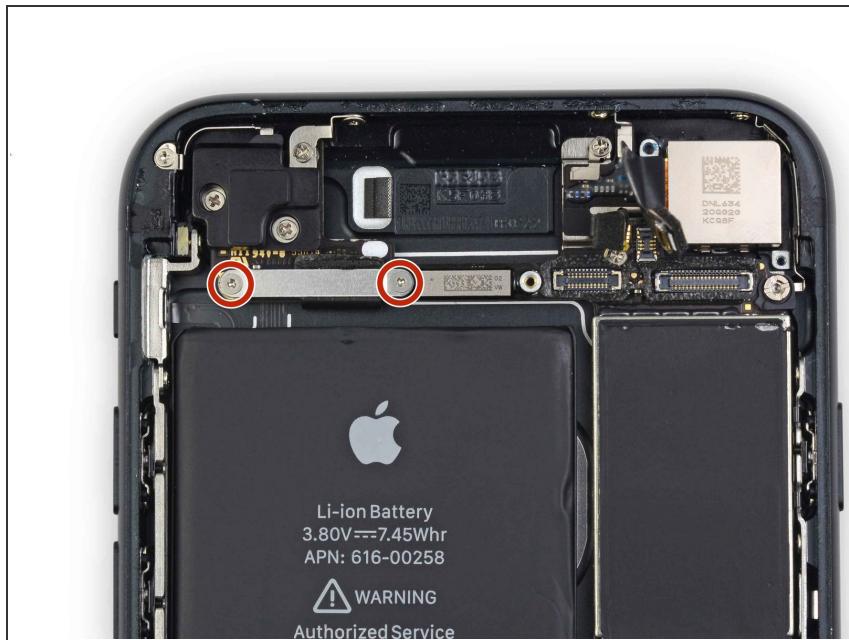
- Remove the bracket.

Step 23



- Use the pointed end of a spudger to pry up and disconnect the antenna bus connector, just left of the rear camera module.

Step 24



- Remove the two 1.2 mm tri-point screws securing the upper cable bracket.

Step 25



- Remove the upper cable bracket.

Step 26



- Use the flat end of a spudger to disconnect the upper cable connector.

Step 27



- Remove the Phillips screws securing the Wi-Fi antenna:
 - Three 1.2 mm screws
 - One 1.7 mm screw

Step 28



- Remove the top left antenna.

Step 29



- Remove the following Phillips screws:
 - One 1.3 mm screw
 - One 2.2 mm screw

Step 30



- Remove the bracket.

