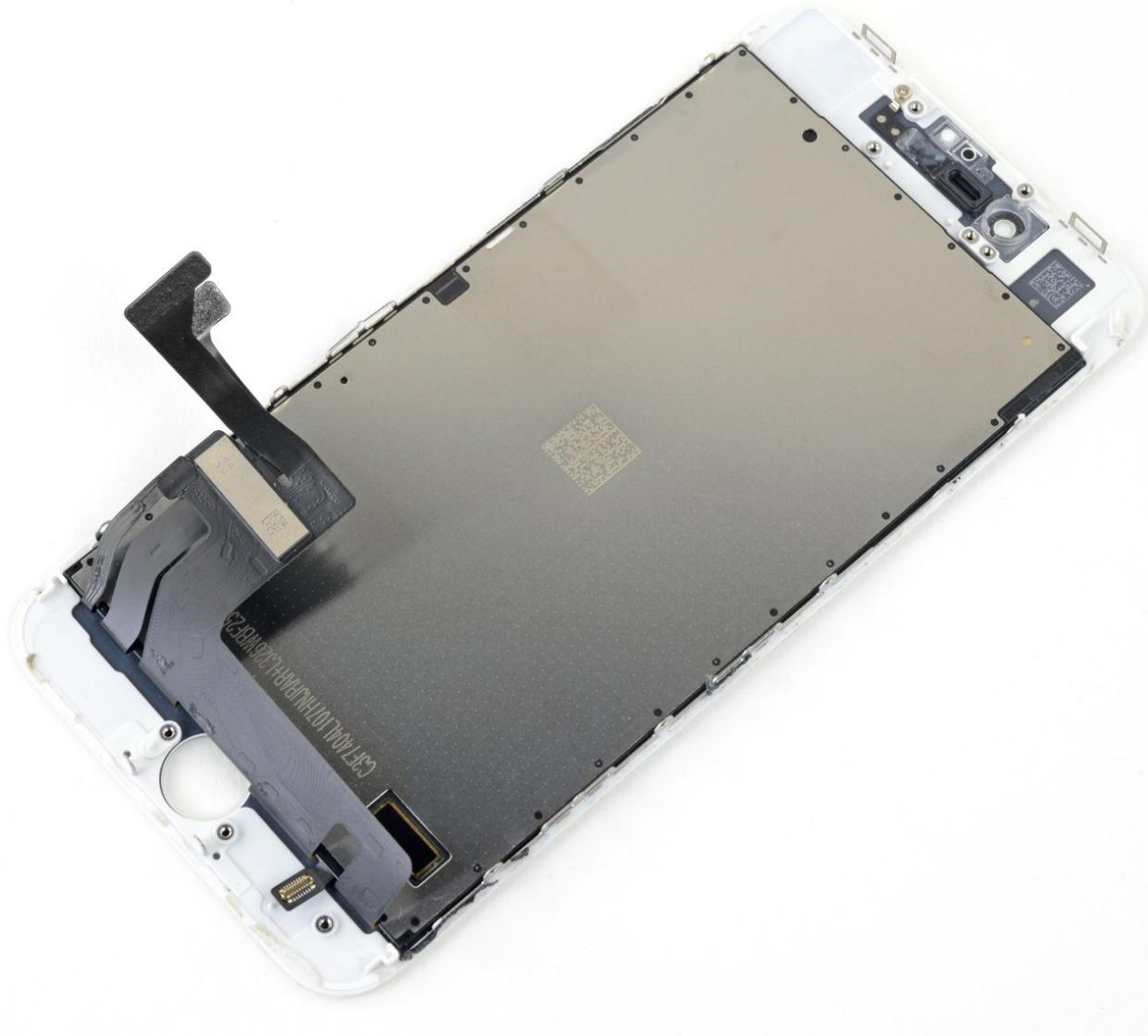




# iPhone 8 LCD and Digitizer Replacement

Fix a broken screen by replacing just the bare front panel, a.k.a. LCD and digitizer assembly, in the iPhone 8.

Written By: Arthur Shi



## 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 8 LCD 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 carefully transfer the original home/Touch ID sensor onto the new display in order for it to function.** The solid-state home button is paired to its original logic board by Apple, so replacing it will render it unusable.

**Note:** If your iPhone's auto brightness feature does not work properly after your screen repair, make sure your iPhone is updated to [iOS 12](#). True Tone functionality is disabled after a screen replacement, even when using an original Apple screen.

### **TOOLS:**

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

### **PARTS:**

- [iPhone 8 LCD and Digitizer](#) (1)
- [iPhone 8 Display Assembly Adhesive](#) (1)
- [iPhone 8 Display Shield Plate Screw Set](#) (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 3.5 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 — Taping 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.
  - *(i)* 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 — 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 phone for about 90 seconds in order to soften up the adhesive underneath.

## Step 4



- Apply a suction cup to the lower half of the front panel, 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.

## Step 5



- Pull up on the suction cup with firm, constant pressure to create a slight gap between the front panel and rear case.
- Insert an opening pick into the gap.
  - *(i)* The watertight adhesive holding the display in place is very strong; creating this initial gap takes a significant amount of force. If you're having a hard time opening a gap, apply more heat, and gently rock the screen up and down to weaken the adhesive until you create enough of a gap to insert your tool.

