iPhone 14 Pro Taptic Engine Replacement

The Taptic Engine produces your iPhone's...

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INTRODUCTION

The Taptic Engine produces your iPhone's vibration and haptic feedback functions. Use this guide to remove and replace the Taptic Engine in an iPhone 14 Pro.

This guide was created using the **A2890** (international) model. If you're fixing a different iPhone 14 Pro model, there may be some visual discrepancies, but the procedure should be the same.

For your safety, discharge the battery below 25% before disassembling your device. This reduces the risk of fire if the battery is accidentally damaged during the repair. If your battery is swollen, take appropriate precautions.

You'll need replacement adhesive to reattach the screen when reassembling the device. Your device will function normally, but will most likely lose its IP (Ingress Protection) rating.

TOOLS:

Hair Dryer (1)
Anti-Clamp (1)
Heat Gun (1)
Safety Glasses (1)
Packing Tape (1)
P2 Pentalobe Screwdriver iPhone (1)
Phillips #00 Screwdriver (1)
iFixit Opening Picks (Set of 6) (1)
Suction Handle (1)
Tri-point Y000 Screwdriver (1)
Spudger (1)
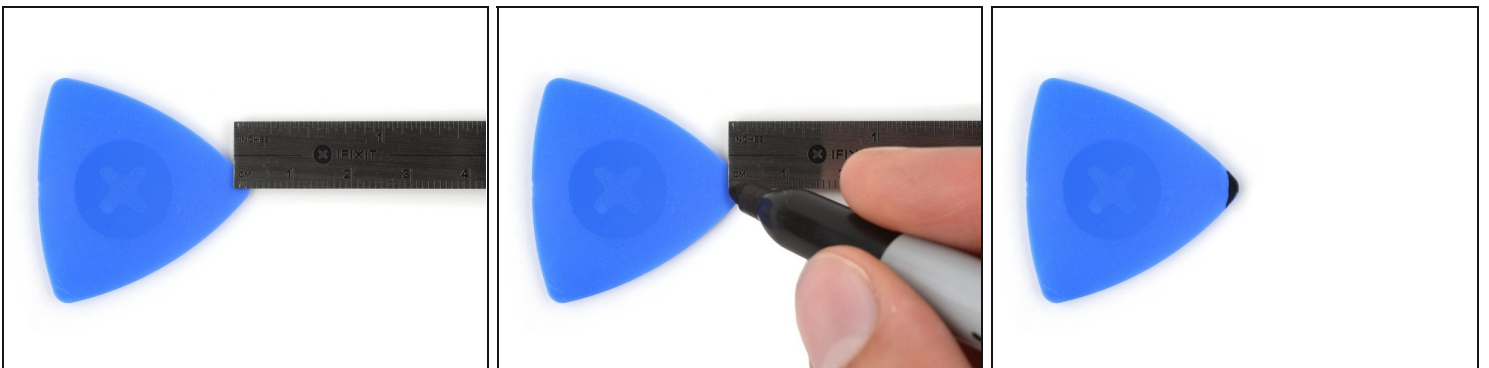Tweezers (1)
Standoff Screwdriver for iPhones (1)

PARTS:

iPhone 14 Pro Display Assembly Adhesive (1)
Tesa 61395 Tape (1)
iPhone 14 Pro Vibrator (1)

Step 1 — Remove the pentalobe screws

- Power off your iPhone before beginning disassembly.

- Remove the two 6.8 mm-long pentalobe P2 screws at the bottom edge of the iPhone.

Step 2 — Mark your opening picks

- ⓘ If inserted too far, an opening pick can damage your device. Follow this step to mark your pick and prevent damage.

- Measure 3 mm from the tip and mark the opening pick with a permanent marker.
  ⓘ You can also mark the other corners of the pick with different measurements.

  ⓘ Alternatively, [tape a coin to a pick](#) 3 mm from the tip.

Step 3 — Tape over any cracks

- ⓘ If your iPhone has a cracked screen, 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 screen until the whole face is covered.

⚠ Wear safety glasses to protect your eyes from any glass shaken free during the repair.