Step 31

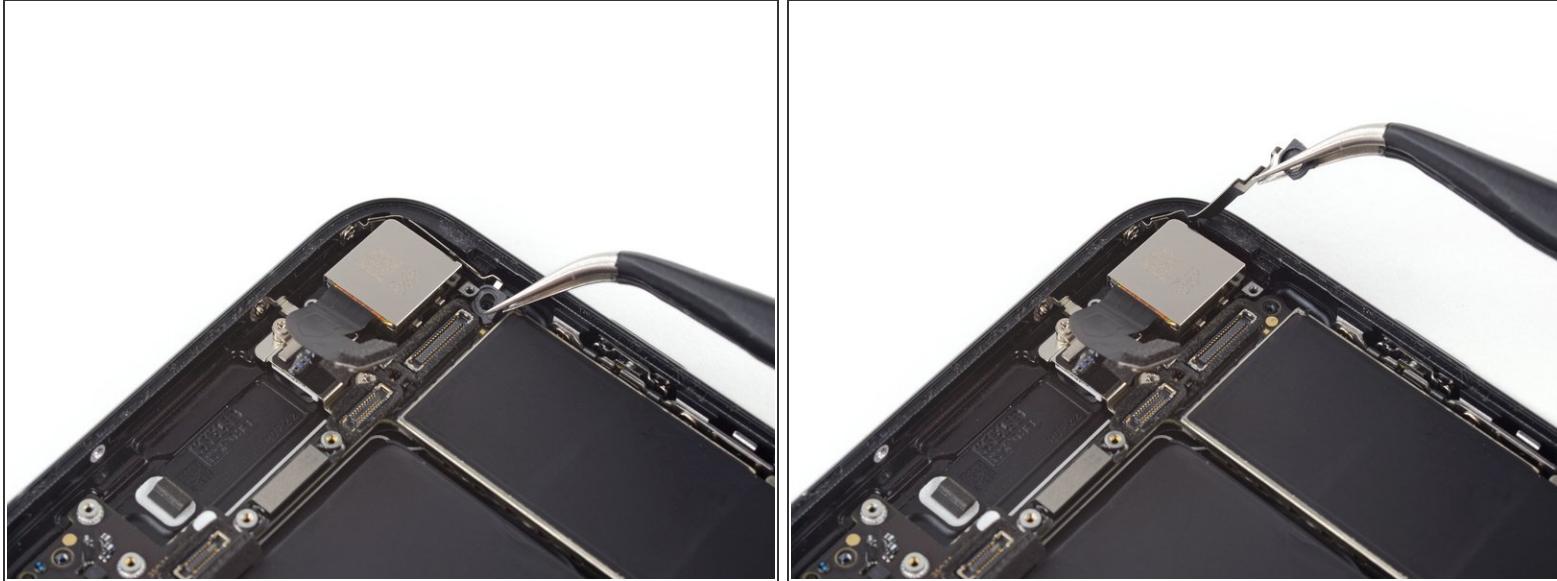


- Remove the 2.2 mm standoff screw from the grounding bracket.

(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 32



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

Step 33 — Logic Board



- Use the point of a spudger to lift the two antenna cable connectors up off of the sockets on the logic board.

Step 34



- Use tweezers to gently derout the antenna cables from the metal bracket on the logic board.

Step 35



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

Step 36



- Remove the following screws:

- One 1.4 mm Phillips screw

- Three 2.2 mm standoff screws

(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 37



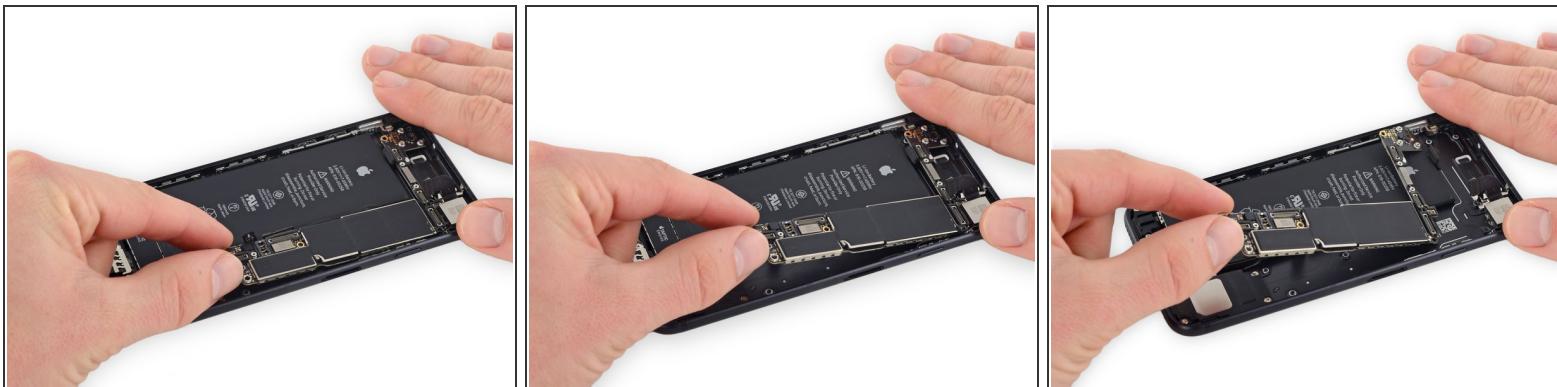
- Use the point of a spudger to move the SIM card eject plunger out of the logic board's way.

Step 38



- Use the flat end of a spudger to gently lift the battery connector end of the logic board up.
- Make sure you're not pulling against any cables. If you feel resistance, check all cables, connectors, and components are clear of the board.

Step 39



- Lift the battery connector end of the logic board and pull it up and out of the rear case.
-  Be careful not to snag the logic board on any cables.

