



# iPhone 8 Plus Taptic Engine Replacement

Replace the Taptic Engine (haptic vibration motor) in an iPhone 8 Plus.

Written By: Jeff Suovanen



## INTRODUCTION

The Taptic Engine produces your iPhone's vibration and haptic feedback functions. Use this guide to remove and/or replace the Taptic Engine in an iPhone 8 Plus.

This guide instructs you to fully detach and remove the display assembly; this is intended to make the phone easier to work with and to prevent accidental damage to the display cables. If you feel comfortable removing the Taptic Engine while keeping the display cables attached, you can skip the steps for disconnecting the display.

### TOOLS:

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

### PARTS:

- [iPhone 8 Plus Vibrator](#) (1)
- [iPhone 8 Plus Display Assembly Adhesive](#) (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 from 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 — Opening Procedure



ⓘ Heating the lower edge of the iPhone will help soften the adhesive securing the display, making it easier to open.

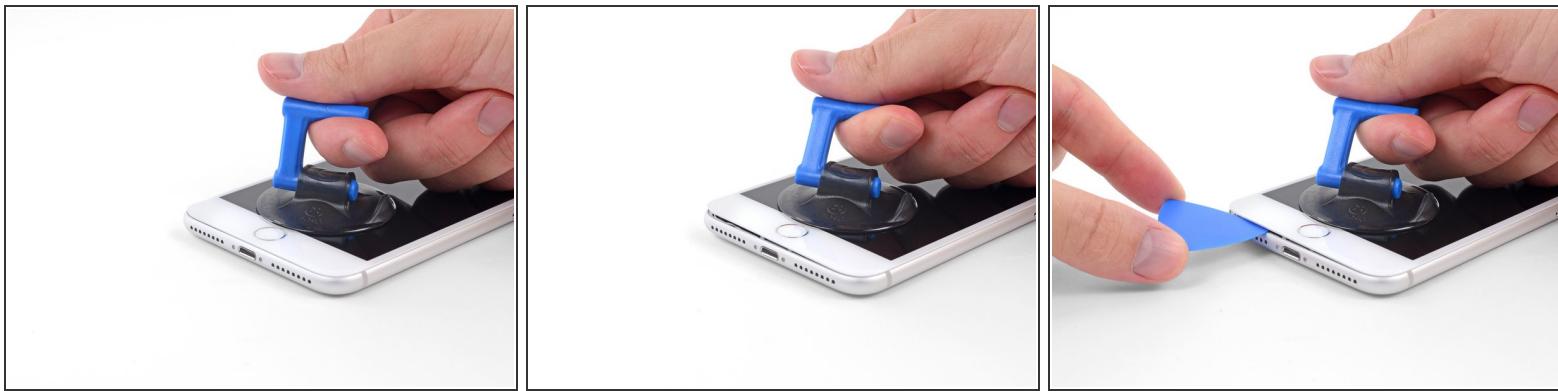
- Use a hairdryer or [prepare an iOpener](#) and apply it to the lower edge of the iPhone for about 90 seconds in order to soften up the adhesive underneath.

## Step 3



- 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.
  - ⓘ 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 with firm, constant pressure to create a slight gap between the front panel and rear case.
- Insert an opening pick or other thin pry tool a few millimeters 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 5



- Slide your pick around the corner and up the left edge of the phone, 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.

## Step 6



- 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 7



- 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.

## Step 8



- 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 along the top edge of the phone to loosen the last of the adhesive.

