Google Pixel 3 XL Charging Assembly Replacement

This repair guide was authored by the iFixit...

Written By: Kyle Smith

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 the charging assembly on a Google Pixel 3 XL.

The charging assembly includes the USB-C port and the SIM card reader.

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

Note: The motherboard and loudspeaker can be removed in either order. This guide removes the motherboard before the loudspeaker so there are a few visual discrepancies, but the repair procedure is not affected.
Note: You don't need to remove the rear-facing camera from the motherboard for this repair.

TOOLS:

[SIM Card Eject Tool](#) (1)
[iOpener](#) (1)
[Suction Handle](#) (1)
[iFixit Opening Picks (Set of 6)](#) (1)
[Spudger](#) (1)
[Tweezers](#) (1)
[T3 Torx Screwdriver](#) (1)

PARTS:

[Google Pixel 3 XL Charging Assembly - Genuine](#) (1)
[Google Pixel 3 XL Back Cover Adhesive - Genuine](#) (1)

Step 1 — Eject the SIM tray

- Insert a SIM eject tool, bit, or a straightened paper clip into the small hole, located at the bottom edge of the phone.

- Press firmly to eject the tray.

## Step 2 — Remove the SIM tray

- Remove the SIM tray from the phone.

Step 3 — Heat the edge of the back cover

- [Heat an iOpener](#) and apply it to the right edge of the back cover for a minute.

- ⓘ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone —the display and internal battery are both susceptible to heat damage.

- While you wait, note the following areas on the back cover:
  - ● Strong adhesive—there are large patches of adhesive near the bottom of the phone.
  - ● Fingerprint sensor cable—be careful not to slice through the cable as you pry

Step 4 — Create a gap under the back cover
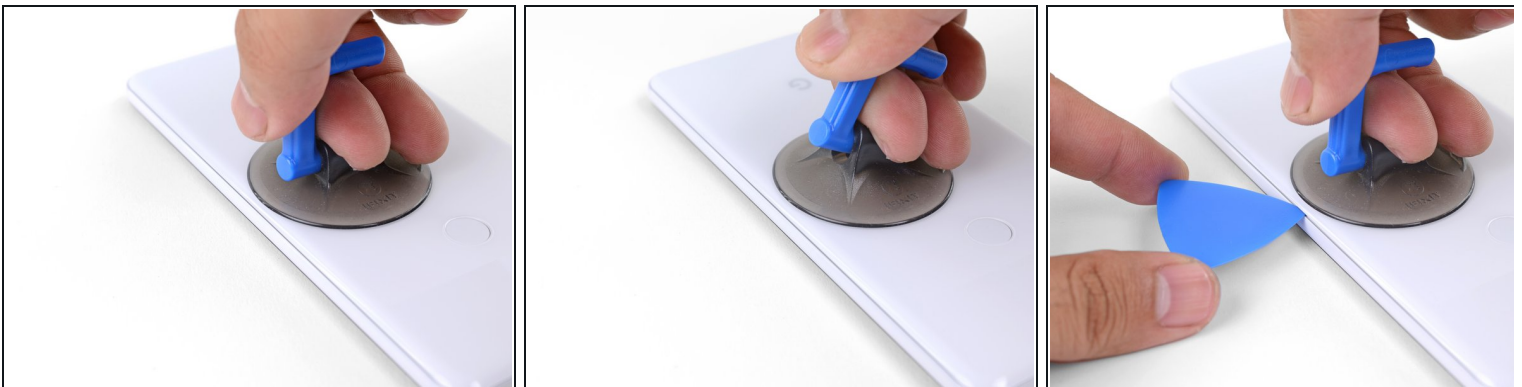
- Apply a suction cup to the heated edge of the back cover, as close to the edge as possible.

- Pull up on the suction cup with strong, steady force to create a gap.
  - ● Depending on the age of your phone, this may be difficult. If you are having trouble, apply heat to the edge and try again.

- Insert the point of an opening pick into the gap.

Step 5 — Loosen the right edge adhesives

- Slide the opening pick along the right edge to slice through the adhesive.

- The adhesive gums up and becomes hard to slice once it cools. If that happens, re-apply heat to the edge to make slicing easier.

- Once you have sliced through the edge, leave an opening pick in the seam to prevent the adhesive from re-sealing.

Step 6 — Heat the bottom edge of the back cover

- Apply a heated iOpener to the bottom of the back cover for a minute.

Step 7 — Slice through the bottom adhesives

- Use an opening pick to slice around the bottom right corner and continue along the bottom edge of the phone.

- (i) Work slowly as you slice around the corner to prevent the panel from cracking. If the slicing becomes hard, re-apply heat.

- Leave a pick in the edge to prevent the adhesive from re-sealing.

Step 8 — Slice through the remaining edges

- Continue heating and slicing the remaining edges of the phone.

- Be careful as you slice along the left edge of the phone. If your pick feels like it's stuck near the top, you may have snagged the fingerprint sensor. Retract the pick out of the seam slightly and try again.

- Be sure to cut through the thick portions of adhesive near the bottom and right edge of the phone.

Step 9 — Slice through the leftover adhesive

- Gently pry up the right edge of the back cover.

- Use an opening pick to slice through any remaining adhesive along the edges.

Step 10 — Swing open the back cover

- Swing the right edge of the back cover upwards and rest the flipped panel along the left side of the phone.

- ⓘ Be sure to maintain slack on the fingerprint sensor cable and prevent it from being pinched.

- ⬆ During reassembly, this is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.

- ⬆ During reassembly, [follow this guide](#) to install custom-cut adhesives for your back cover.

- ⬆ If you replaced the fingerprint sensor, you'll need to use [this software tool](#) to make the phone recognize the new sensor.

Step 11 — Remove the fingerprint sensor tape
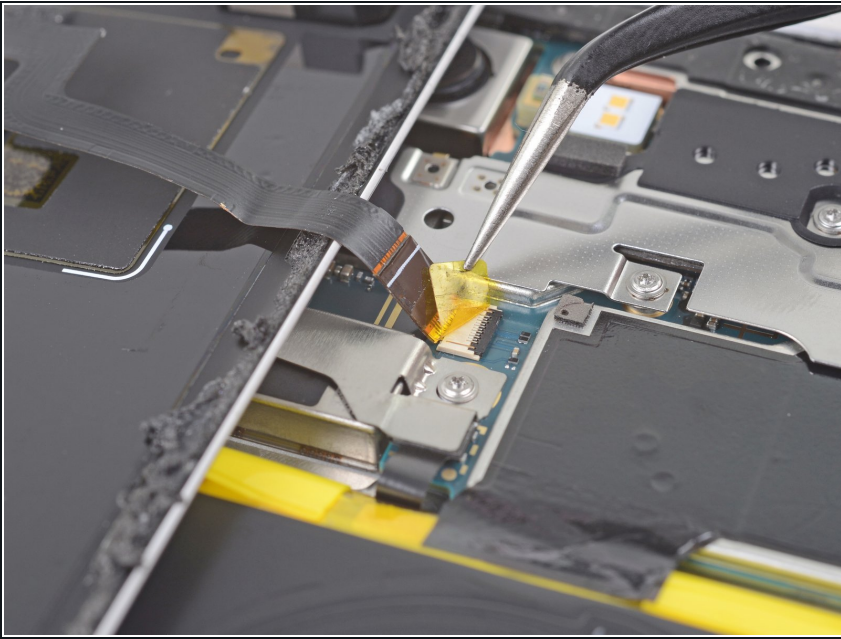
- User tweezers to carefully peel up the yellow tape over the fingerprint sensor connector.