Step 40 — Barometric Vent



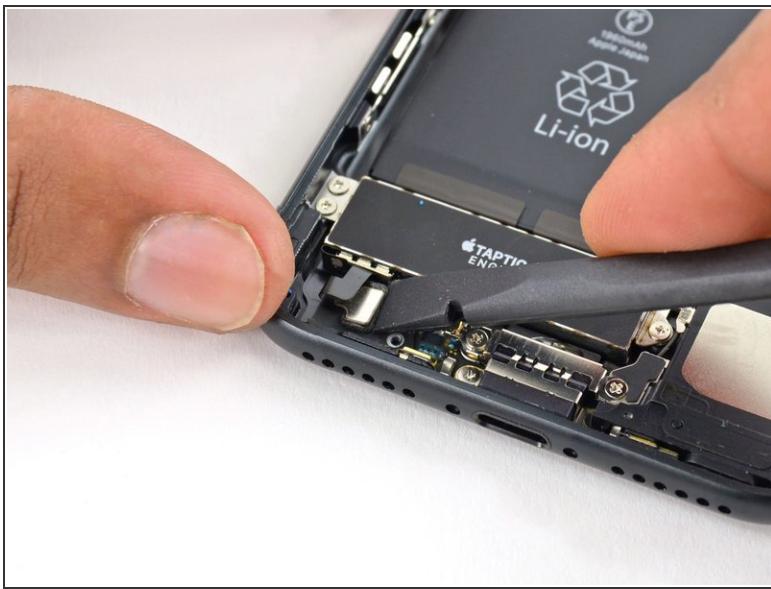
- Remove the two 1.9 mm Phillips screws securing the barometric vent to the rear case.

Step 41



- Remove the vent.

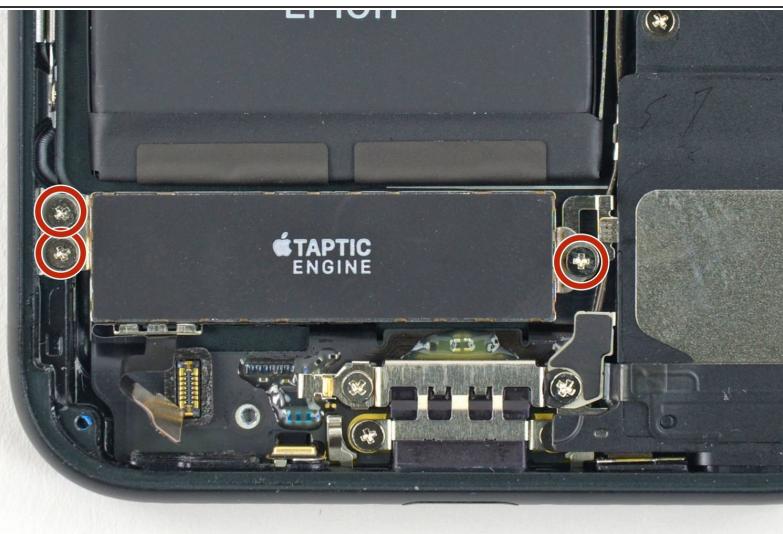
Step 42 — Power and Volume Control Cable Battery



