



iPhone 6s LCD and Digitizer Replacement

For an easier repair, use our fix kit and...

Written By: Evan Noronha



INTRODUCTION

For an easier repair, use our [fix kit](#) and follow [this shorter guide](#) to replace your iPhone's entire screen.

For more advanced fixers, this guide will help you replace *only* the iPhone's LCD and digitizer assembly (a.k.a. the bare "front panel"). This requires you to transfer several components from your original screen to the new one before installing it—including the front-facing camera, earpiece speaker, LCD shield plate, and home button assembly.

For all screen/display repairs, it's important to transfer the original home button onto the new display in order for Touch ID (fingerprint scanning) to function.

You can also use this guide to replace the following parts:

- [Front Panel Assembly Cable Bracket](#)
- [LCD Shield Plate](#)
- LCD Shield Plate Sticker
- Front Facing Camera Holder
- Earpiece Speaker Mesh



TOOLS:

[Anti-Clamp](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[iOpener](#) (1)
[P2 Pentalobe Screwdriver iPhone](#) (1)
[Phillips #000 Screwdriver](#) (1)
[Suction Handle](#) (1)
[Spudger](#) (1)
[Tweezers](#) (1)



PARTS:

[iPhone 6s LCD and Digitizer](#) (1)
[NuGlas Tempered Glass Screen Protector for iPhone 6/6s](#) (1)
[iPhone 6s Earpiece Speaker Mesh](#) (1)
[iPhone 6s and 6s Plus Front-Facing Camera Holder](#) (1)
[iPhone 6s Front Panel Assembly Cable Bracket](#) (1)
[iPhone 6s LCD Shield Plate Sticker](#) (1)
[iPhone 6s LCD Shield Plate](#) (1)
[iPhone 6s Display Assembly Adhesive](#) (1)

Step 1 — Pentalobe Screws



⚠ Before disassembling your iPhone, discharge the 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 P2 Pentalobe screws on the bottom edge of the iPhone, on either side of the Lightning connector.

Step 2 — Tape over the display



- If your display glass is cracked, keep further breakage contained and prevent bodily harm during your repair by taping over 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.

- If the broken glass makes it difficult to get a suction cup to stick in the next few steps, try folding a strong piece of tape (such as duct tape) into a handle and lifting the display with that instead.

Step 3 — Anti-Clamp instructions



- ① The next two steps demonstrate the [Anti-Clamp](#), a tool we designed to make the opening procedure easier. **If you aren't using the Anti-Clamp, skip down three steps for an alternate method.**
- ① For complete instructions on how to use the Anti-Clamp, [check out this guide](#).
- Pull the blue handle backwards to unlock the Anti-Clamp's arms.
- Slide the arms over either the left or right edge of your iPhone.
- Position the suction cups near the bottom edge of the iPhone just above the home button—one on the front, and one on the back.
- Squeeze the cups together to apply suction to the desired area.
- ① If you find that the surface of your iPhone is too slippery for the Anti-Clamp to hold onto, you can [use tape](#) to create a grippier surface.

Step 4



- Pull the blue handle forwards to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
 - ⓘ Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.
- Insert an opening pick under the screen when the Anti-Clamp creates a large enough gap.
 - ⓘ If the Anti-Clamp doesn't create a sufficient gap, rotate the handle a quarter turn.
- ⚠ **Don't crank more than a quarter turn at a time, and wait a few seconds between turns. Let the Anti-Clamp and time do the work for you.**
- **Skip the next three steps.**

Step 5 — Opening Procedure



- If you don't have an [Anti-Clamp](#), follow the next three steps to use a suction handle.
- Apply mild heat to the lower edge of the iPhone using an [iOpener](#) or hair dryer for about a minute.
- ① Heat softens the adhesive securing the display, making it easier to open.

Step 6



- ① Opening the display on the 6s separates a thin strip of adhesive around the perimeter of the display. If you prefer to replace the adhesive, have a set of new adhesive strips ready before you continue. It's possible to complete the repair without replacing the adhesive, and you probably won't notice any difference in functionality.
- Apply a suction cup to the lower left corner of the display assembly.
 - Take care **not** to place the suction cup over the home button.
- ① 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 7



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.
 - ① Take your time and apply firm, constant force. The display assembly is a much tighter fit than most devices and is held down with adhesive.
- ⚠ Pulling too hard may damage the display assembly. Apply just enough pressure to create a small gap between the display assembly and the rear case.
- ① If you have any trouble, heat the front of the iPhone using an iOpener, hair dryer, or heat gun until it's slightly too hot to touch. This will help soften the adhesive securing the edges of the display.

Step 8



ⓘ There is a notch on the underside of the display, just above the headphone jack. This is the safest place to begin prying the phone open.

- Place the flat edge of a spudger into the gap between the screen and rear case, directly above the headphone jack.

Step 9



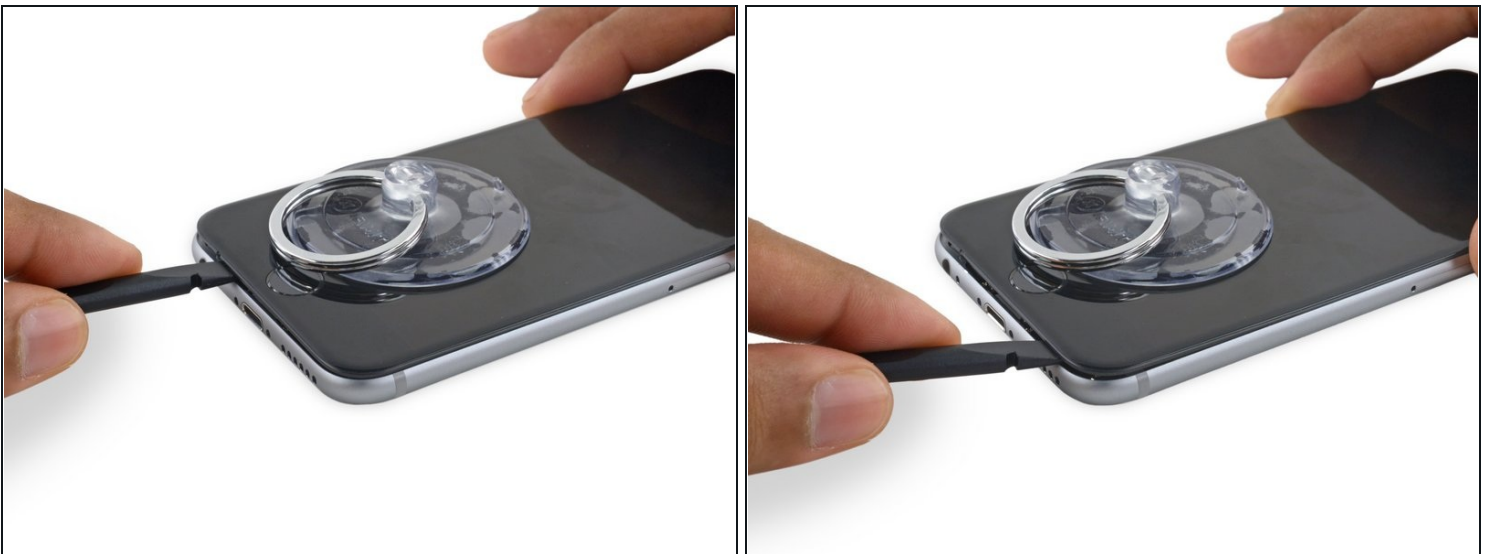
- Twist the spudger to widen the gap between the front panel assembly and the rest of the phone.