- ● If you can't get the suction cup to stick in the next few steps, fold a strong piece of tape (such as duct tape) into a handle and lift the screen with that instead.
  - ⓘ If all else fails, you can superglue the suction cup to the screen.

Step 4 — Anti-Clamp instructions

ⓘ The next three 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.**

ⓘ 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—one on the front, and one on the back.

- Squeeze the cups together to apply suction to the desired area.
  - ⓘ 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.
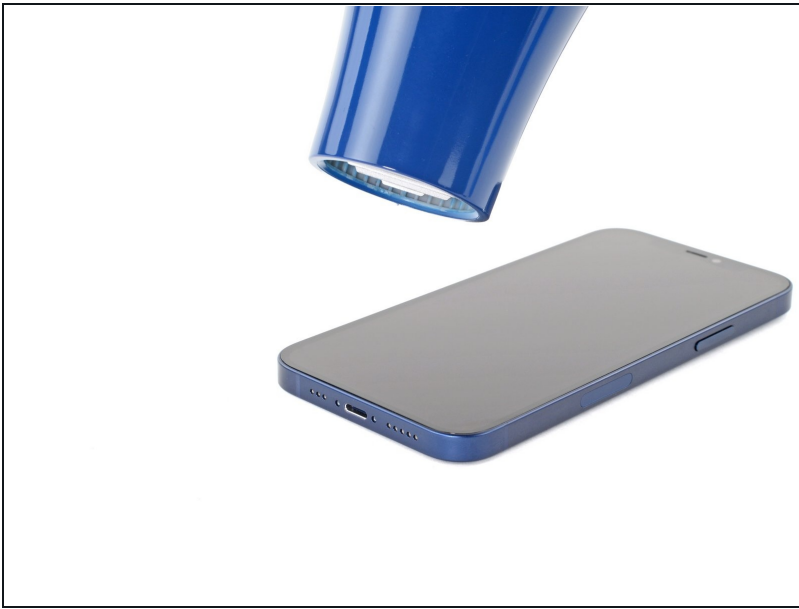
Step 5

- 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.

Step 6

- Support your iPhone on something sturdy such as a hardcover book so it rests hands-free and parallel to the ground; this makes it easier to work with in the following steps.

- Use a hair dryer to heat along the bottom edge of the iPhone. The screen should feel slightly too hot to touch.
  - ⓘ For complete instructions on how to use a hair dryer, [check out this guide](#).

- Wait one minute to give the adhesive a chance to release and present an opening gap.

- Insert an opening pick under the screen's plastic bezel when the Anti-Clamp creates a large enough gap.
  - ⓘ If the Anti-Clamp doesn't create a sufficient gap, apply more heat to the area and rotate the handle a quarter turn.

  - ⚠ Don't crank more than a quarter turn at a time, and wait one minute between turns. Let the Anti-Clamp and time do the work for you.