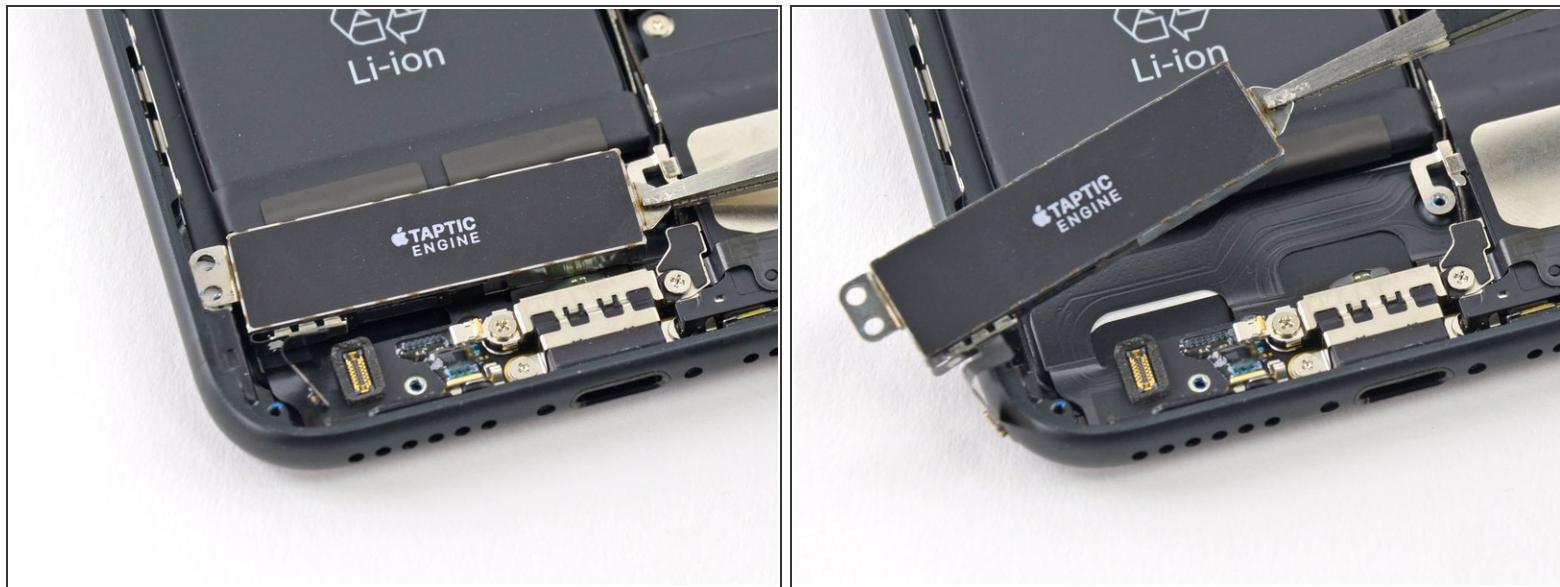
- Use the flat end of a spudger to disconnect the Taptic Engine connector from its socket on the logic board.

Step 43

- Remove the three 1.6 mm Phillips screws securing the Taptic Engine to the rear case.