## Step 6



- Slide the opening pick up the left edge of the phone starting at the lower edge and moving towards the volume control buttons and silent switch, breaking up the adhesive holding the display in place.
- Stop near the top left corner of the display.

**⚠** Do not try to pry the top edge of the display away from the rear case, as it is held in place by plastic clips that may break.

## Step 7



- Re-insert your tool at the lower right corner of the iPhone, and slide it around the corner and up the right side of the phone to separate the adhesive.

**⚠** Don't insert the pick very far, or you may damage the display cables along this side of the iPhone. Insert it only a few millimeters, or about the width of the display bezel.

## Step 8



- Gently pull up on the suction cup to lift up the bottom edge of the display.
- ⚠** **Do not raise the display more than 15°** or you'll risk straining or tearing the ribbon cables connecting the display.
- Pull on the small nub on the suction cup to remove it from the front panel.

## Step 9



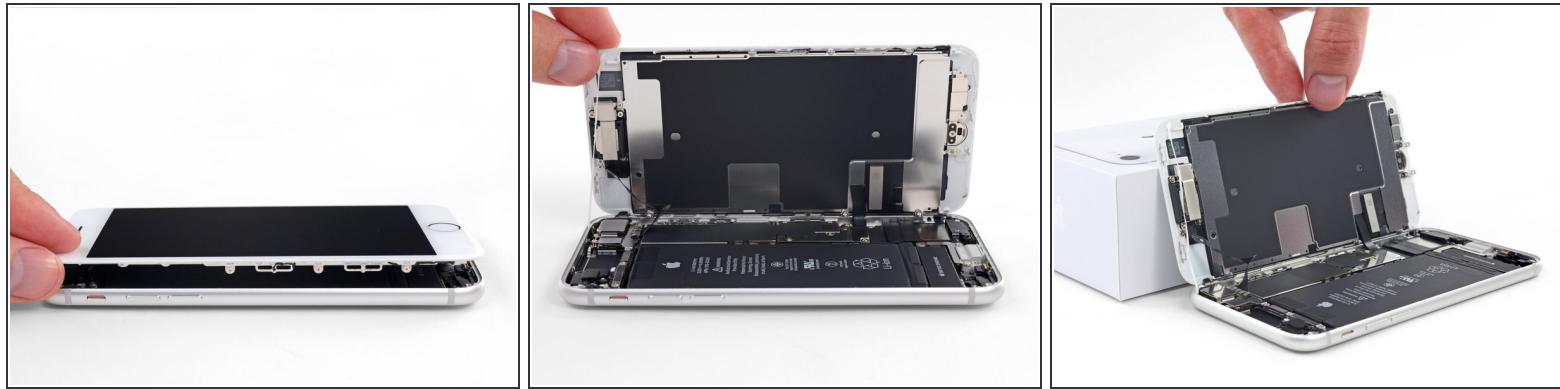
- Slide an opening pick underneath the display around the top left corner and along the top edge of the phone to loosen the last of the adhesive.

## Step 10



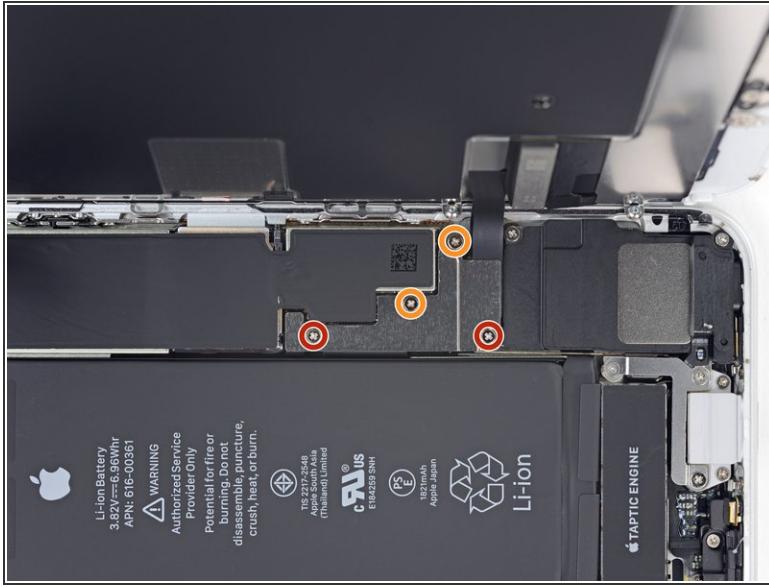
- Slide the display assembly slightly down (away from the top edge of the phone) to disengage the clips holding it to the rear case.

## Step 11



- 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.
- Lean the display against something to keep it propped up while you're working on the phone.

## Step 12 — Battery Disconnection



- Remove four Phillips screws securing the lower display cable bracket to the logic board, of the following lengths:
  - Two 1.3 mm screws
  - Two 2.8 mm screws
- ★ Throughout this guide, [keep careful track of your screws](#) so that each one goes back where it came from during reassembly. Installing a screw in the wrong place can cause permanent damage.
- Remove the bracket.