## Step 10



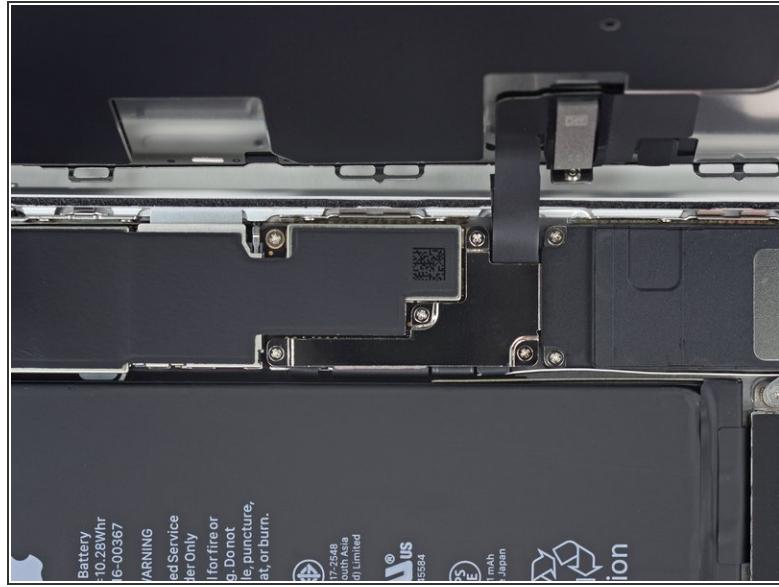
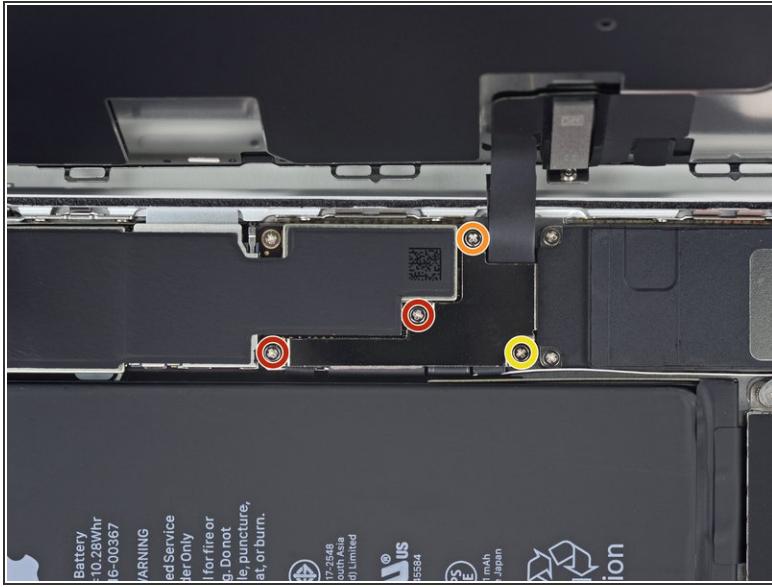
- Slide the display assembly slightly down (away from the top edge of the phone) to disengage the clips holding it to the rear case.

