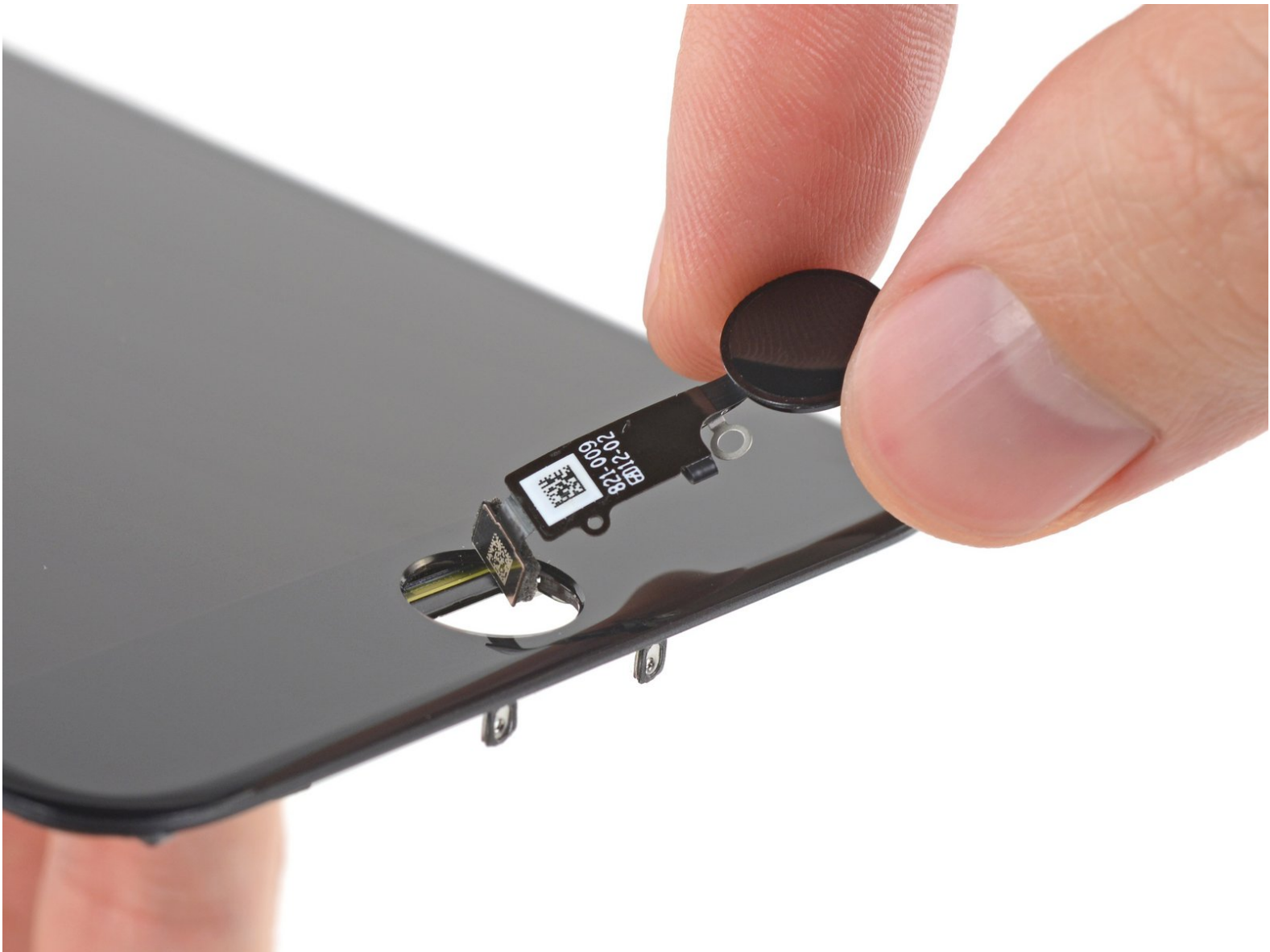




iPhone 7 Home/Touch ID Sensor Replacement

How to replace or transfer the solid-state home button in your iPhone 7.

Written By: Paige Reisman



INTRODUCTION

The iPhone 7 home “button” is actually a solid-state sensor, which also includes Touch ID (fingerprint recognition) capability.