Step 12 — Disconnect the fingerprint sensor
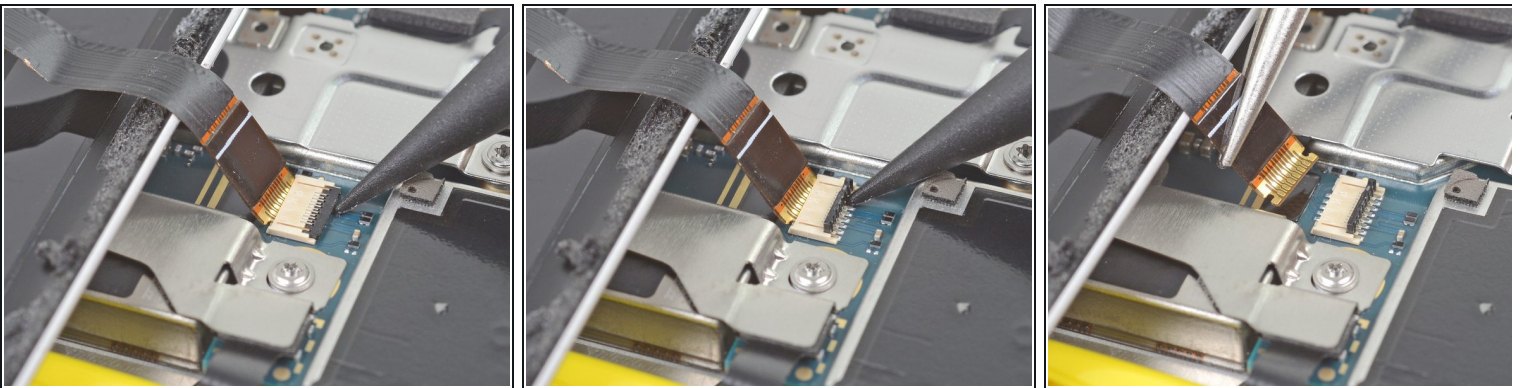
- Use the point of a spudger to carefully flip up the black lock bar on the fingerprint sensor's ZIF socket.

- Grasp the cable's tab with your fingers or tweezers and gently walk the flex cable out of the socket.
  - ⓘ To prevent shorting, be careful not to touch the metal contacts on the flex cable with your tweezers.

Step 13 — Remove the back cover

- Remove the back cover.

- 📌 Follow this guide to correctly apply new back cover adhesive.

Step 14 — Remove the metal cover bracket screws

- Remove the following four T3 screws securing the metal cover bracket:
  - 🔴 Three 4 mm long screws
  - 🟠 One 3 mm long screw

- 📌 Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from.

Step 15 — Remove the metal cover bracket
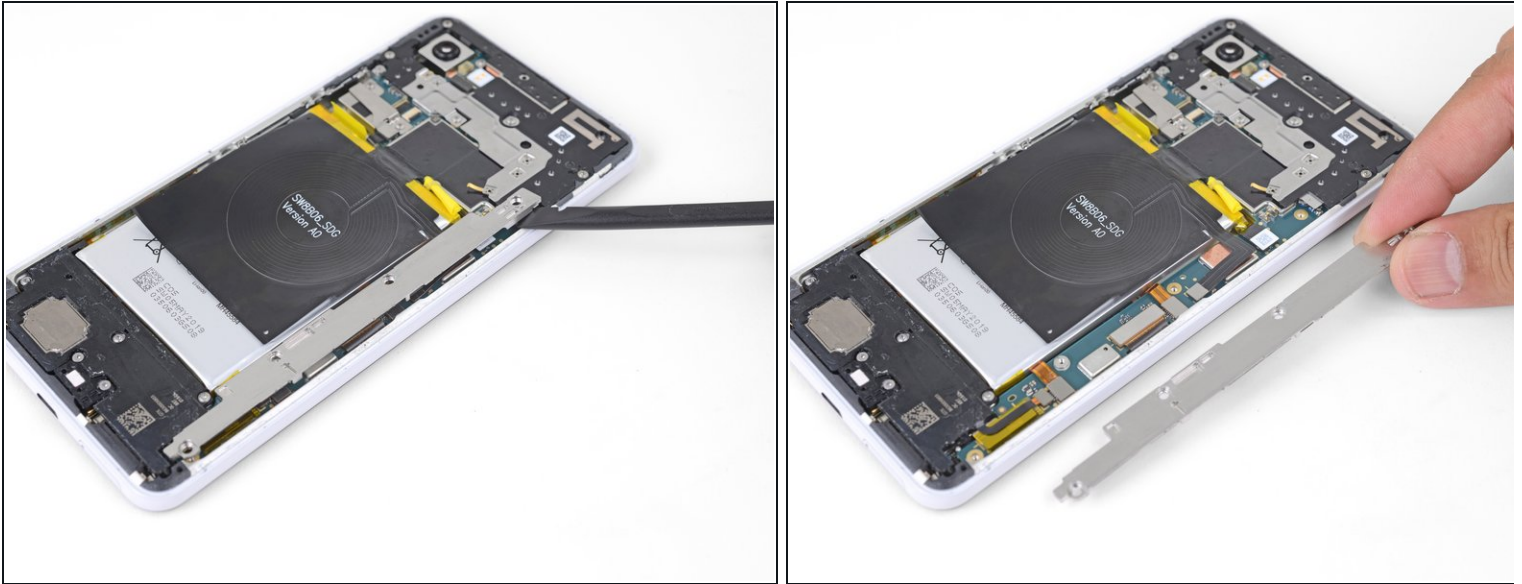
- Insert the flat end of a spudger underneath the top right edge of the metal bracket and pry up to loosen it.

- Remove the metal cover bracket.

Step 16 — Disconnect the battery
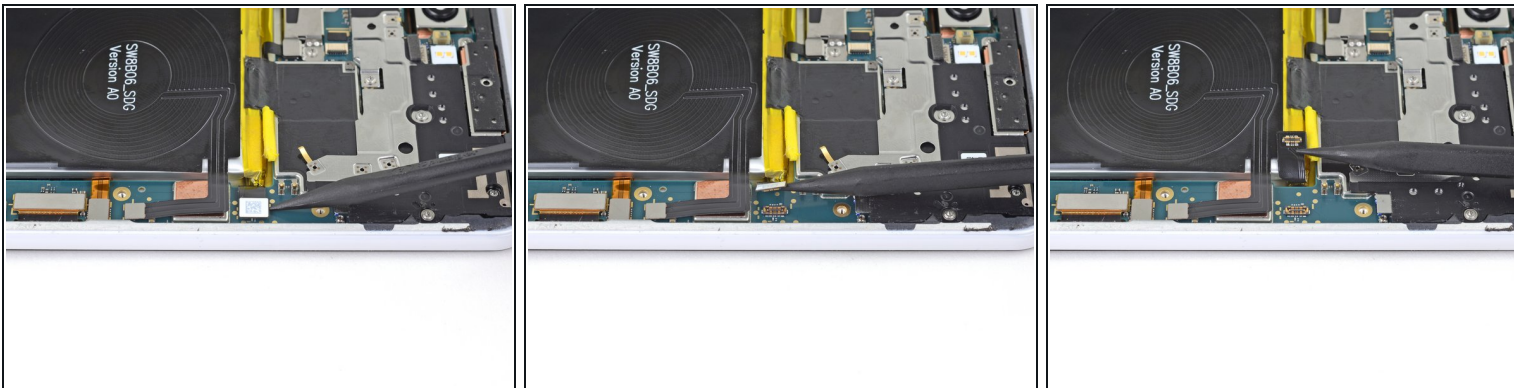
- Use the point of a spudger to pry up and disconnect the battery connector from its socket.
  ⚠ Do not use metal tools to to disconnect the battery, or you will risk shorting the battery.

- Bend the battery cable such that the connector will not accidentally touch the socket.

Step 17 — Remove the motherboard shield screws

- Remove the five T3 screws securing the motherboard shield:
  - Three 4 mm long screws
  - Two 3 mm long screws

Step 18 — Remove the motherboard shield

- Remove the motherboard shield.