## 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.

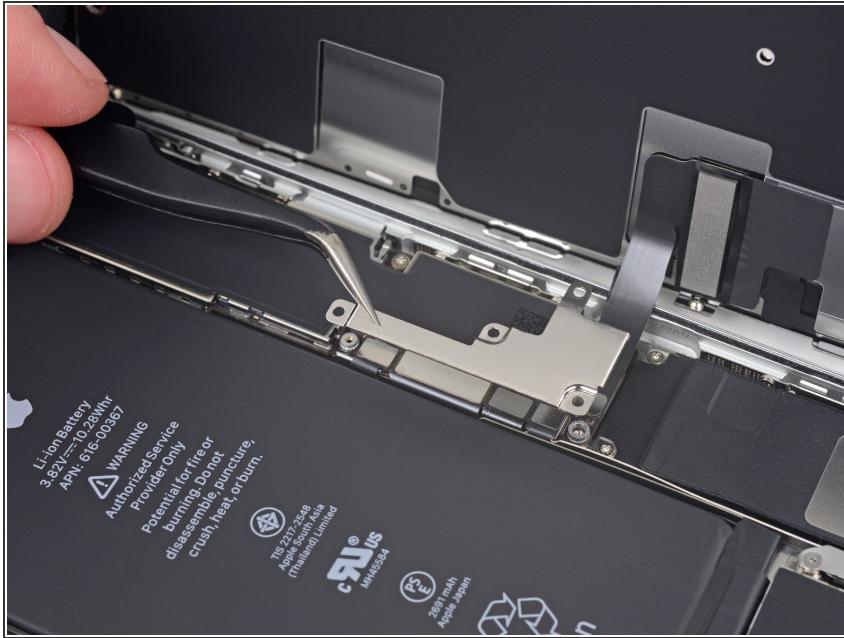
## Step 12 — Battery Disconnection



- Remove four Phillips (JIS) screws securing the lower display cable bracket to the logic board, of the following lengths:
  - Two 1.3 mm screws
  - One 1.4 mm screw
  - One 2.7 mm screw

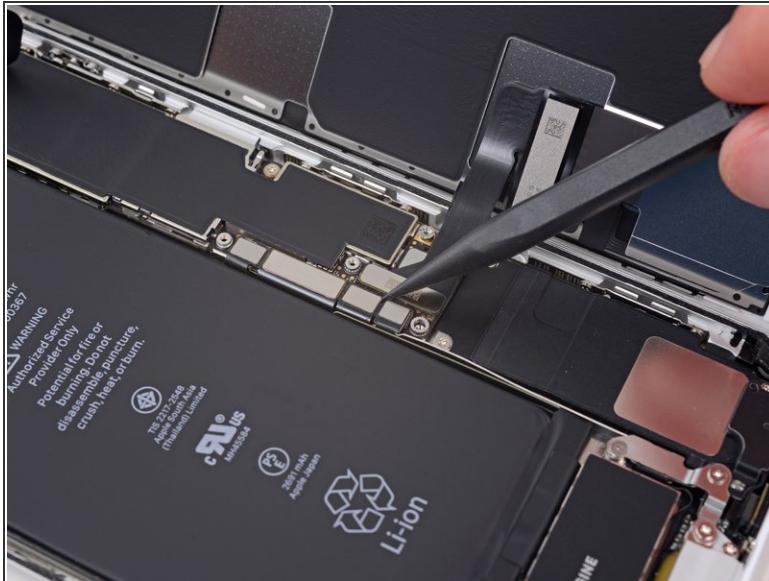
★ Throughout this guide, [keep careful track of your screws](#) so that each one goes back where it came from during reassembly. Installing a screw in the wrong place can cause permanent damage.

## Step 13



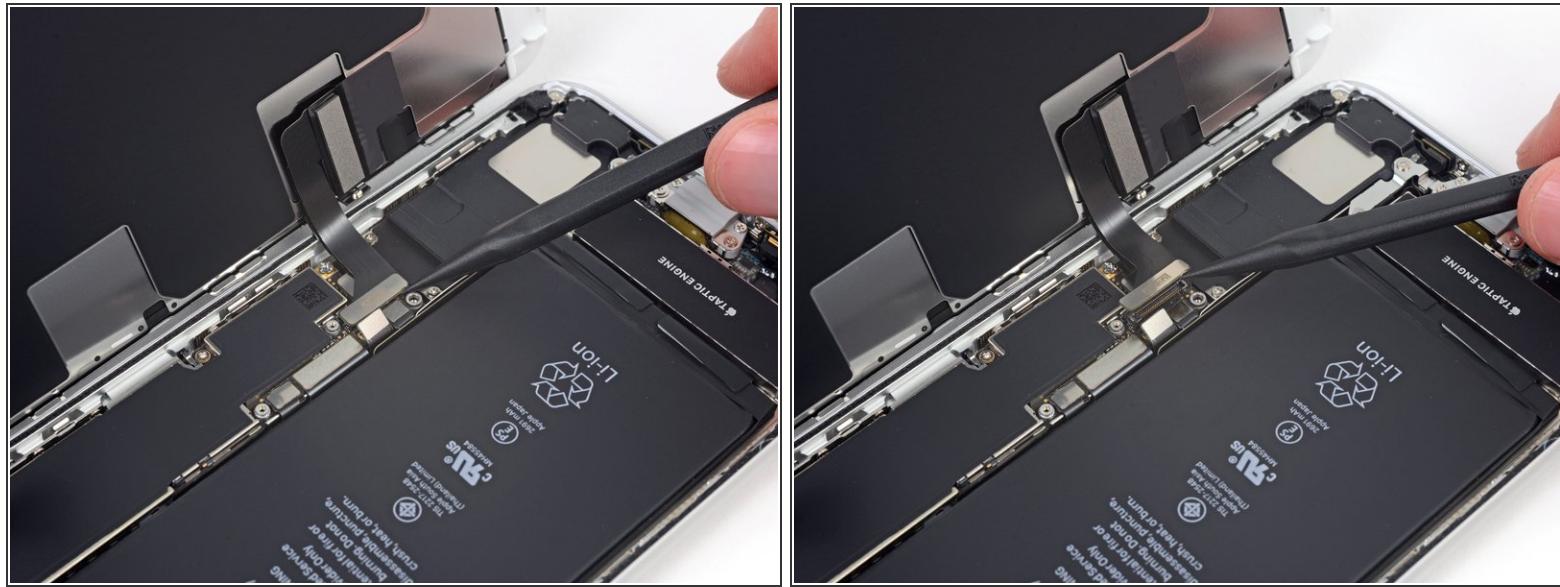
- Remove the lower display cable bracket.