Most replacement home buttons won't work, so check carefully before starting your repair. Your iPhone's original home button is uniquely paired to the logic board at the factory—and without Apple's proprietary calibration process, even a genuine replacement home button from another iPhone won't work. To fix a broken home button, you should install a specially-made, [universal-style home button](#). Note that these replacements only work as a button; Touch ID will not function.

If you are only replacing a broken screen, you can use this guide to carefully remove and transfer your working original home button to a new screen, preserving all functions, including Touch ID.

During this procedure, to avoid accidentally straining or tearing the display cables, it's best to completely detach the display assembly before beginning repairs on the home/Touch ID sensor. But if you are comfortable doing so, you may skip the display assembly section of this guide and go straight to the home/Touch ID sensor section.



TOOLS:

- [Phillips #000 Screwdriver](#) (1)
- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [iOpener](#) (1)
- [Suction Handle](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Spudger](#) (1)
- [Tri-point Y000 Screwdriver Bit](#) (1)
- [Tweezers](#) (1)



PARTS:

- [iPhone 7/7 Plus/8/8 Plus Replacement Home Button](#) (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.
- ⓘ 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



- ⓘ 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



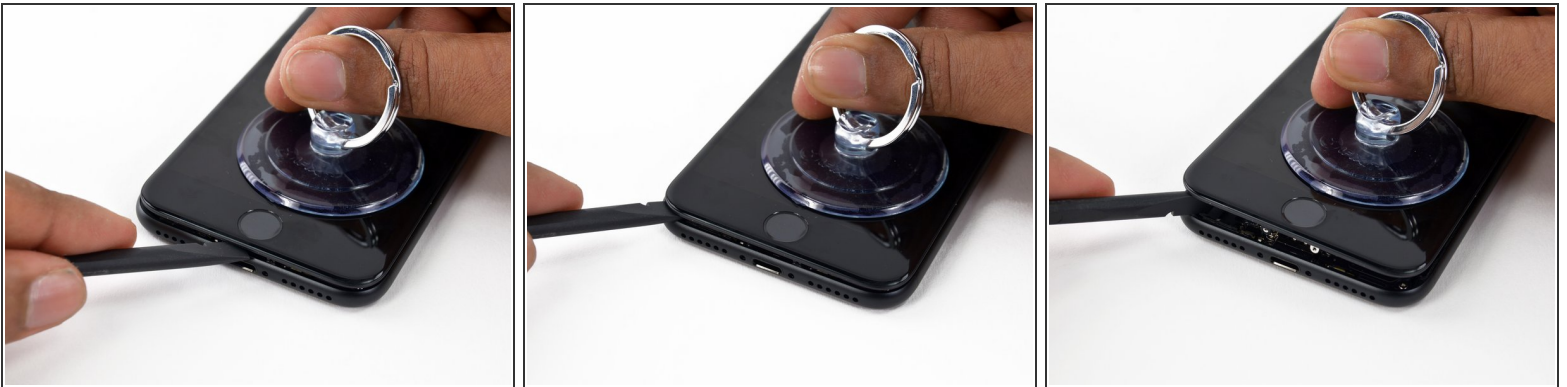
- Attach a suction cup to the lower half of the display assembly, just above the home button.
 - ⓘ Be sure the suction cup does not overlap with the home button, as this will prevent a seal from forming between the suction cup and front glass.
 - ⓘ If your display is badly cracked, [covering it with 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



