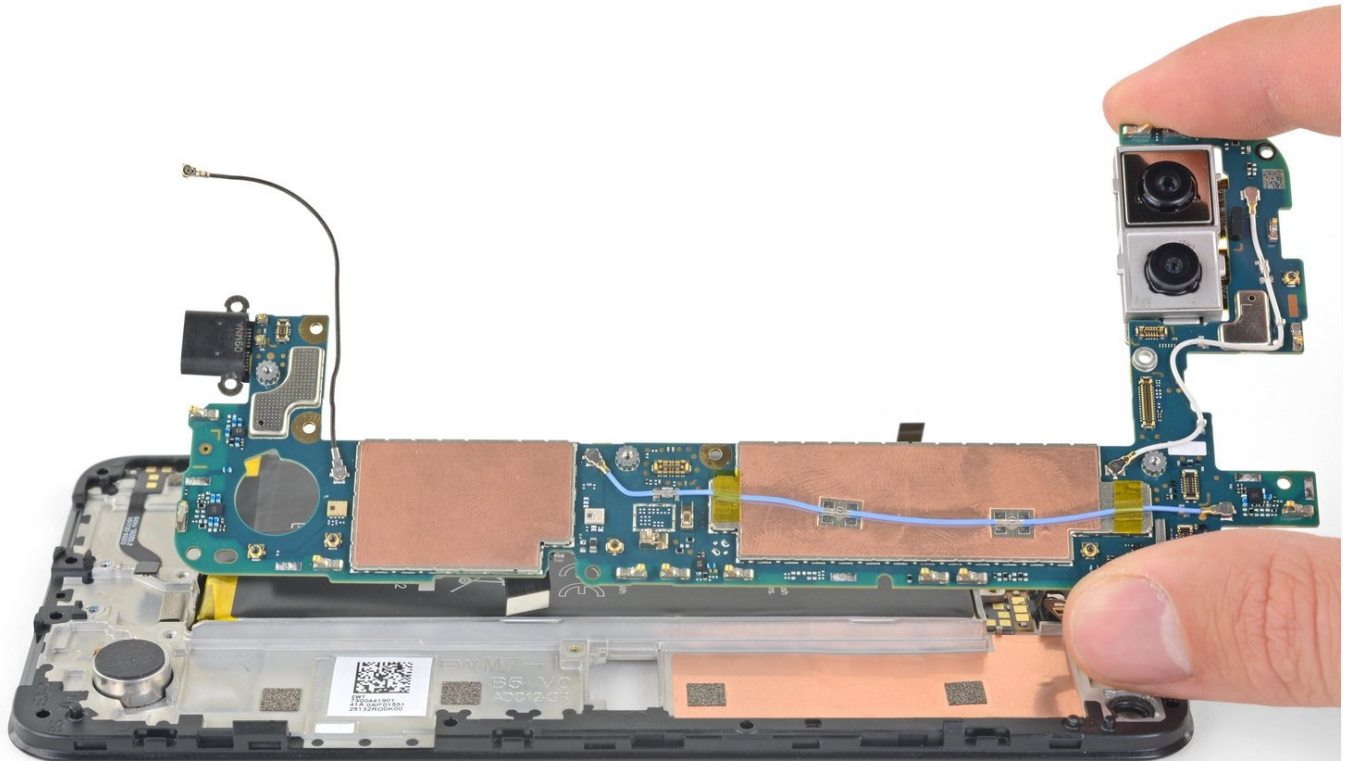




Google Pixel 4a 5G Motherboard Replacement

This repair guide was authored by the iFixit...

Written By: Sam Omiotek



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 replace the motherboard on a Google Pixel 4a 5G.

The unreinforced display panel on the Pixel 4a 5G is fragile. Pay special attention to the warnings in the opening procedure if you are reusing the screen.

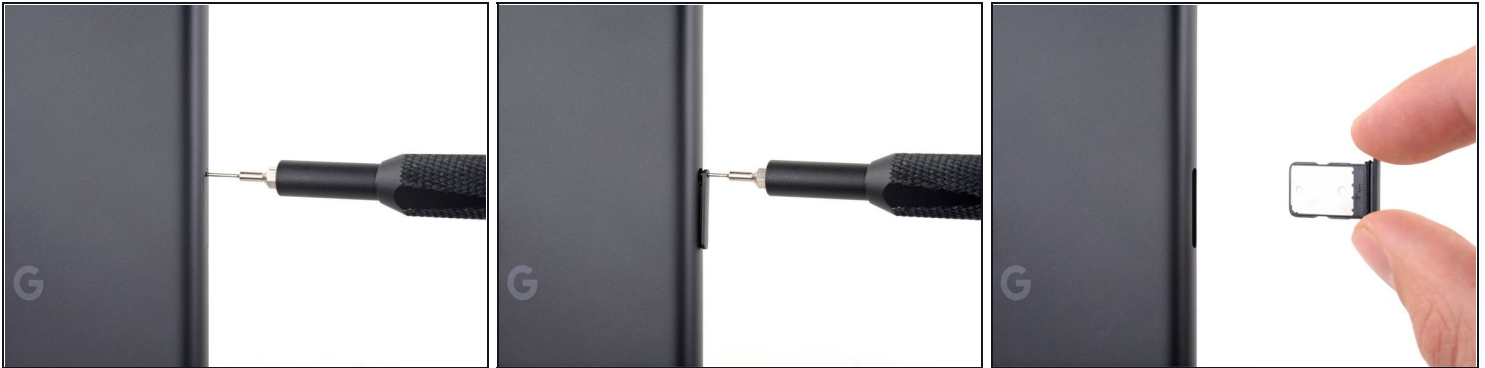
TOOLS:

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

PARTS:

Google Pixel 4a 5G Display Adhesive - Genuine (1)
Tesa 61395 Tape (1)

Step 1 — Eject the SIM card tray



- Insert a SIM eject tool, bit, or straightened paper clip into the SIM tray hole.
- Press directly into the hole to eject the SIM card tray.
- Remove the SIM card tray.