Step 10



- Insert the flat end of the spudger on the left side of the phone, between the display assembly and rear case.
- Slide the spudger up the side of the phone to separate the adhesive and pop the clips free.

Step 11



- Remove the spudger and reinsert it on the bottom edge, where you pried the phone open.
- Slide the spudger to the right, along the bottom edge of the phone.

Step 12



- Slide the spudger up the right side to continue separating the adhesive and popping the display clips free from the iPhone.

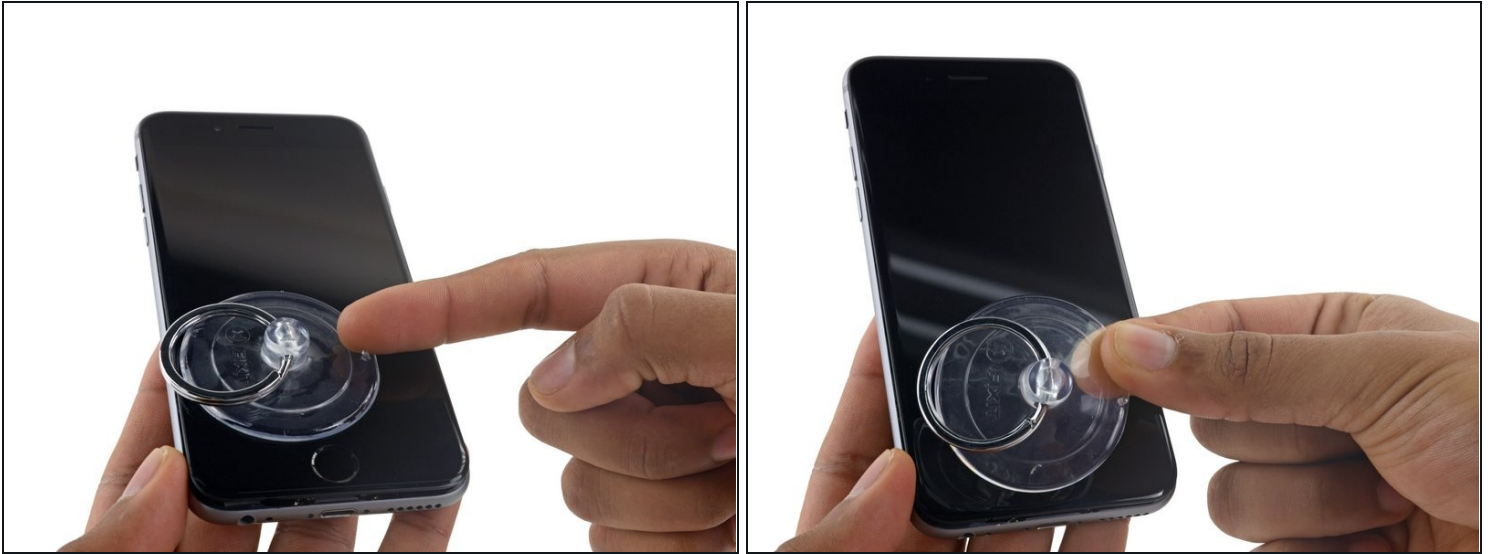
Step 13



- Use the suction cup to open the display, breaking the last of the adhesive.

⚠ Don't open the display more than 90°, as it is still connected at the top by three cables that may break if stretched.

Step 14



- Pull up on the nub on the top side of the suction cup to remove it from the front panel.

Step 15



- Gently grasp the display assembly and lift it up to open the phone, using the clips at the top of the front panel as a hinge.
- 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.
 - Add a rubber band to keep the display securely in place while you work. This prevents undue strain on the display cables.
- ① In a pinch, you can use an unopened canned beverage to hold the display.

Step 16 — Battery Connector



- Remove two Phillips screws securing the battery connector bracket, of the following lengths:
 - One 2.9 mm screw
 - One 2.2 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 17



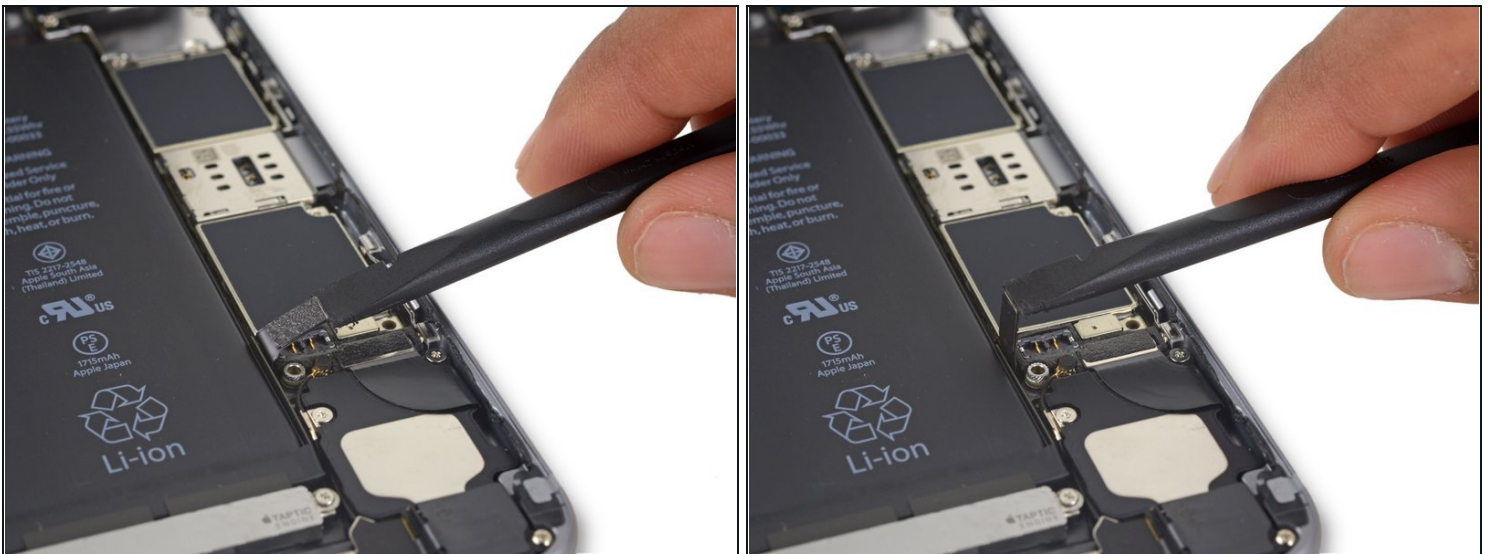
- Remove the battery connector bracket from the iPhone.

