



iPhone 13 mini Battery Replacement

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Written By: Adriana Zwink



INTRODUCTION

iPhone batteries are rated to hold 80% of their capacity for up to 500 charge cycles, which lasts roughly 18-24 months for most users. After that, your iPhone may need to be charged far more frequently, and iOS may warn you that performance is affected (in other words, your phone will run slower). Use this guide to replace your battery and restore your iPhone 13 mini to like-new performance.

If your battery is swollen, [take appropriate precautions](#).

Note: After the repair, your iPhone may display a warning about the “genuineness” of the battery, even when using original Apple parts. If your iPhone functions normally, you can safely ignore the warning.

You'll need replacement adhesive to reattach components when reassembling the device.

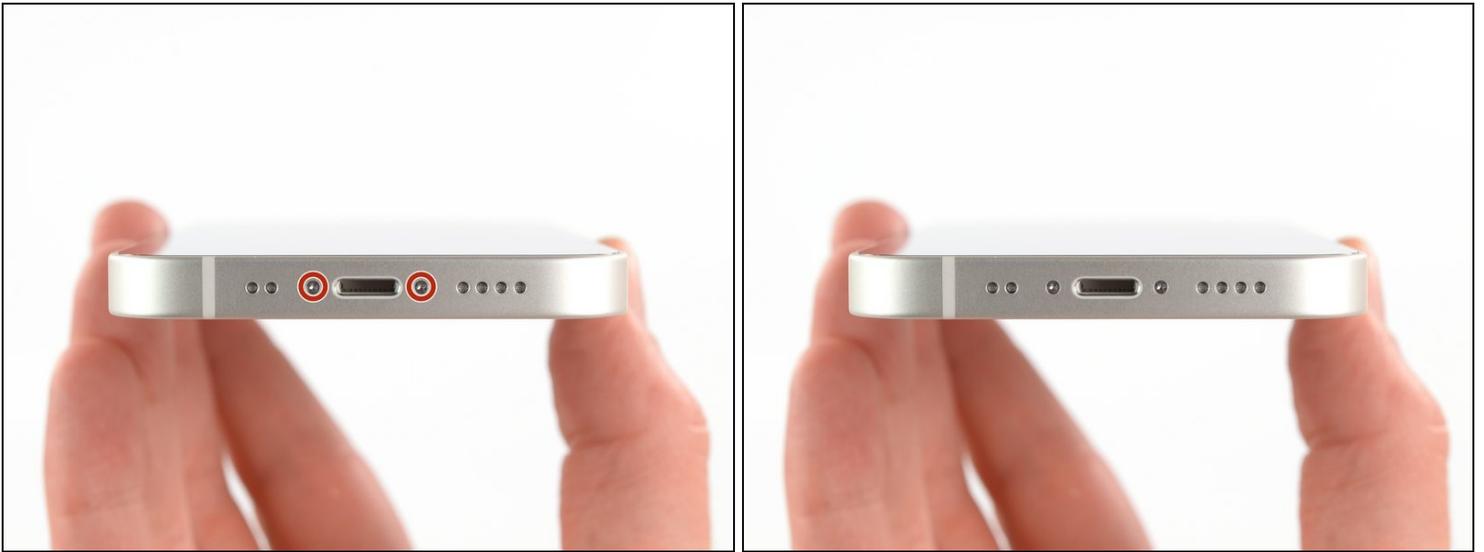
TOOLS:

- [Anti-Clamp](#) (1)
- [Hair Dryer](#) (1)
- [Heat Gun](#) (1)
- [P2 Pentalobe Screwdriver iPhone](#) (1)
- [iFixit Opening Picks \(Set of 6\)](#) (1)
- [Suction Handle](#) (1)
- [ESD Safe Blunt Nose Tweezers](#) (1)
- [Spudger](#) (1)
- [Phillips PH000 Screwdriver](#) (1)
- [Tri-point Y000 Screwdriver](#) (1)
- [iFixit Adhesive Remover](#) (1)

PARTS:

- [iPhone 13 mini Battery](#) (1)
- [iPhone 13 mini Battery Adhesive Strips](#) (1)
- [Tesa 61395 Tape](#) (1)

