



Google Pixel 3 Display Assembly Replacement

This repair guide was authored by the iFixit...

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INTRODUCTION

This repair guide was authored by the iFixit staff and hasn't been endorsed by Google. Learn more about our repair guides [here](#).

Follow this guide to remove and replace a display assembly on the Pixel 3. **This procedure is for replacement screens that are not pre-mounted onto a frame.** Due to the Pixel's design, this requires removing the motherboard in order to access to the screen connectors.

This procedure will destructively remove the Pixel 3's screen. OLEDs cease to work when exposed to oxygen or moisture, and are thus sealed in an airtight encapsulation (this is also why OLED panels turn black underneath a screen crack). It is very difficult to replace the front glass alone—the Pixel's OLED layers are laminated to the glass.

TOOLS:

[iOpener](#) (1)
[Suction Handle](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[Phillips #00 Screwdriver](#) (1)
[Spudger](#) (1)
[Tweezers](#) (1)
[Isopropyl Alcohol](#) (1)
[Standoff Screwdriver for iPhones](#) (1)

PARTS:

[Tesa 61395 Tape](#) (1)

Step 1 — Weaken the back cover's adhesive



- [Heat an iOpener](#) and apply it to the bottom of the phone for one minute.

Step 2 — Create a gap in the seam



- Apply a suction cup to the heated bottom edge of the back cover.
 - ⚠ **Make sure you did not mistake the screen side for the back cover side.**
- ⓘ If your back cover is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere.
- Lift on the suction cup with strong, steady force to create a gap.
 - ⓘ Depending on how aged your phone is, this may take significant force. If you are having trouble, apply more heat and try again.
- Insert an opening pick into the gap.
 - ⚠ **Don't use metal tools to pry, or you'll mar or shatter the glass back cover. If the panel won't budge, apply more heat, either with a hair dryer or heat gun.**

Step 3 — Fingerprint cable information



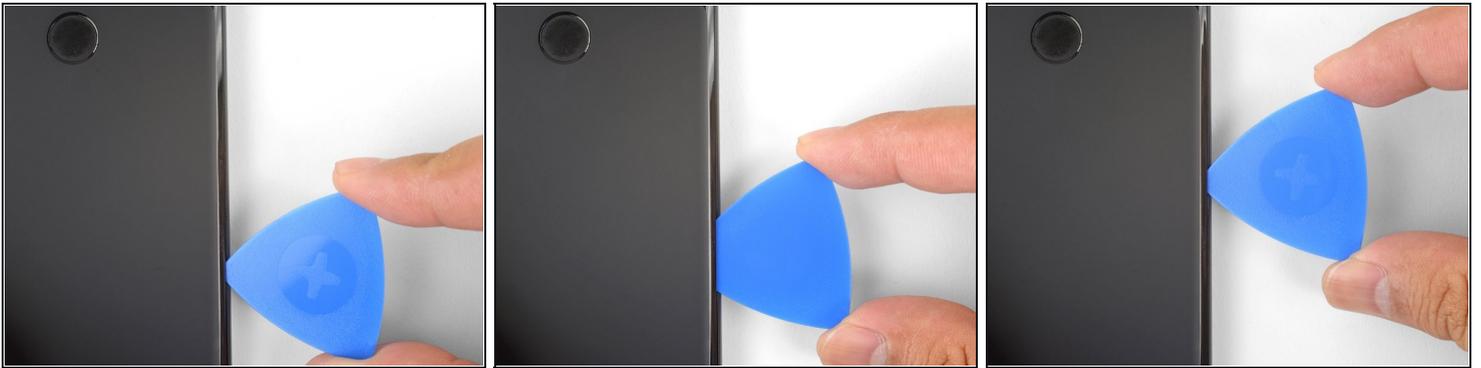
⚠ When inserting an opening pick above the power button, be careful not to insert the pick too deeply, or you will damage the fingerprint sensor cable.

Step 4 — Cut through the adhesive



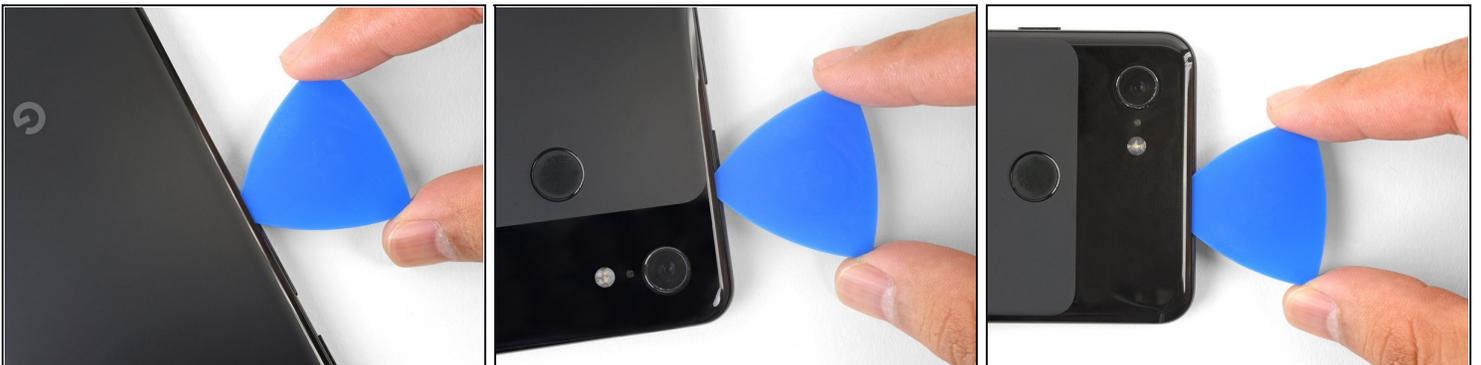
- Slice the adhesive along the bottom edge of the phone and around the right corner.
- Leave a pick in the bottom edge to prevent the adhesive from re-sealing.

Step 5



- Heat the right edge with an iOpener and continue slicing the adhesive with an opening pick.
- ⓘ The adhesive can be very gummy. Push the pick in and out in a sawing motion to help with slicing.

Step 6



- Continue heating and slicing through the rest of the phone perimeter. Leave a pick in each edge to prevent the adhesive from resealing.

⚠ When slicing above the power button, do not insert the pick more than halfway in to avoid damaging the fingerprint sensor cable.

Step 7 — Lift the left edge of the back cover

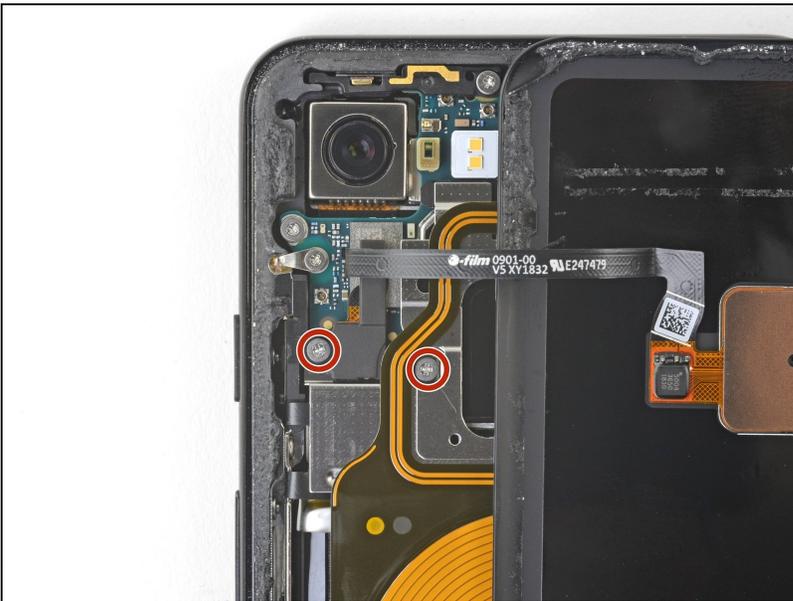


- Once you have sliced around the perimeter of the phone, carefully lift the **left edge** of the back cover.

⚠ Do not attempt to remove the back cover. It is still attached to the phone by the fingerprint sensor cable.