Step 18



- Use the point of a spudger to disconnect the battery connector by prying it straight up from the logic board.

Step 19



- Push the battery connector away from the logic board until it stays separated from its socket, so as to avoid any accidental connection to the battery while you work.

Step 20 — Unfasten the display cable bracket



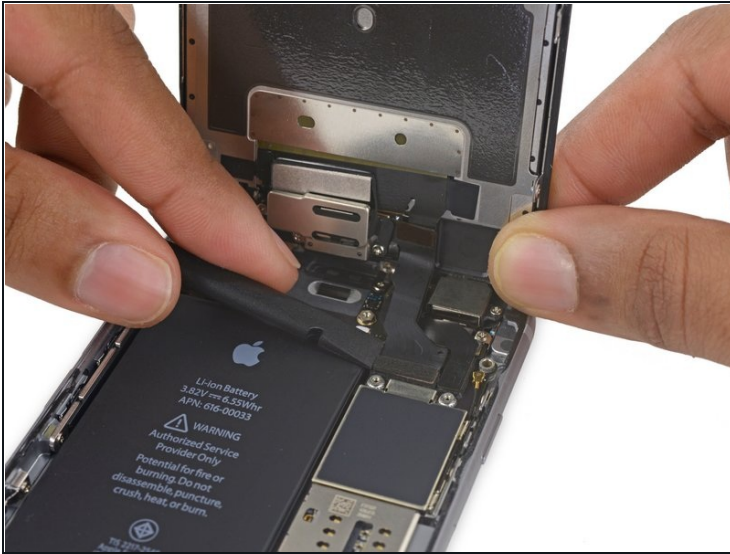
- Remove the following four Phillips screws securing the display cable bracket:
 - Three 1.2 mm screws
 - One 2.8 mm screw

Step 21



- Remove the display cable bracket.

Step 22



- Use a spudger or a clean fingernail to disconnect the front camera flex cable by prying it straight up from its socket on the logic board.

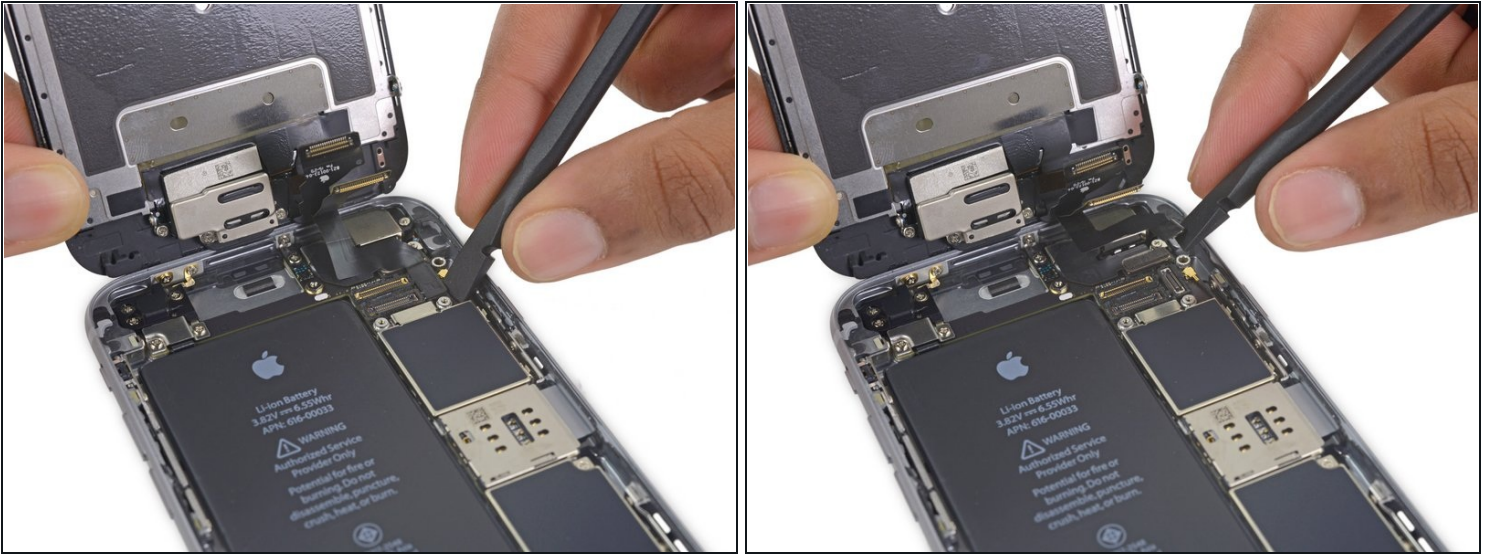
Step 23



- Disconnect the digitizer cable by prying it straight up from its socket on the logic board.

⚠ When reconnecting the digitizer cable, **do not press the center of the connector**. Press one end of the connector, then press the opposite end. Pressing in the center of the connector can bend the component and cause digitizer damage.

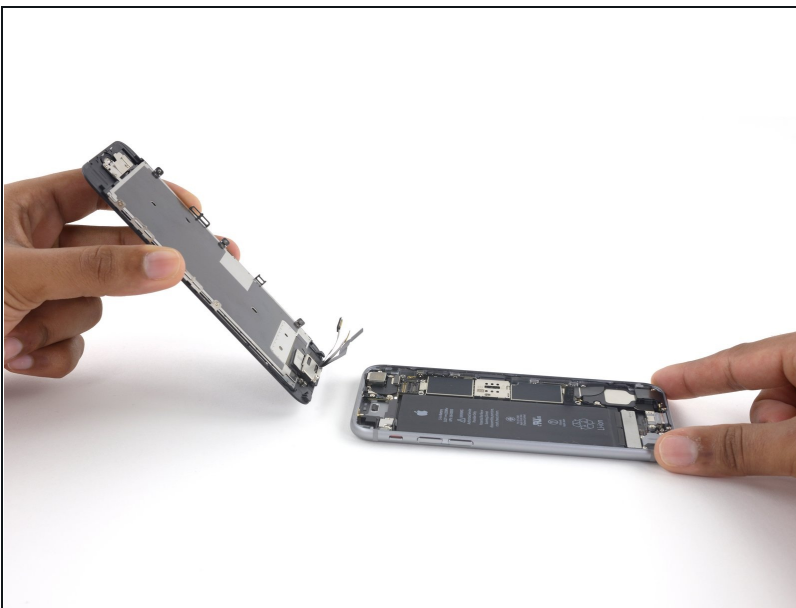
Step 24



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

- Disconnect the display cable by prying it straight up from its socket on the logic board.