Step 2 — Precautionary Notes



- ⓘ You will need to pry the screen up to remove it from the phone. Read the following notes carefully before proceeding.
- Take note of the two seams on the edge of your phone:
 - *Screen seam*: This seam separates the screen from the rest of the phone. **This is where you have to pry.**
 - *Frame seam*: This is where the plastic frame meets the back cover. It is held in place by screws. **Do not pry at this seam.**
 - Before you begin, note the following areas on the screen:
 - *Screen flex cable*: Do not insert the opening pick deeper than instructed or you risk damaging this cable.
 - *Adhesive perimeter*: Prying beyond this narrow perimeter without angling the pick will damage the OLED panel.

Step 3 — Heat the right edge of the screen



- [Apply a heated iOpener](#) to the right edge of the display for one minute to soften the adhesive.
- ⓘ 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.

Step 4 — Insert an opening pick



- ⓘ 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.
- Place a suction cup as close to the right edge of the screen as possible.
- Lift the suction cup with a strong steady force.
- Insert the tip of an opening pick into the *screen seam* **no more than 1 mm**.

Step 5 — Guide the opening pick under the OLED panel



i This step shows how to insert your pick without damaging the OLED panel. Do this before slicing the adhesive.

- With the pick **1 mm** into the gap, pivot the pick upwards to a steep angle.
- At a steep angle, carefully push the pick into the gap about 1/4 inch (6 mm). The pick should slide in **below** the OLED panel.

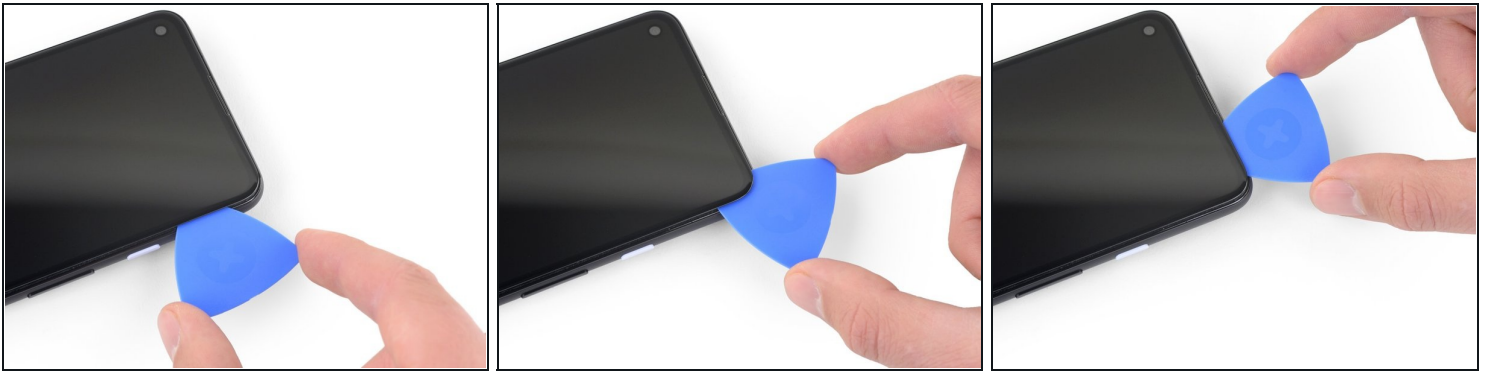
⚠ Stop if you feel the point of the pick hitting a ridge. The pick may be pressing against the edge of the OLED panel. Angle the pick and try again.

Step 6 — Slice through the display adhesive



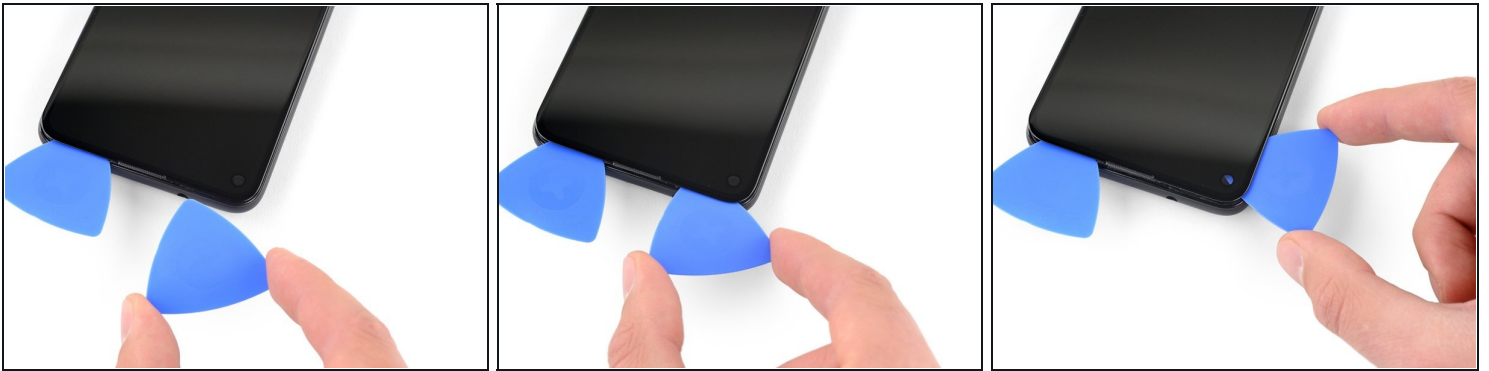
- Slide the pick along the right edge of the screen to cut the adhesive.
⚠ Do not insert the pick more than 1/4 inch (6 mm) or you may damage the screen's flex cable.
- Leave the pick in the bottom-right corner to prevent the adhesive from re-sealing.