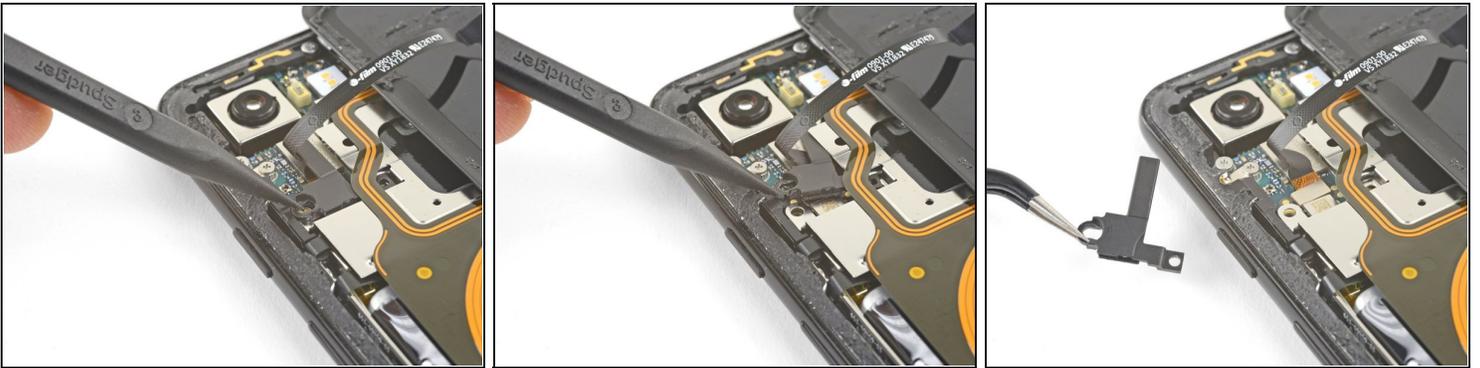
- Flip the back cover along its long axis and rest it so that the fingerprint sensor cable is not strained.

Step 8 — Remove the screws



- Remove the two 4.1 mm-long Phillips screws securing the fingerprint connector bracket.
- ☑ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.
- ☑ During reassembly, be careful not to over-tighten these screws, or you may damage your display.

Step 9 — Remove the fingerprint connector bracket



- Use the point of a spudger to slide the fingerprint connector bracket out from under the NFC coil.
- Remove the fingerprint connector bracket.

Step 10 — Disconnect the fingerprint connector



- Use the point of a spudger to pry up and disconnect the fingerprint connector from its socket.
 - ⓘ When you disconnect connectors like these, be careful not to dislodge the small surface-mounted components surrounding the 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 11 — Remove the back cover



- Remove the back cover.
- ☒ Before you install a replacement back cover, be sure to remove all adhesive residue from the phone frame. Use an opening tool to scrape and high concentration isopropyl alcohol to clean the surface.
- ☒ If you are re-using the back cover, be sure to clean off any adhesive, and apply new back cover adhesive.
- ☒ If you are installing a replacement back cover, be sure to compare it with the original part. Transfer any remaining parts (such as the flash diffuser) over to your replacement part.
- ☒ Follow [this guide](#) to correctly apply new back cover adhesive.

Step 12 — Remove the screws



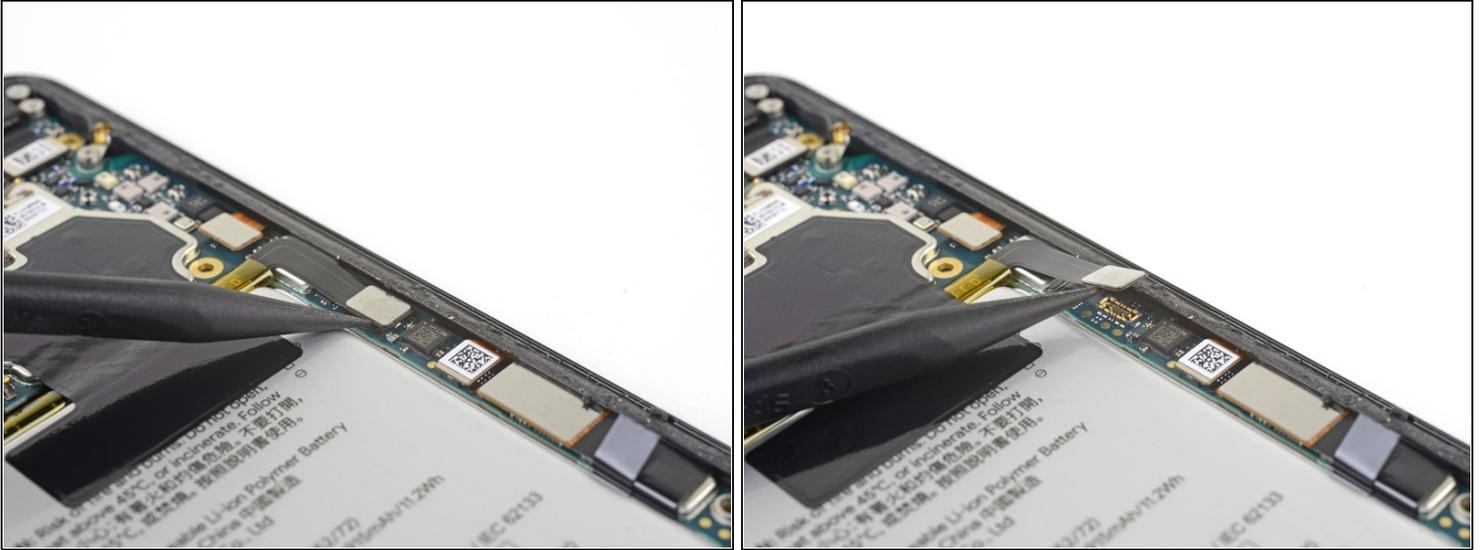
- Remove the five Phillips screws securing the wireless charging coil:
 - Two 1.9 mm screws
 - Two 4.2 mm screws
 - One 4.3 mm screw

Step 13 — Remove the charging coil



- Lift up and remove the wireless charging coil.

Step 14 — Disconnect the battery cable



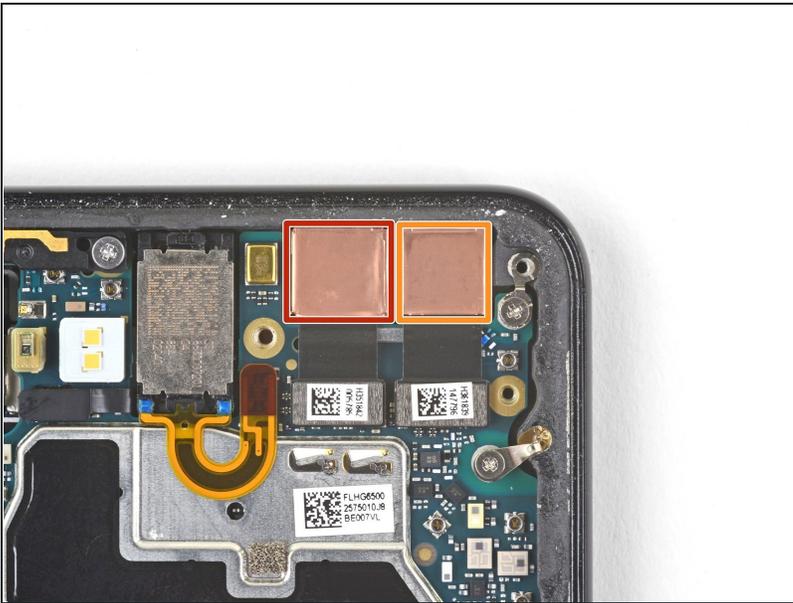
- Use the point of a spudger to pry up and disconnect the battery press connector from its socket near the right edge of the phone.

Step 15 — Remove the screws



- Remove the two screws securing the camera bracket:
 - One 4.1 mm Phillips screw
 - One 4 mm standoff screw
- ⓘ Standoff screws are best removed using a standoff 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.
- Remove the camera bracket.