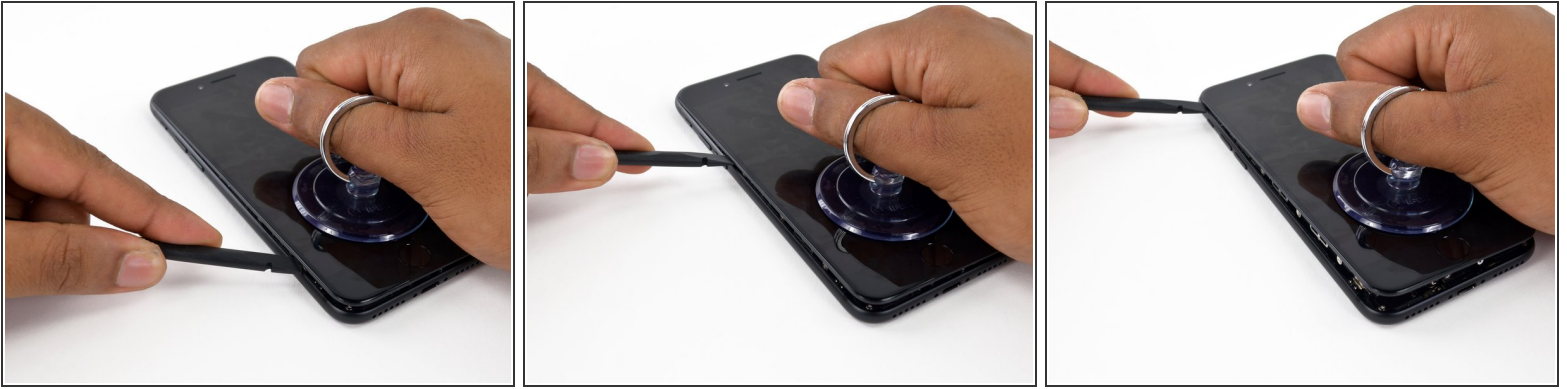
- Pull up on the suction cup to create a small gap between the display assembly and the rear case.
- Insert the flat end of a spudger into the gap.
- ⓘ The watertight adhesive holding the display in place is very strong, and creating this initial gap takes a significant amount of force. If you're having 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.

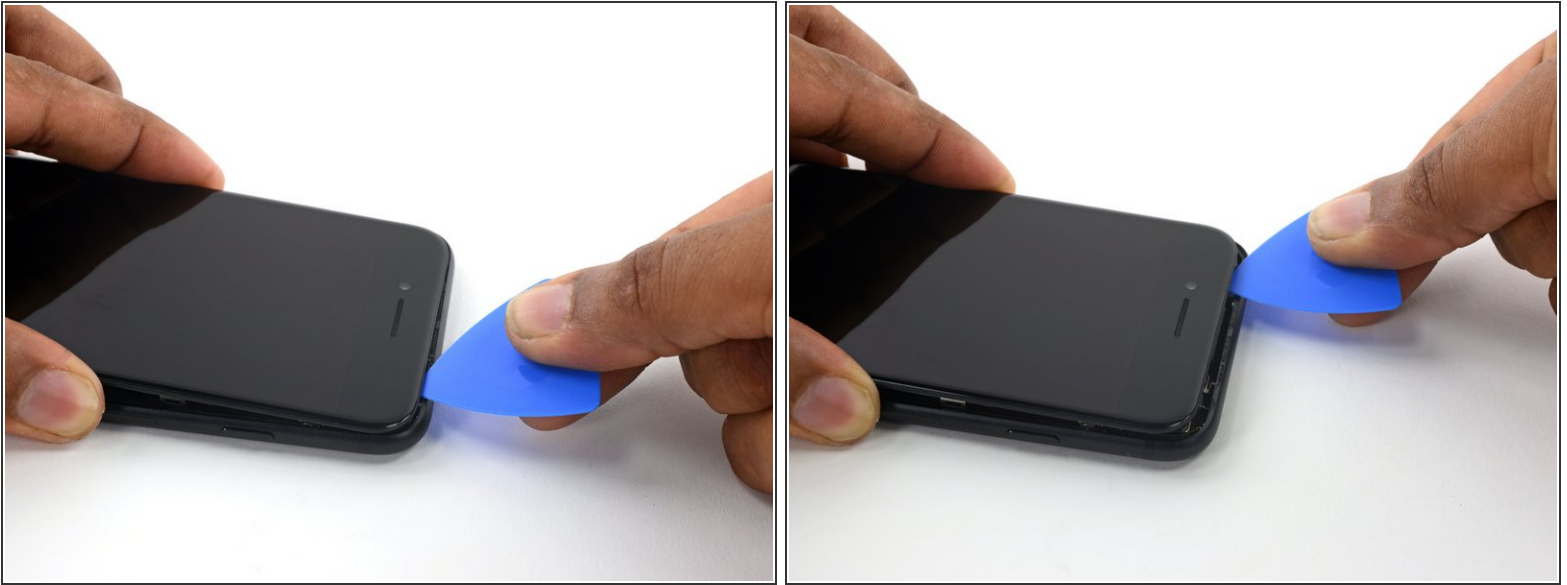
 **Do not raise the display more than 10°** as there are ribbon cables along the right edge of the device connecting the display to the logic board.