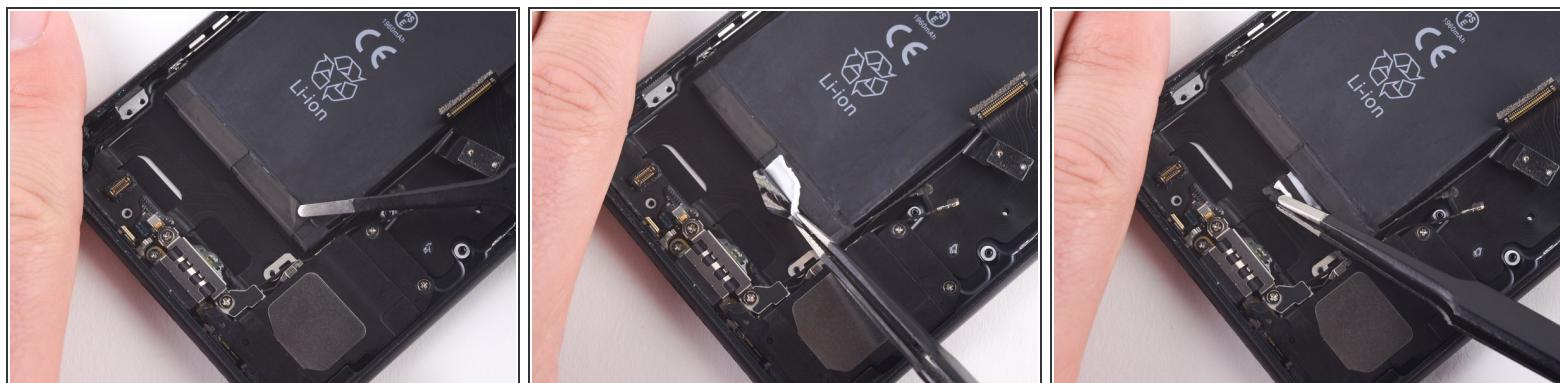


Step 44



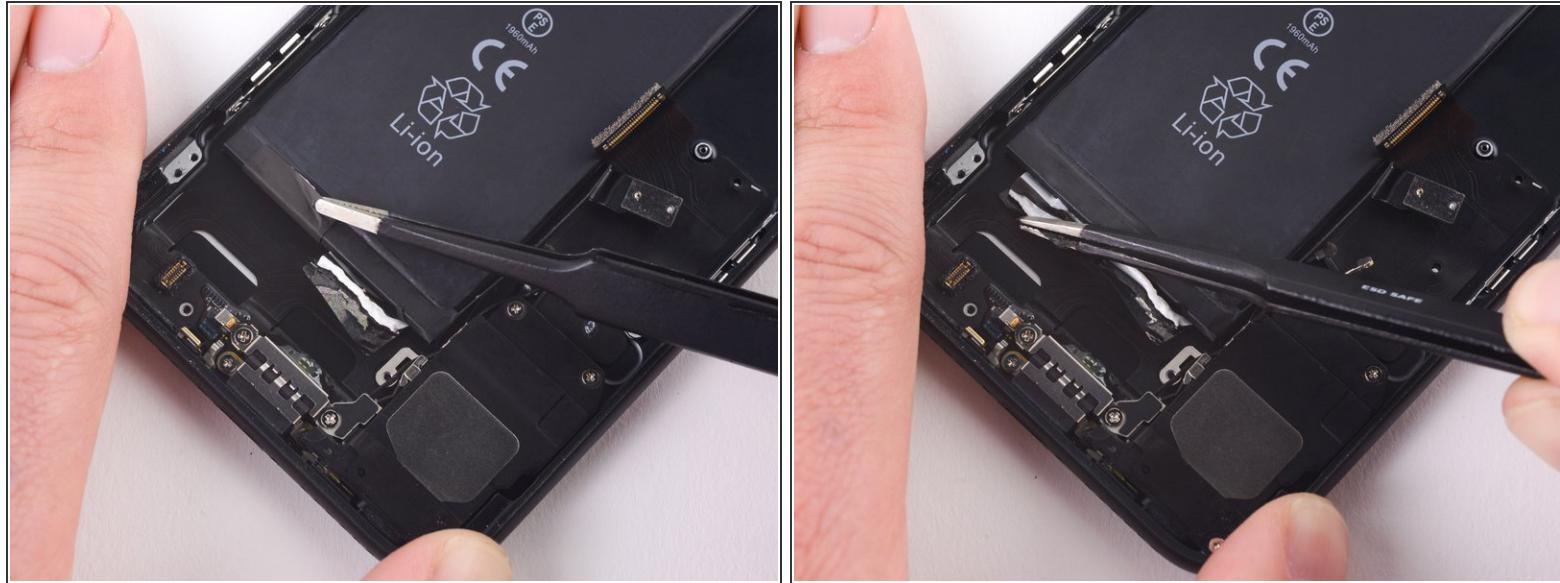
- Remove the Taptic Engine.

Step 45



- Use a pair of tweezers with blunt tips to peel back one of the adhesive strips on the lower edge of the battery.

Step 46



- Use a pair of tweezers with blunt tips to peel back the other adhesive strip on the lower edge of the battery.

Step 47



⚠ 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 battery adhesive tab away from the battery, toward the bottom of the iPhone.
- Pull steadily, maintaining constant tension on the strip until it slips out from between the battery and the rear case. For best results, pull the strip at a 60° angle or less.
- **(i)** The strip will stretch to many times its original length. Continue pulling and re-grab the strip near the battery if necessary.

Step 48



- Repeat the previous step for the second strip.
- **⚠ Hold down the battery as you remove the second strip, or the strip may fling the battery when it separates from the case.**
- **If you removed both adhesive strips successfully, skip the next step.**
- Otherwise, if either of the adhesive strips broke off underneath the battery and could not be retrieved, **continue with the next step below.**

Step 49



- **①** If you successfully removed both adhesive strips, move on to the next step. Otherwise, you will need to pry the battery from the rear case.
- Prepare an iOpener and apply it to the back of the rear case, directly over the battery. Alternatively, you can apply heat using a heat gun or hair dryer.
- After about a minute, remove the iOpener, flip the phone over and use a plastic card to break up any remaining adhesive behind the battery.

⚠ Avoid bending the battery. Damage to the battery may release dangerous chemicals, and could start a fire.

⚠ Do not pry under the top third of the battery, you may damage the volume button ribbon cable.

Step 50



- Remove the battery.