Step 7



- ① There's a mesh covering the earpiece speaker on the top edge of the screen. If you don't have a replacement mesh, take care not to damage or lose this component.
- ① The screen adhesive is weak, so you should not need to re-apply heat. If the screen is hard to slice, apply heat to the difficult area for one minute and try again.
- Insert another opening pick into the right edge of the phone at an angle where a gap has already formed to prevent damage to the OLED panel.
- Slide the opening pick around the top of the phone to cut the adhesive.
- Leave the pick inserted along the top edge to prevent the adhesive from resealing.

Step 8



- Insert another opening pick into the top edge of your phone at an angle where a gap has already formed to prevent damage to the OLED panel.
- Use the pick to slice around the top-left corner where the camera window is.
 - ⓘ If the screen is hard to slice, apply heat to the difficult area for one minute and try again.
- Leave the pick inserted along the left edge of your phone to prevent the adhesive from re-sealing.

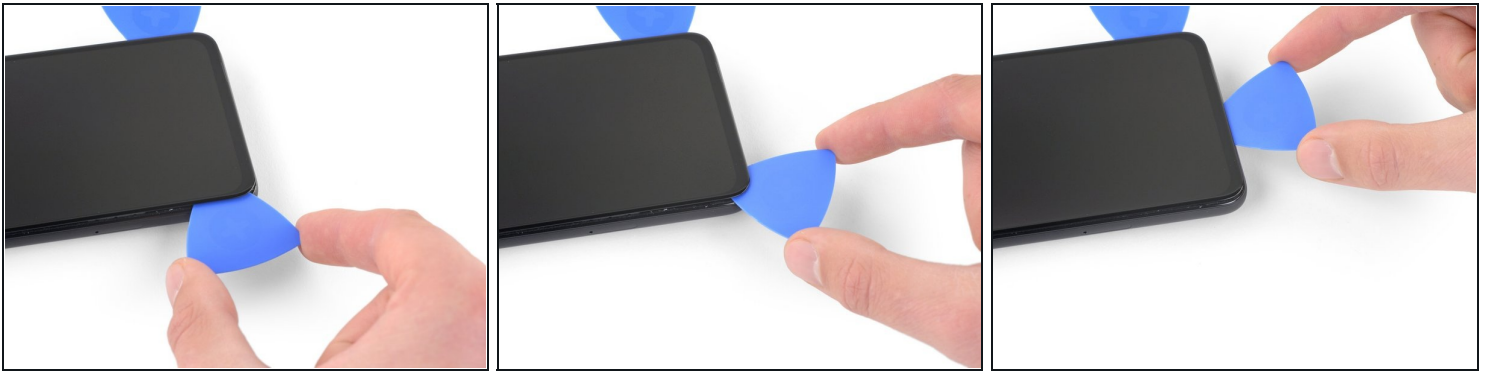
Step 9



- Slide the opening pick to cut the adhesive along the left edge of your phone.
 - ⓘ If the screen is hard to slice, apply heat to the difficult area for one minute and try again.

⚠ Keep in mind that you are now slicing near the screen flex cable and digitizer.