## Step 13



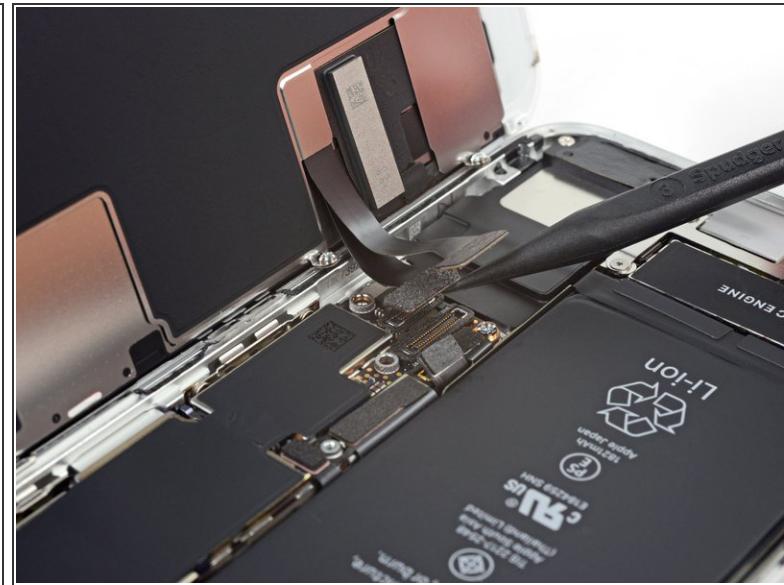
- Use the point of a spudger to pry the battery connector out of its socket in the logic board.
- Bend the battery connector cable slightly away from the logic board to prevent it from accidentally making contact with the socket and providing power to the phone during your repair.

## Step 14 — Display Assembly



- Use the point of a spudger to pry the lower display connector out of its socket.
- ★ To re-attach [press connectors](#) like this one, press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.

## Step 15



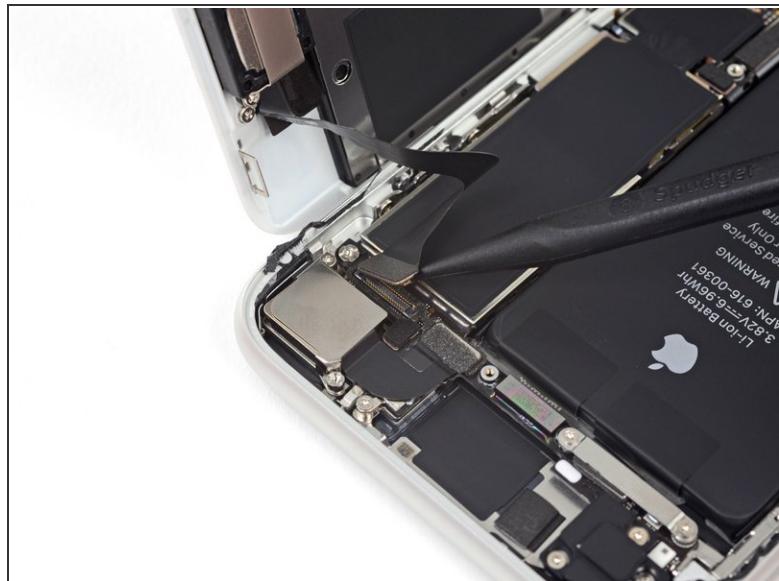
- Use the point of a spudger to disconnect the second lower display cable.

## Step 16



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

## Step 17



- Use the point of a spudger to disconnect the front panel sensor assembly connector.

## Step 18



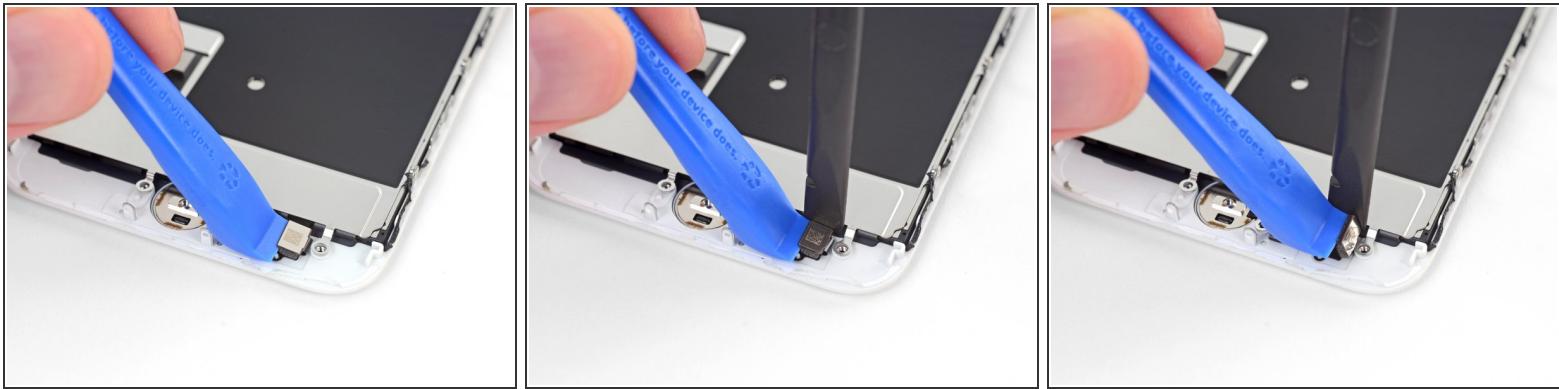
- Remove the display assembly.
- ☞ During reassembly, pause here if you wish to [replace the adhesive around the edges of the display.](#)

## Step 19 — Home/Touch ID Sensor



- Remove the four Y000 screws securing the bracket over the home/Touch ID sensor:
    - One 1.2 mm screw
    - Three 1.3 mm screws
  - Remove the bracket.
-  During reassembly, be careful not to overtighten these screws, or your home button may not work.