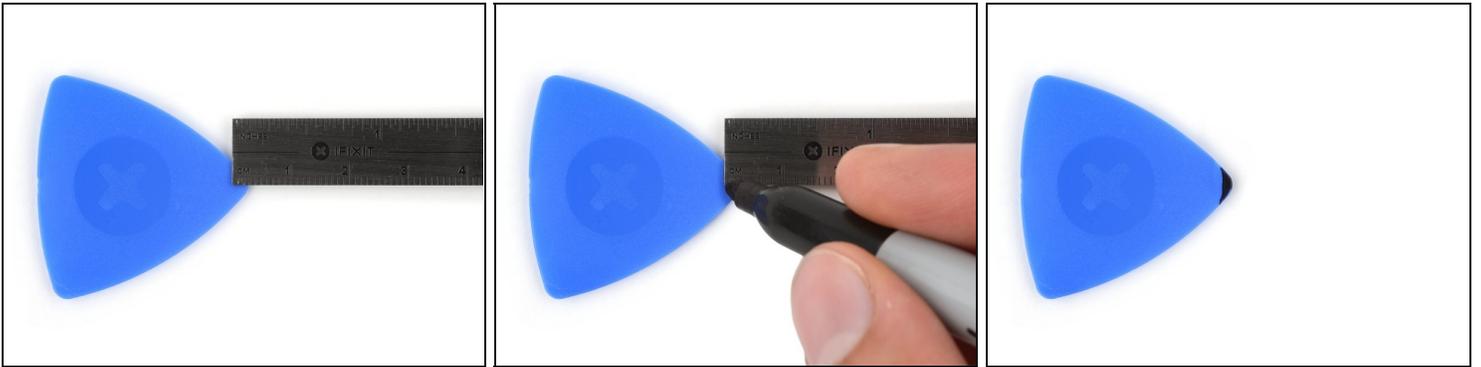
Step 1 — Remove the screws



⚠ For your safety, discharge the battery below 25% before disassembling your phone. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair. If your battery is swollen, [take appropriate precautions](#).

- Power off your iPhone before beginning disassembly.
- Remove the two 6.8 mm-long pentalobe P2 screws at 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 — Mark your opening picks



- ① 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.
 - ① You can also mark the other corners of the pick with different measurements.
 - ① 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



- ① 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.**
- 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—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 5



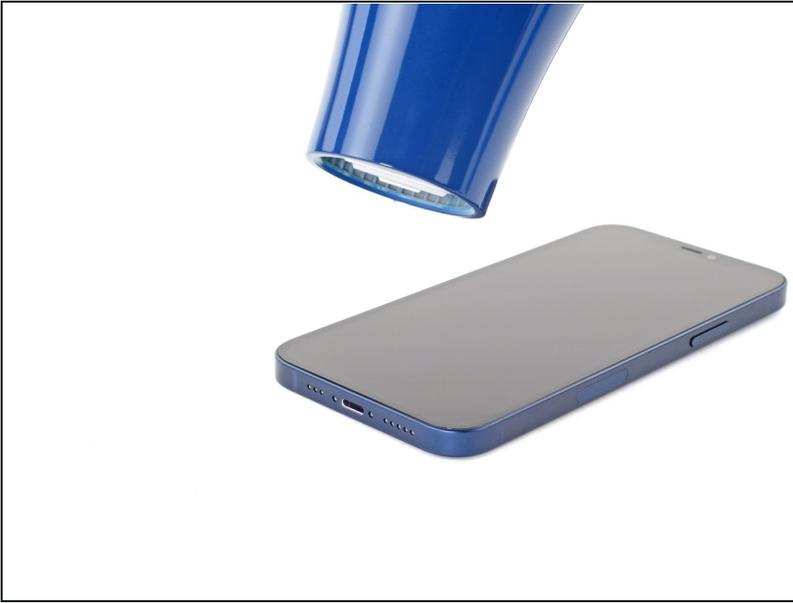
- Pull the blue handle forwards to lock the arms.
- Turn the handle clockwise 360 degrees or until the cups start to stretch.
- Make sure the suction cups remain aligned with each other. If they begin to slip out of alignment, loosen the suction cups slightly and realign the arms.

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 three steps.**

Step 7 — Heat the bottom edge



- 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 — Apply a suction handle



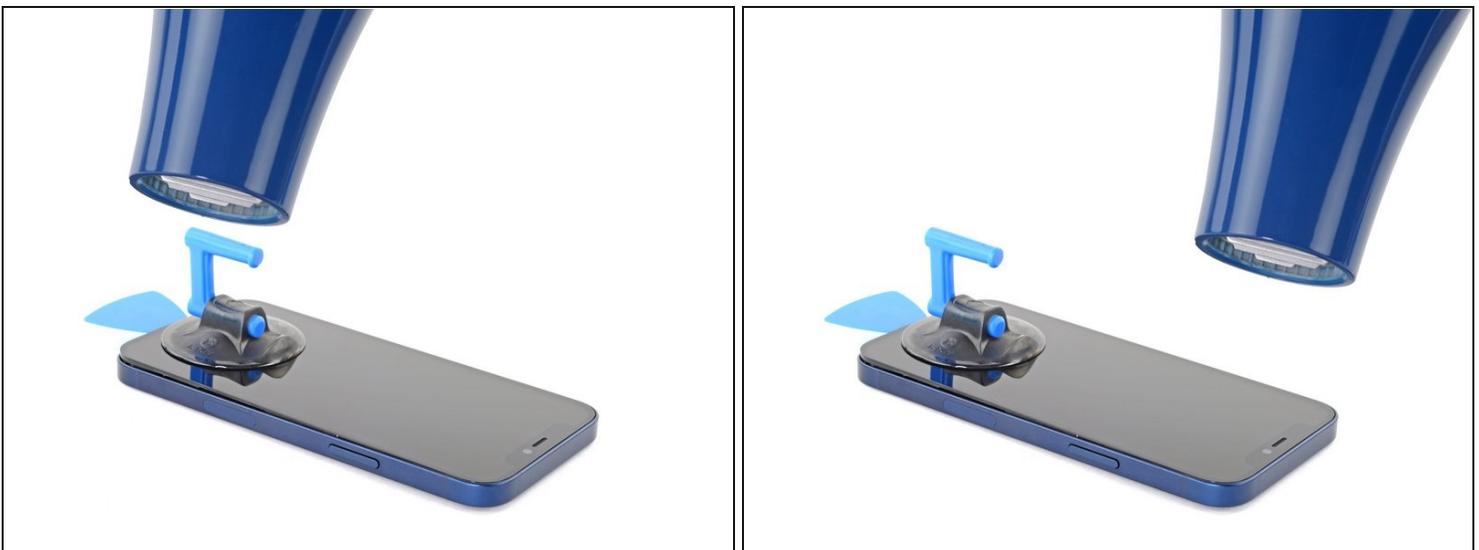
- If you're using a single suction handle, apply it to the bottom edge of the phone, as close to the edge as possible.