Step 10

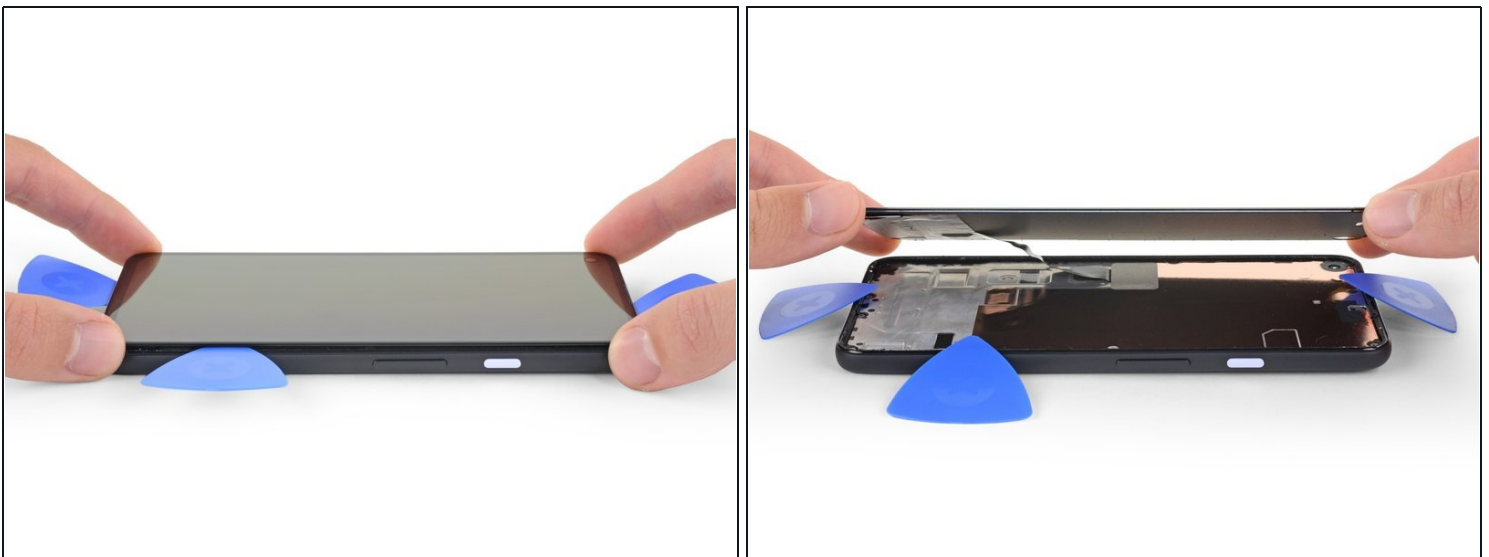


- Slide the opening pick around the bottom-left corner and across the bottom of the display to cut the rest of the adhesive.

ⓘ If the screen is hard to slice, apply heat to the difficult area for one minute and try again.

⚠ Keep in mind that you are now slicing near the [screen flex cable](#) and digitizer.

Step 11

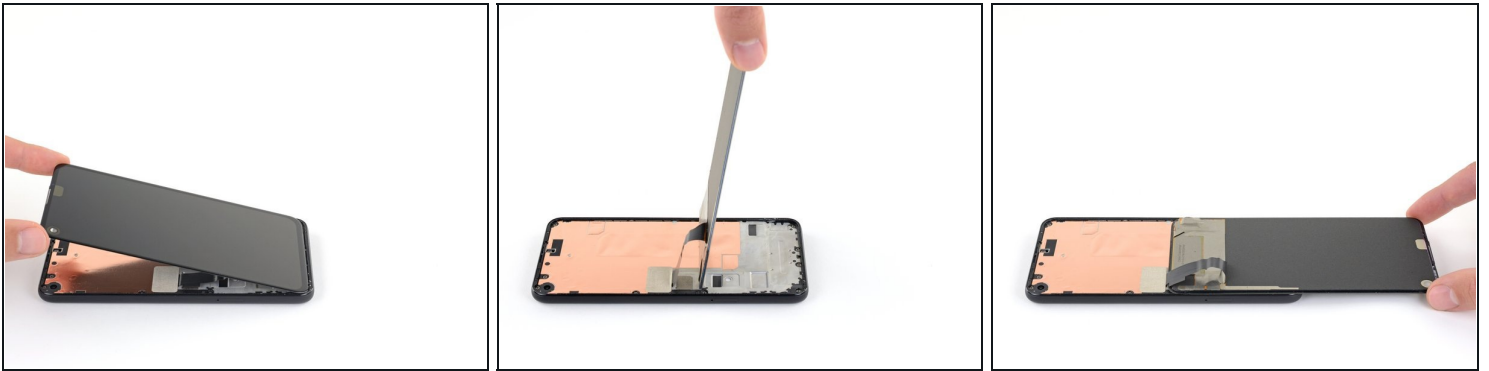


- Once you have cut around the perimeter of the phone, carefully lift the right edge of the screen, partially opening the phone like a book.

ⓘ Do not remove the screen yet.

- Use an opening pick to carefully cut through any remaining adhesive.

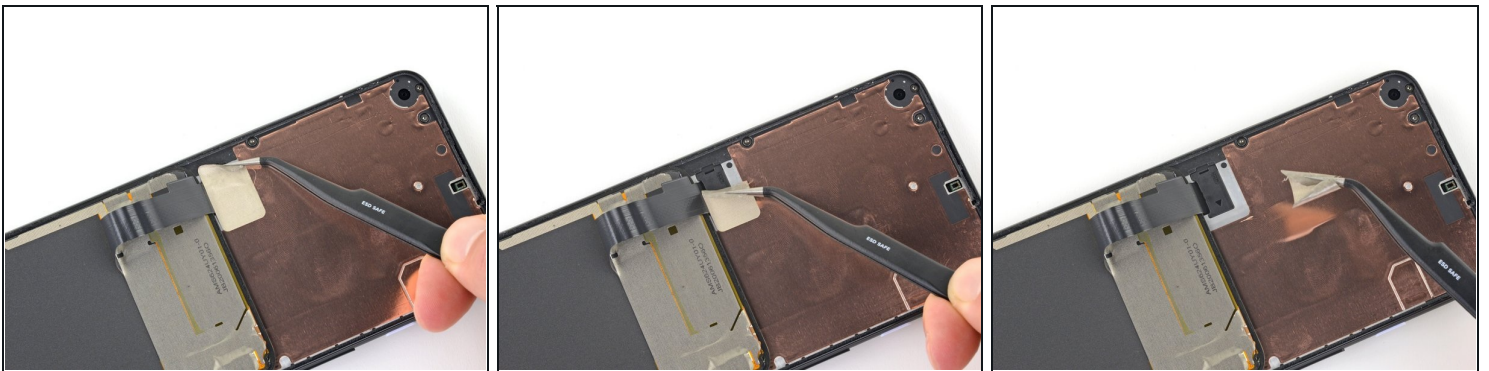
Step 12 — Flip the screen over



- Lift from the top edge and swing the screen over the bottom edge until you can rest it glass-side down.