## Step 20



- Use an opening tool to 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 21



**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.

 Don't overheat the display. It should be slightly too hot to touch comfortably.

## Step 22



- 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 23



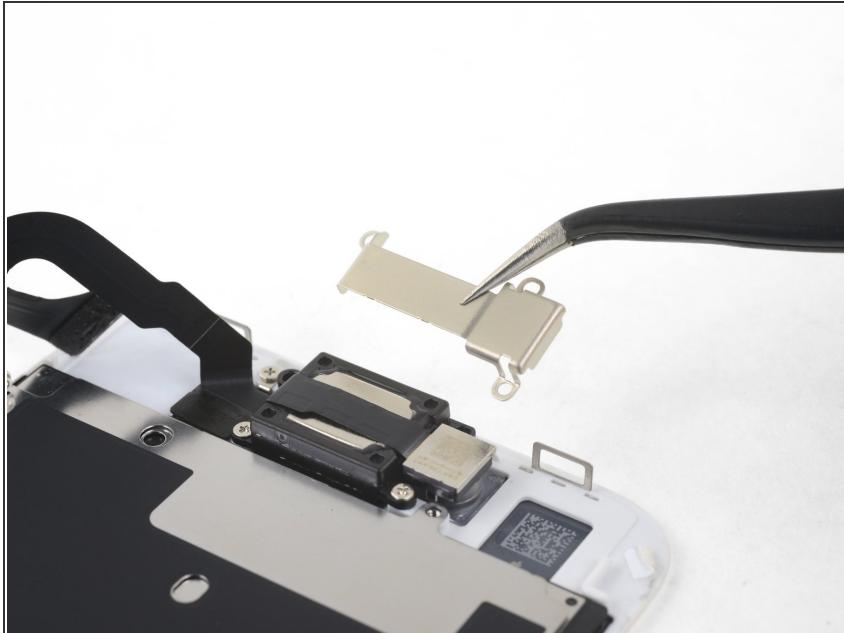
- Remove the home/Touch ID sensor assembly by lifting it through the front side of the display.
-  To reinstall, first feed the cable through the hole in the front of the display as shown.
-  Your replacement part may come with [extra Y000 screws](#) already installed near the Home Button. Remove the unnecessary screws so that you can reinstall the home button bracket.

## Step 24 — Earpiece Speaker



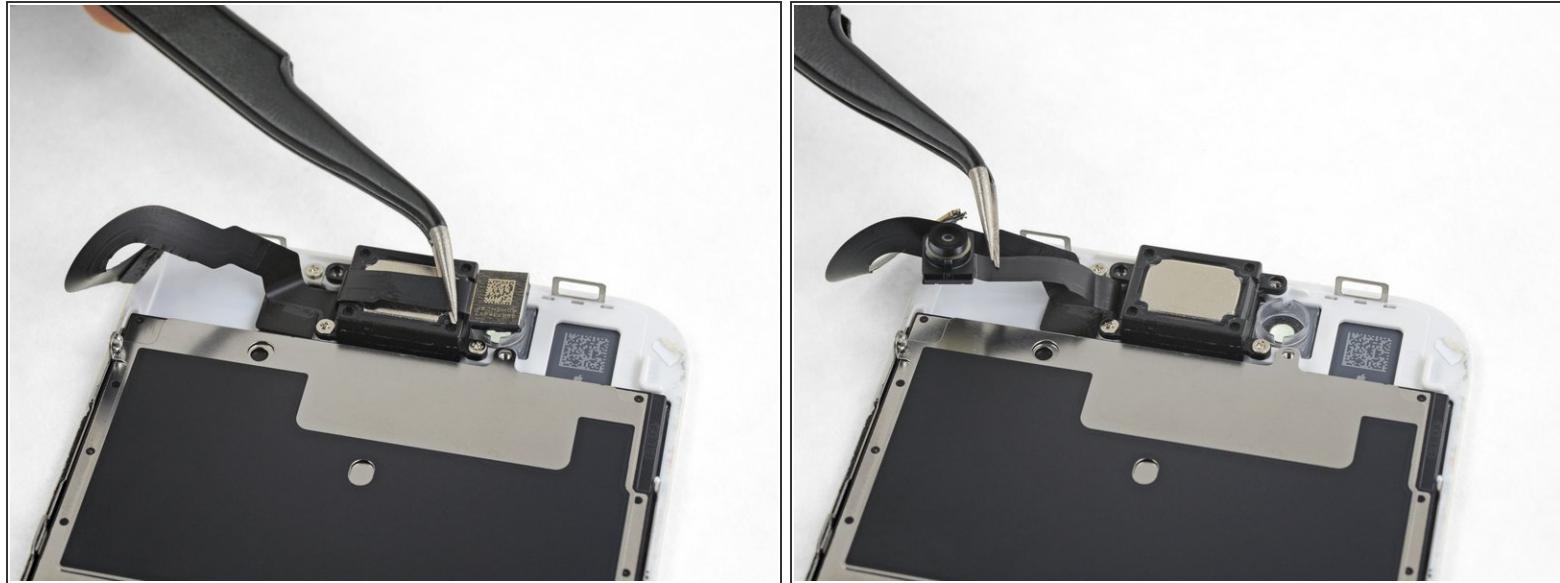
- Remove the three Phillips screws securing the earpiece bracket to the front panel:
  - Two 2.6 mm screws
  - One 1.8 mm screw