Step 9 — Insert an opening pick



- 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.
- ⓘ 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 10 — Heat the right edge



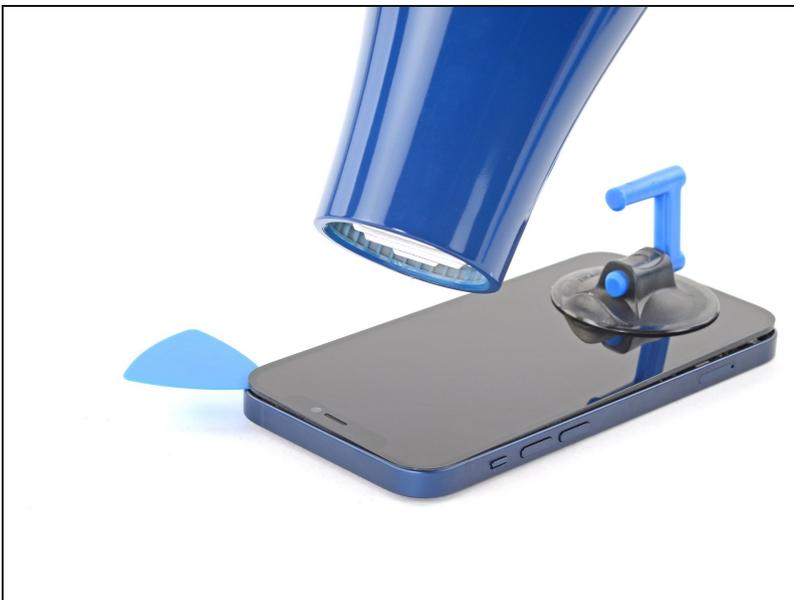
- Use a hair dryer to heat the right edge of the iPhone (the edge with the power button) for 90 seconds or until the screen is slightly too hot to touch.

Step 11 — Separate the right adhesive



- Slide the opening pick around the bottom right corner and along the right edge of the iPhone, slicing through the adhesive holding the display in place.
⚠ 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 12 — Heat the top edge



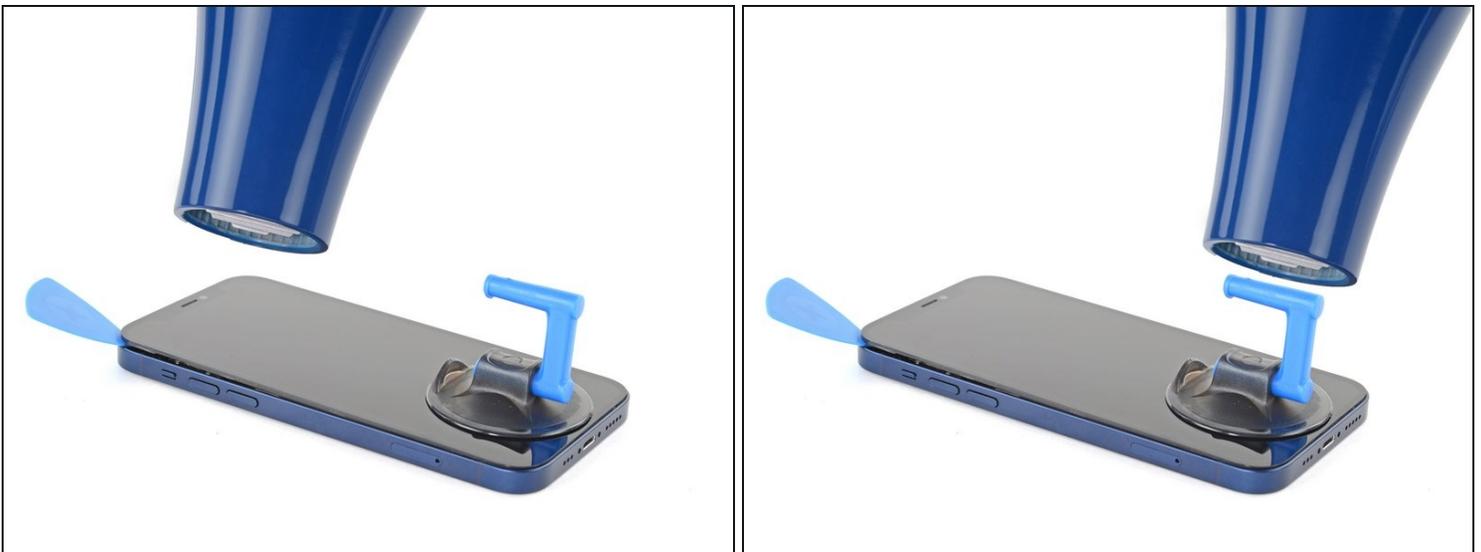
- Use a hair dryer to heat the top edge of the iPhone for 90 seconds or until the screen is slightly too hot to touch.