## Step 14



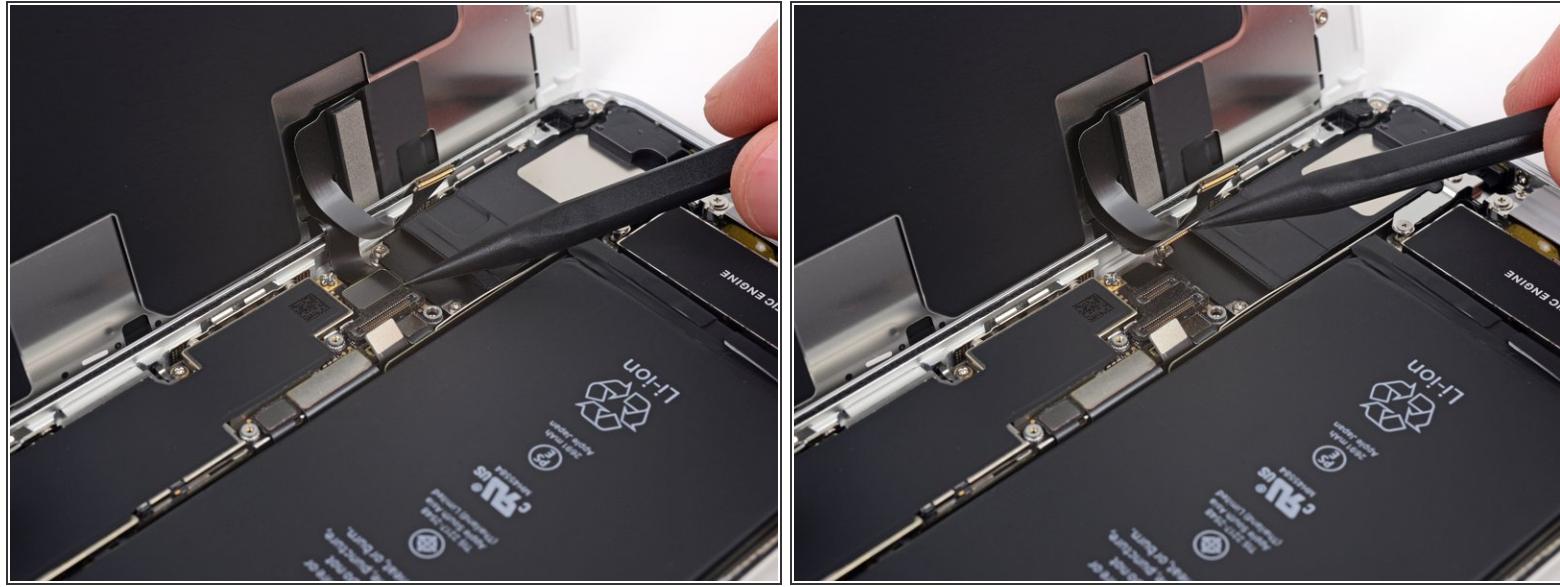
- Use the point of a spudger to pry the battery connector up from its socket on the logic board.
- Bend the connector cable up slightly to prevent it from accidentally making contact with the socket and providing power to the phone during your repair.