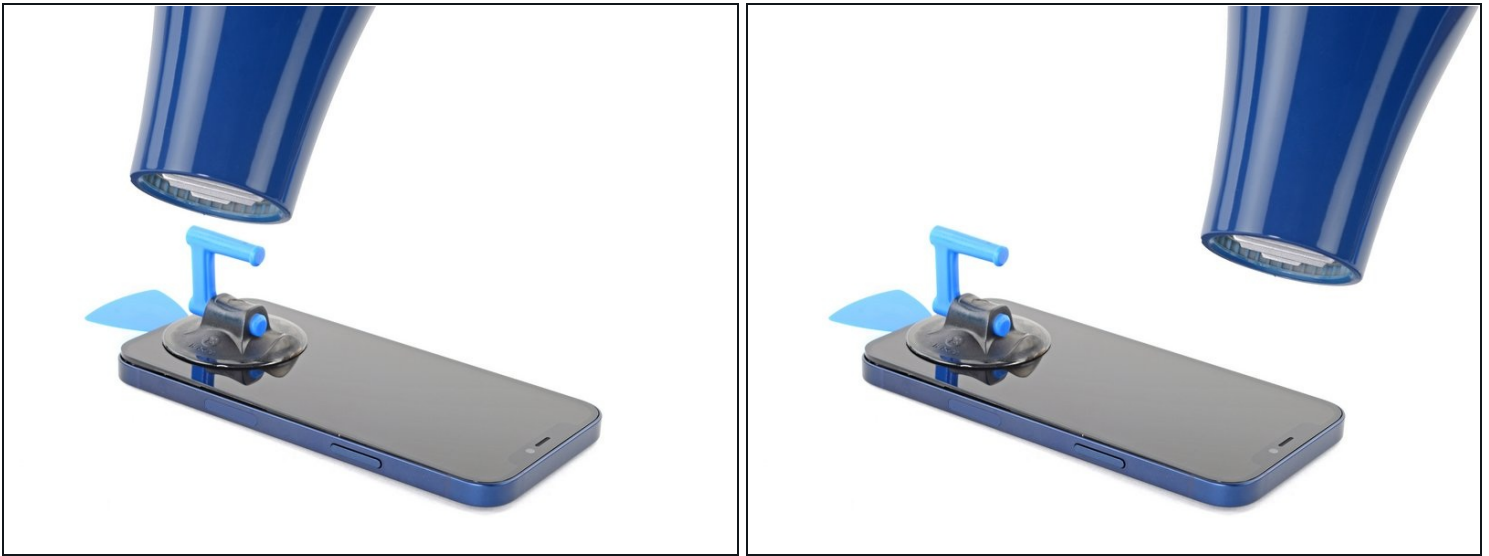- **Skip the next two steps.**

Step 7 — Heat the bottom edge

(i) If you're using a suction handle, follow the next two steps to loosen the screen.

- Use a hair dryer or a heat gun to heat the bottom edge of the iPhone for 90 seconds or until the screen is slightly too hot to touch.

  ⚠ Never leave your hair dryer in one spot for an extended period of time.

Step 8 — Insert an opening pick

- Apply a suction handle to the bottom edge of the screen, while avoiding the very edge of the glass.

- Pull up on the suction cup with firm, constant pressure to create a slight gap between the screen and the frame.

- Insert an opening pick into the gap under the screen's plastic bezel.

(i) The watertight adhesive holding the screen 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 9 — Heat the right edge

- Use a hair dryer to heat the right edge of the iPhone (the edge with the power button) for 90 seconds or until the screen is slightly too hot to touch.

Step 10 — Separate the right adhesive

- Slide the opening pick around the bottom right corner of the iPhone to separate its adhesive.

- Continue sliding up the right edge of the iPhone until you reach the top right corner.
  ⚠ Don't insert your pick more than 3 mm, as you may damage internal components.

- Leave the pick in the top right corner before continuing.

Step 11 — Heat the top edge

- Use a hair dryer to heat the top edge of the iPhone for 90 seconds or until the screen is slightly too hot to touch.

Step 12 — Separate the top adhesive

- Slide the opening pick around the top right corner of the iPhone to separate the top adhesive.

  ⚠ Don't insert your pick more than 3 mm, as you may damage the top sensors.