Step 19 — Remove the front camera bracket
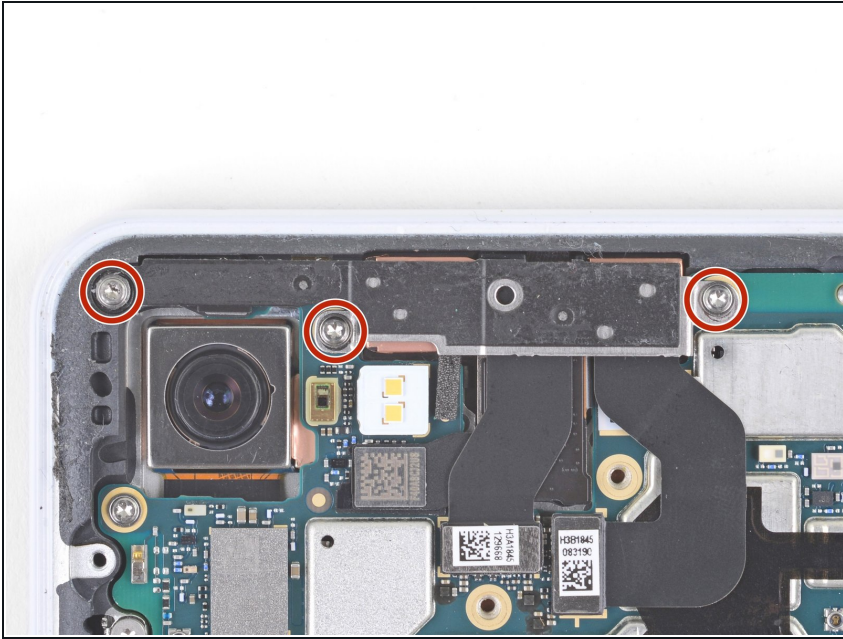
- ● Remove the three 3 mm long T3 screws securing the front camera bracket.

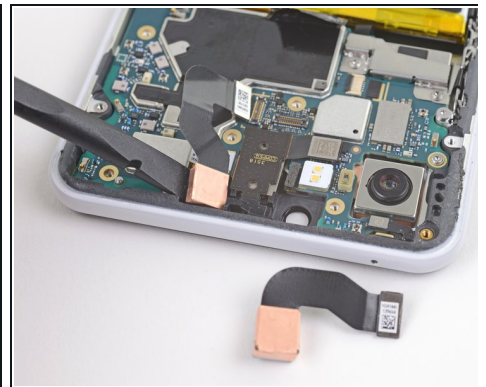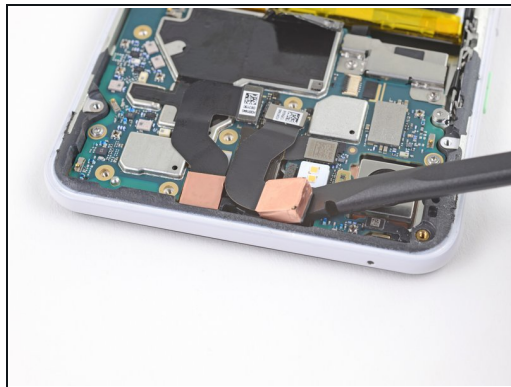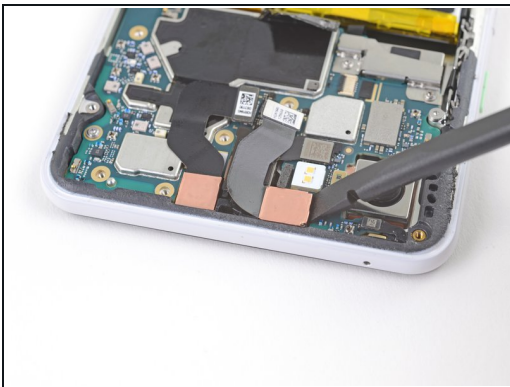## Step 20 — Remove the front camera bracket
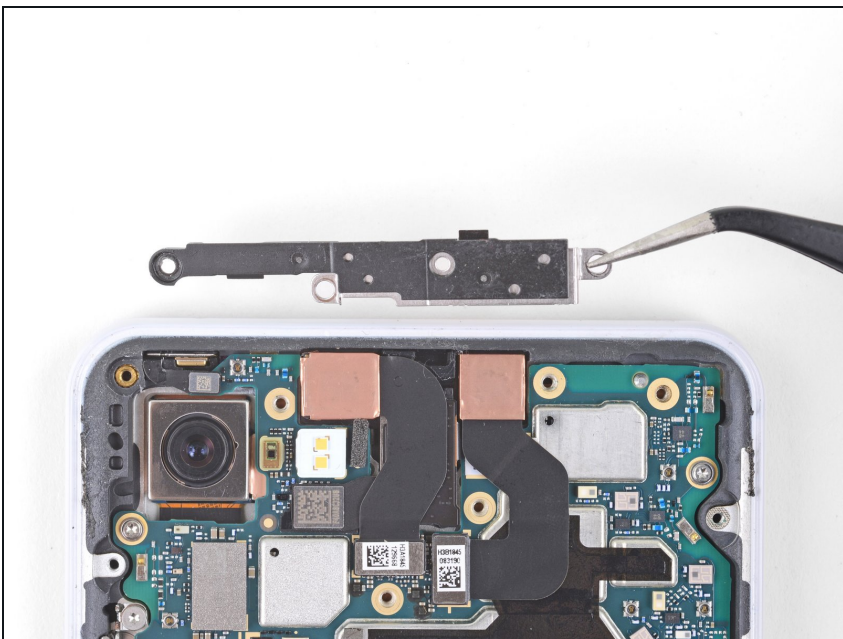
- ● Remove the front camera bracket.

Step 21 — Disconnect the front cameras
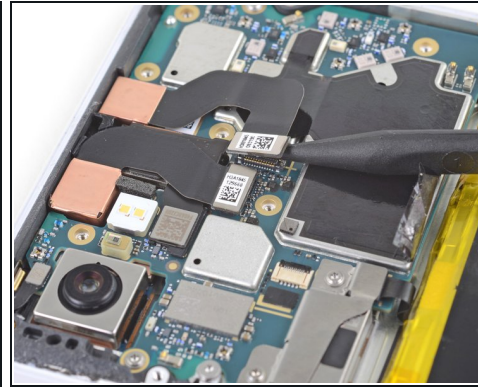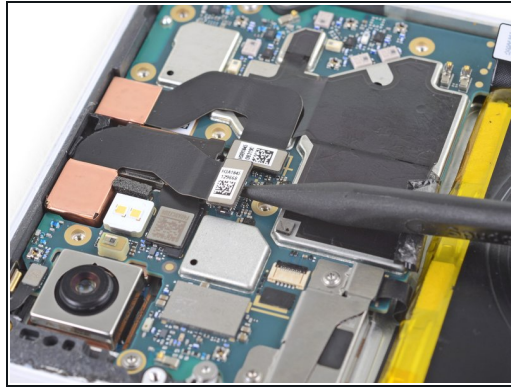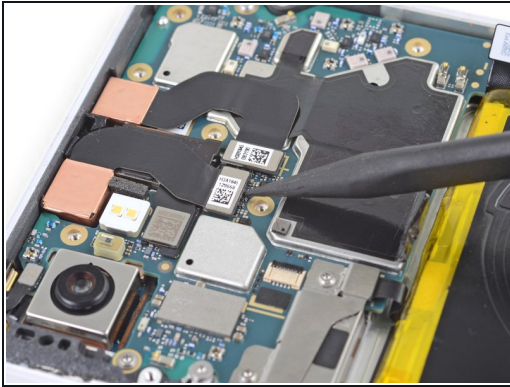
- Use the point of a spudger to carefully pry up and disconnect the cameras from their motherboard sockets.