Step 16 — Identify the cameras



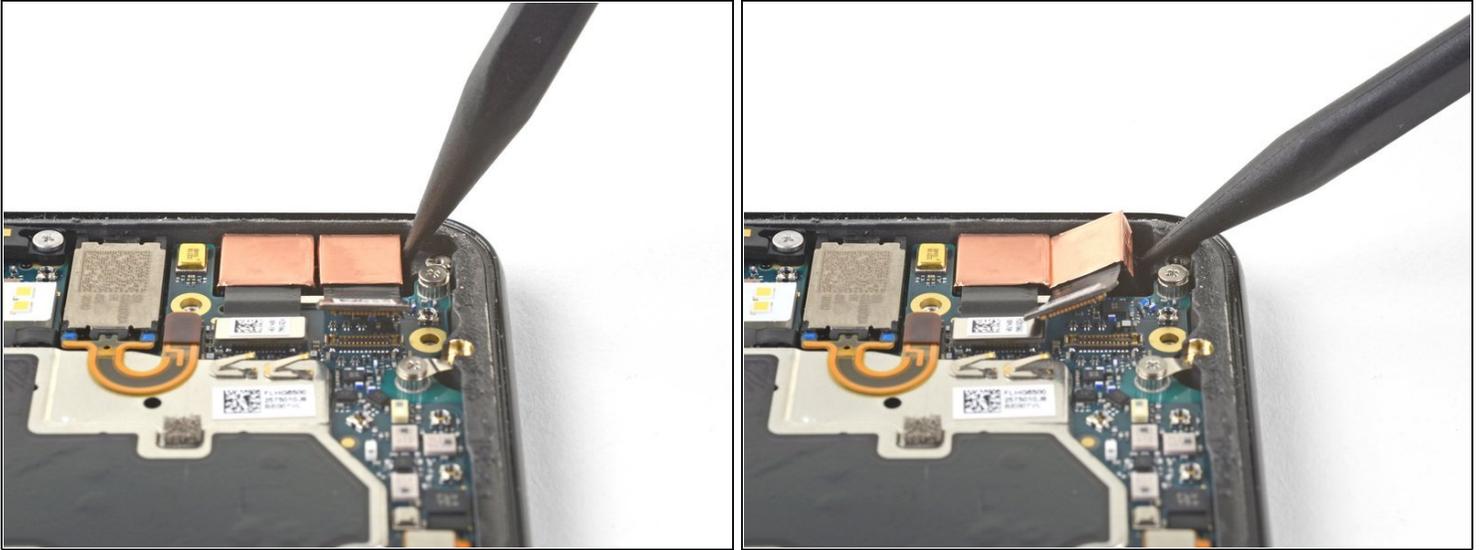
- ❗ If you are replacing front-facing cameras, determine which one you need to replace:
 - Normal view camera
 - Wide-angle camera
- ❗ If you are doing the motherboard removal procedure, you will need to remove both cameras.

Step 17 — Disconnect the camera(s)



- Use the point of a spudger to pry up and disconnect the connector for the camera(s) you are replacing.

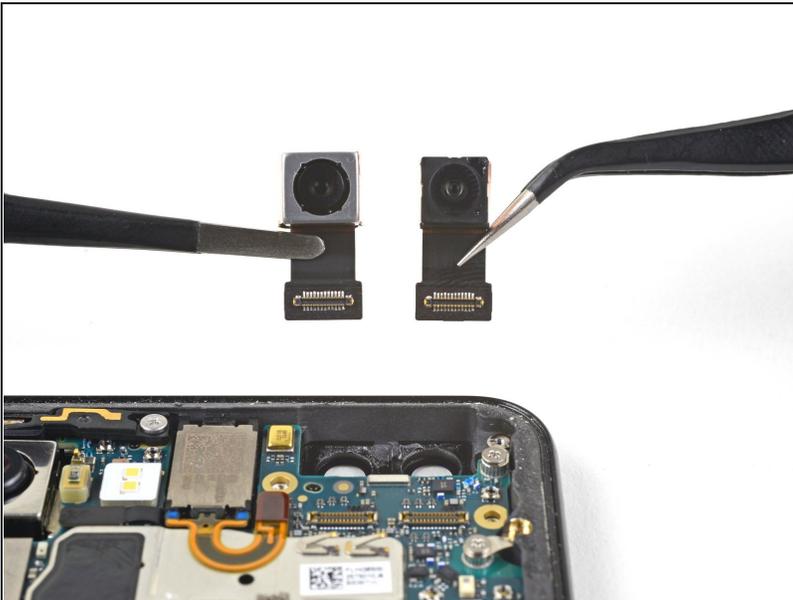
Step 18 — Loosen the camera(s)



i The cameras are held in place with adhesive.

- Insert the point of a spudger behind the edge of the camera module and pry up to loosen it from the frame.

Step 19 — Remove the camera(s)



- Use a pair of blunt nose tweezers to remove the camera(s).
- If the adhesive holding the camera module is in good condition, you can re-use the adhesive. Otherwise, replace the adhesive with double-sided [Tesa tape](#).
- When installing a replacement camera module, make sure that the phone frame lens are free of adhesive residue or debris.

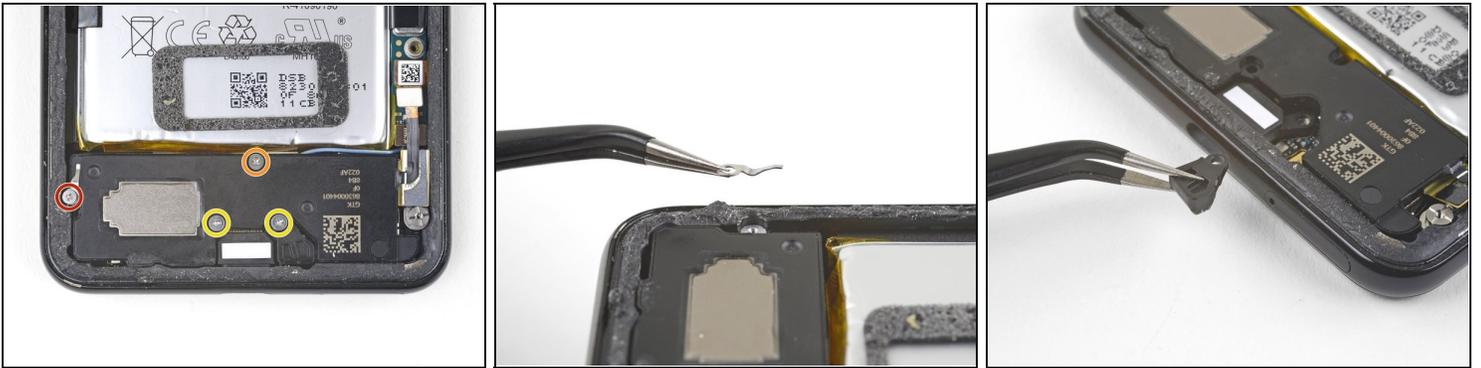
Step 20 — Disconnect the loudspeaker



- Use the point of a spudger to pry up and disconnect the loudspeaker connector from its motherboard socket near the right edge of the phone.

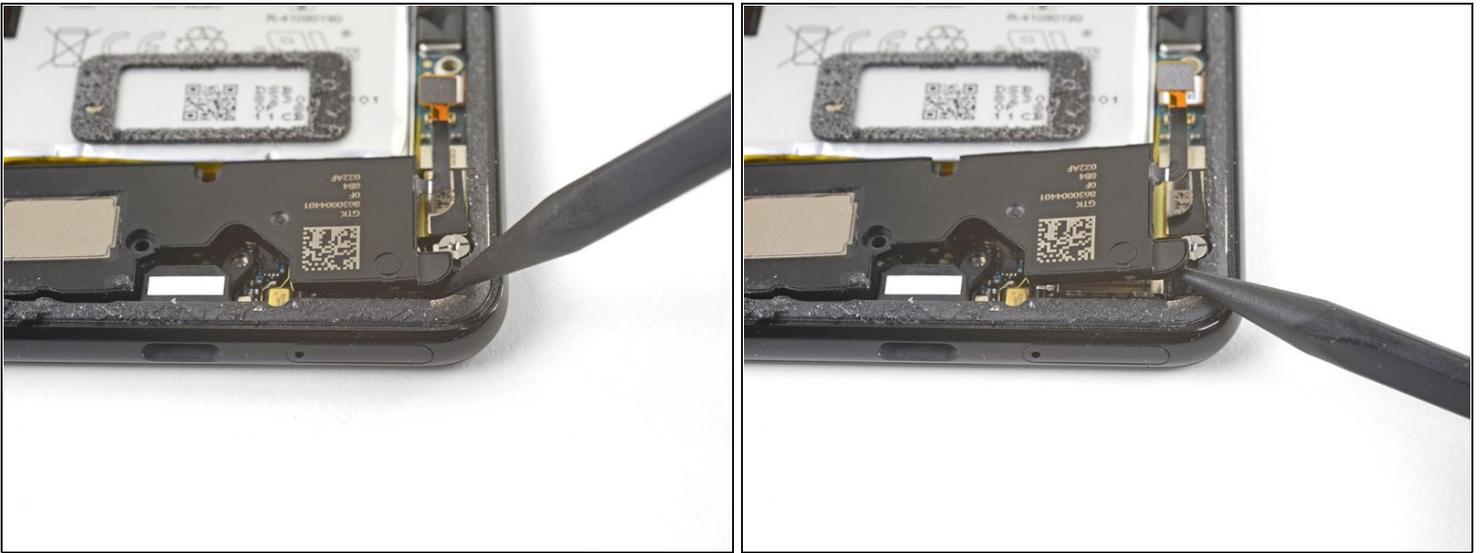
⚠ Be careful not to puncture the battery with the spudger.