Step 13 — 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 14 — Heat the left edge



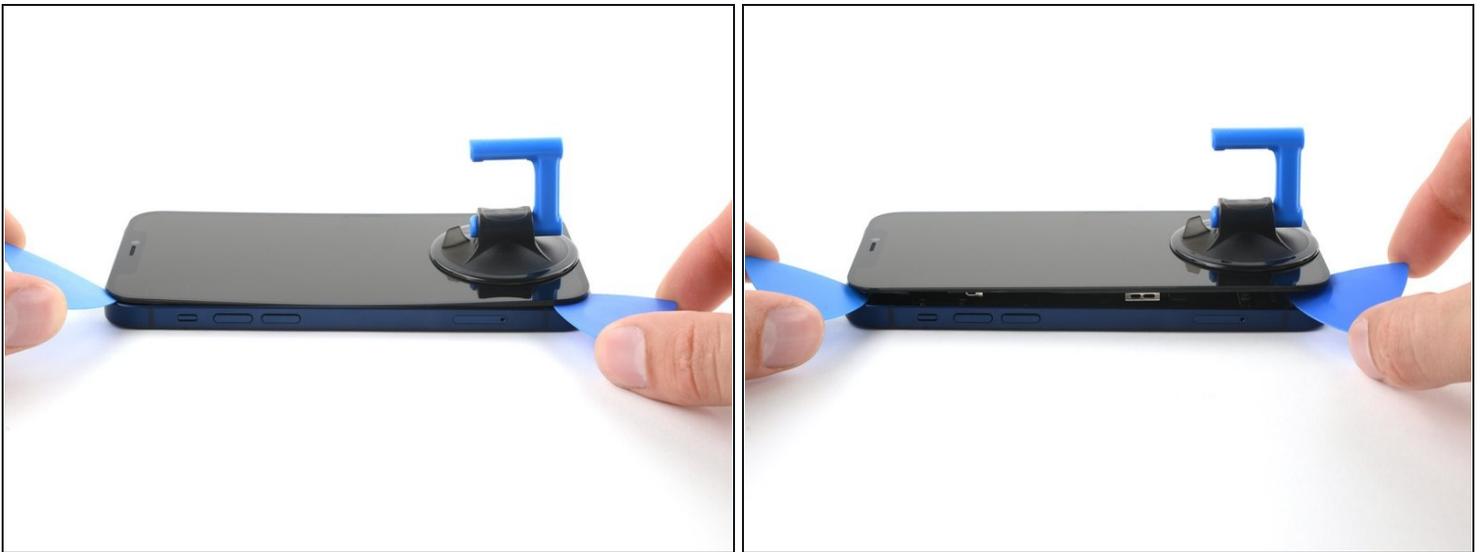
- Use a hair dryer to heat the left edge of the iPhone for 90 seconds or until the screen is slightly too hot to touch.

Step 15 — 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 16 — 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 17 — Remove the suction cup(s)



- Pull on the small nub on the suction cup to remove it from the front panel.

Step 18 — Open the iPhone mini



- Rotate your iPhone so the right edge faces you.
- Open the iPhone by swinging the display up from the right side, like the front 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.
- ☑ During reassembly, lay the display in position, align the clips along the top edge, and carefully press the top edge into place before snapping the rest of the display down. If it doesn't click easily into place, check the condition of the clips around the perimeter of the display and make sure they aren't bent.