## Step 15 — Display Assembly



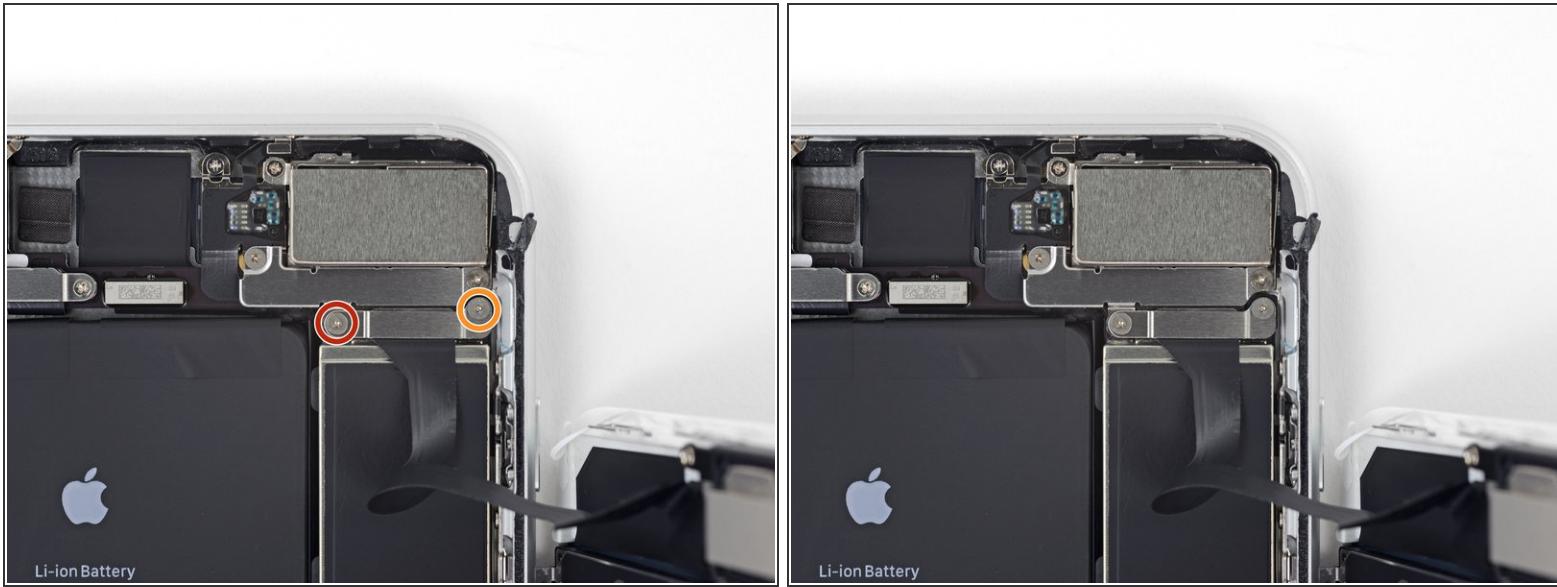
- Use the tip of a spudger or a fingernail to disconnect the large lower display connector by prying it straight up from its socket.
- ☒ To re-attach press connectors like this one, press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is even slightly misaligned, the connector can bend, causing permanent damage.

## Step 16



- Disconnect the second lower display cable connector, directly behind the one you disconnected in the previous step.