- Leave the pick in the top left corner before continuing.
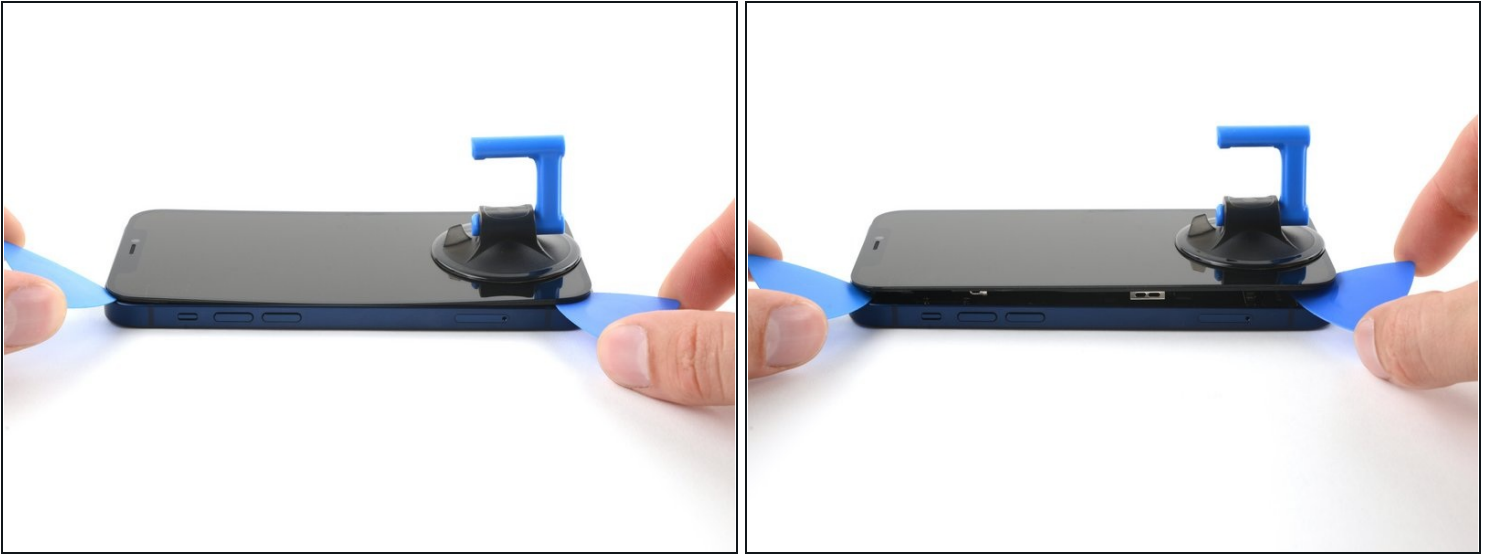
Step 13 — Heat the left edge

- Use a hair dryer to heat the left edge of the iPhone for 90 seconds or until the screen is slightly too hot to touch.

Step 14 — Screen information

⚠ There are delicate cables along the left edge of your iPhone. **Don't insert your pick here**, as you may damage the cables.

Step 15 — Separate the left adhesive

⚠️ The cables along the left edge are **very easy to damage with a pick**. Follow this alternate procedure to separate the left adhesive.
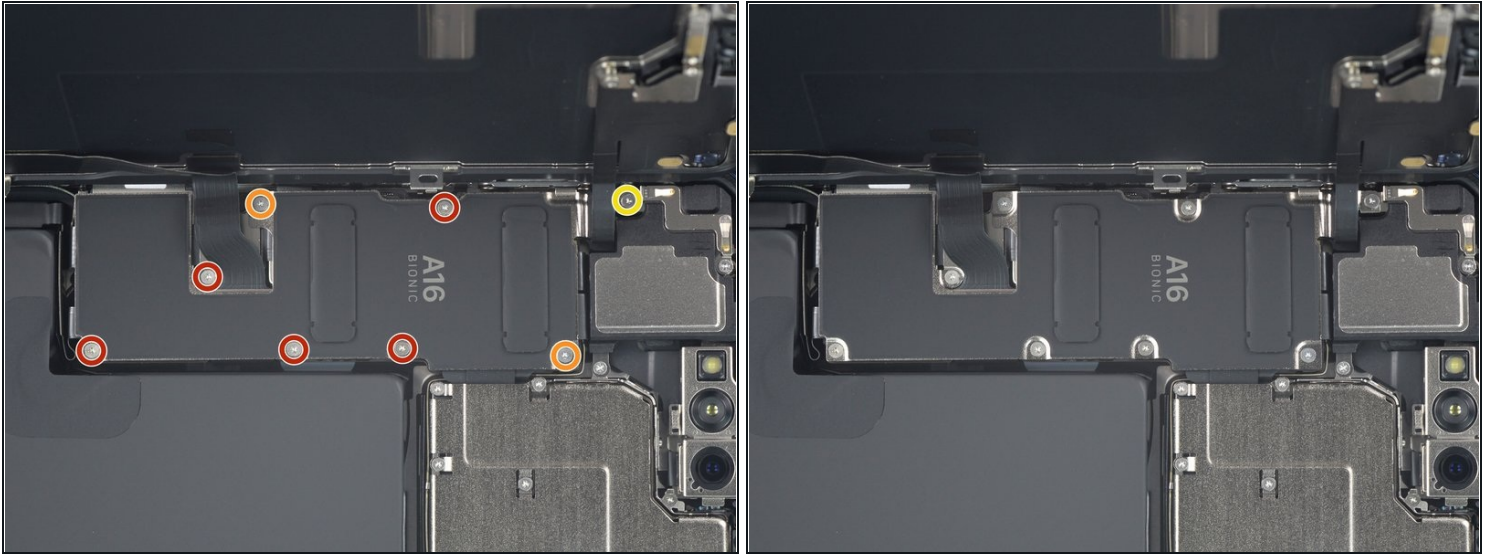
- Insert a second opening pick in the bottom left corner of the iPhone.