Step 19 — Unscrew the battery and display connector cover



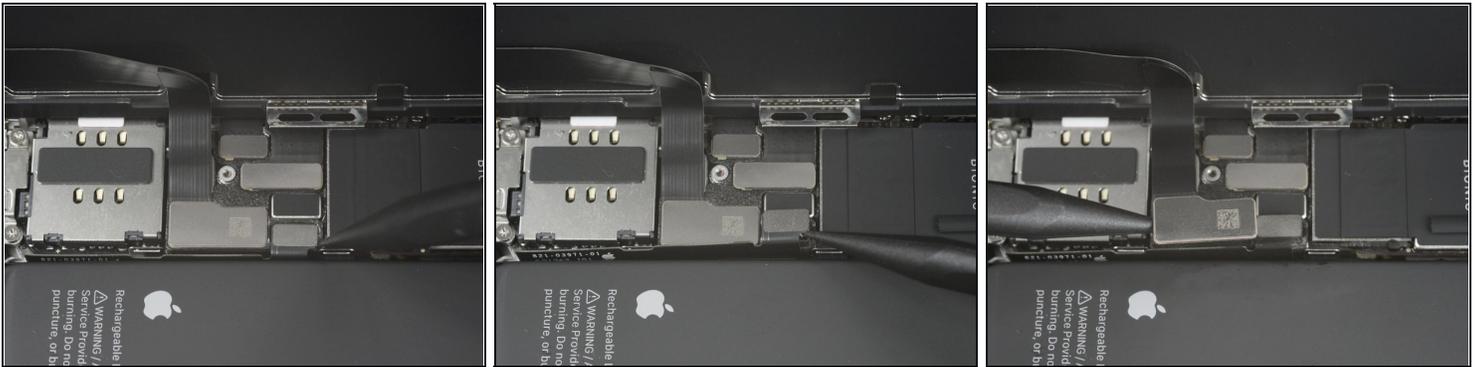
- Remove the 1.2 mm-long Y000 screw securing the battery and display connector cover.
- Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from to avoid damaging your iPhone.
- ☑ During reassembly, this is a good point to power on your iPhone and test all functions before you seal the display in place. Be sure to power your iPhone back down completely before you continue working.

Step 20 — Remove the cover



- Use a pair of tweezers to remove the battery and display connector cover.

Step 21 — Disconnect the battery and the OLED display cable



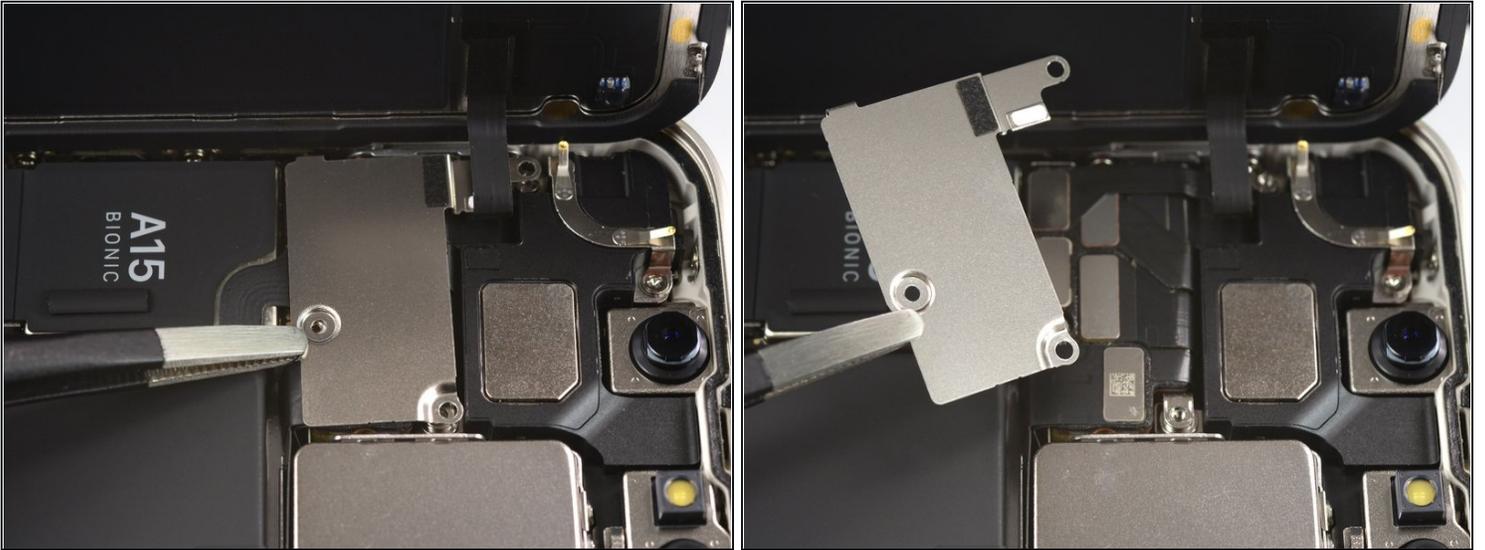
- Use a spudger to pry the battery and OLED panel cable connectors up from their sockets on the logic board.
 - ⓘ Try not to damage the black silicone seal surrounding this and other board connections. These seals provide extra protection against water and dust intrusion.
- Bend the connector slightly away from the logic board to prevent it from accidentally making contact with the socket and providing power to the phone during your repair.
- ☑ 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 22 — Unscrew the front sensor connector cover