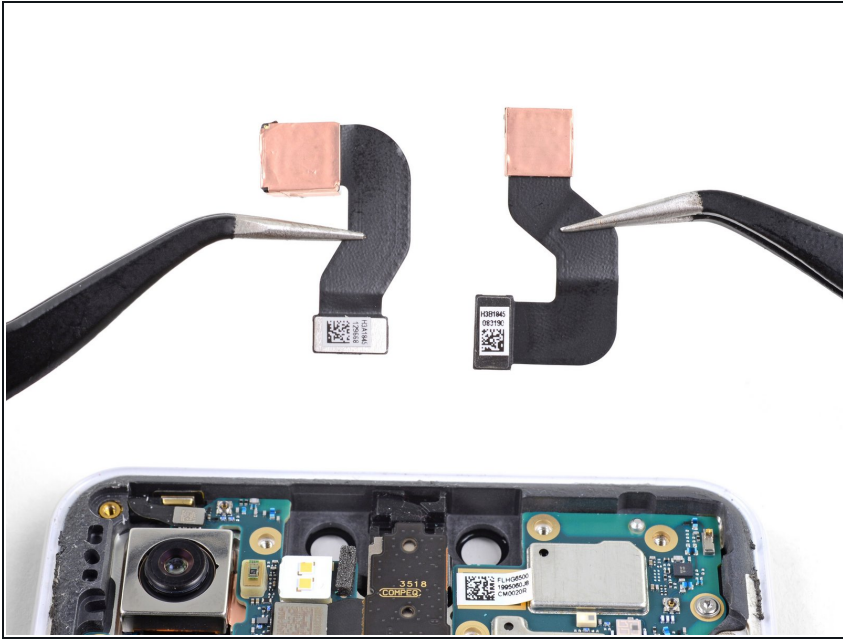⚠️ Be very careful not to dislodge the small surface-mounted components surrounding the sockets.

Step 22 — Loosen the front cameras

ⓘ The cameras are lightly adhered in place.

- Use the flat end of a spudger to pry up and loosen the camera modules from their recess.

Step 23 — Remove the front-facing cameras

- Remove the front-facing cameras.

Step 24 — Remove one loudspeaker screw
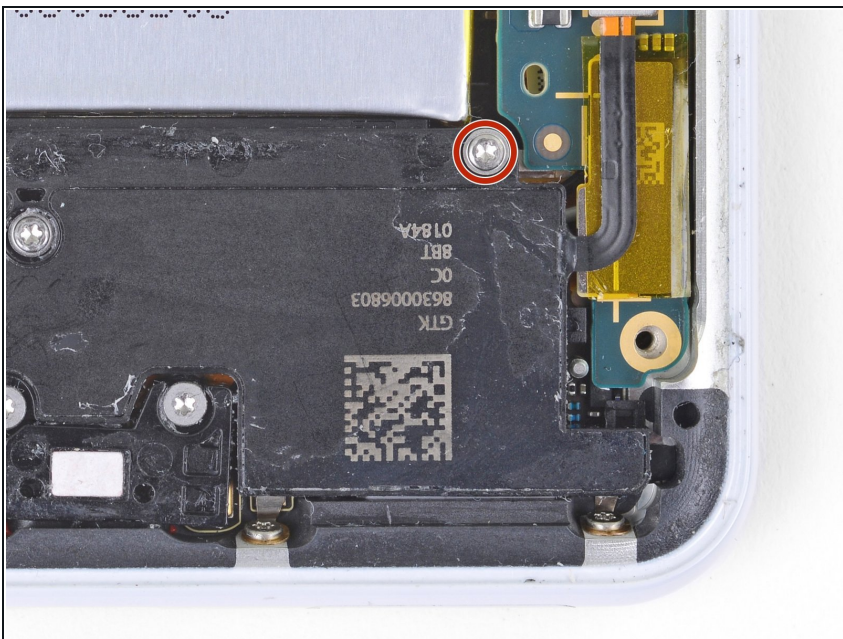
- Remove the 4 mm long T3 screw securing the top-right corner of the loudspeaker.
  - ⓘ Removing this screw will give you slightly more wiggle room when removing the motherboard.

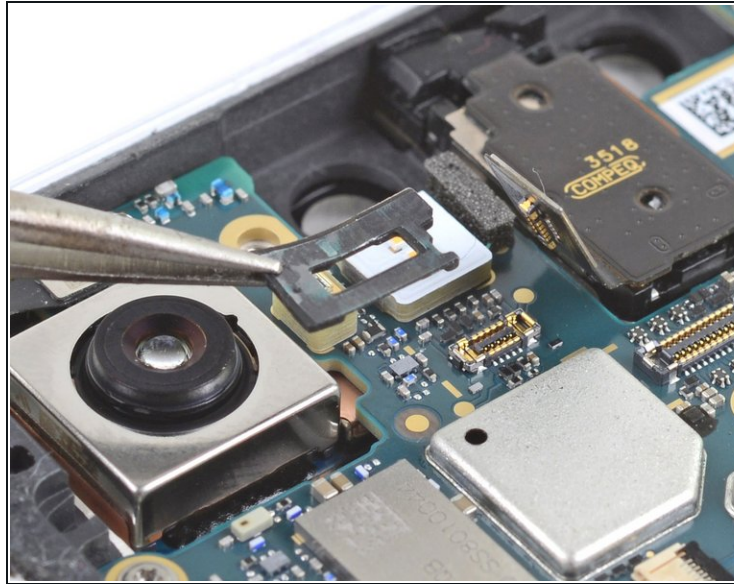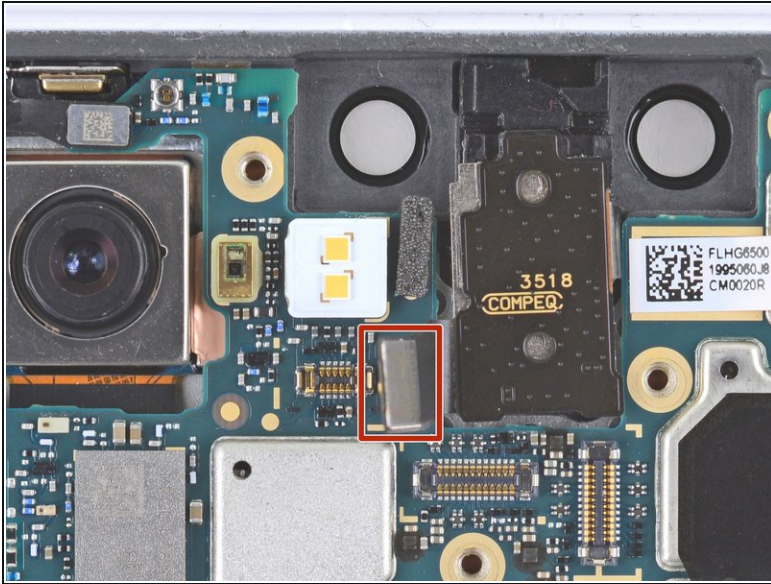## Step 25 — Remove the button array connector bracket