## Step 25



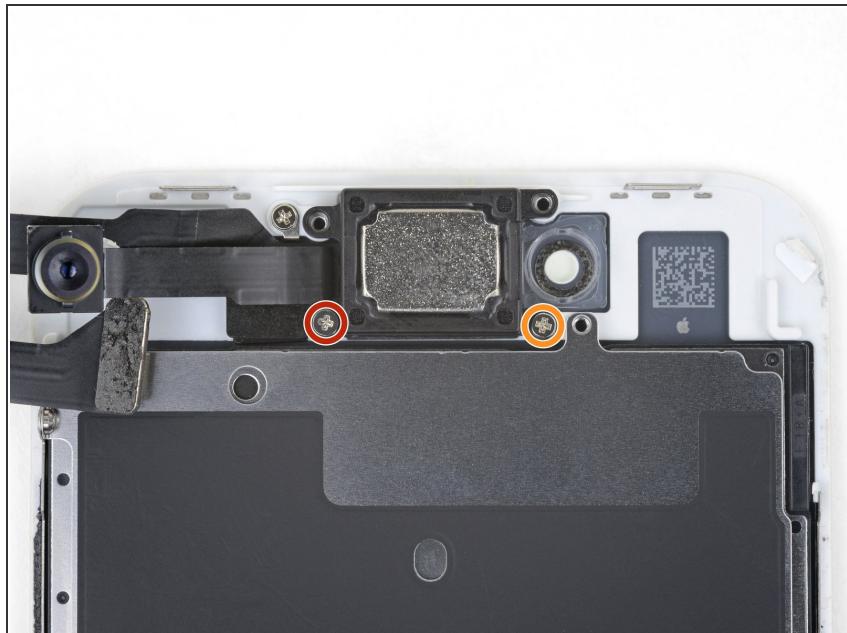
- Remove the earpiece speaker bracket.

## Step 26



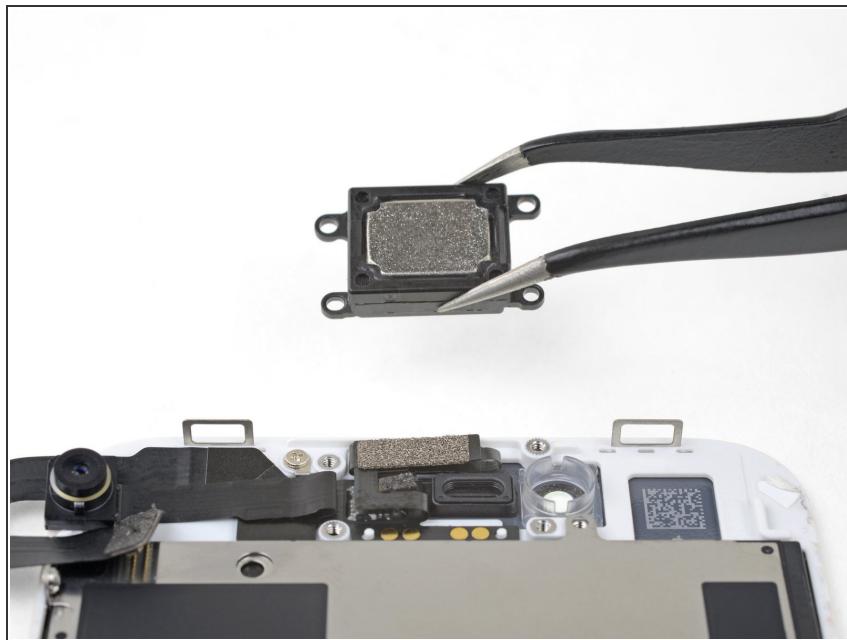
- Lift the front facing camera up out of its socket and swing it out of the way.

## Step 27



- Remove the two Phillips screws securing the earpiece speaker to the front panel:
  - One 1.8 mm screw
  - One 2.3 mm screw

## Step 28



- Remove the earpiece speaker.