## Step 17



- Remove the two tri-point Y000 screws securing the bracket over the front panel sensor assembly connector:
  - One 1.0 mm screw
  - One 1.2 mm screw

## Step 18



- Remove the bracket covering the front panel sensor assembly connector.

## Step 19



- Use the tip of a spudger or a fingernail to disconnect the front panel sensor assembly connector from its socket.

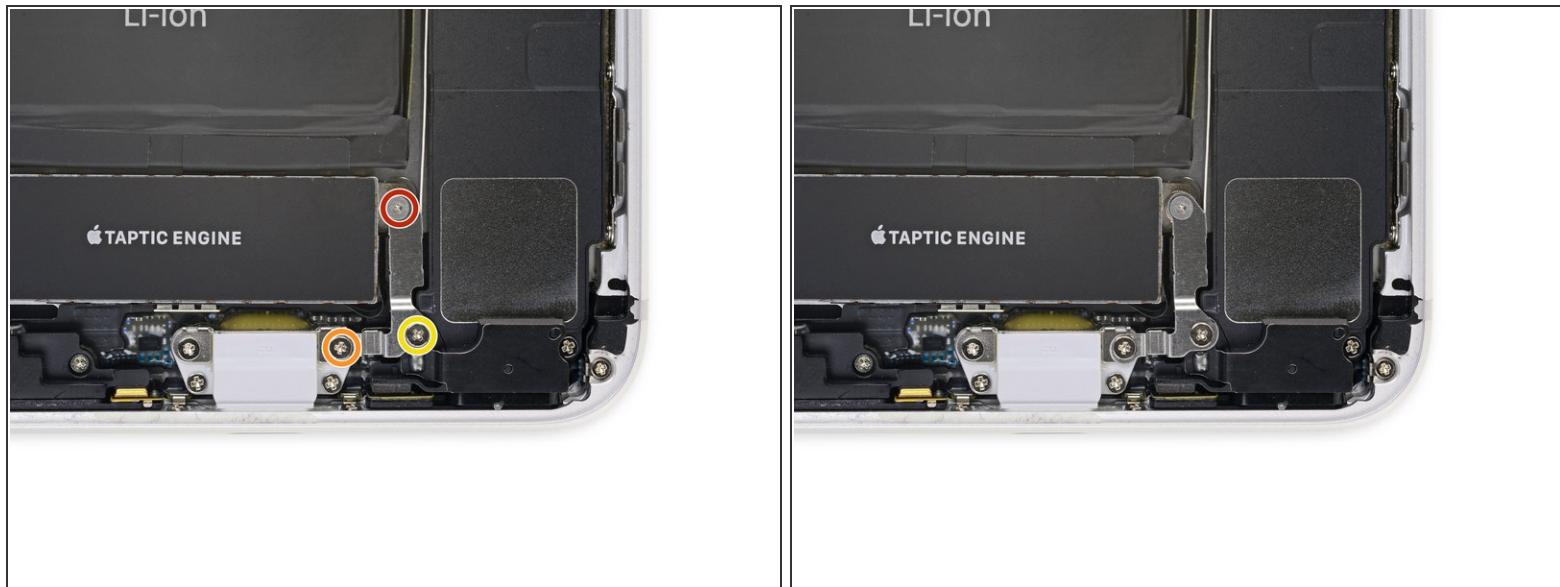
## Step 20



- Remove the display assembly.