● Remove the two 3 mm long T3 screws securing the button array connector bracket.
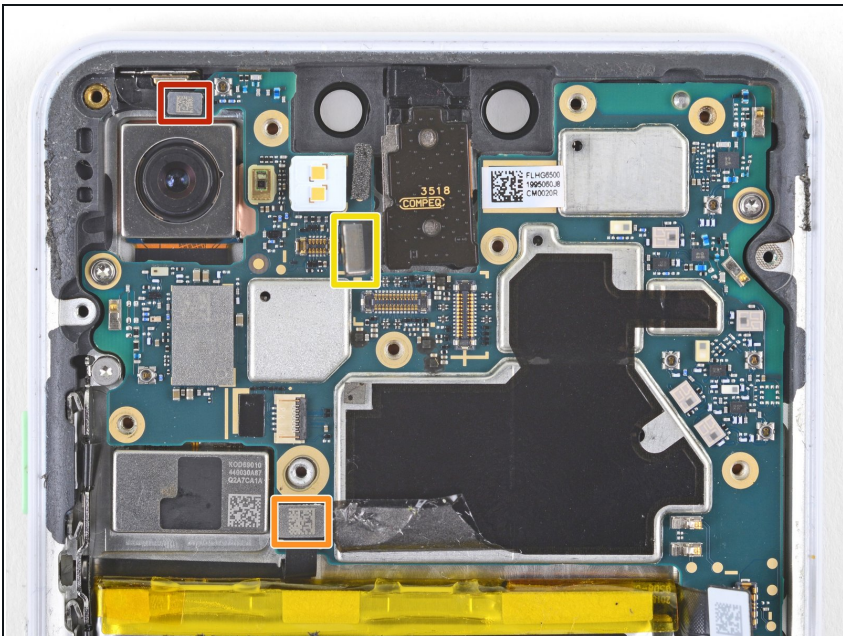
Step 26
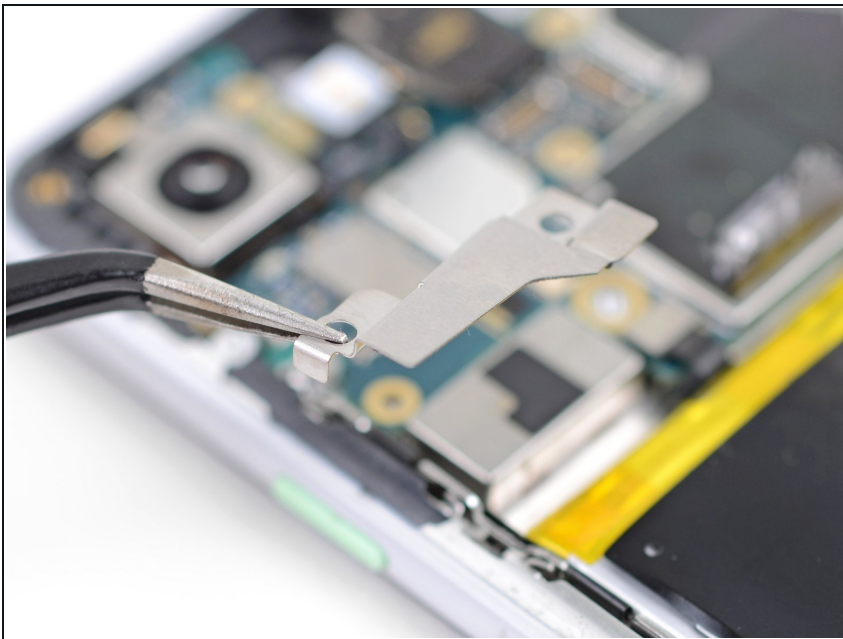
● Remove the button array connector bracket.

Step 27 — Disconnect the earpiece speaker

- Use the point of a spudger to pry up and disconnect the earpiece connector from its motherboard socket.

- Carefully remove the connector pad surrounding the earpiece socket.

## Step 28 — Disconnect the motherboard connectors

- Use the point of a spudger to pry up and disconnect the following:

  - Microphone connector

  - Button array connector

  - Earpiece connector (should already be disconnected)

- Use the point of a spudger to pry up and disconnect the following:

  - ● Charging coil connector

  - ● Left squeeze sensor connector

  - ● Display connector

  - ● Right squeeze sensor connector

  - ● Loudspeaker connector

  - ● USB-C port connector
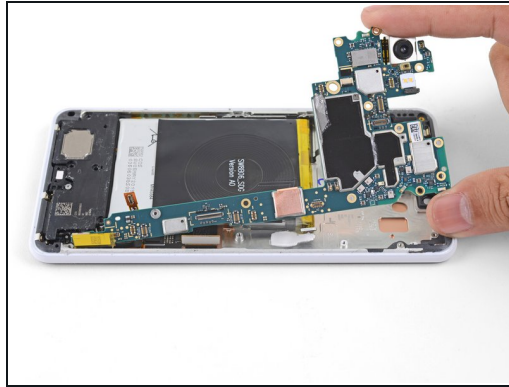
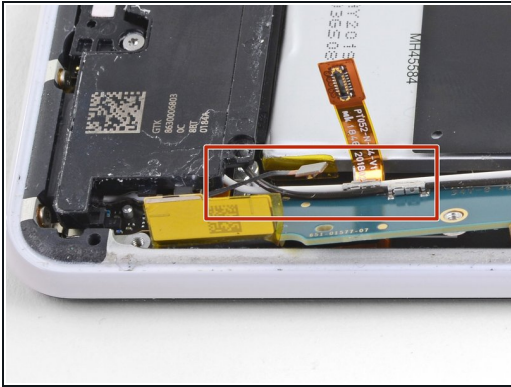## Step 30 — Remove the motherboard screws
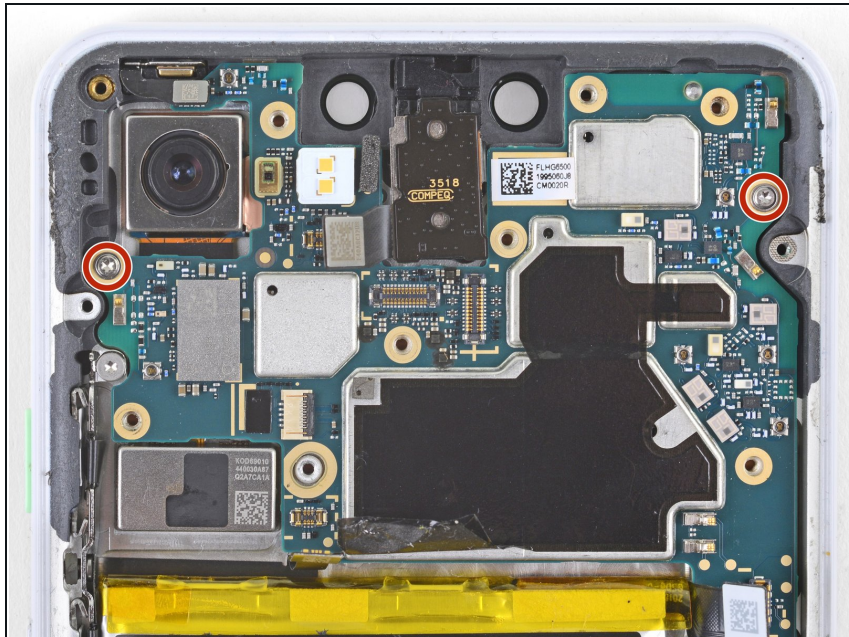
- Remove the two 3 mm long T3 screws securing the motherboard.
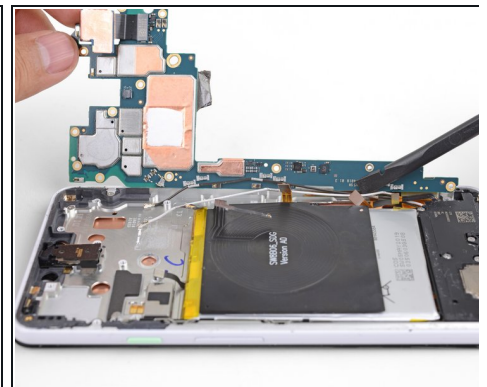
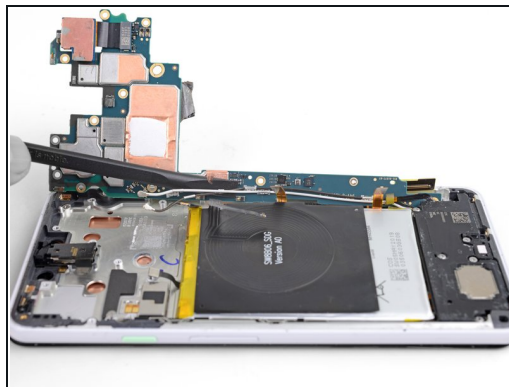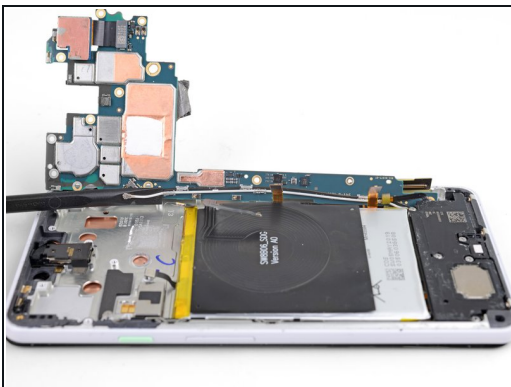## Step 31 — Loosen the motherboard

- Insert the point of a spudger underneath the motherboard, near the rear-facing camera module.

- Pry up gently to loosen the motherboard from its recess.
  - If the motherboard is not budging, make sure you have disconnected all the connectors.