## Step 29 — Front Camera and Sensor Cable



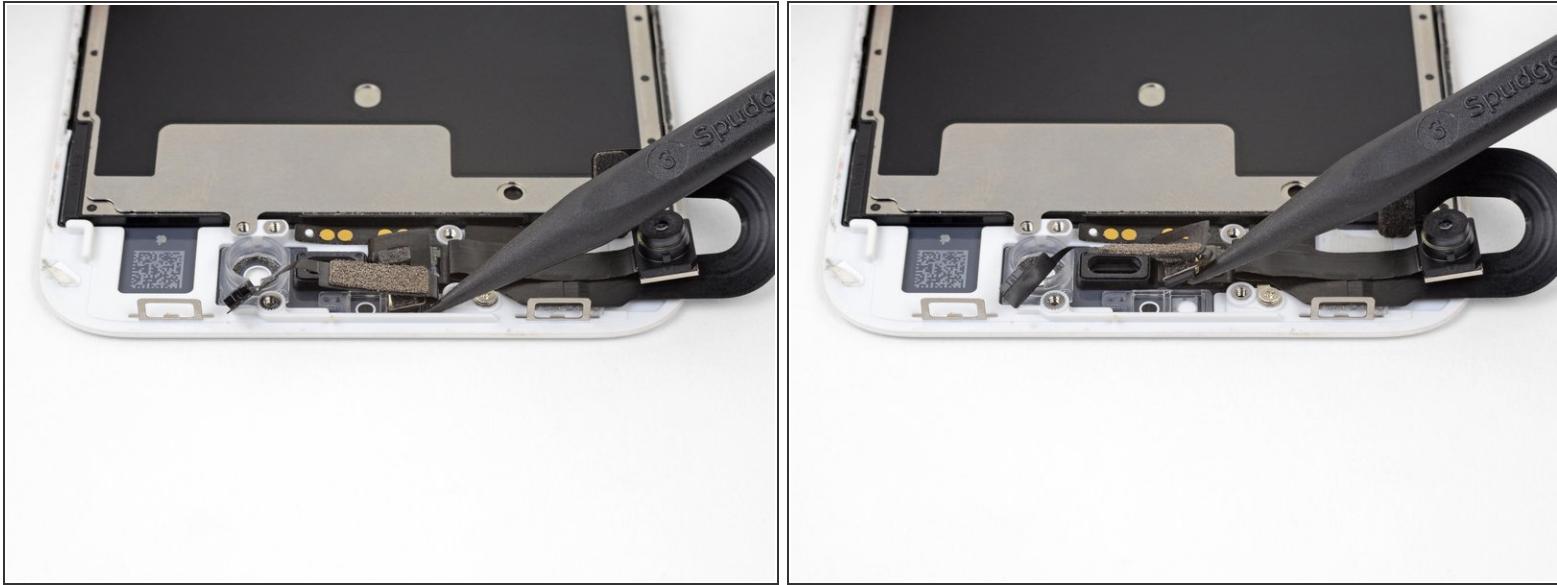
- [Heat an iOpener](#) and apply it to the upper edge of the display to soften the adhesive holding the front camera and sensor assembly in place.
- *i* Wait about two minutes before moving on to the next step to adequately soften the adhesive.

## Step 30



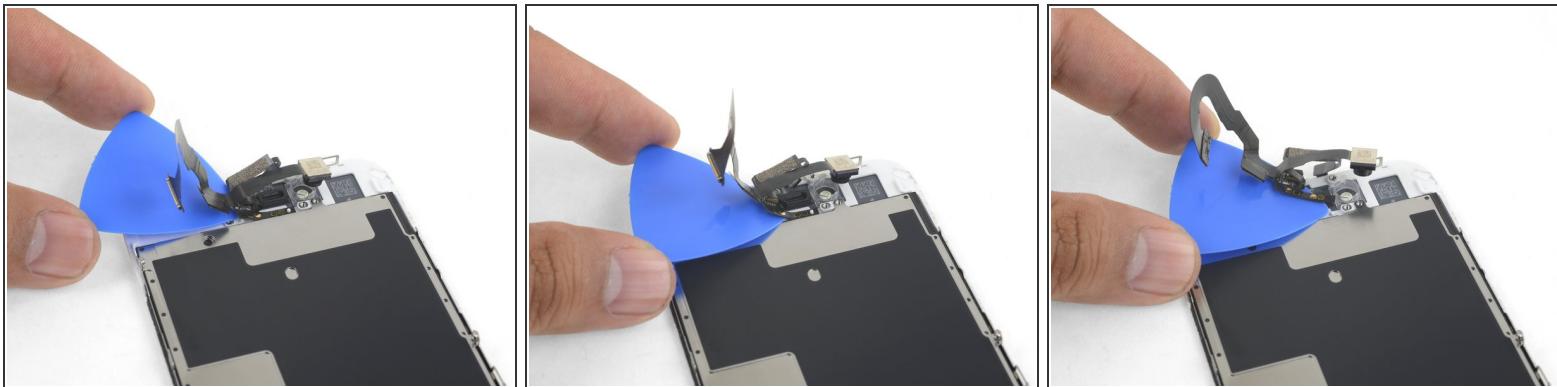
- Use the point of a spudger to gently pry the proximity sensor out of its recess on the front panel.
- ⚠ Try to get your tool all the way under the sensor to pry it away from the clear plastic beneath. If you pry only against the cable, the sensor may separate from the cable assembly and will need replacement. If you're replacing the sensor/cable assembly anyway, then it doesn't matter.

## Step 31



- Slide the tip of a spudger underneath the ambient light sensor flex cable, and lift the sensor out of its housing.