- Twist both picks simultaneously until the left edge clips release.
  ⓘ Apply the twisting force gradually.

  ⓘ If you're having trouble separating the adhesive, reheat the left edge.

Step 16 — Open the iPhone

- Remove your suction handle from the screen.

- Rotate your iPhone so the right edge faces you.

- Open your iPhone by swinging the screen up from the right side, like the front cover of a book.

- Lean the screen against something to keep it propped up while you're working on the phone.
  - ⓘ If you don't have anything at hand to lean the screen against, your [suction handle can do the trick](#).

- ⬛ During reassembly, lay the screen in position, align the clips along the top edge, and carefully press the top edge into place before snapping the rest of the screen down. If it doesn't click easily into place, check the condition of the clips around the perimeter of the screen and make sure they aren't bent.

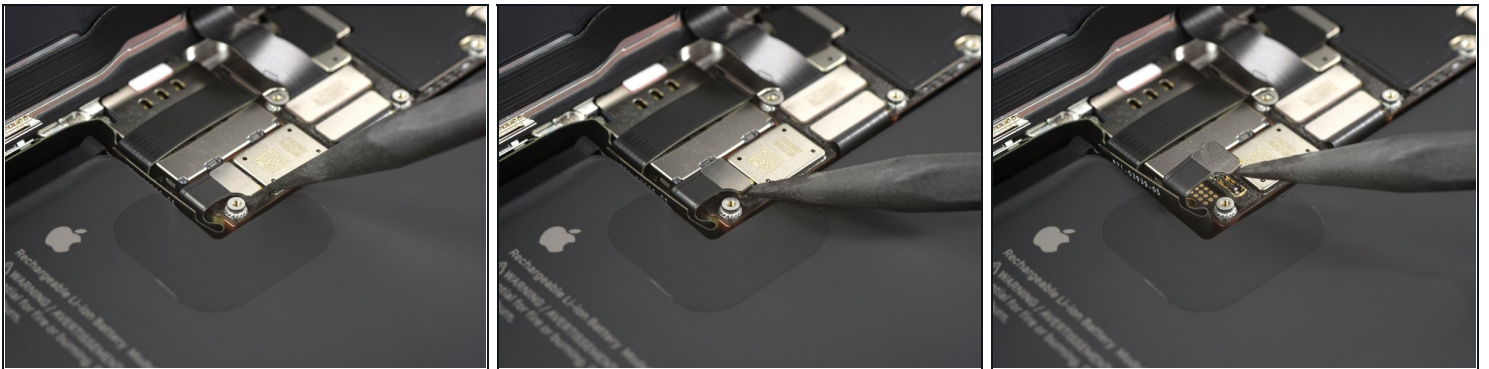## Step 17 — Unfasten the battery connector cover screws

- Use a Y000 screwdriver to remove the eight screws securing the battery connector cover:
  - Five 1.3 mm-long screws

  - Two 1.6 mm-long screw

  - One 1.9 mm-long 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.

- ⬚ During reassembly, this is a good point to power on your iPhone and test all functions before you seal the screen in place. Be sure to power your iPhone back down completely before you continue working.