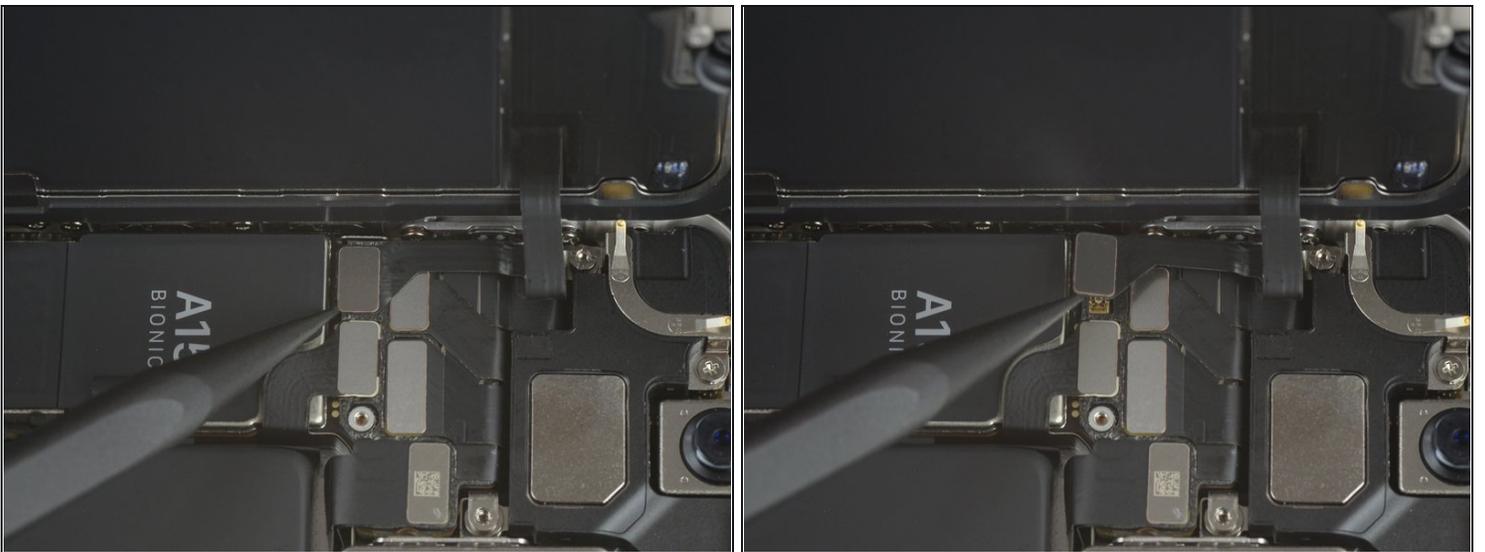
- Remove the three screws (securing the front sensor assembly cover):
 - One PH000 1.4 mm-long screw
 - One Y000 1.8 mm-long screw
 - One Y000 1.2 mm-long screw

Step 23 — Remove the cover



- Use a pair of tweezers to remove the front sensor assembly connector cover.

Step 24 — Disconnect the front sensors



- Use a spudger to disconnect the front sensor assembly cable connector.

Step 25 — Remove the display assembly



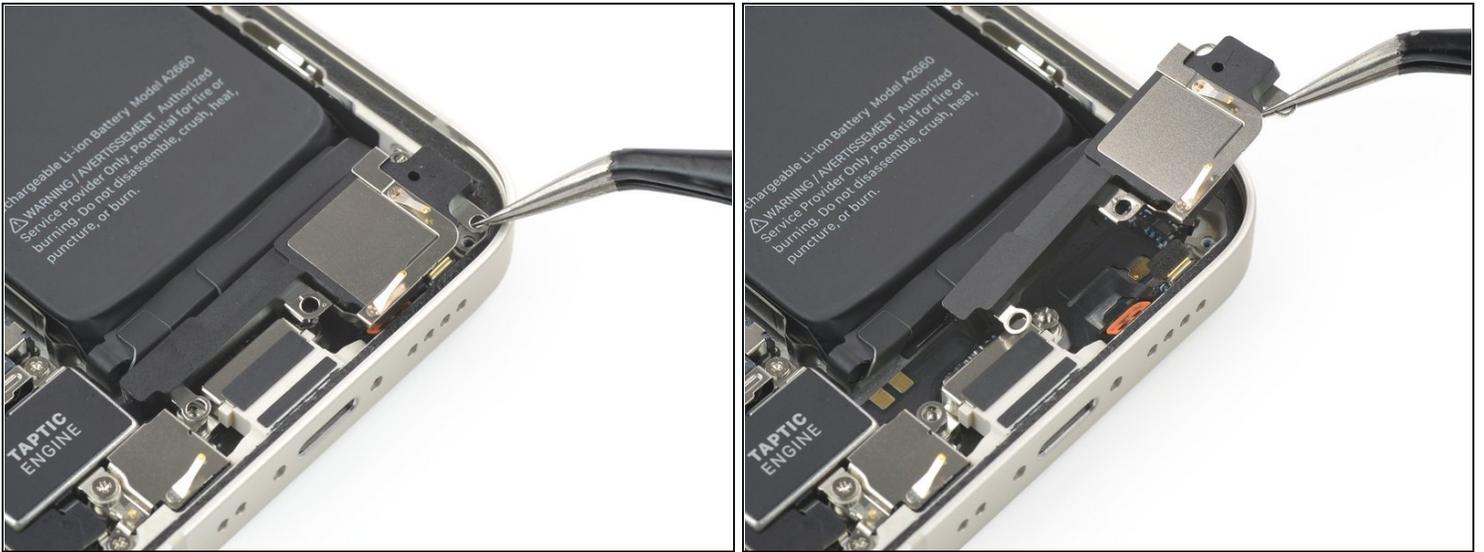
- Remove the display assembly.
- ☑ During reassembly, pause here if you wish to [replace the waterproof adhesive around the edges of the display.](#)