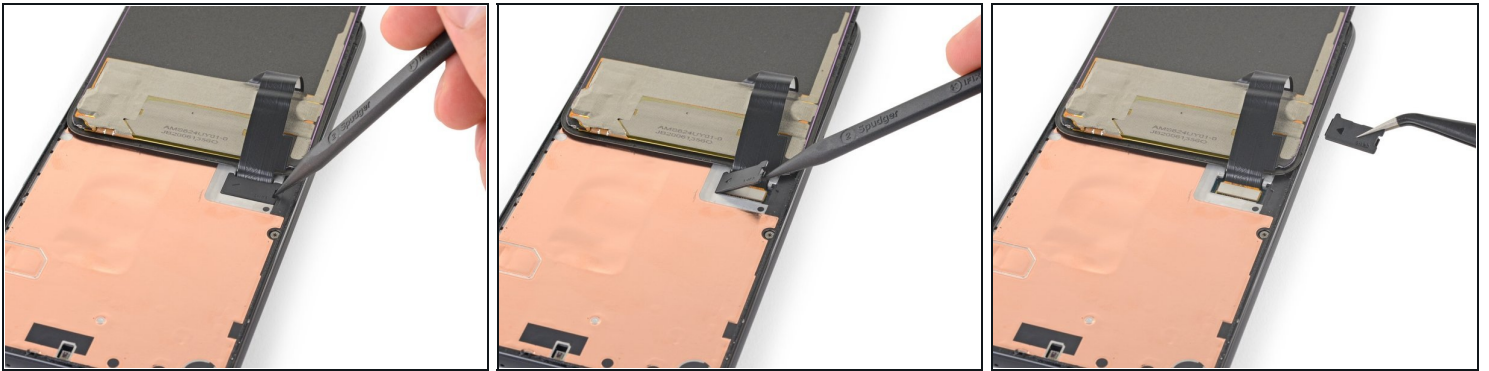
⚠ Be careful not to put any stress on the attached ribbon cable.

Step 13 — Disconnect the display



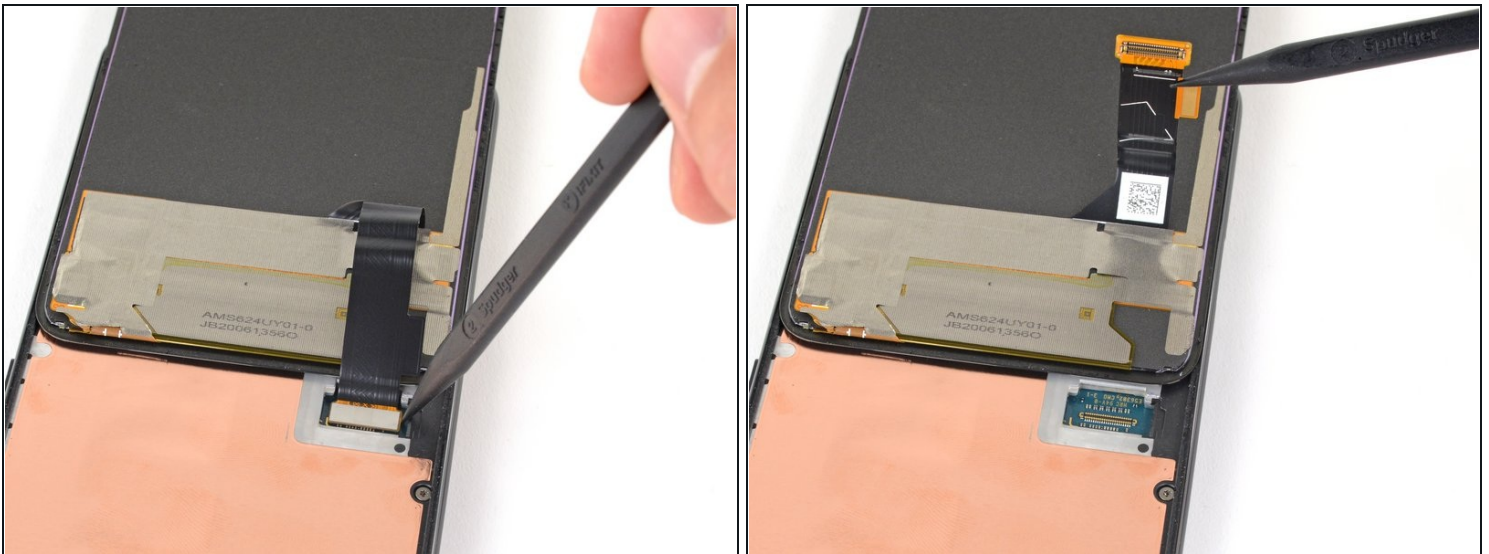
- Use your fingernail or a pair of tweezers to carefully peel off the tape covering the screen connector.
- ☒ If it is in good condition, you can re-use this tape during reassembly. Otherwise, replace it with a piece of Kapton tape.