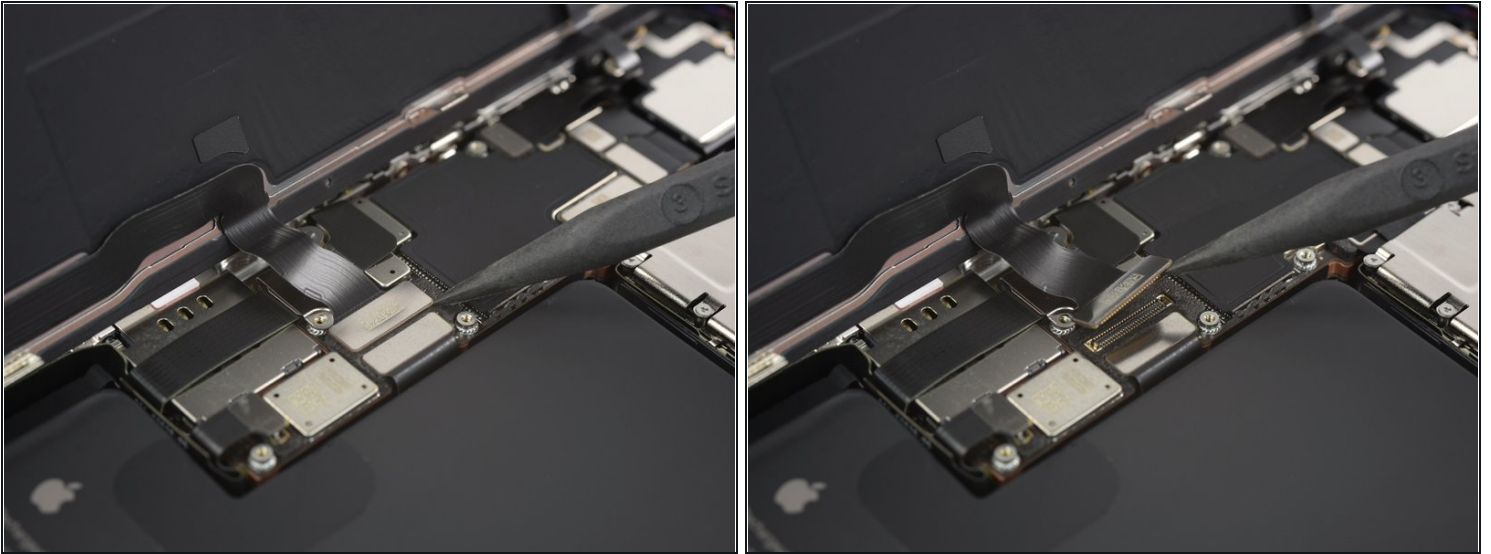## Step 18 — Remove the battery connector cover

- Grasp the connector cover with a pair of tweezers and slide it downwards to clear the flex cables.