Step 26 — Unscrew the speaker



- Remove the four 1.5 mm-long Phillips screws securing the speaker.

Step 27 — Remove the speaker



- Use a pair of tweezers to remove the speaker.

Step 28 — Remove the stretch-release adhesive



- ① The battery is secured to the rear case with three pieces of stretch-release adhesive—two on the bottom edge of the battery, and one on the top edge.
- Peel down the first battery adhesive pull-tab to un-stick it from the bottom edge of the battery.

⚠ Don't jab the battery with any sharp tools. A punctured battery may leak dangerous chemicals or catch fire.

Step 29



- Grab the first pull-tab with a pair of tweezers or your fingers and slowly pull it away from the battery, toward the bottom of the iPhone 13 mini.
- Pull hard enough to maintain tension on the strip, but don't force it. Give it plenty of time to stretch and un-stick from under the battery.
- Don't press down on the battery. Hold the iPhone firmly by its sides.
- Keep the strip flat and unwrinkled. Try to pull evenly on the whole strip, rather than pulling mainly in the middle or on one side.
- Pull at a low angle so the strip doesn't snag on the edge of the battery.
- If the adhesive strip breaks off, try to retrieve it using your fingers or blunt tweezers, and continue pulling—but **do not** pry under the battery.

⚠ If any of the adhesive strips break off underneath the battery and can't be retrieved, try to remove the other strips, and then proceed as instructed below.

Step 30



- Grab the wide pull tab with blunt nose tweezers and *slowly* pull it away from the battery, toward the bottom of the iPhone.

Step 31



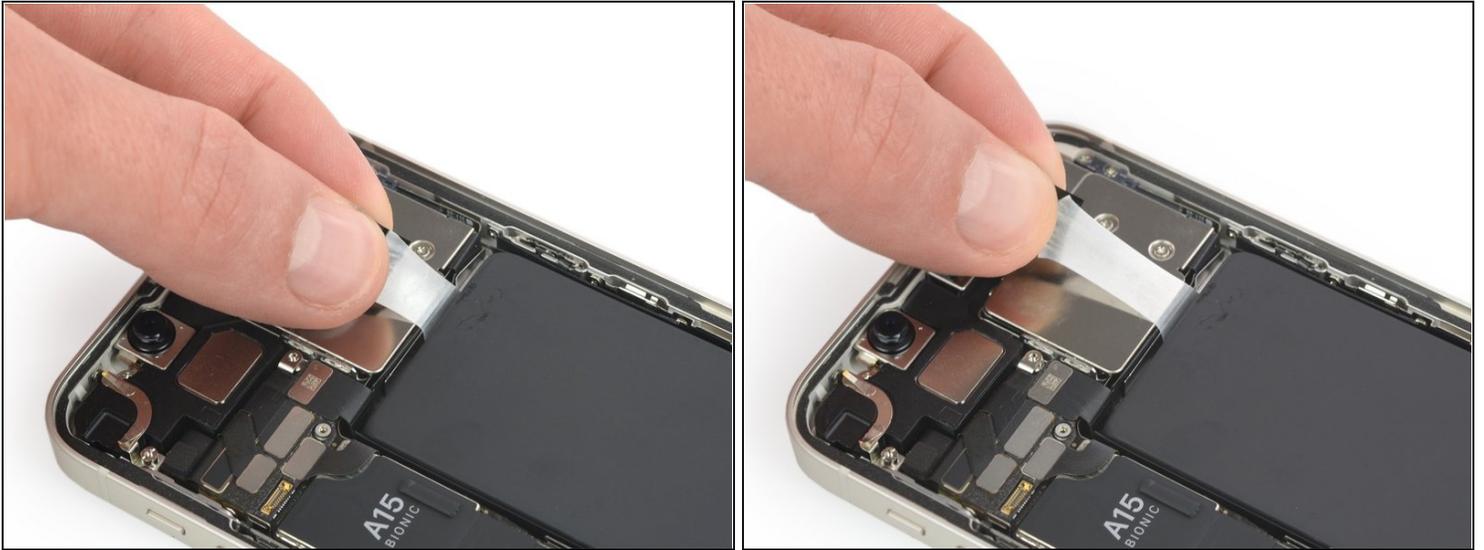
- Grab the second pull-tab with your fingers and pull it away from the battery, toward the bottom of the iPhone.
 - Follow the same procedure as with the previous strip: don't press down on the battery, keep the strip flat and unwrinkled, and pull at a low angle.
 - If the adhesive strip breaks off, try to retrieve it using your fingers or blunt tweezers, and continue pulling—but do not pry under the battery.
- ⓘ If the adhesive breaks off underneath the battery and can't be retrieved, continue with the next step.