## Step 32



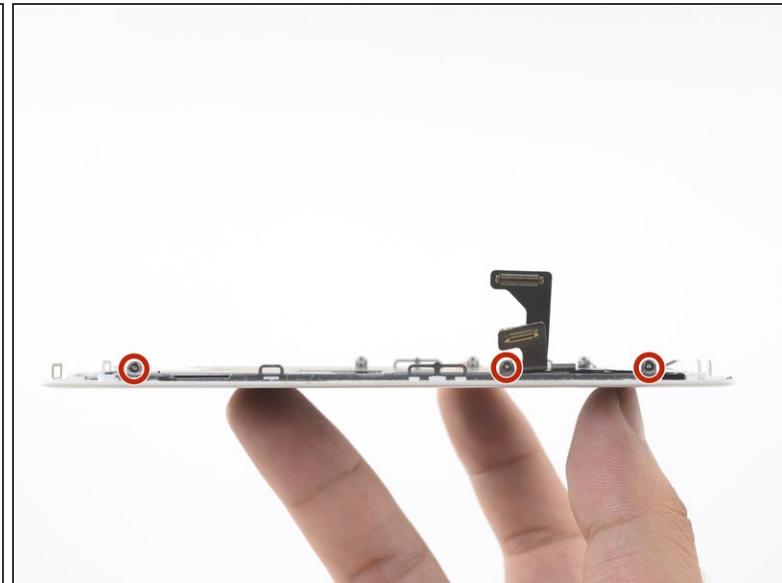
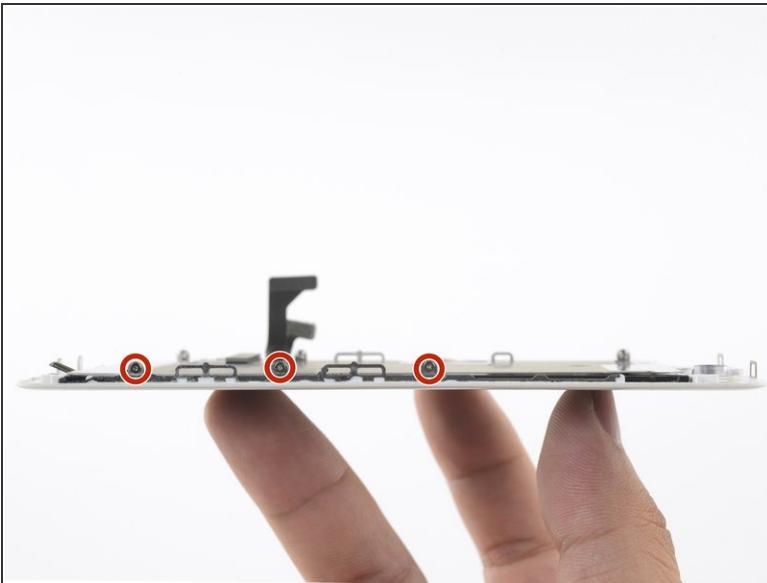
- Slide an opening pick underneath front camera cable assembly, separating the adhesive holding the camera and sensor cable.

## Step 33



- Remove the front camera and sensor cable.

## Step 34 — LCD and Digitizer



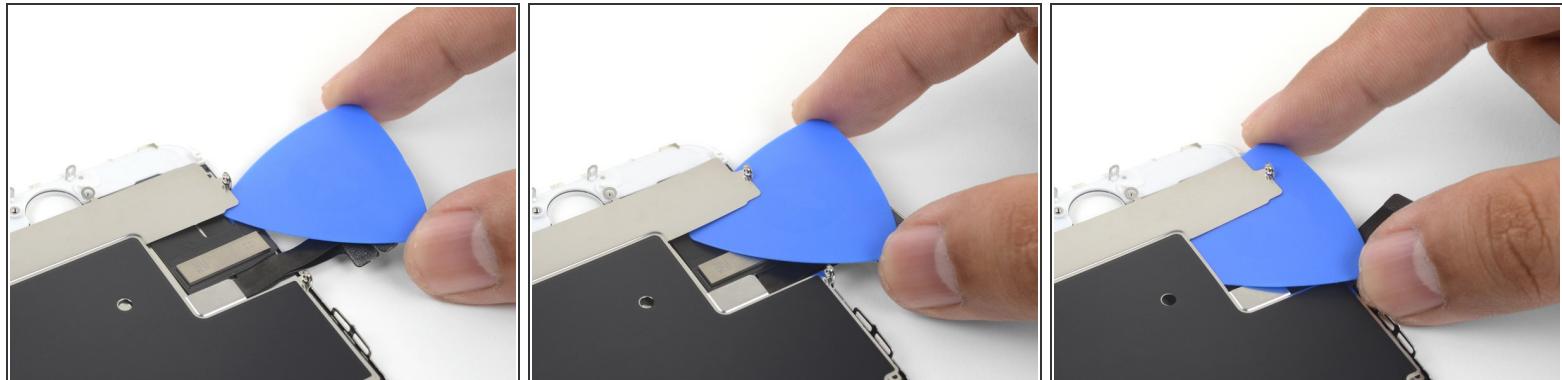
- Remove the three 1.2 mm Y000 screws from either side of the display for a total of six screws.