Step 21 — Remove the screws



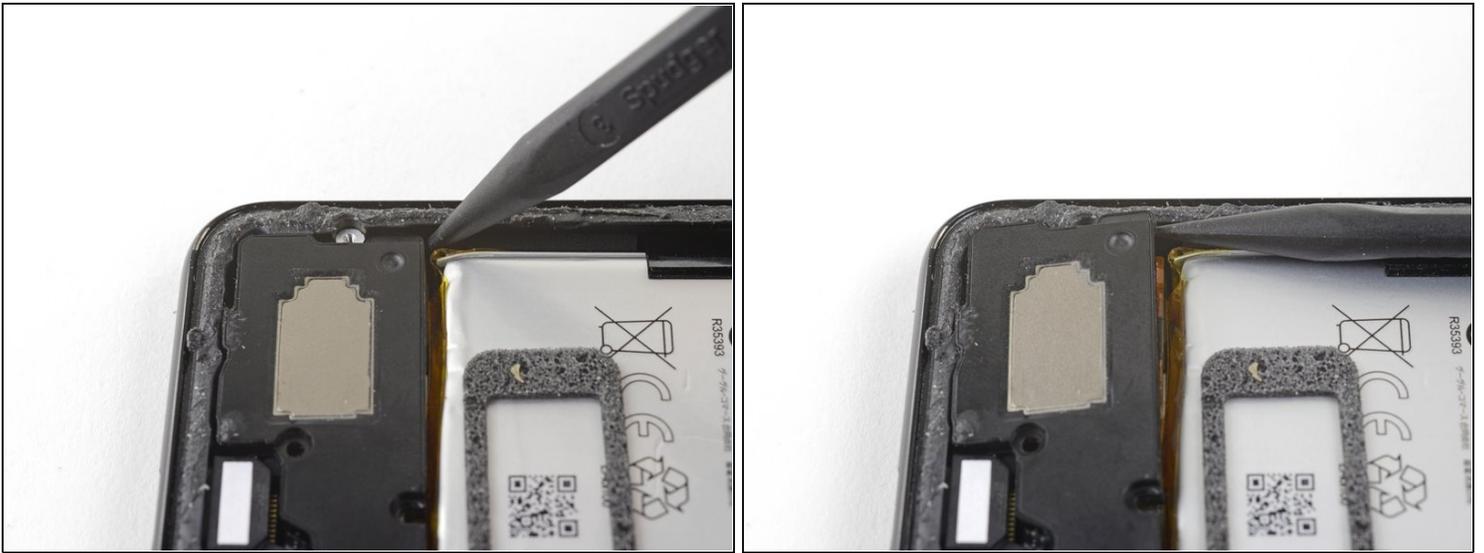
- Remove the following four Phillips screws:
 - One 1.9 mm screw
 - One 4.3 mm screw
 - Two 4.3 mm screws with thinner shanks
- Remove the tiny grounding clip from the left screw hole. Be careful not to lose it.
 - ☑ The grounding clip installs such that the contoured edge faces the left side of the phone.
- Remove the small plastic insert from the right side of the USB-C port.
 - ⚠ Be sure to reinstall this insert before you screw down the daughterboard.

Step 22 — Loosen the loudspeaker



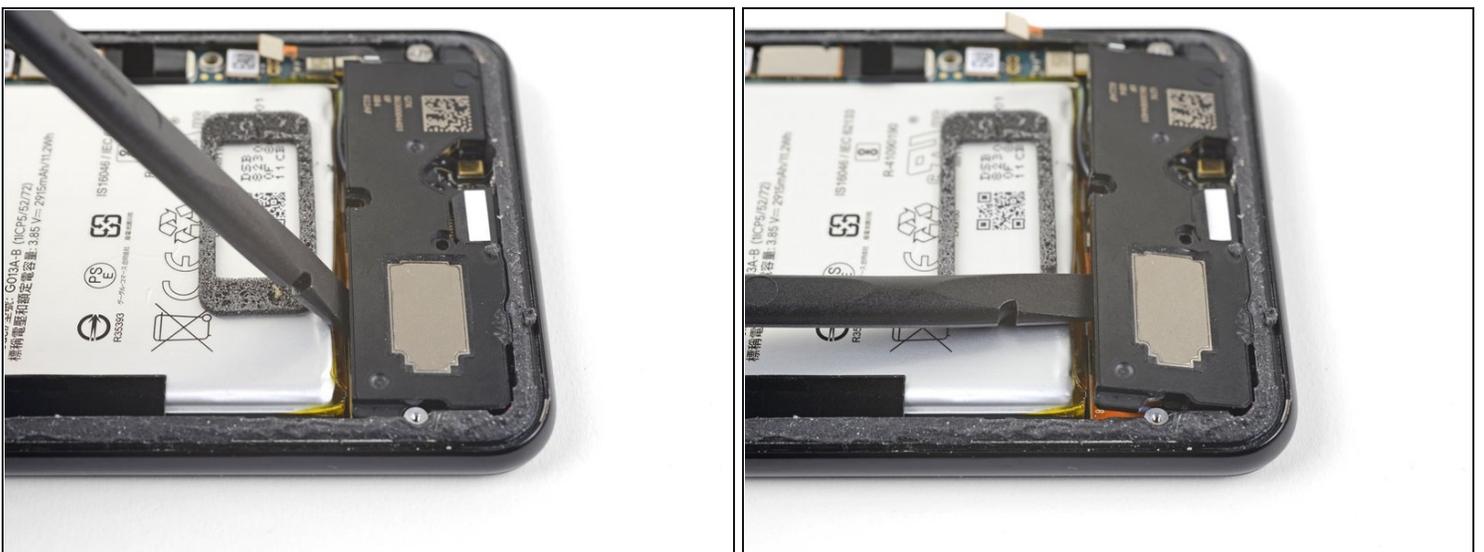
- ⓘ The loudspeaker is still held in place by a strong adhesive gasket. Before attempting to remove it, pry it up in a few different places to break the adhesive seal.
- Insert the point of a spudger under the bottom right corner of the loudspeaker.
 - Pry up to loosen the loudspeaker from the phone.