Step 32



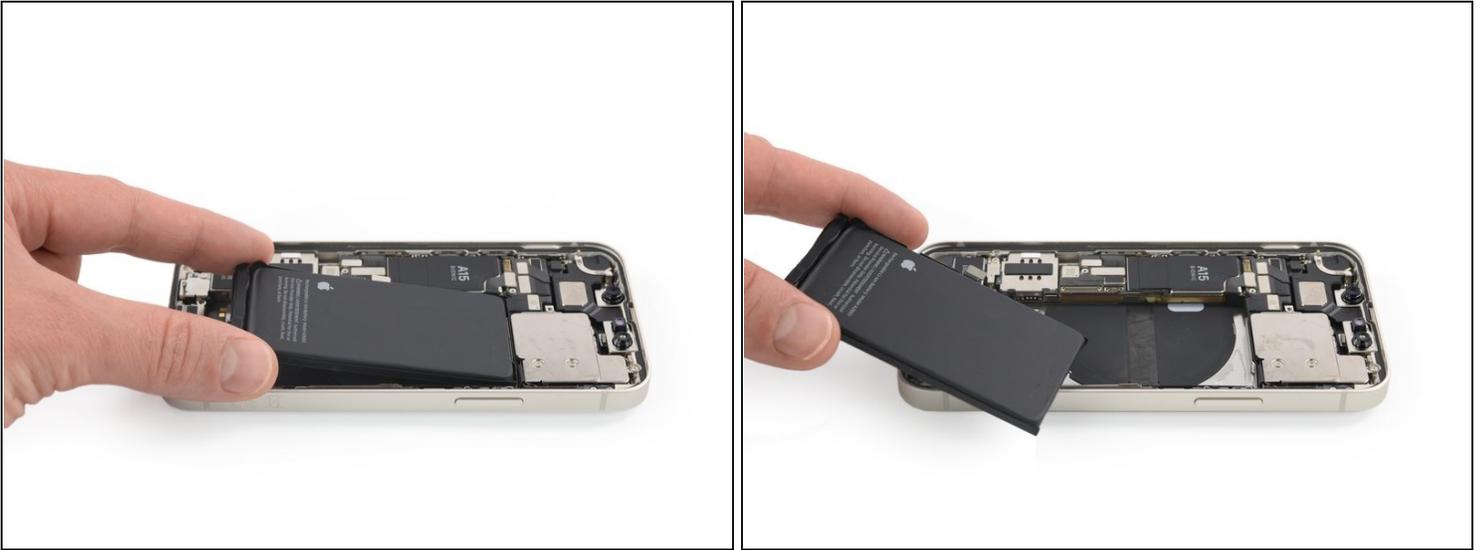
- Grab the pull tab on the top with tweezers and *slowly* pull it away from the battery, toward the top of the iPhone.

Step 33



- Using the same procedure as before, pull the remaining tab to stretch and remove the remaining adhesive strip holding the battery in place. Try not to snag the adhesive on anything.
- ⓘ If the adhesive breaks off underneath the battery and can't be retrieved, apply a few drops of high concentration (over 90%) isopropyl alcohol under the edge of the battery in the area of the broken adhesive strip(s).
 - Wait about one minute for the alcohol solution to weaken the adhesive.
 - Use the flat end of a spudger to gently lift the battery.
- ⚠ Don't try to forcefully lever the battery out. If needed, apply a few more drops of alcohol to further weaken the adhesive. Never deform or puncture the battery with your pry tool.

Step 34



- Remove the battery.
- If there's any alcohol solution remaining in the phone, carefully wipe it off or allow it to air dry before installing your new battery.
- ☑ Use [this guide](#) to install new battery adhesive strips.
- ☑ Perform a [force restart](#) after reassembly. This can prevent several issues and simplify troubleshooting.

If possible, turn on your device and test your repair before installing new adhesive and resealing.

[Secure the new battery with pre-cut adhesive](#) or double-sided adhesive tape. In order to position it correctly, apply the new adhesive into the device at the places where the old adhesive was located, not directly onto the battery. Press the new battery firmly into place.

To reassemble your device, follow the above steps in reverse order. Apply new adhesive where necessary after cleaning the relevant areas with isopropyl alcohol (>90%).

For optimal performance, after completing this guide, [calibrate](#) your newly installed battery.

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 [iPhone 13 mini Answers community](#) for help.