## Step 35



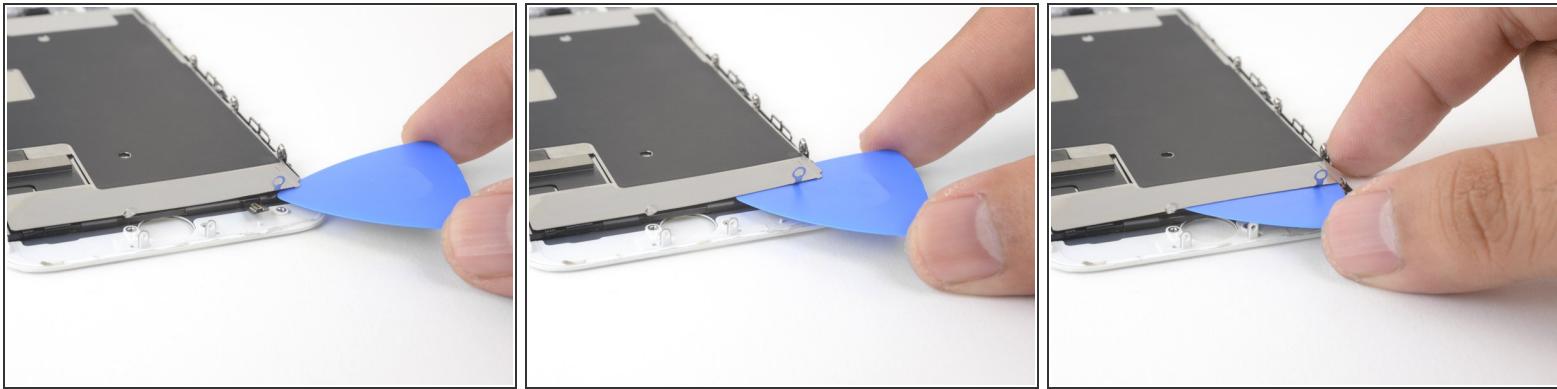
- [Heat an iOpener](#) and lay it over the edge of the shield closest to the home button to soften the adhesive holding it in place.

## Step 36



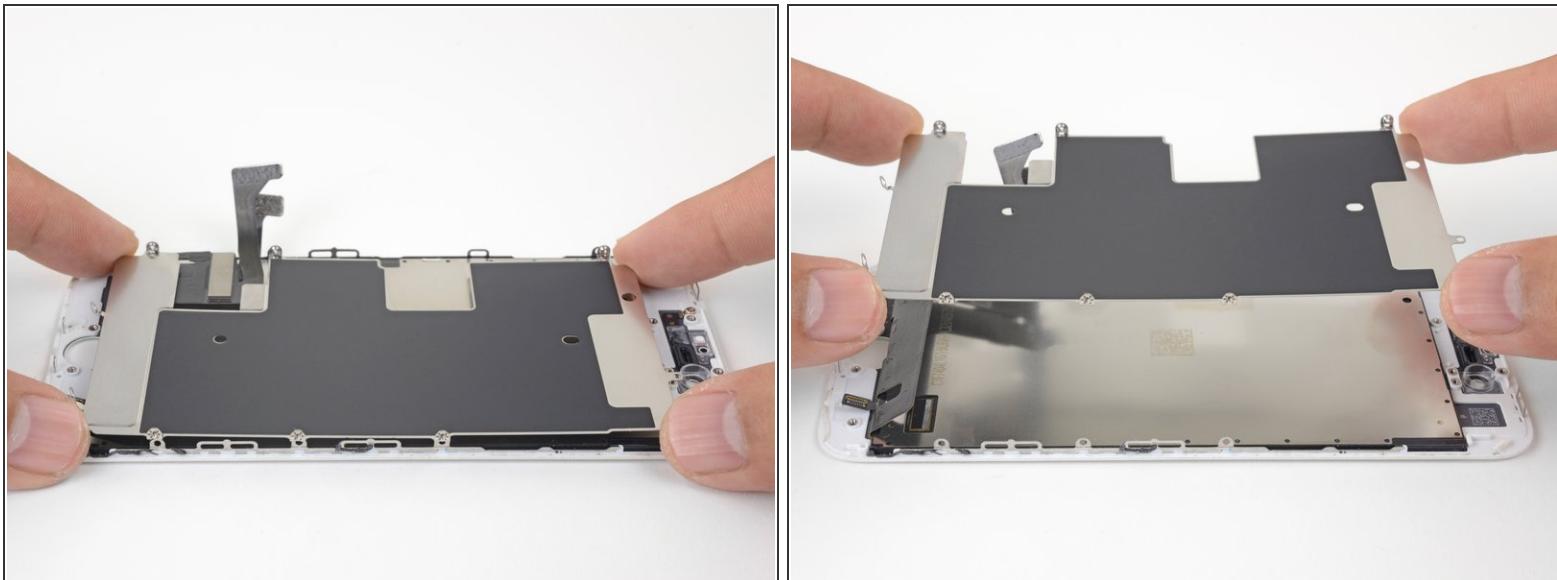
- Use an opening pick to break up the adhesive near the home button that holds the flat display cable to the LCD shield plate.

## Step 37



- Insert an opening pick from the bottom right corner and continue to separate the display cable from the LCD shield plate.

## Step 38



- Gently lift the LCD shield plate from the display assembly.
- ⚠** Be careful not to snag the display data cables when removing the LCD shield plate.

## Step 39



- Only the LCD and digitizer remain.

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 these instructions in reverse order.

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

Repair didn't go as planned? Check out our [iPhone 8 Answers community](#) for troubleshooting help.