Step 25



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

Step 26 — Home Button Assembly



- Remove the three 1.7 mm Phillips screws securing the home button bracket.

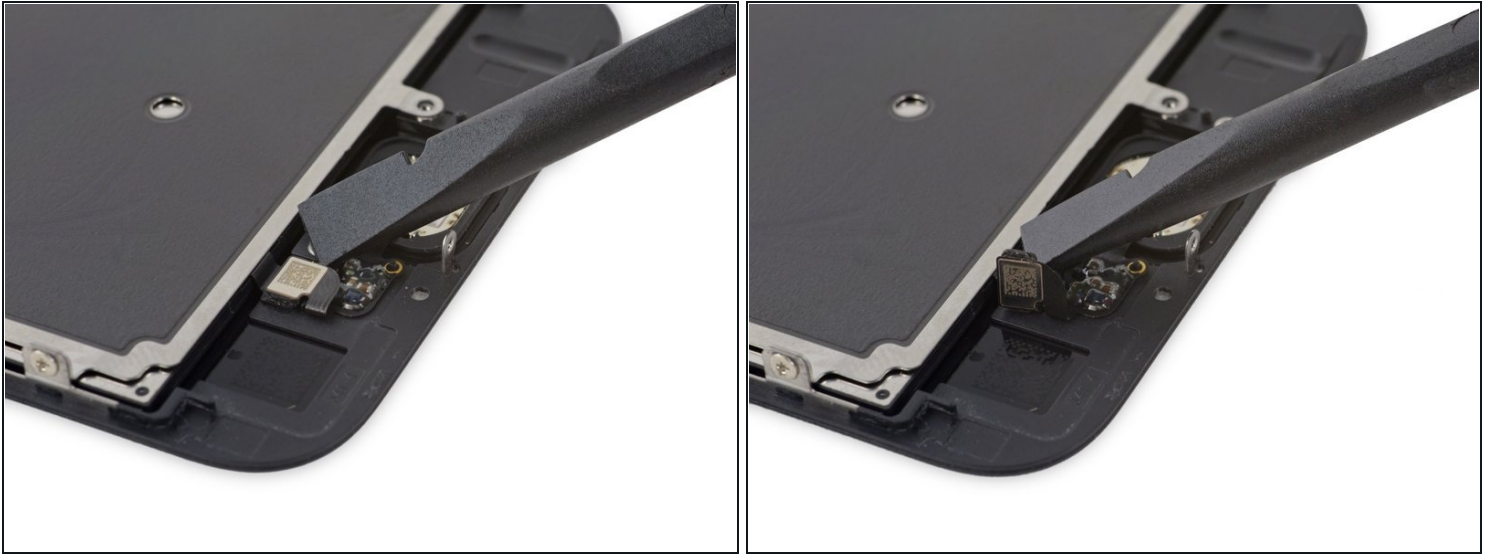
⚠ Do not over-tighten these screws as these can damage the front of the display.

Step 27



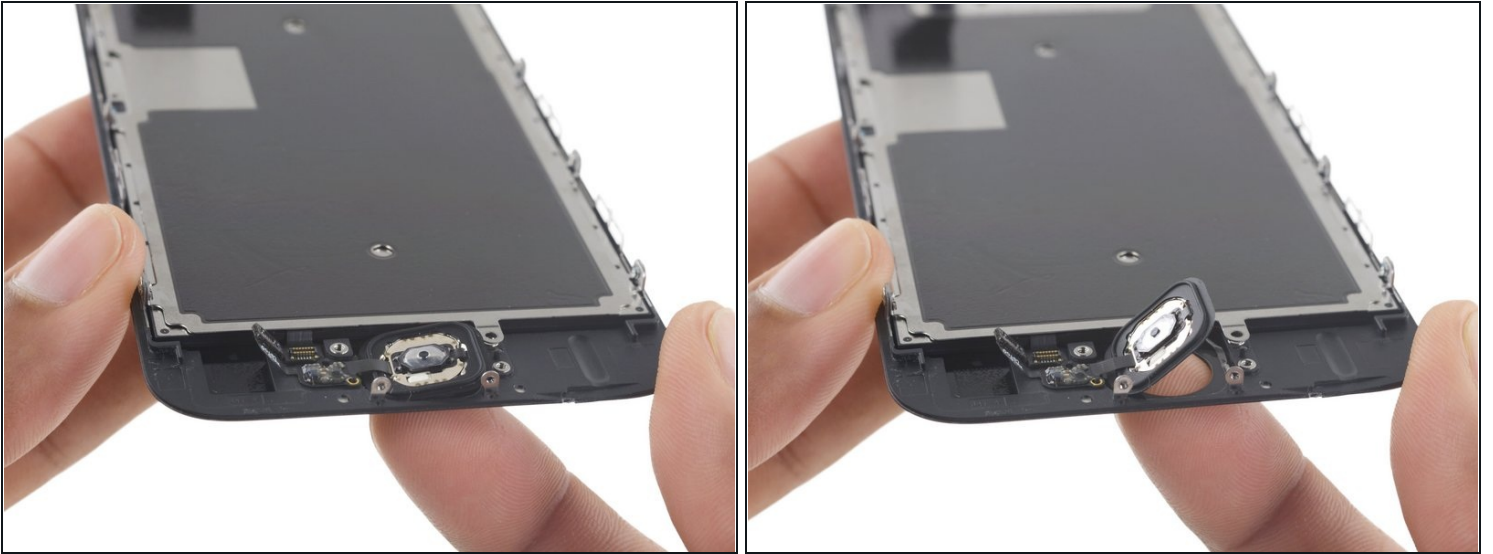
- Lift the lower edge of the home button bracket until it clears the small peg on the right side.
- Slide the bracket out from under the EMI shield to remove it.

Step 28



- Use a spudger to disconnect the home button connector by popping it out of its socket on the back of the display panel.

Step 29



⚠ The rubber gasket surrounding the home button is very thin and tears easily.

- Apply mild heat (with an [iOpener](#), heat gun, or hair dryer) to soften the adhesive securing the home button gasket.
- Using your fingertip, gently press up on the home button from the front side of the display assembly. Use firm, constant pressure to slowly separate the home button's rubber gasket from the front panel.