Step 23



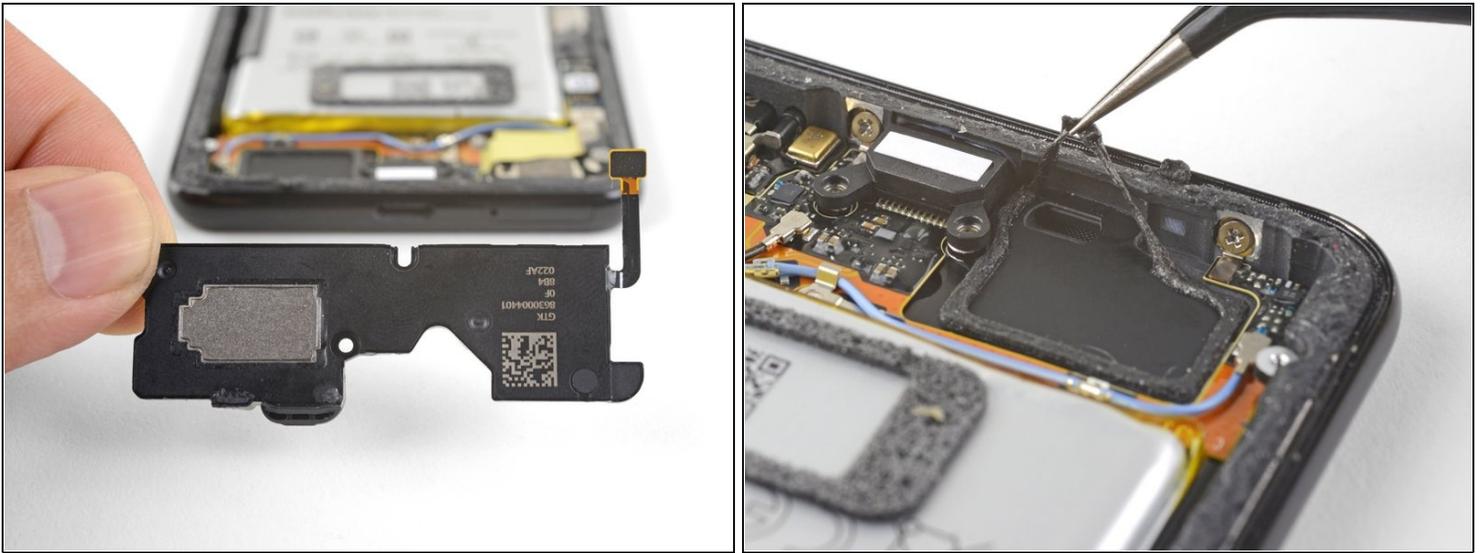
- Insert the point of a spudger under the top left corner of the loudspeaker.
⚠ Be careful not to puncture the battery with the spudger.
- Pry up to loosen the loudspeaker.

Step 24



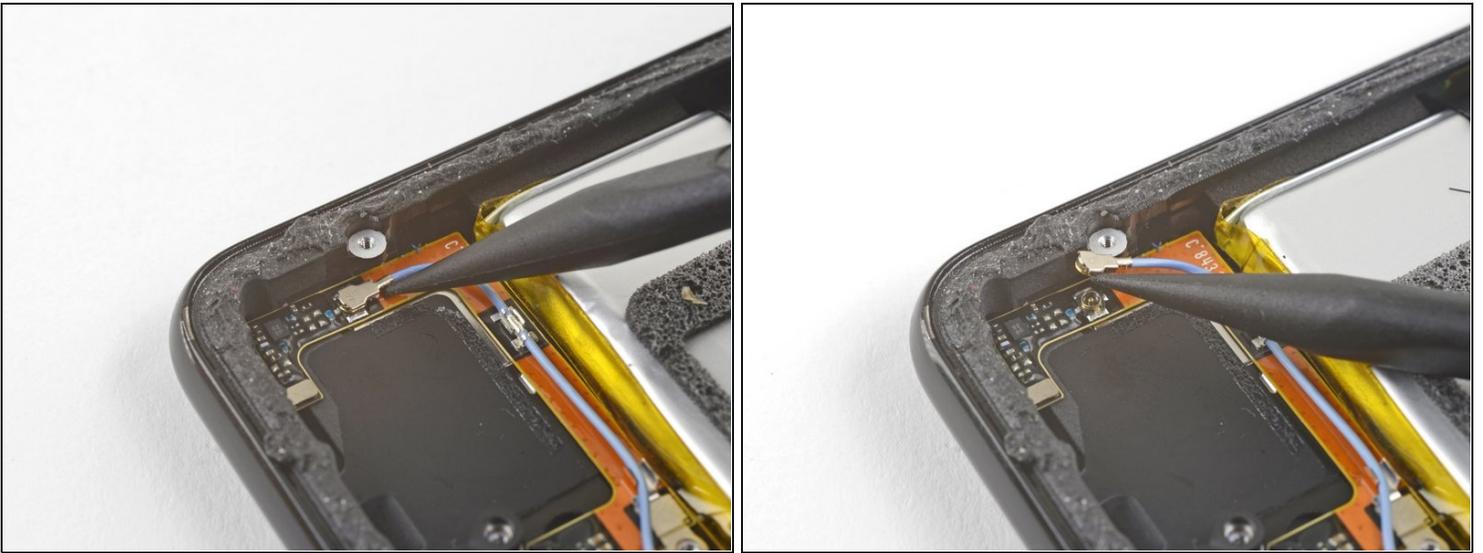
- Insert the flat end of the spudger under the top edge of the loudspeaker, towards the left edge.
- Pry up to loosen the loudspeaker.

Step 25 — Remove the loudspeaker



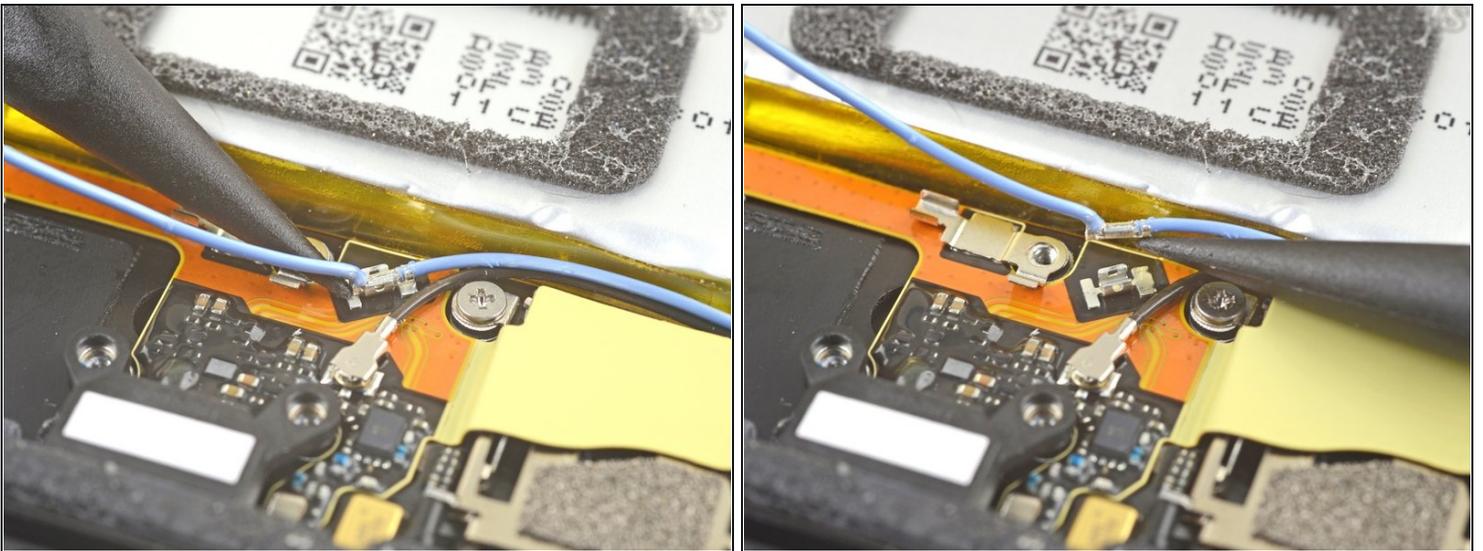
- Remove the loudspeaker.
- Before you install a replacement loudspeaker, check the adhesive gasket.
 - If it is in good condition, you can re-use the gasket. Make sure that the gasket does not cover the exit hole.
 - If the gasket is pulled out of place, remove it and replace the adhesive with a pre-cut strip or Tesa tape.