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
- ⓘ 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.

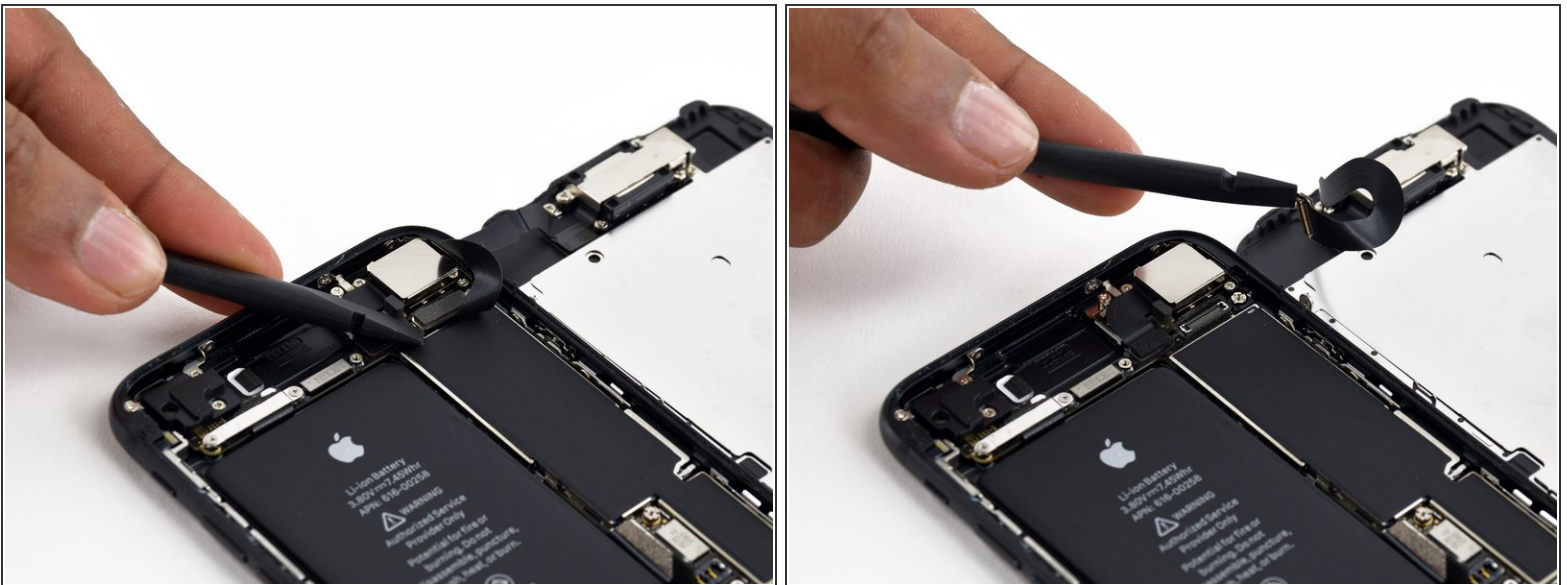
- Use a spudger or a fingernail to disconnect the two lower display connectors by prying them straight up from their sockets on the logic board.
-  To reconnect these cables, press down on one end until it clicks into place, then repeat on the opposite end. **Do not** press down on the middle. If the 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