- Remove the connector cover.
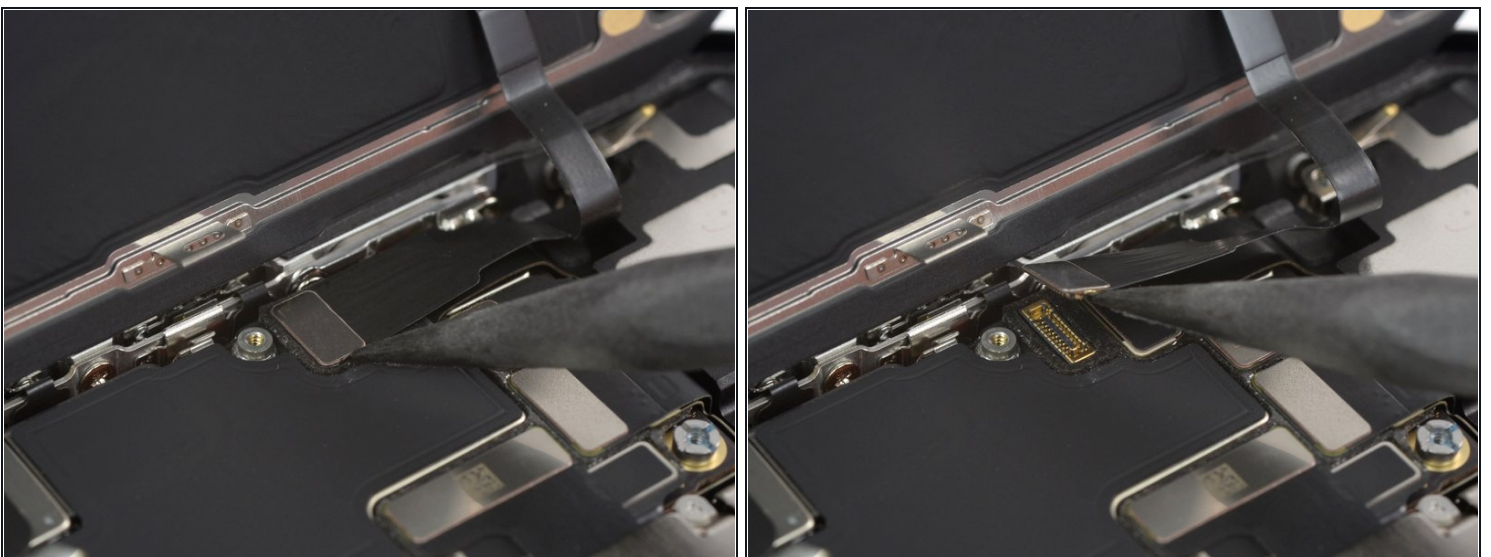
Step 19 — Disconnect the battery

- Use the pointed end of a spudger to disconnect the battery cable by prying the connector straight up from its socket.
  - ⓘ Try not to damage the black silicone seal surrounding this and other board connections. These seals provide extra protection against water and dust intrusion.

- Bend the connector 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 20 — Disconnect the display cable

- Use the pointed end of a spudger to disconnect the first display cable by prying the connector straight up from its socket.

- ◙ To re-attach [press connectors](#) like this one, carefully align and 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 misaligned, the pins can bend, causing permanent damage.

Step 21

- Use the pointed end of a spudger to disconnect the second display cable by prying the connector straight up from its socket.

Step 22 — Remove the screen

- Remove the screen.

- 📌 Apply new adhesive where it's necessary after cleaning the relevant areas with isopropyl alcohol (>90%).

- 📌 During reassembly, pause here if you wish to replace the screen adhesives.

Step 23 — Unfasten the loudspeaker screws

- Use a Phillips driver to remove the four 1.5 mm-long screws securing the loudspeaker.

Step 24 — Loosen the loudspeaker

- Use the flat end of a spudger to pry up and loosen the loudspeaker from the bottom-right corner of the phone.

Step 25 — Remove the loudspeaker

- Use a pair of tweezers to grab the loudspeaker.

- Tilt the loudspeaker to separate it from the adhesive-backed strip that leads to the Taptic Engine.

- Remove the loudspeaker.

- ⊡ When reinstalling the loudspeaker, place it in its recess battery-side first to align it with the adhesive-backed strip.

Step 26 — Disconnect the Taptic Engine

- Use a spudger to disconnect the Taptic Engine by prying the connector straight up from its socket.

Step 27 — Unfasten the Taptic Engine screws

- Use a Phillips screwdriver to remove the two screws securing the Taptic Engine:
  - One 1.8 mm-long screw

  - One 2.1 mm-long screw

- Use a standoff screwdriver to remove the 2.9 mm-long standoff screw securing the Taptic Engine.
  - ⓘ Standoff screws are best removed using a dedicated [standoff driver](#) or driver bit. 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 — Remove the Taptic Engine

- Use a pair of tweezers or your fingers to remove the Taptic Engine.

Step 29 — Transfer the adhesive-backed strip

- ⓘ If your replacement part didn't come with the plastic strip along the top of the Taptic Engine, you'll need to transfer it to your replacement part.

- Use your fingers or a pair of tweezers to gently peel the adhesive-backed strip off of 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 these instructions 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 ask our [Answers community](#) for help.