Step 26 — Disconnect the blue antenna cable



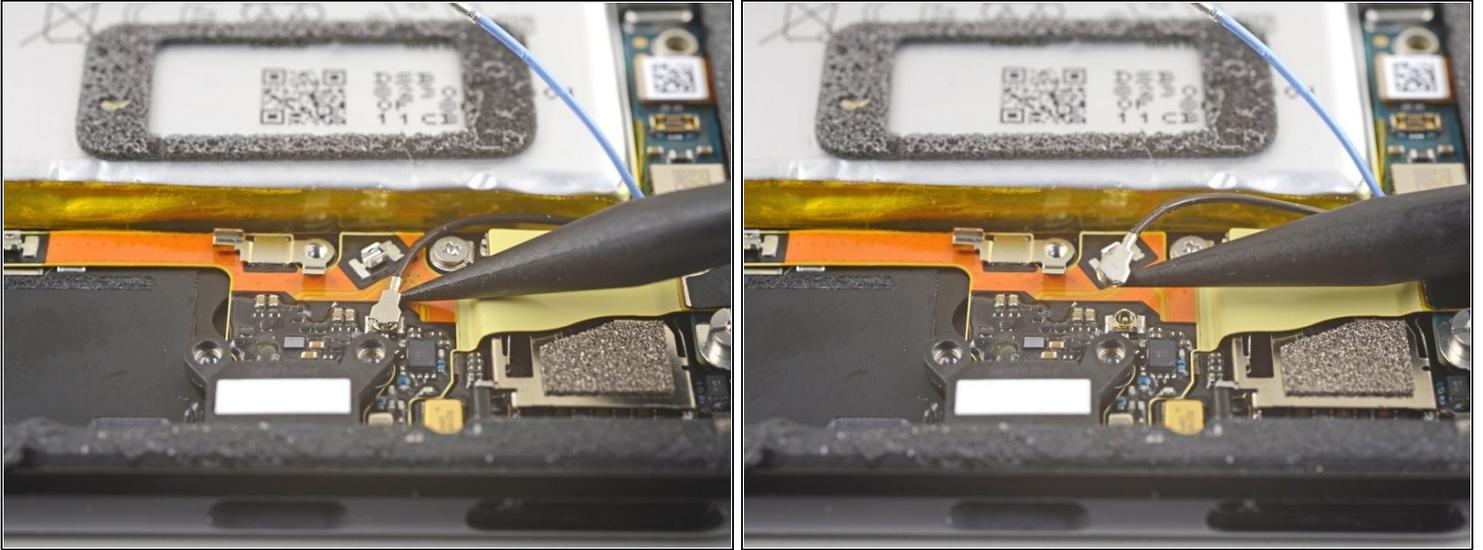
- Use the point of a spudger to pry up and disconnect the blue antenna cable from its socket on the charging assembly.

Step 27



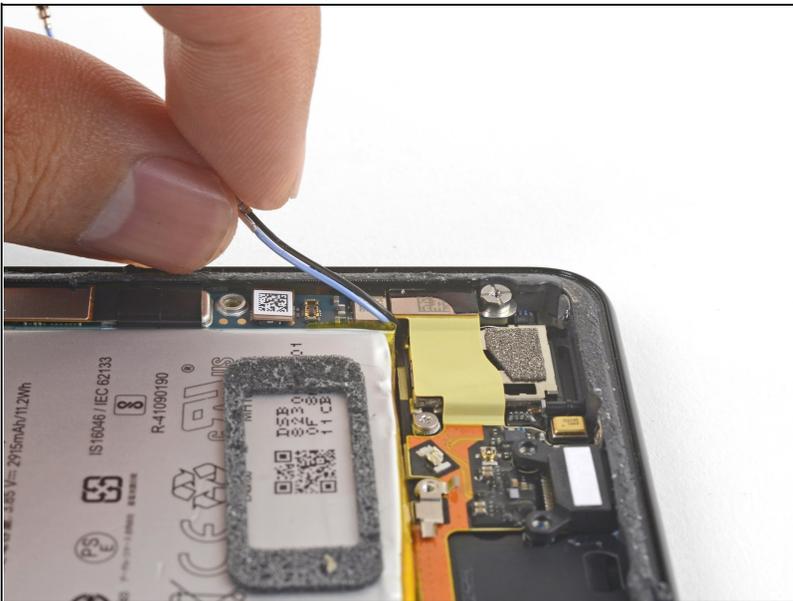
- Use the point of a spudger to carefully pry up and release the blue antenna cable from its grounding clips.
 - ⓘ The cable is fragile and prone to breaking. If it feels like the wire is firmly clamped in place, use the point of a spudger to push the clip open slightly, then try again.

Step 28 — Disconnect the black antenna cable



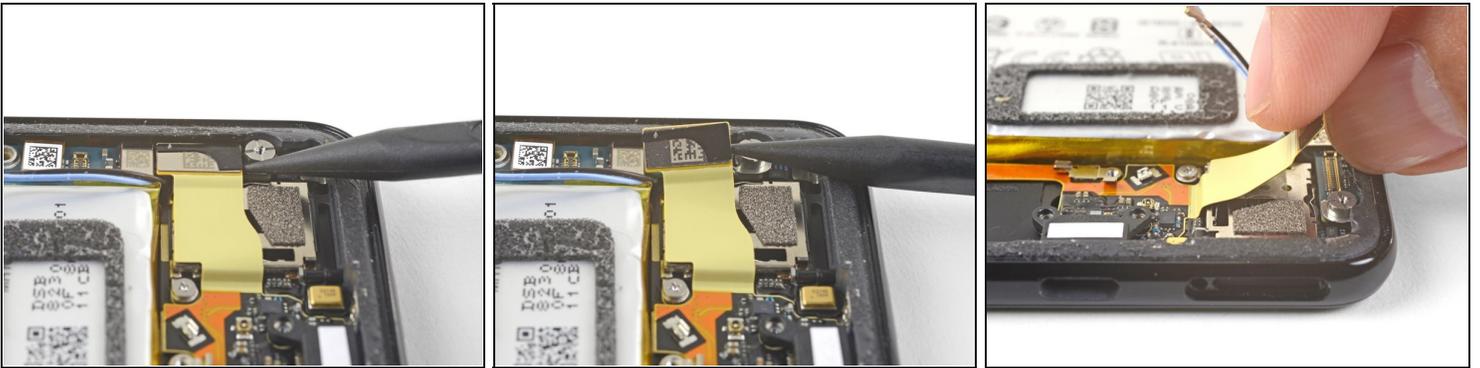
- Use the point of a spudger to pry up and disconnect the black antenna cable from its socket near the USB-C port.

Step 29 — De-route the antenna cables



- Carefully de-route both antenna cables and move them away from the charging assembly.

Step 30



- Use the point of a spudger to pry up and disconnect the charging assembly's connector from its motherboard socket, near the right edge of the phone.
- Carefully peel the flex cable from the top of the SIM card reader.

Step 31 — Disconnect the display connector



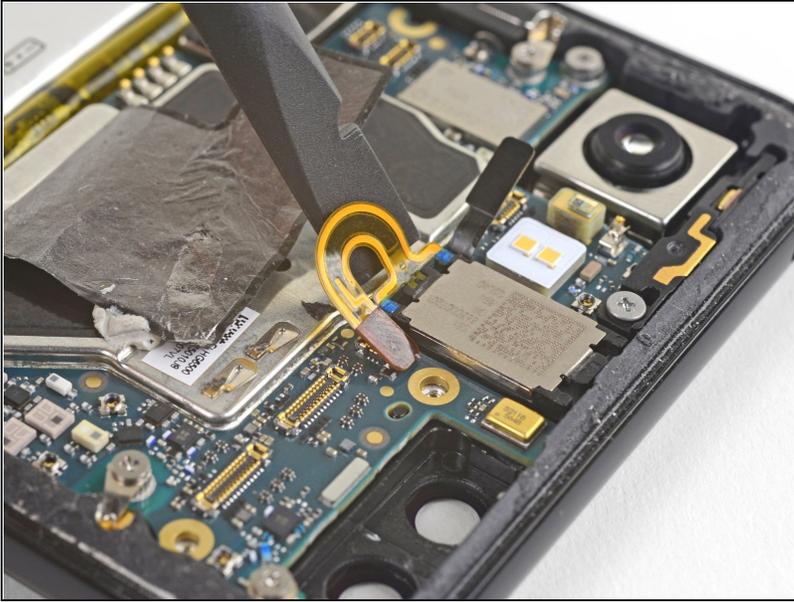
- Use the flat end of a spudger to carefully pry up the black tape holding the display flex cable in place, near the right edge of the phone.
- ⚠ Do not use metal tools to pry, or you may damage the flex cable.
- Use the flat end of a spudger to pry up and disconnect the display connector from the motherboard.