Step 14



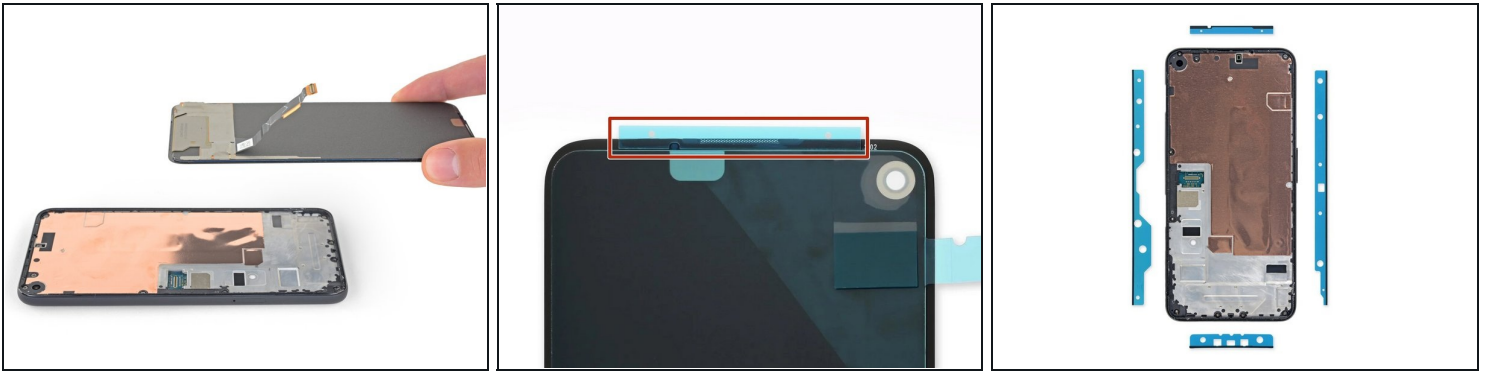
- Insert the tip of a spudger into the opening of the plastic cover securing the screen flex cable.
- Pry the plastic cover straight up until it pops out of place.
 - ❗ The plastic cover may spring into the air.
- Remove the plastic cover.

Step 15




- Use the tip of a spudger to pry up and disconnect the screen flex cable.
 - ✦ 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 16 — Remove the screen



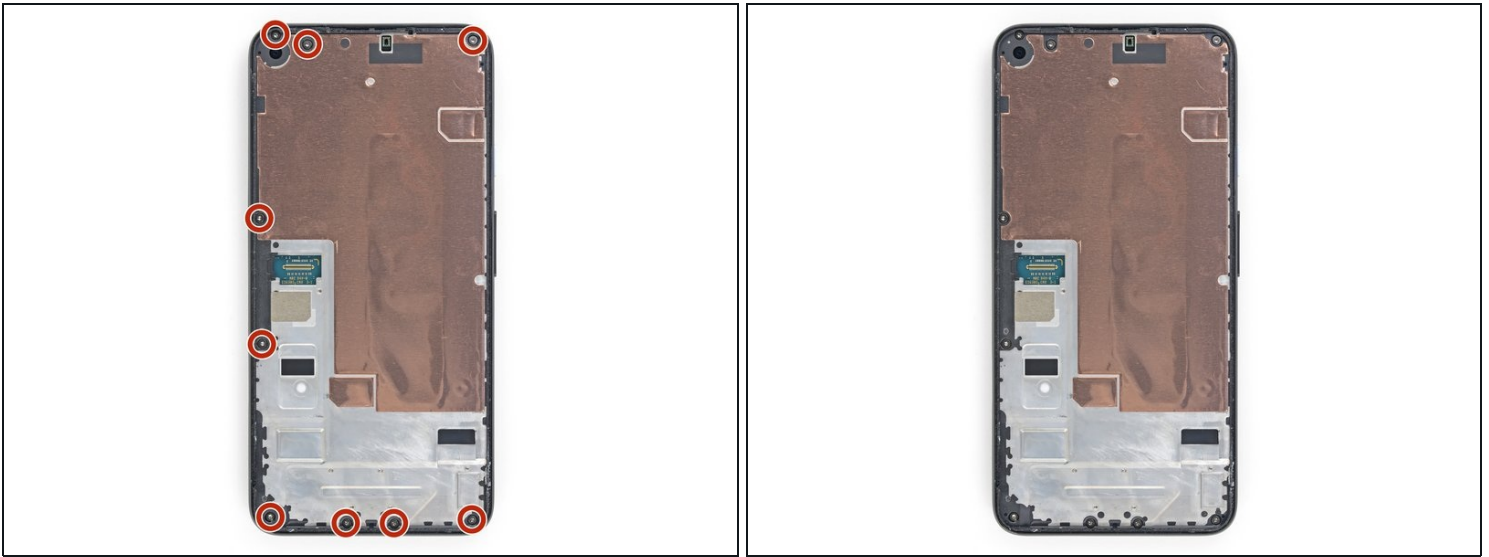
- Remove the screen.

 To install a new screen:

- Check if your replacement screen has speaker mesh and top edge adhesive pre-installed.
 - If it does, you won't need the [top edge adhesive](#).
 - If it doesn't, remove the larger clear liner from the [top edge adhesive](#) and apply it to the **screen** (not the frame). Make sure the larger cutout lines up with the speaker mesh.
- Follow [this guide](#) to apply the custom-cut adhesive.
- ① Use the third photo as a reference to position your adhesives.