Step 30



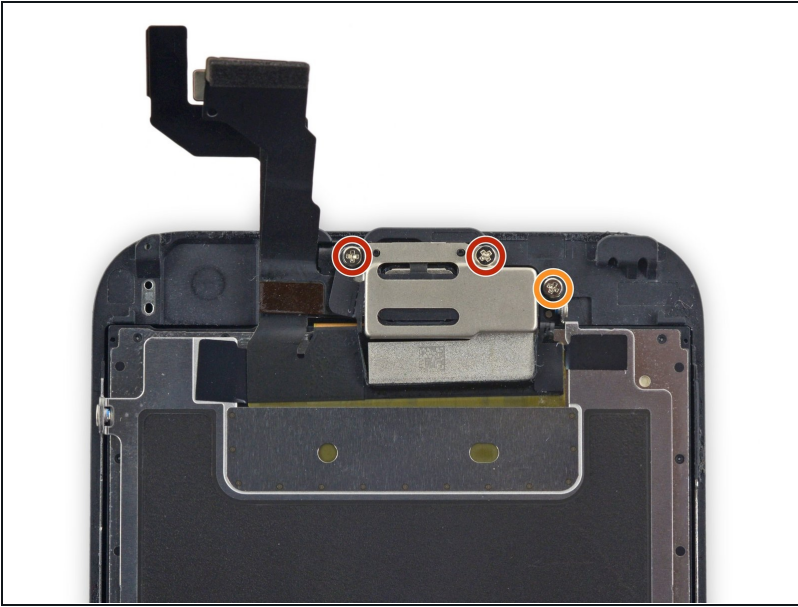
- Use the pointed tip of a spudger to carefully separate the home button flex cable from the back of the display panel.

Step 31



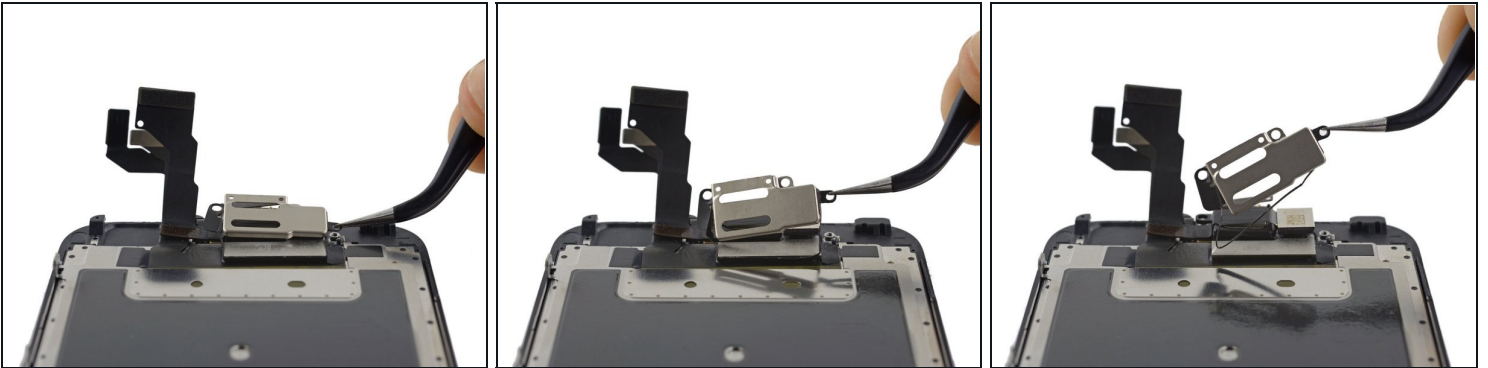
- Remove the home button assembly.

Step 32 — Earpiece Speaker



- Remove the following three Phillips screws securing the earpiece speaker bracket:
 - Two 2.3 mm screws
 - One 1.9 mm screw

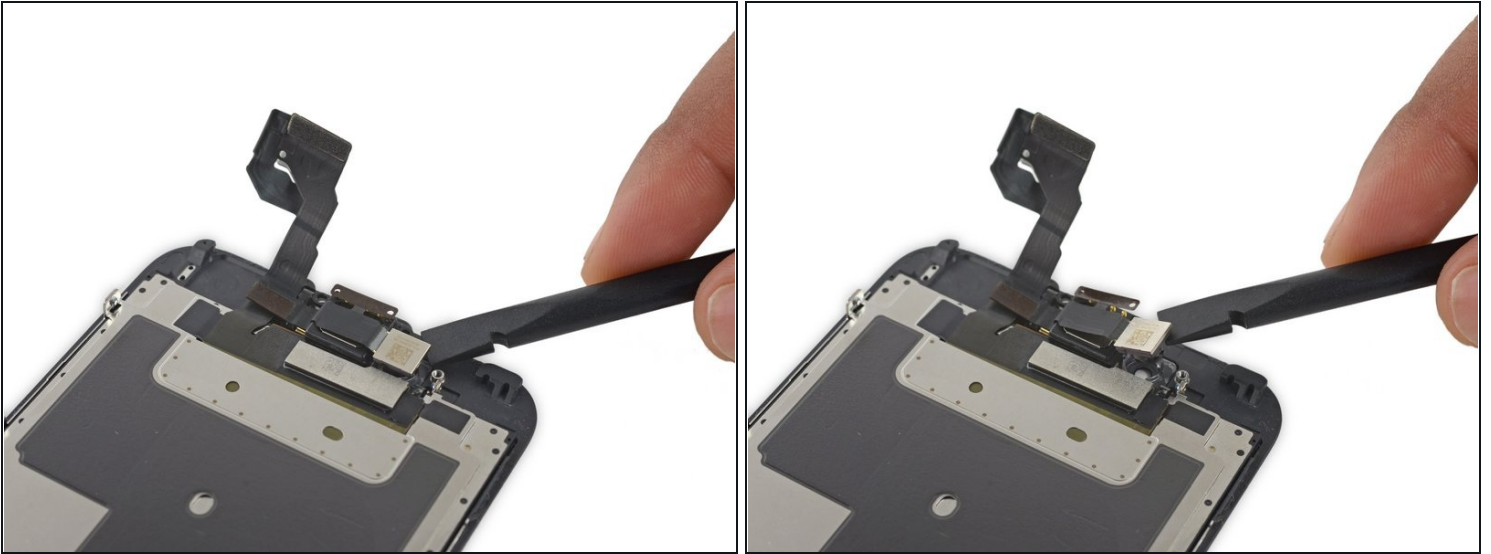
Step 33



- Lift up and remove the earpiece speaker bracket, peeling up the bracket gasket as you go.