- The motherboard has to squeeze past the earpiece speaker cable. If too much pressure is put on the earpiece cable, the earpiece speaker will pop open. You can prevent this by pressing on the earpiece module with a finger while you maneuver the motherboard out.
  - ⓘ If the earpiece speaker pops open (as shown in the third photo of this step), carefully align and press the module back in place.
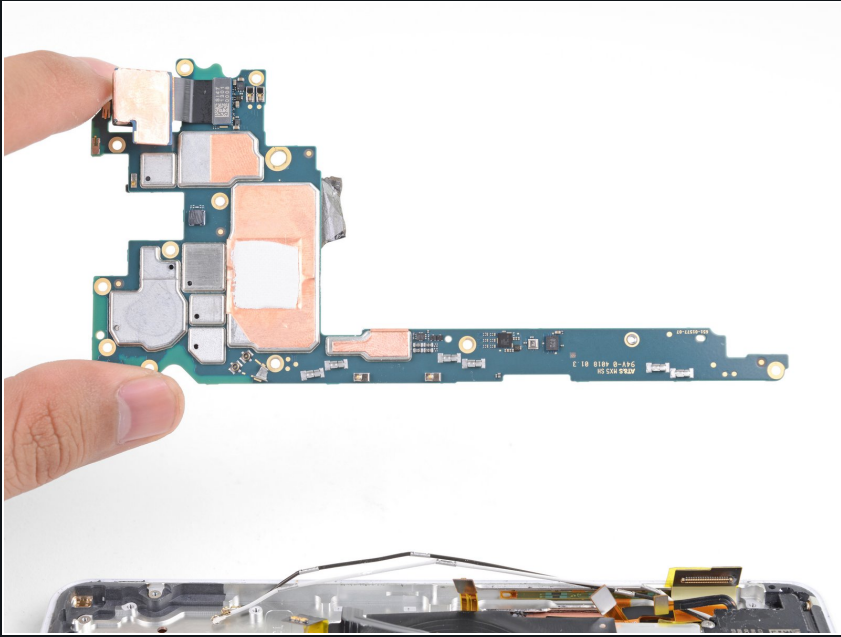
Step 32

ⓘ **Don't attempt to remove the motherboard from the phone. It's still attached to the phone.**

● While you perform this step, take care to keep slack on the antenna cables attached to the bottom leg of the motherboard.

● Lift the top half of the motherboard slightly to clear the board from its recess.

● Twist the left edge of the board over and out of the phone and rest the board on the right edge of the phone.

Step 33 — Loosen the antenna cables

● Use the flat of a spudger to gently pry up and loosen the black and white antenna cables from their motherboard clips.

ⓘ The cables are fragile and the clips hold onto them tightly. Be patient and pry as close to the base of the clips as possible.

Step 34 — Remove the motherboard

- Remove the motherboard.

Step 35 — Transfer the rear-facing camera
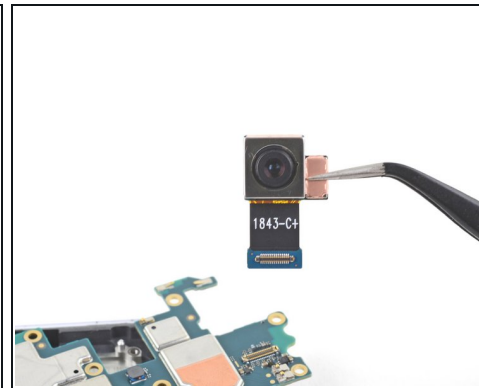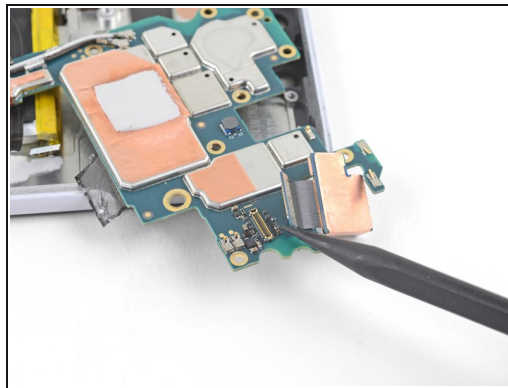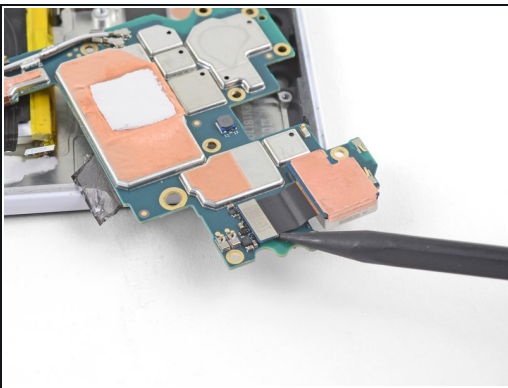
ⓘ If you are installing a new motherboard, follow these instructions to transfer the rear-facing camera:

- Use the point of a spudger to pry up and disconnect the rear-facing camera from its motherboard socket.

- Remove the rear-facing camera and transfer it to your replacement motherboard.

◨ 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.
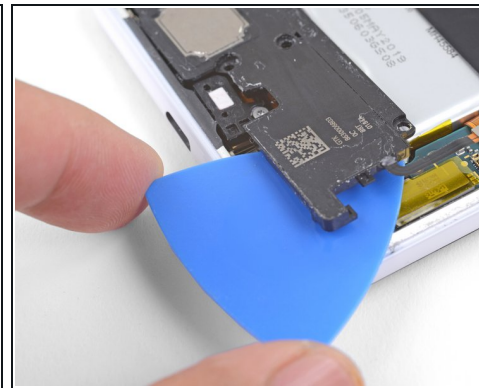
Step 36 — Remove the loudspeaker screws

(i) If you have already removed the motherboard, the top right loudspeaker screw will already be removed.
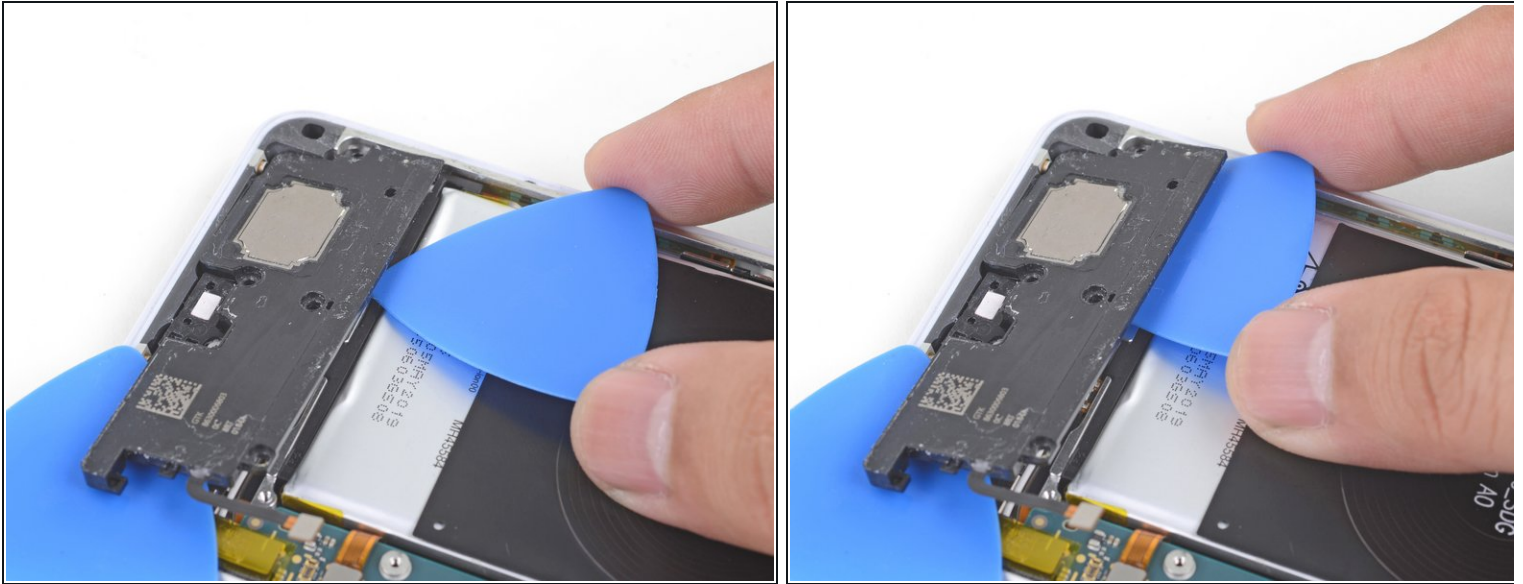
- Remove the following four T3 screws securing the loudspeaker:
  - Three 4 mm long screws
  - One 3.9 mm long screw

## Step 37 — Loosen the loudspeaker

- Insert the point of an opening pick under the bottom right corner of the loudspeaker.