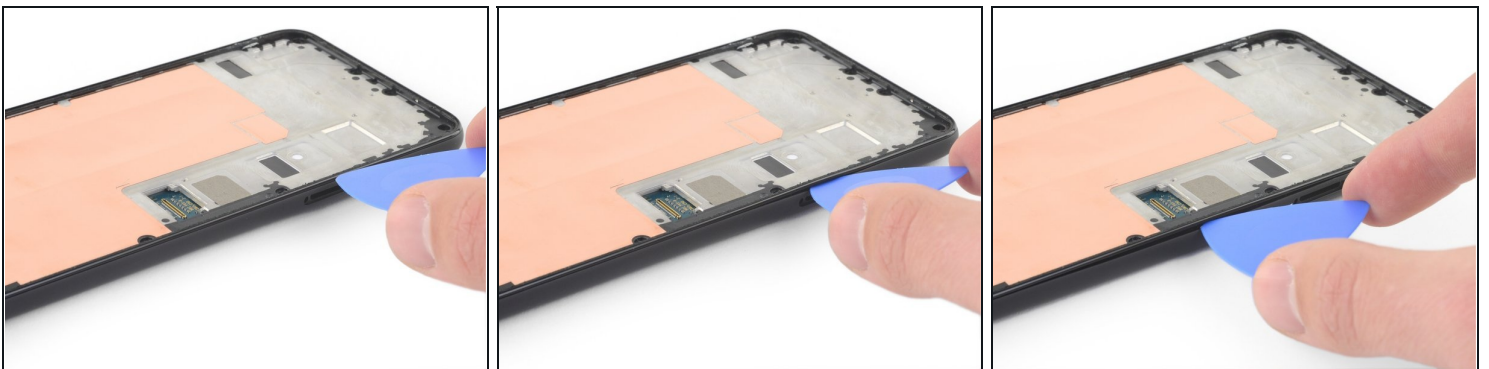
 During the boot-up process after reassembly, the screen will go through a calibration sequence. Don't touch the screen during this process, as it could result in improper touch calibration and create touch issues.

Step 17 — Remove the midframe screws



- Use a T3 Torx driver to remove the nine 4.4 mm-long screws securing the back cover to the midframe.
- ⓘ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.

Step 18 — Separate the back cover from the midframe



- Insert an opening pick into the seam between the midframe and the back cover, right above the SIM card slot.
- Slide the opening pick along the right edge of your phone to release the plastic clips securing the back cover to the midframe.

Step 19



- Continue sliding the opening pick along the top, left, and bottom edges of your phone until all of the plastic tabs securing the back cover to the midframe are released.

Step 20

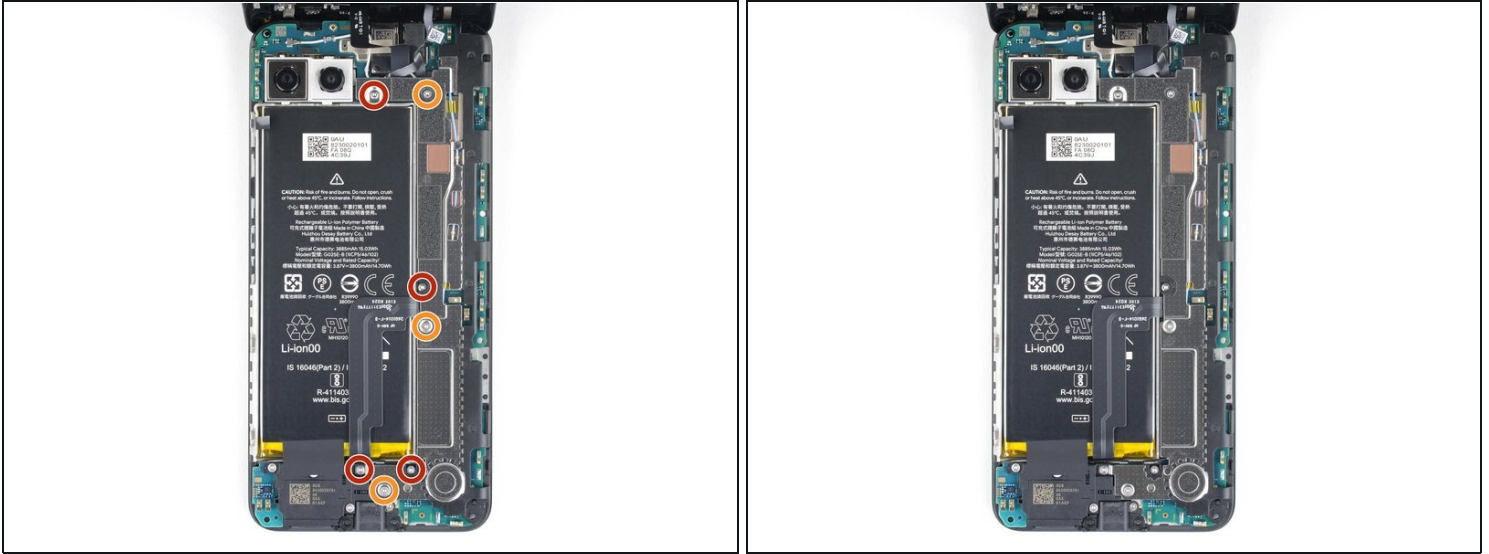


- Flip your phone over so the back cover is facing up.
- Carefully swing the back cover up to an upright position.

⚠ Do not remove the back cover. It is still attached by two ribbon cables.