Step 33 — Disconnect the press connectors



- Use a spudger to pry up and disconnect the following seven press-fit connectors from their motherboard sockets:
 - External buttons connector
 - Top microphone connector
 - Earpiece connector
 - Left squeeze sensor connector
 - Screen connector
 - Right squeeze sensor connector
 - SIM tray connector

Step 34 — Move the earpiece speaker cable away from the motherboard



- Use the flat of a spudger to carefully pry up and bend the earpiece speaker's flex cable upwards, out of the way of the motherboard.

Step 35 — Remove the screws



i Some of these screws hold very small grounding clips in place. *Be careful not to lose these clips* as you remove the screws.

● Remove the six screws securing the motherboard in place:

- One 4.2 mm Phillips screw
- Three 1.9 mm Phillips screws
- One 4.3 mm Phillips screw
- One 3.83 mm standoff screw

i Standoff screws are best removed using a standoff 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.

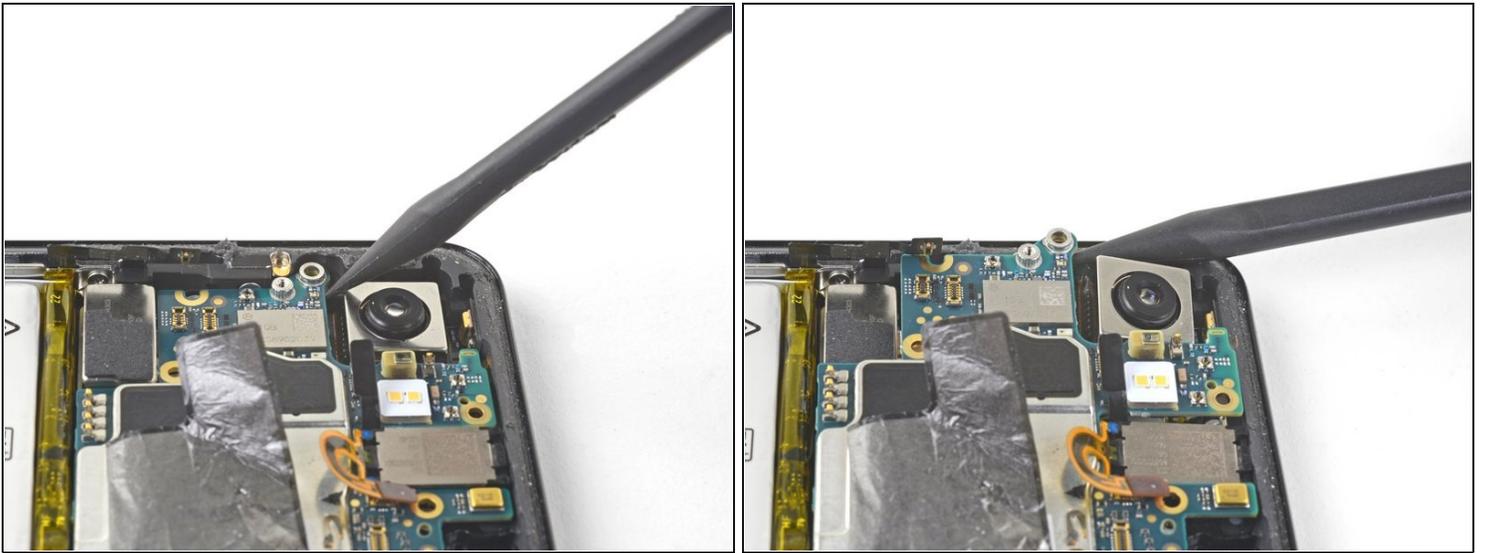
● Remove and retain the three small metal grounding clips.

Step 36 — Remove the antenna bracket



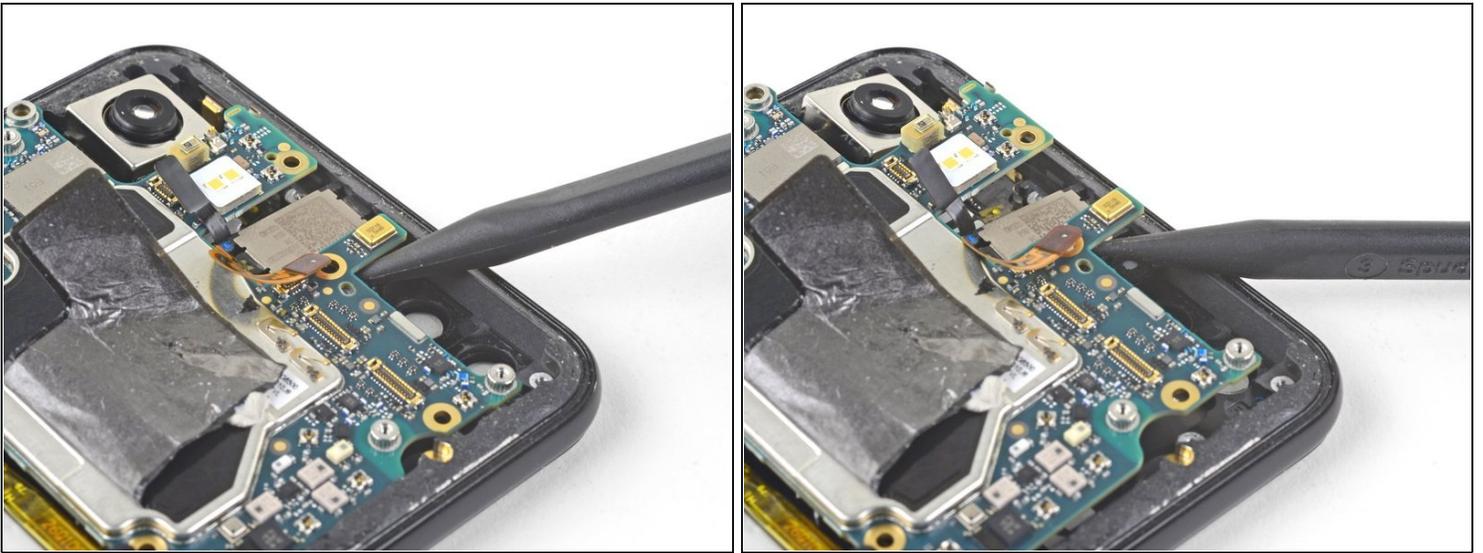
- Carefully remove the antenna bracket from the top left edge of the phone.
- To reinstall the small metal grounding clips:
- Orient the clips such that the silver side is facing upwards.
 - The teardrop shaped clips should have their points facing towards the phone edge.
 - The double-holed clip dips downwards towards the frame's top-right screw hole.

Step 37 — Check the motherboard



- Insert the point of a spudger near the top left corner of the motherboard, right below the rear-facing camera.
- Pry up gently to loosen the motherboard, bending all flex cables away to accommodate for the movement.
- If the motherboard feels firmly seated, check for any flex cables or screws that may still be connected.

Step 38 — Loosen the motherboard



- Insert the spudger underneath the top edge of the motherboard and carefully pry up to loosen the motherboard.
- ⓘ The earpiece speaker's flex cable will press tightly against the motherboard. Take your time and carefully guide the motherboard around the flex cable.

Step 39 — Start removing the motherboard



- Lift the left edge of the motherboard and carefully swing upwards it towards the right. Carefully push any press connectors snagging the motherboard out of the way.

Step 40 — Remove the motherboard



- Carefully lift the top end of the motherboard away from the frame.
- Remove the motherboard.
- ☑ When you reinstall the motherboard, be careful not to trap any [flex cable connectors](#) underneath it.
- ☑ It may be difficult to reposition the motherboard around the earpiece flex cable. You can gently pry up the earpiece speaker, install the motherboard, and reinstall the earpiece speaker.