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

## Step 21 — Wi-Fi Diversity Antenna



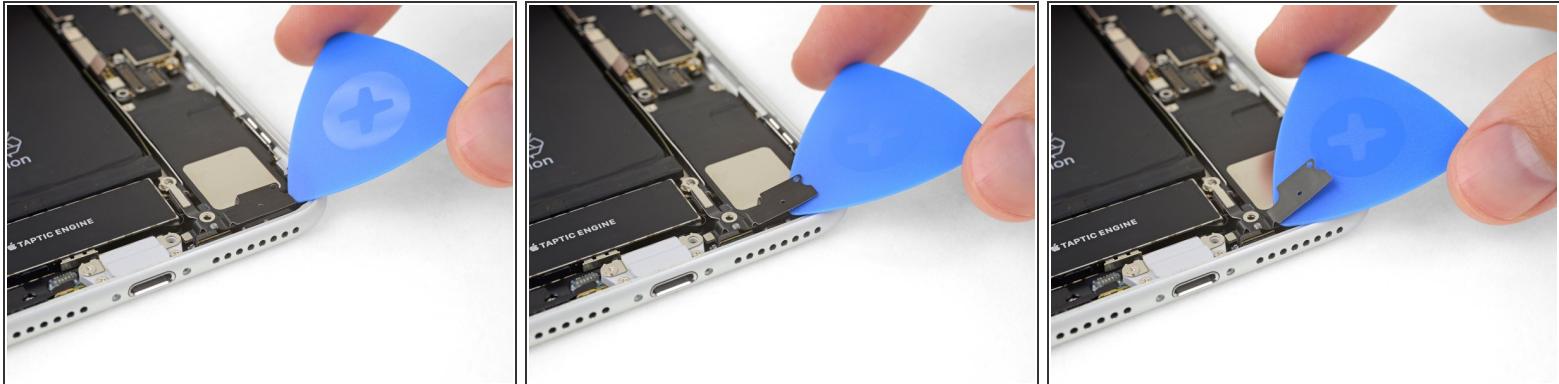
- Remove the three screws securing the L-shaped bracket next to the Taptic Engine:
  - One 1.3 mm Y000 screw
  - One 2.6 mm Phillips screw
  - One 3.5 mm Phillips screw

## Step 22



- Remove the bracket.

## Step 23



- Use an opening pick to gently separate the adhered portion of the antenna flex cable from the top surface of the speaker.

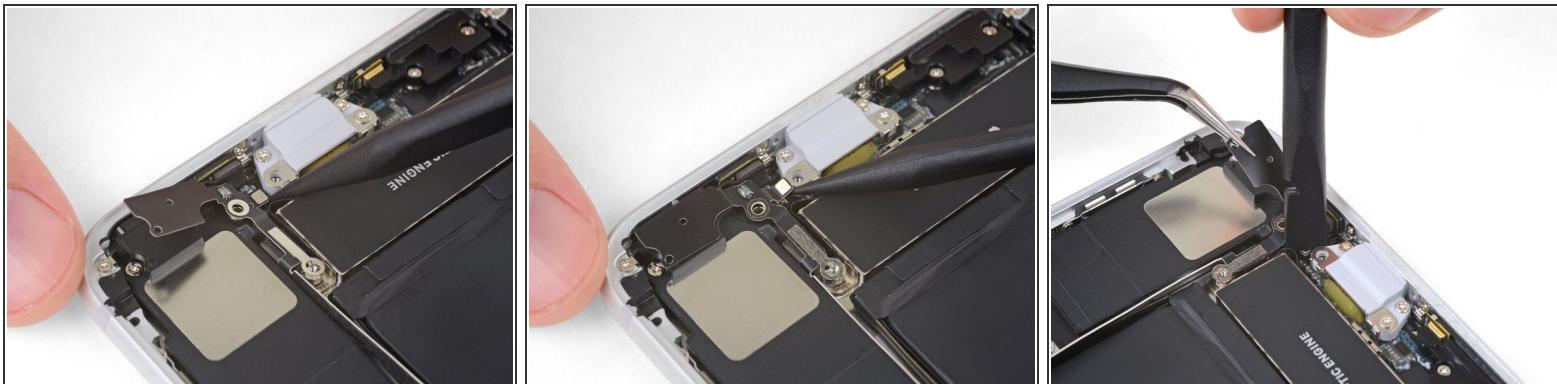
*(i)* This portion of the flex cable is lightly adhered in place. If necessary, apply a little heat from an iOpener or hair dryer to soften the adhesive. This makes it easier to separate (and re-adhere) the flex cable safely.