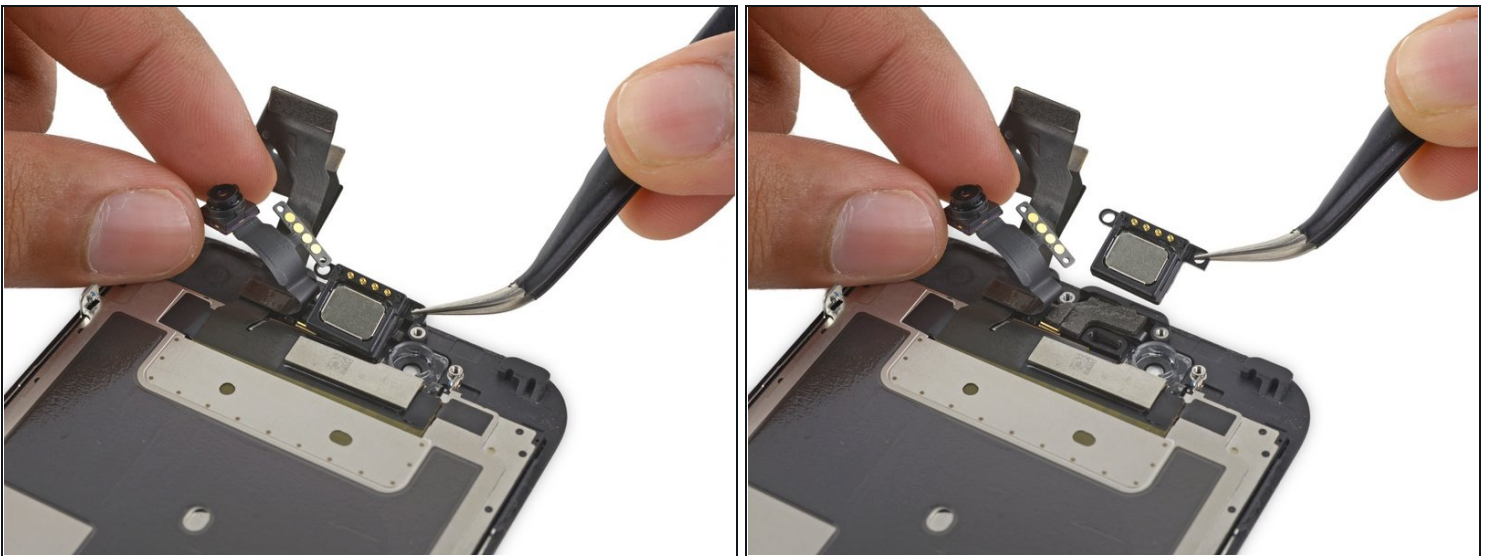
⚠ Peel up the gasket carefully, as it is thin and can tear easily.

Step 34



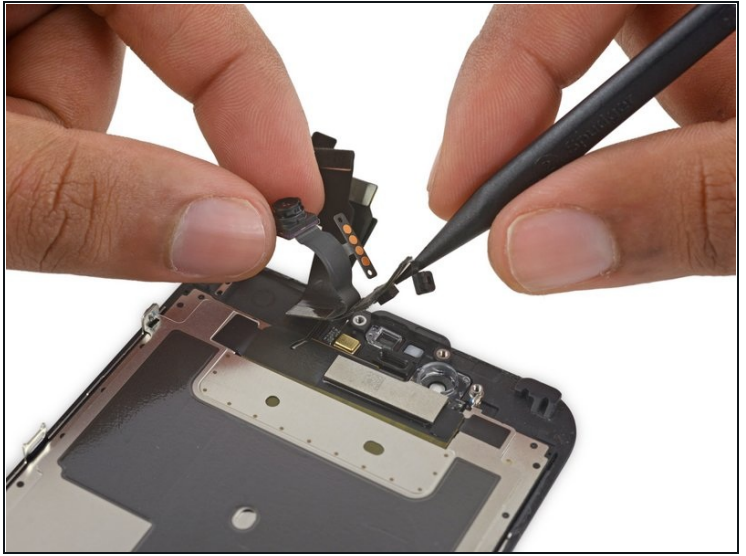
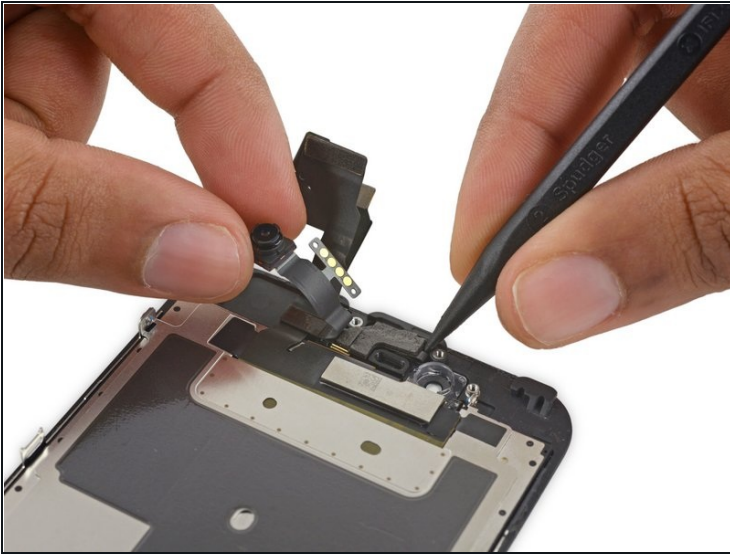
- Use the flat end of a spudger to nudge the front-facing camera from its housing.

Step 35



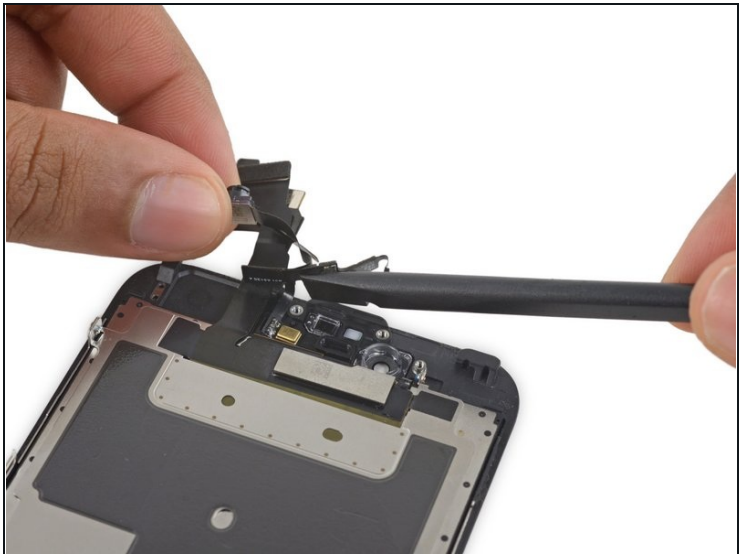
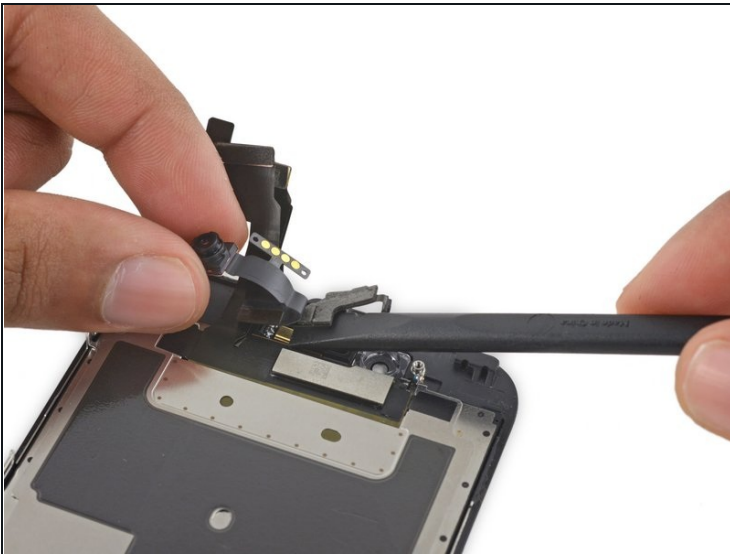
- Pull back the front-facing camera to access the earpiece speaker.
 - Remove the earpiece speaker.
- ⓘ Be careful not to touch the golden contacts as you remove and replace the speaker. Oil from your skin can interfere with the contacts and interrupt the connection. If you accidentally touch them with your skin, wipe them off with a little isopropyl alcohol (rubbing alcohol) before reinstalling them.