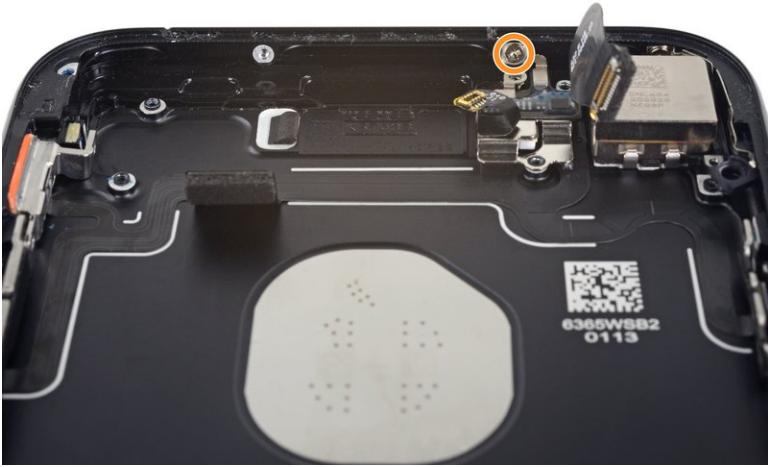
➡ When installing the battery, refer to [this guide](#) to replace your battery's adhesive strips.

Step 51 — Power and Volume Control Cable



- Remove the following Phillips screws:
 - Two 1.9 mm screws securing the power button.
 - Three 2.3 mm screws securing the volume buttons.

Step 52



- Remove the following 1.3 mm Phillips screws:
 - One screw beside the rear-facing camera
 - One screw on the rear case

Step 53



- From the outside of the phone, push the hold switch into the rear case with the point of a spudger.
- This action will free the hold switch and gasket from the rear case.

Step 54



- Use a pair of tweezers to remove the rear-facing camera.

Step 55



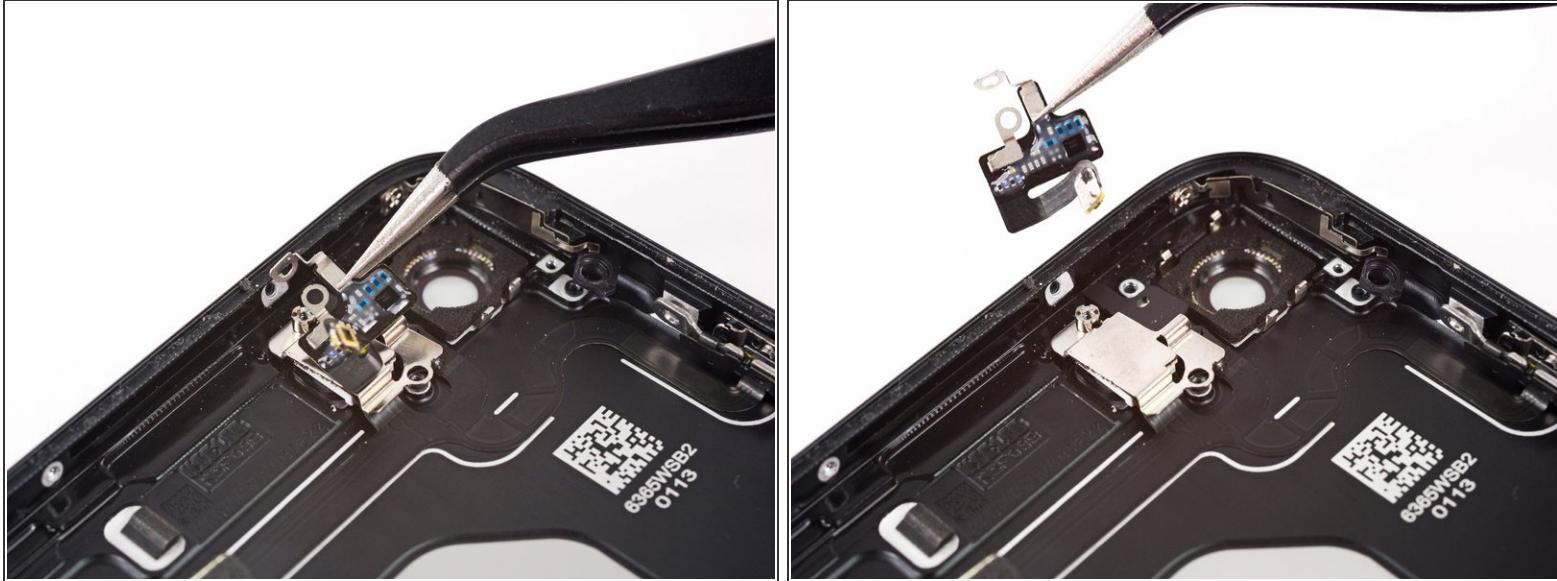
- Moving from power button side of the phone, use an opening pick to separate the adhesive holding the antenna flex cable to the rear case.