## Step 24



- Use the point of a spudger to pry up and disconnect the antenna flex cable from the logic board.

## Step 25



- Use the point of your spudger to pry up and disconnect the other end of the antenna flex cable from its socket, next to the Lightning Port.

 Reconnecting this cable can be tricky. Make it easier by using your tweezers to hold the flex cable so the connector aligns with its socket. Then, gently press down on the connector with the flat of your spudger until it clicks into place.

## Step 26



- Remove the Wi-Fi diversity antenna.

## Step 27 — Taptic Engine



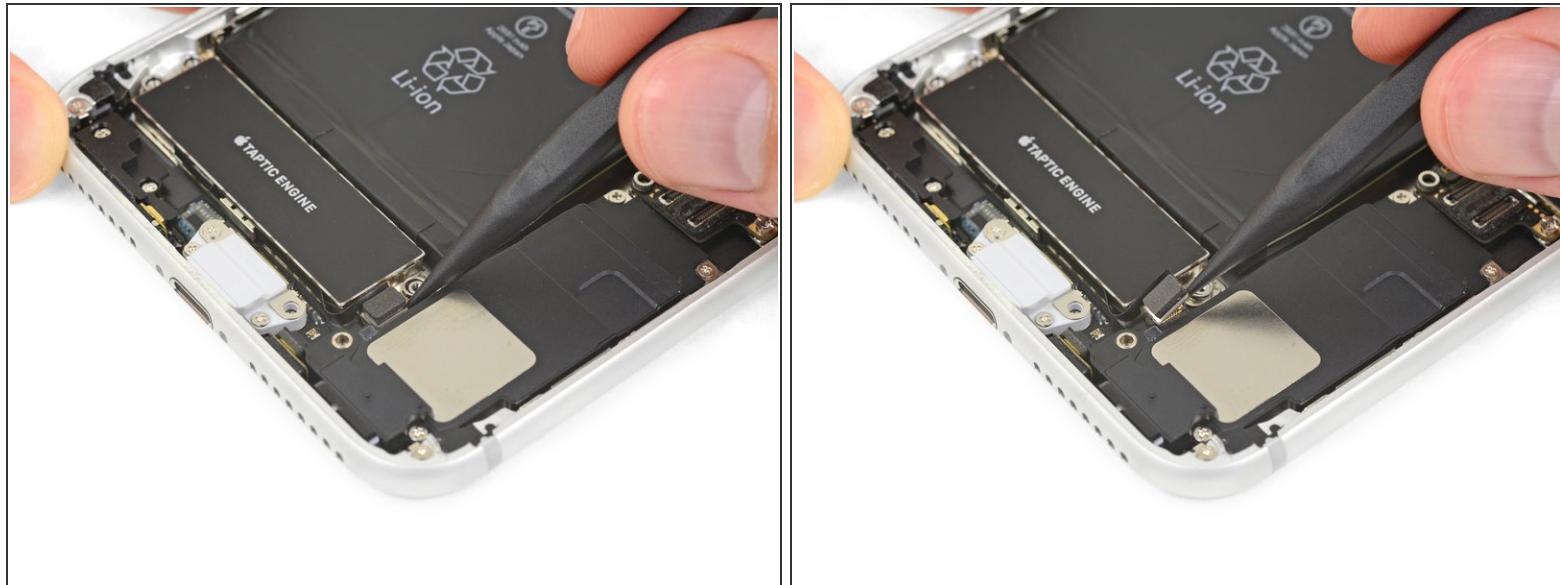
- Remove the three screws securing the Taptic Engine:

- Two 1.5 mm Phillips screws
- One 2.4 mm standoff screw

*(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 28



- Use the point of your spudger to pry up and disconnect the Taptic Engine flex cable.

## Step 29



- Remove the Taptic Engine.

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? Check out our [Answers community](#) for troubleshooting help.