Step 36 — Front-Facing Camera and Sensor Assembly



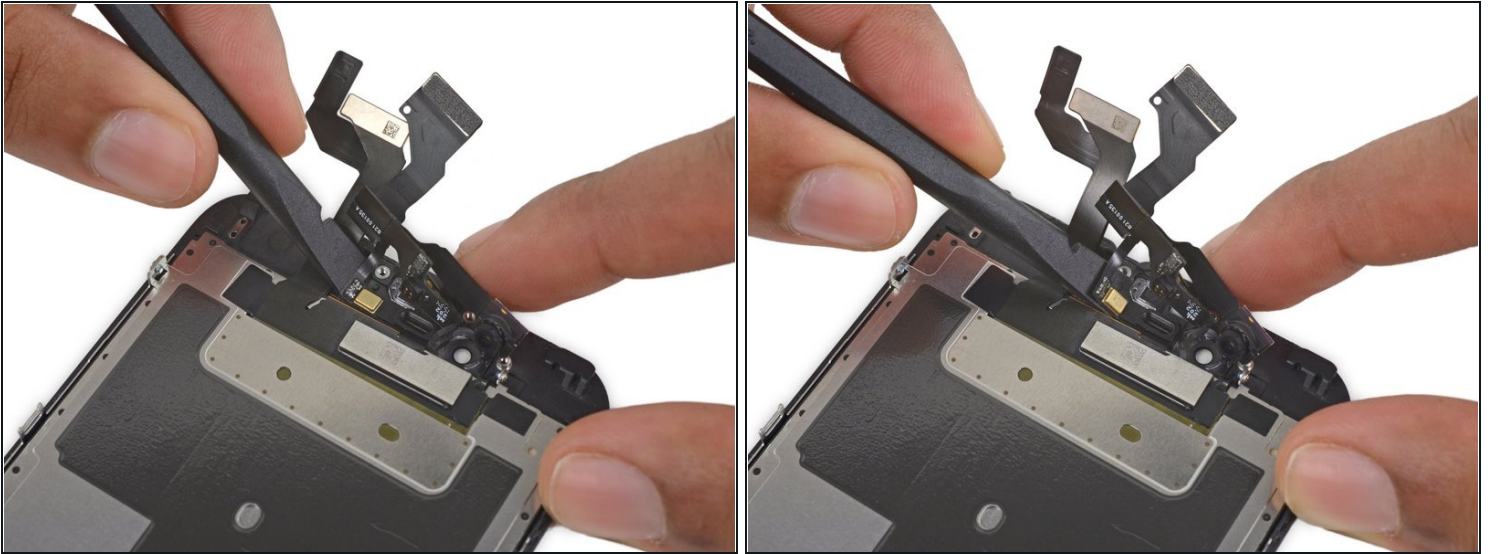
- Holding the front-facing camera out of the way, use the point of a spudger to push the ambient-light sensor up out of its recess in the front panel.

Step 37



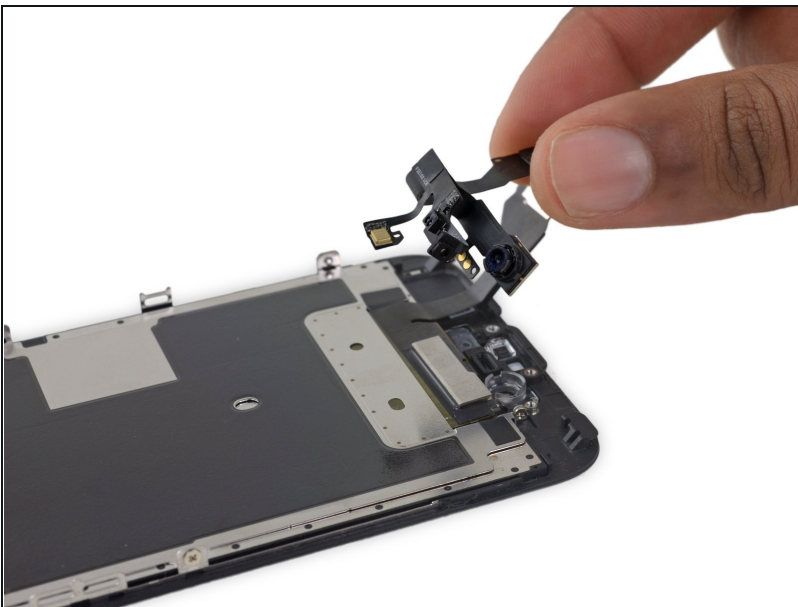
- Fold the front-facing camera and sensor cable up to allow access to the microphone.

Step 38



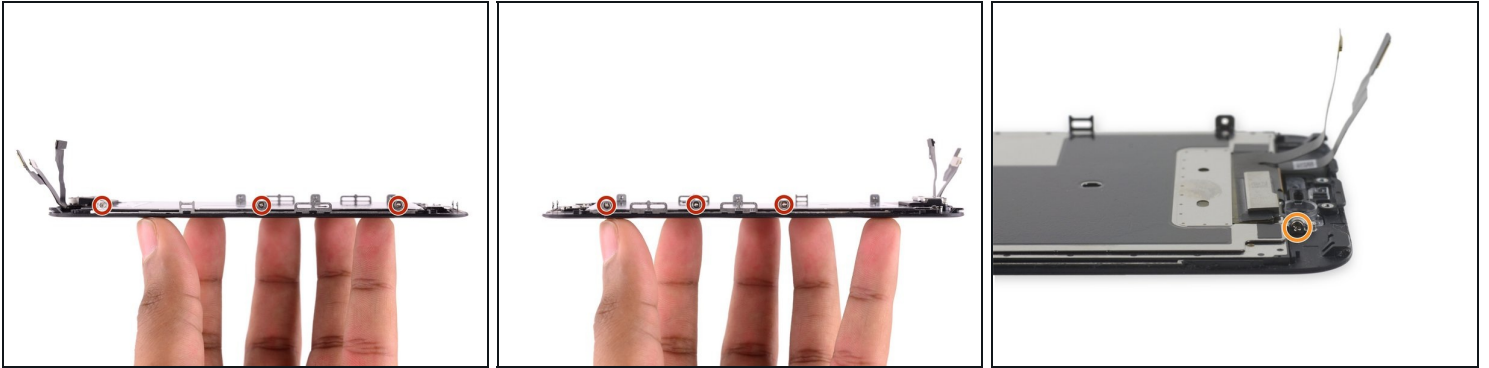
- Use the flat end of a spudger to gently break up the adhesive securing the microphone to the front panel.