- Slide the pick in to loosen the right side of the loudspeaker.

- Insert the point of an opening pick under the top edge of the loudspeaker, below the battery.

- Slide the opening pick in to slice through the adhesive gasket under the loudspeaker.

Step 39 — Remove the loudspeaker
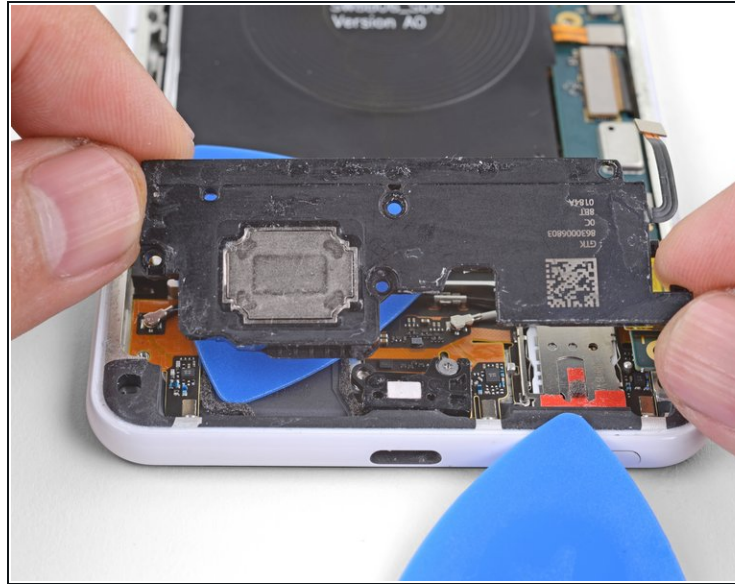
- Lift the loudspeaker out slowly and pull it away from any remaining adhesive.

- Remove the loudspeaker.

📌 Before you reinstall the loudspeaker, you may want to remove any residual adhesive from the frame and place new adhesive.

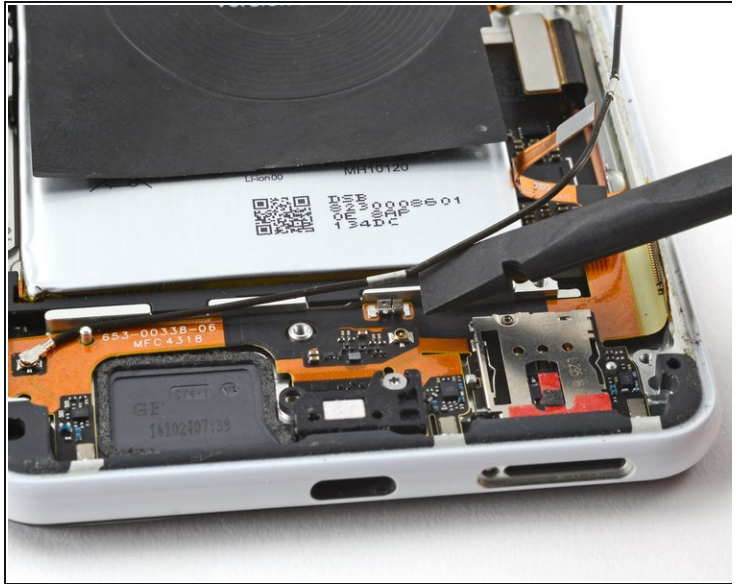## Step 40 — Disconnect the white coaxial cable

- Use the flat end of a spudger to pry up and disconnect the white coaxial cable connector from the charging assembly.

Step 41 — Remove the white coaxial cable
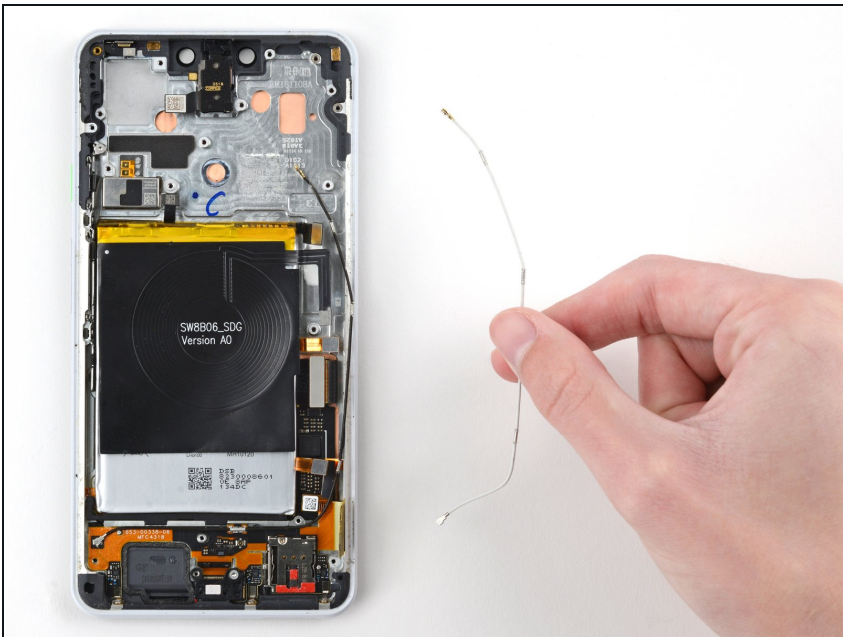
- Remove the white coaxial cable from the phone.
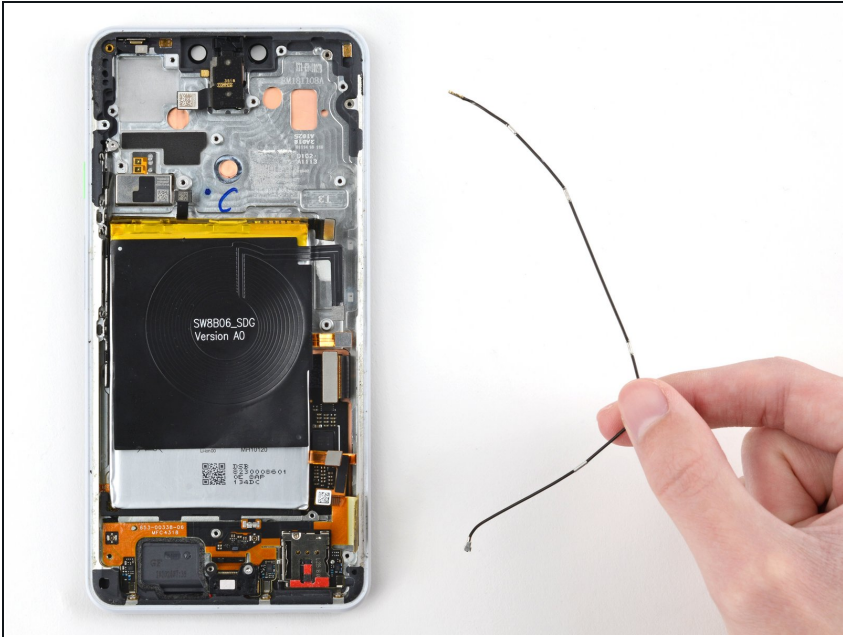
Step 42 — Detach the black coaxial cable

- Use the flat end of a spudger to pry up and detach the black coaxial cable from its clip on the charging assembly.