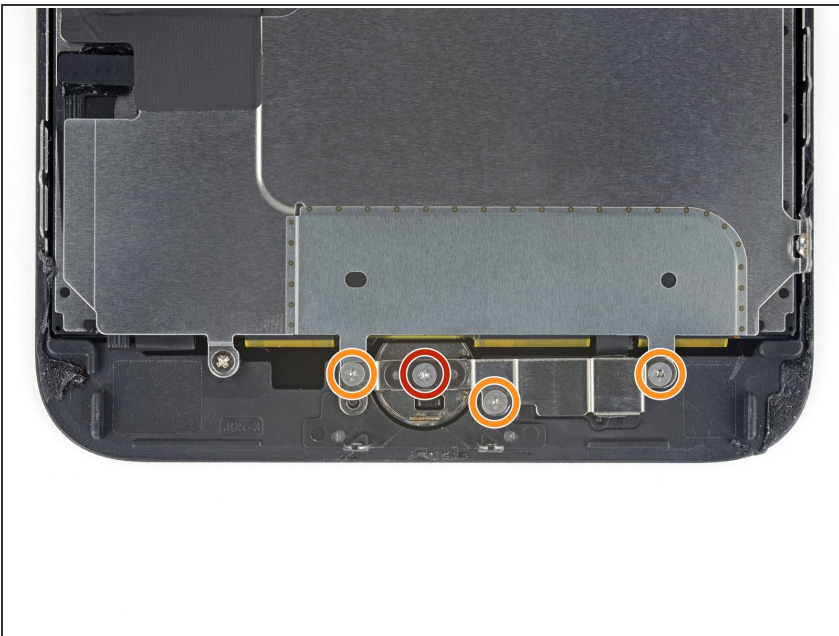
- Disconnect the front panel sensor assembly connector from its socket on the logic board.
- ✦ This press connector should also be reconnected one end at a time to minimize the risk of bending.

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 — Home/Touch ID Sensor



- Remove the four Y000 screws securing the bracket over the home/Touch ID sensor:
 - One 1.1 mm screw
 - Three 1.3 mm screws
- ☑ During reassembly, be careful not to overtighten these screws, or your home button may not work.

Step 20



- Remove the bracket that secures the home/Touch ID sensor.

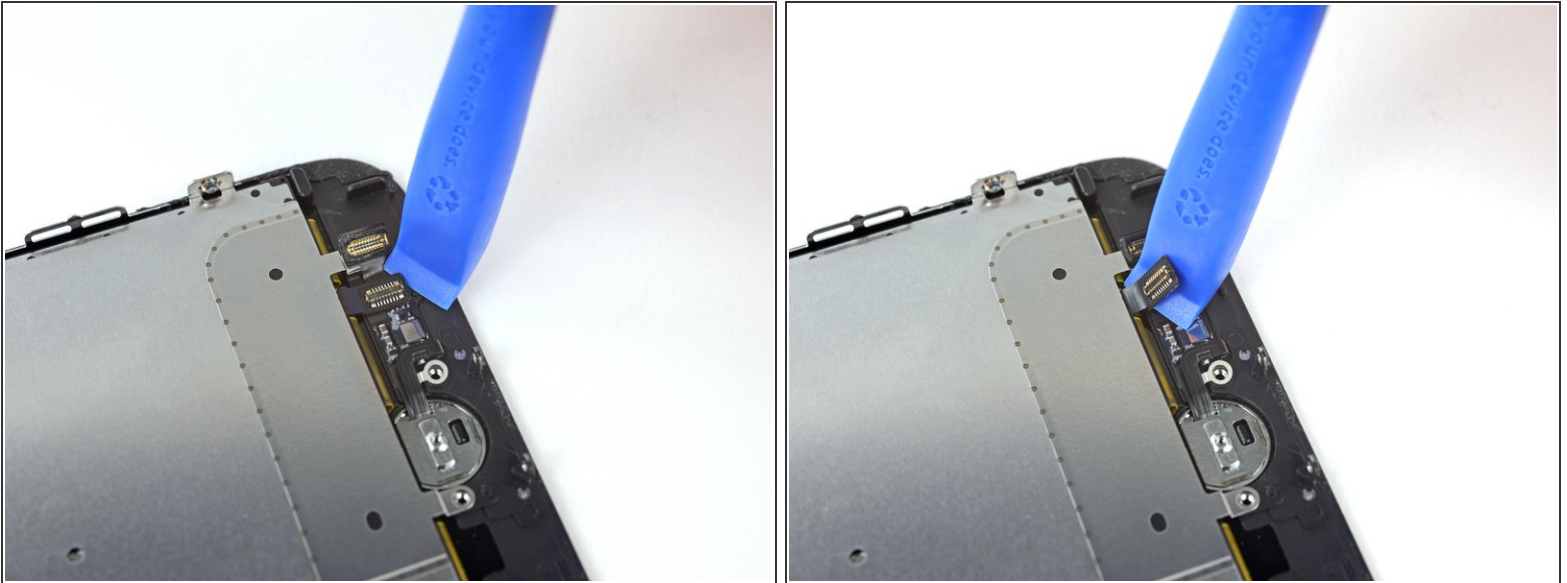
Step 21



- Pry under the left edge of the home button cable connector to disconnect it from its socket.