Step 56



- Slide the point of an opening pick underneath the antenna flex cable towards the top of the phone, separating the remaining adhesive.

Step 57



- Use tweezers to move the antenna flex cable away from the edge of the phone, freeing the screw bracket from the rear case.
- Remove the antenna flex cable.

Step 58



- Remove the 2.3 mm standoff screw securing the flash bracket to the rear case.

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 59



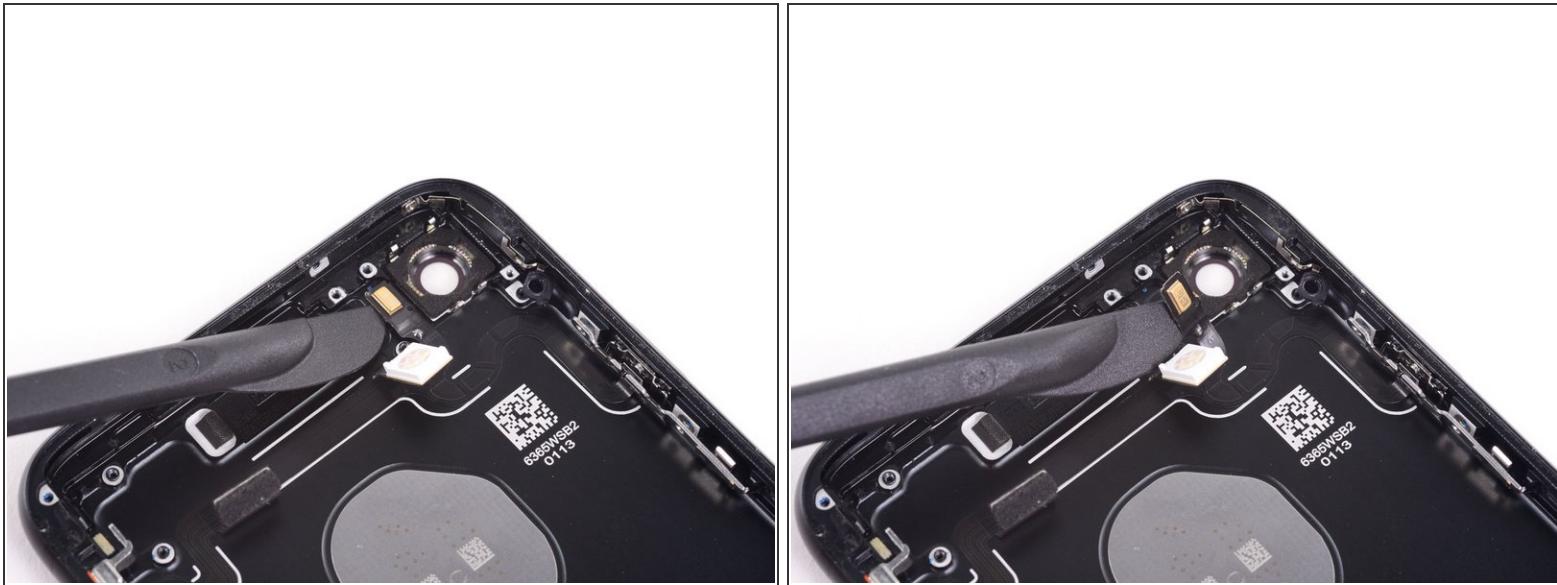
- Remove the flash bracket.

Step 60



- Use the point of a spudger to gently unseat the flash module.

Step 61



- Use the blade of a Halberd spudger to separate the adhesive holding the microphone to the rear case.

Step 62



- Gently fold the power button module from the edge of the rear case.

Step 63



- Slide the blade of a halberd spudger under the power button end of the button cable to separate it from the adhesive on the rear case.
- Continue to separate the adhesive by moving the blade towards the top of the phone.

Step 64



- Continue to move the blade of the halberd spudger underneath the power and volume control cable.

⚠ Move slowly to make sure that the cable is not damaged during removal.

Step 65



- Slide the halberd spudger under the volume control portion of the button cable.
- Gently slide the blade underneath the cable towards the bottom of the phone, separating the remaining adhesive.

Step 66



- Remove the power and volume control cable.

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