Step 43 — Disconnect the black coaxial cable

- Use the flat end of a spudger to pry up and disconnect the black coaxial cable connector from the charging assembly.

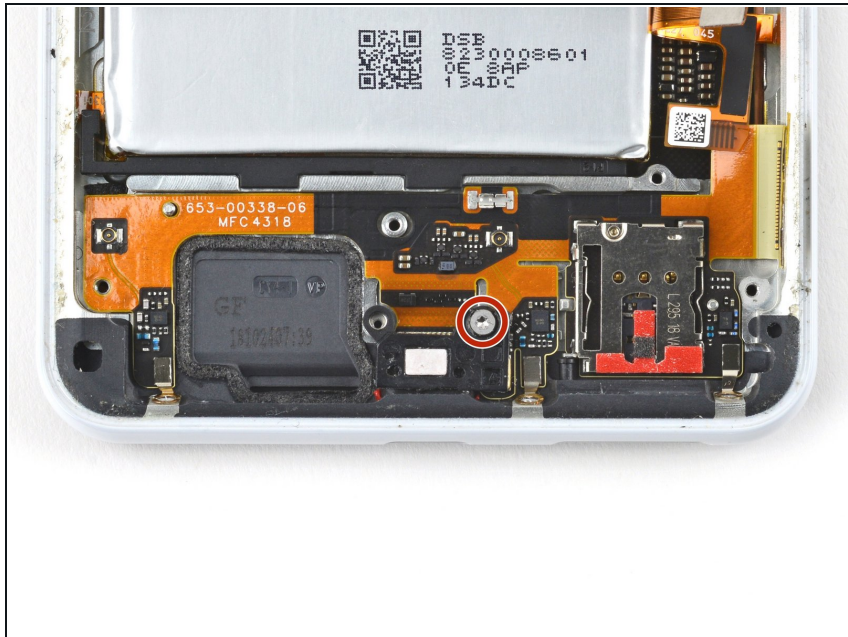## Step 44 — Remove the black coaxial cable

● Remove the black coaxial cable from the phone.

Step 45 — Remove the charging assembly screws
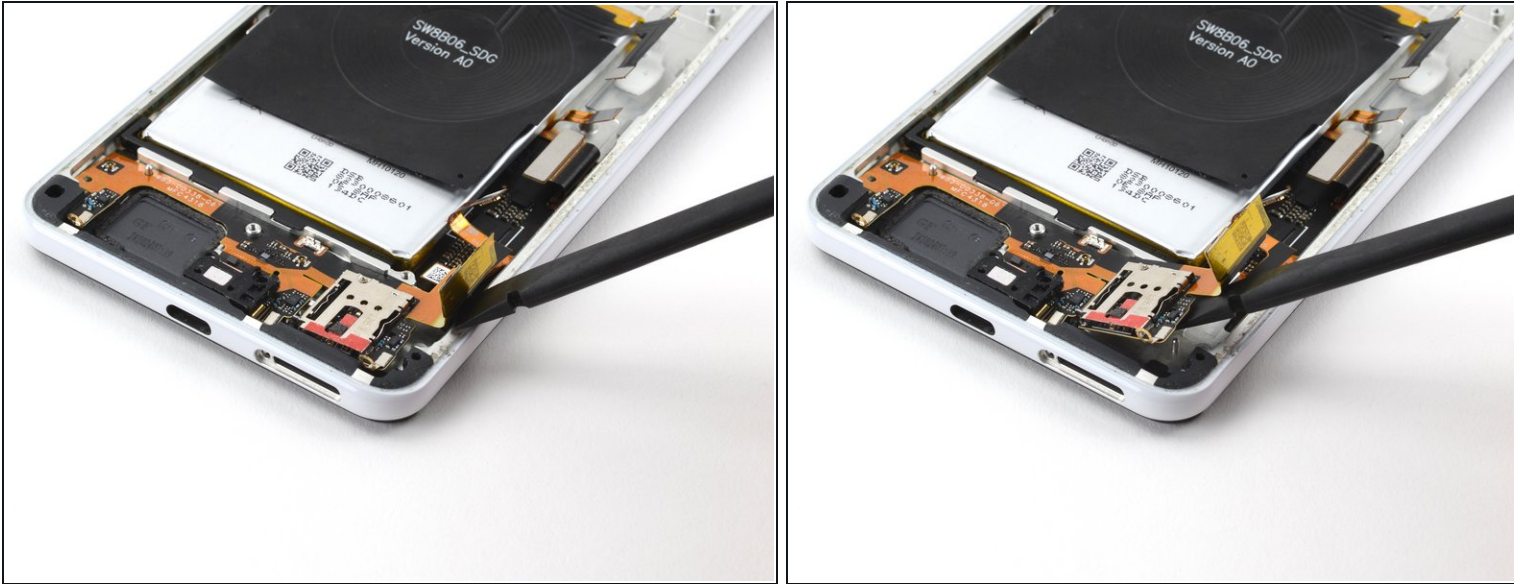

● Use a T3 Torx screwdriver to remove the three 2.4 mm screws securing the charging assembly to the frame.

Step 46

- Use a T3 Torx screwdriver to remove the 3.9 mm screw securing the USB-C port bracket to the frame.
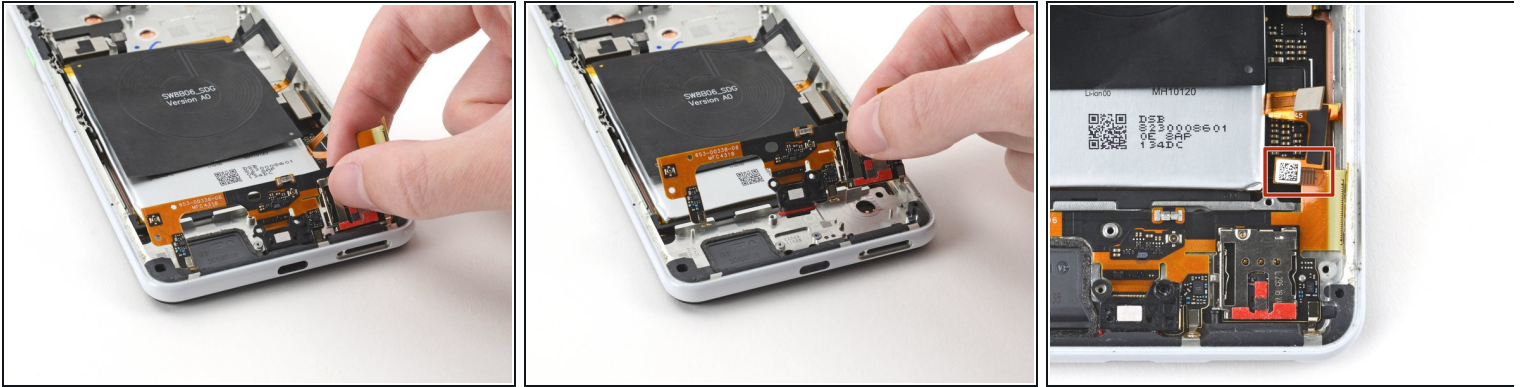
Step 47 — Detach the charging assembly

ⓘ If you haven't removed the SIM card tray from the phone, do so now. The charging assembly cannot be removed without removing the tray.

ⓘ The right side of the charging assembly is secured to the frame by a peg adjacent to the SIM card reader.

● Slide the flat end of a spudger under the right side of the charging assembly to detach it from the frame.

Step 48

ⓘ The left side of the charging assembly is secured to the frame by a peg and light adhesive.

● Insert the flat end of a spudger under the left side of the charging assembly.

● Pry up and detach the left side of the charging assembly from the frame.

Step 49 — Remove the charging assembly

(i) The USB-C port is secured to the frame by a red gasket. You may need to move the charging assembly back and forth to detach the assembly from the frame.

● Remove the charging assembly from the frame.

(★) During reassembly, make sure the right squeeze sensor cable is situated above the USB-C port cable.

  ● The right squeeze sensor cable is adjacent to the bottom right corner of the battery.

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 Google Pixel 3 XL Answers community for help.