⚠ If the entire connector begins to flip up without separating, [press down on the cable at the top edge of the connector with the flat of your spudger](#), while simultaneously prying up the left edge of the connector. Be very careful not to damage the cable or connector, or you will permanently disable the sensor.

Step 22



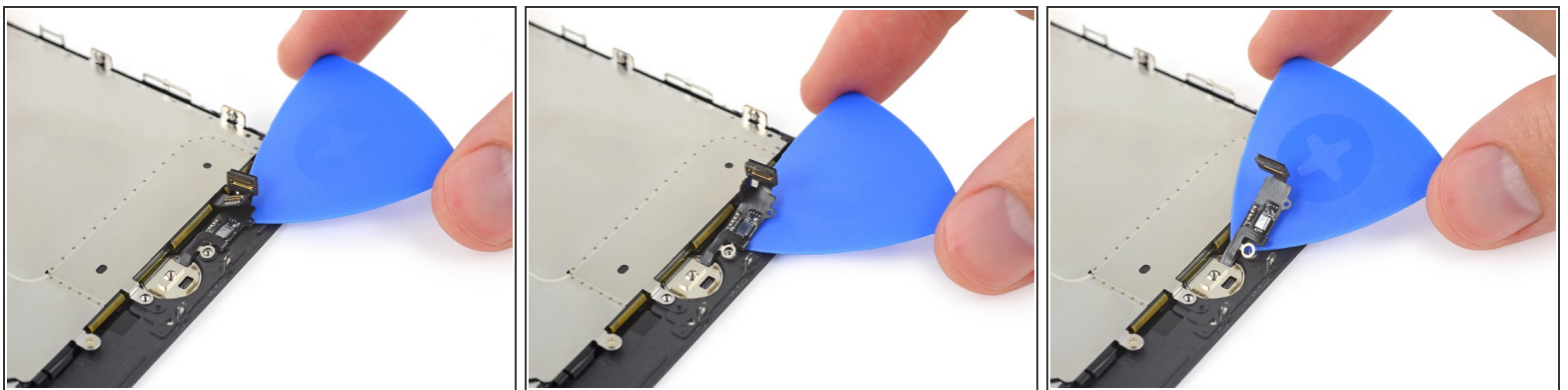
- Carefully pry up the underlying connector and move it out of the way of the home/Touch ID cable.
 - ⚠ It's very easy to damage your iPhone during this step. Work slowly and take care where you pry with your tool. If you damage the Touch ID hardware, it can only be replaced by Apple.
- If the connector doesn't pry up easily, use a hair dryer or iOpener to heat and soften the adhesive securing the connector, and then try again.
- ⚠ Don't try to detach the connector completely—simply flip it up slightly so that the underlying home/Touch ID sensor cable can be removed.

Step 23



- i** Heating the area around the home/Touch ID sensor will help soften the adhesive holding its delicate cable in place, making it easier to remove safely.
- Flip the display assembly over. Use a hairdryer or [prepare an iOpener](#) and apply it to the lower edge of the display for about 90 seconds in order to soften up the adhesive underneath.

Step 24



- Use an opening pick to gently separate the adhesive holding the home/Touch ID sensor cable to the back side of the display panel.

Step 25



- Remove the home/Touch ID sensor assembly by lifting it through the front side of the display.
- ★ To reinstall, first feed the cable through the hole in the front of the display.
- ★ Your replacement part may come with an [extra Y000 screw](#) already installed right of the Home Button. Remove the unnecessary screw so that you can reinstall the home button bracket.
- ★ [Follow this guide](#) to install replacement display adhesive on your screen.

Compare your new replacement part to the original part—you may need to transfer remaining components or remove adhesive backings from the new part before installing.

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? Try some [basic troubleshooting](#), or search our [Answers forum](#) for help.