Step 39



- Remove the front-facing camera and sensor cable.

Step 40 — Display EMI Shield



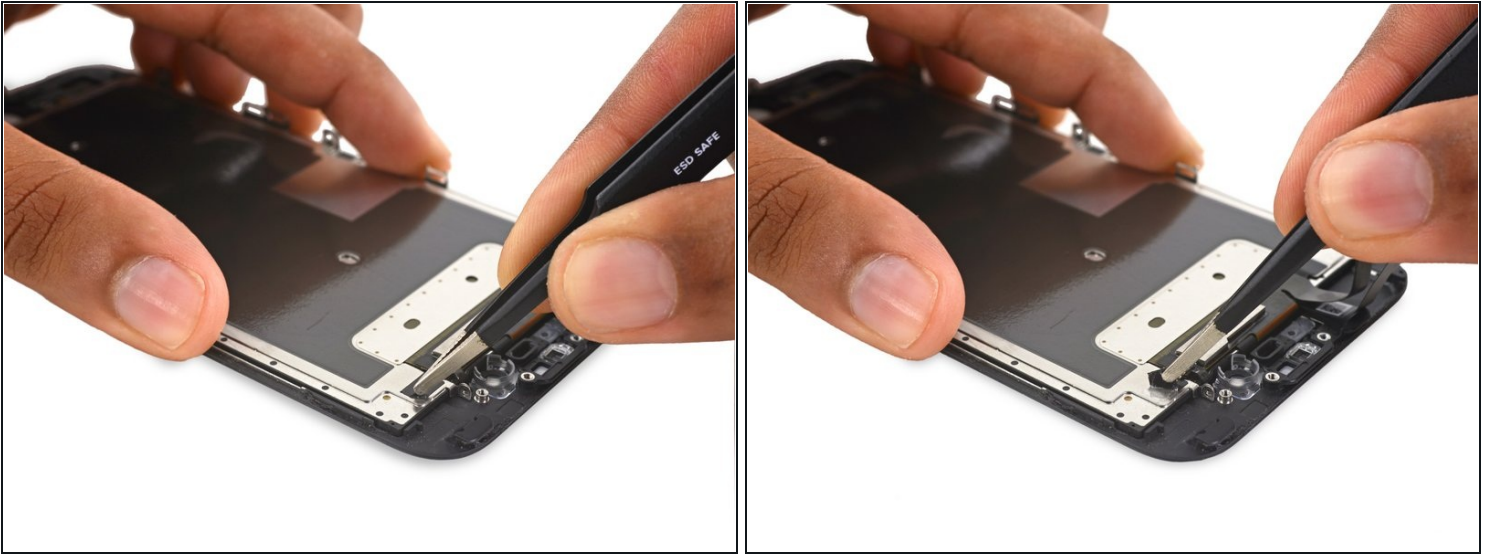
- Remove the following seven 1.3 mm Phillips screws:
 - Three screws each on the left and right edges of the display panel.
 - A single screw recessed 1.5 cm from the right edge of the screen.

Step 41



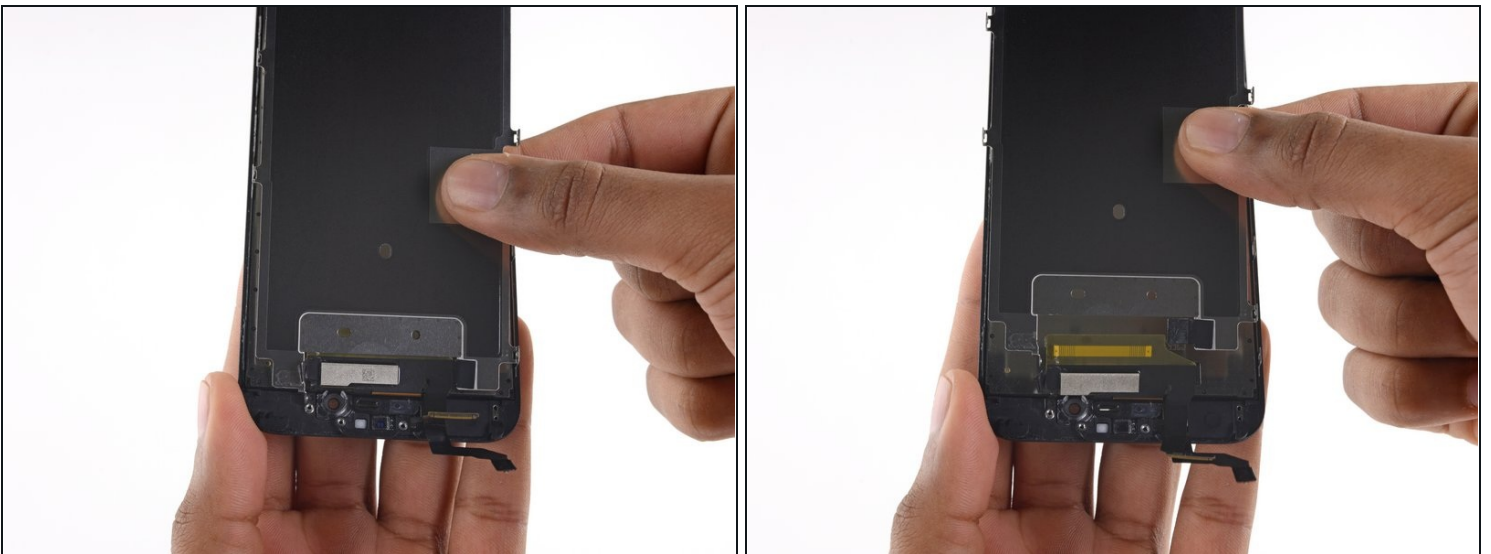
- [Prepare an iOpener](#) and lay it over the top edge of the phone to loosen the tape connecting the EMI shield to the front panel.
- After a minute, insert an opening pick between the tape and display data cable.
- Push the pick downwards until it is flush with the upper edge of the EMI shield.

Step 42



- Use a pair of tweezers to peel up the piece of tape from the EMI shield, near the front camera housing.

Step 43



- Remove the EMI shield.
- ☑ When installing the EMI shield, orient it so that the metal cutout (shown at bottom center) lays over the top of the display cable assembly, while the piece of tape slides behind it.

Step 44 — LCD and Digitizer



- Only the LCD and digitizer remains.

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