Step 41 — Weaken the display assembly's adhesive



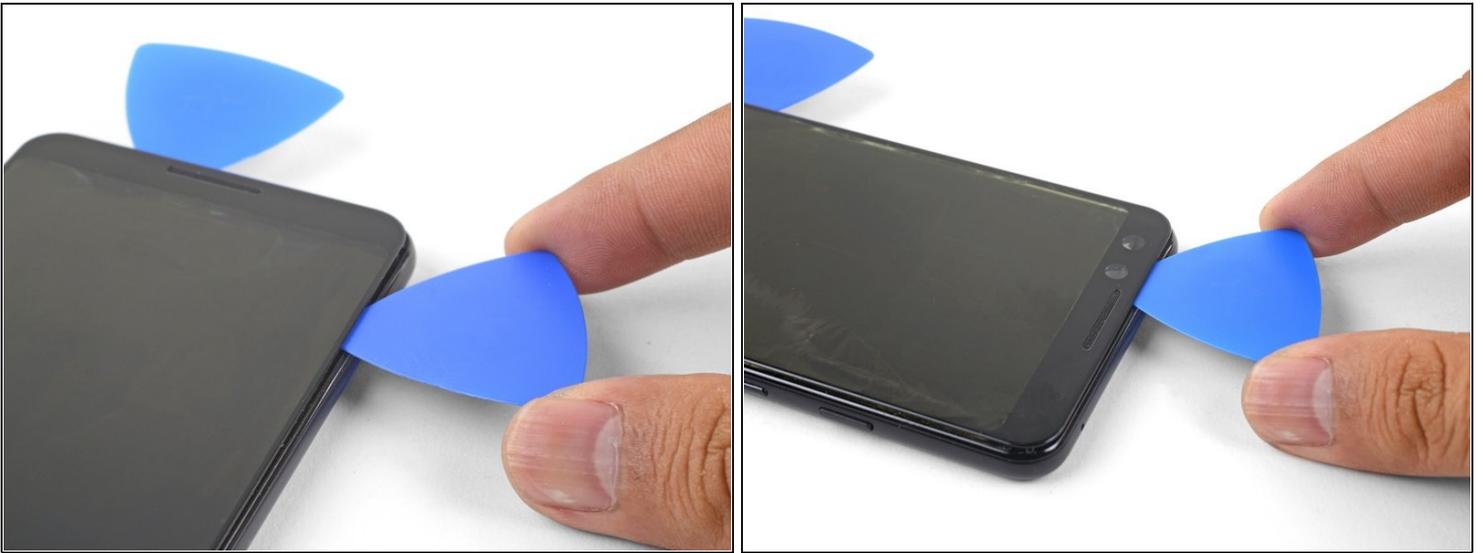
- Apply a heated iOpener to the bottom edge of the screen for a minute.
- Place a suction cup near the bottom edge of the screen, near the USB-C port.
- Lift on the suction cup with strong, steady force to create a gap.
 - ⓘ Depending on how aged your phone is, this may take significant force. If you are having trouble, apply more heat and try again.
- You can also try heating and pulling up a long edge of the phone to gain access.
- Insert an opening pick into the gap.

Step 42 — Cut through the adhesive



- Slide the pick along the bezel to slice through the adhesive.

Step 43



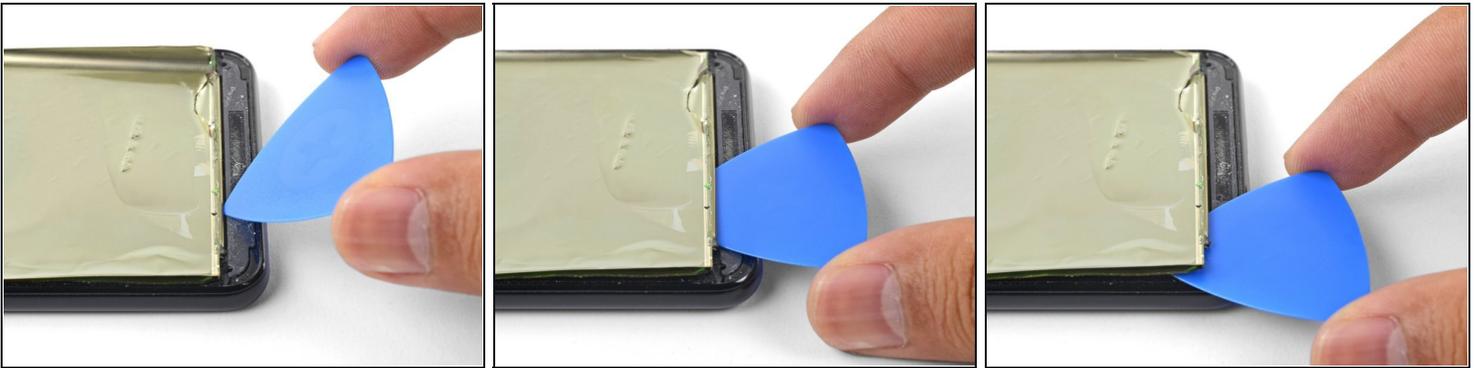
- Continue heating edges with an iOpener and slicing the adhesive with an opening pick, until you've sliced through all of the adhesive.

Step 44 — Remove the front glass cover



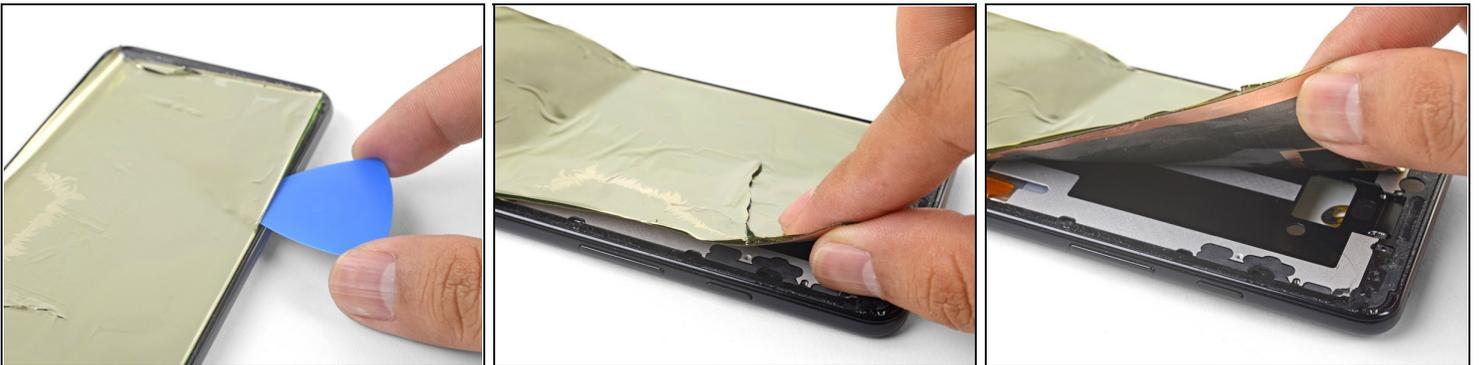
- Lift up and remove the front glass from the phone.

Step 45 — Cut through the adhesive



- ⓘ The remaining part of the screen is affixed to the phone frame by a large patch of adhesive.
- Insert an opening pick into the seam between the phone frame and the bottom edge of the screen remains.
- Pry along the edge to loosen the screen from the frame.
- ⓘ If you are having trouble, apply a heated iOpener over the screen to help loosen the adhesive.

Step 46 — Begin removing the display assembly



- Continue applying heat and slicing along a screen edge until you've loosened enough material to be grasped with your fingers.
- Grasp the edge with your fingers and slowly pull the screen remains away from the phone frame.

Step 47 — Remove the display assembly



- Thread the screen cable and digitizer cable out of their cutouts, then remove the display.
- To install a replacement display assembly:
- Clean all adhesive residue from the phone frame. Adhesive that's left behind may apply uneven pressure against the replacement screen and potentially damage it.
 - Apply a pre-cut adhesive, or double-sided tape to the phone frame's perimeter.
 - Peel all plastic liners from the back of the replacement screen to expose the adhesive.
 - Carefully thread the screen cable and the digitizer cable through the phone frame's cutouts.
 - Lay the screen onto the frame and place some books on top for an hour to help the screen adhesive bond to the frame.
- During the boot-up process after reassembly, the screen will go through a calibration sequence. Do not touch the screen during this process, as it could result in improper touch calibration and create touch issues.

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 [Google Pixel 3 Answers community](#) for troubleshooting help.