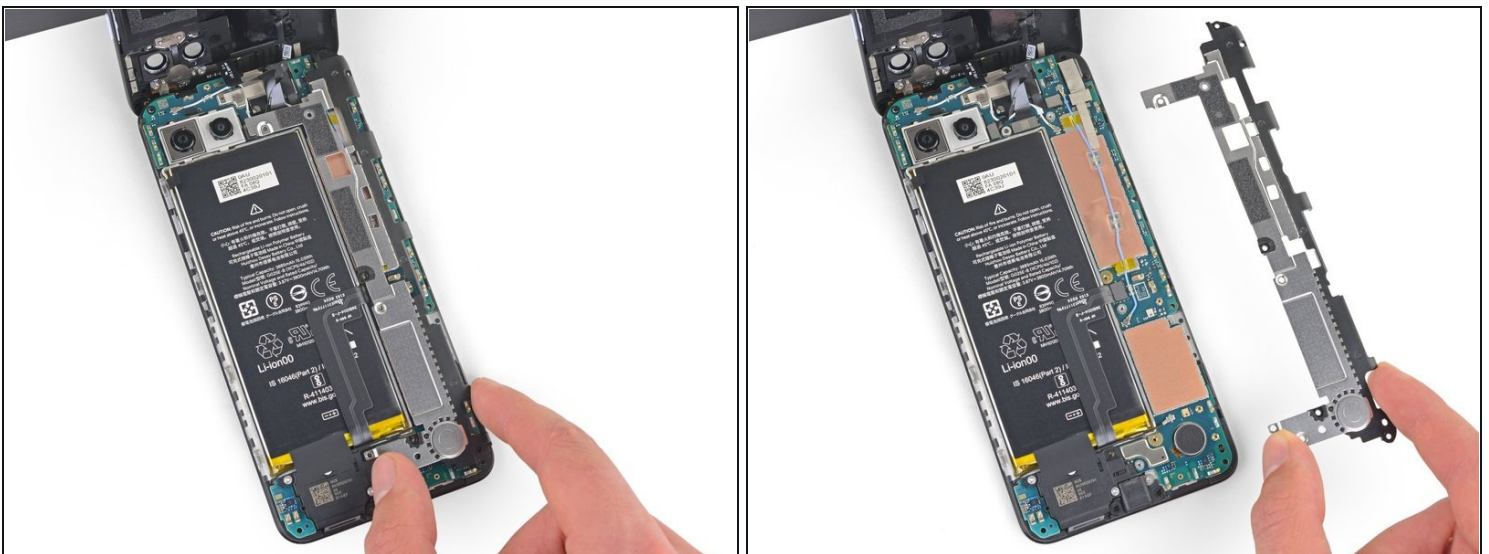
- Rest the back cover against an object such as a cardboard box or soda can.

Step 21 — Remove the motherboard bracket



- Use a T3 Torx screwdriver to remove the seven screws securing the motherboard bracket:
 - Four 4.0 mm-long screws
 - Three 2.1 mm-long screws

Step 22



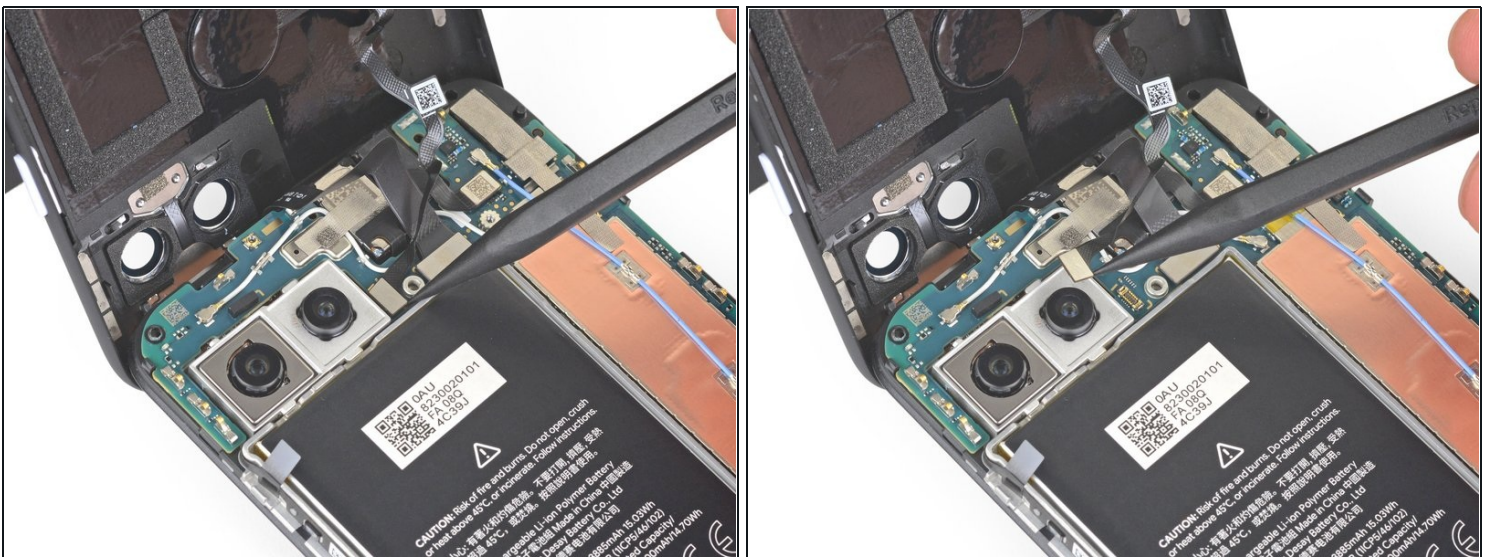
- Remove the motherboard bracket.

Step 23 — Disconnect the battery



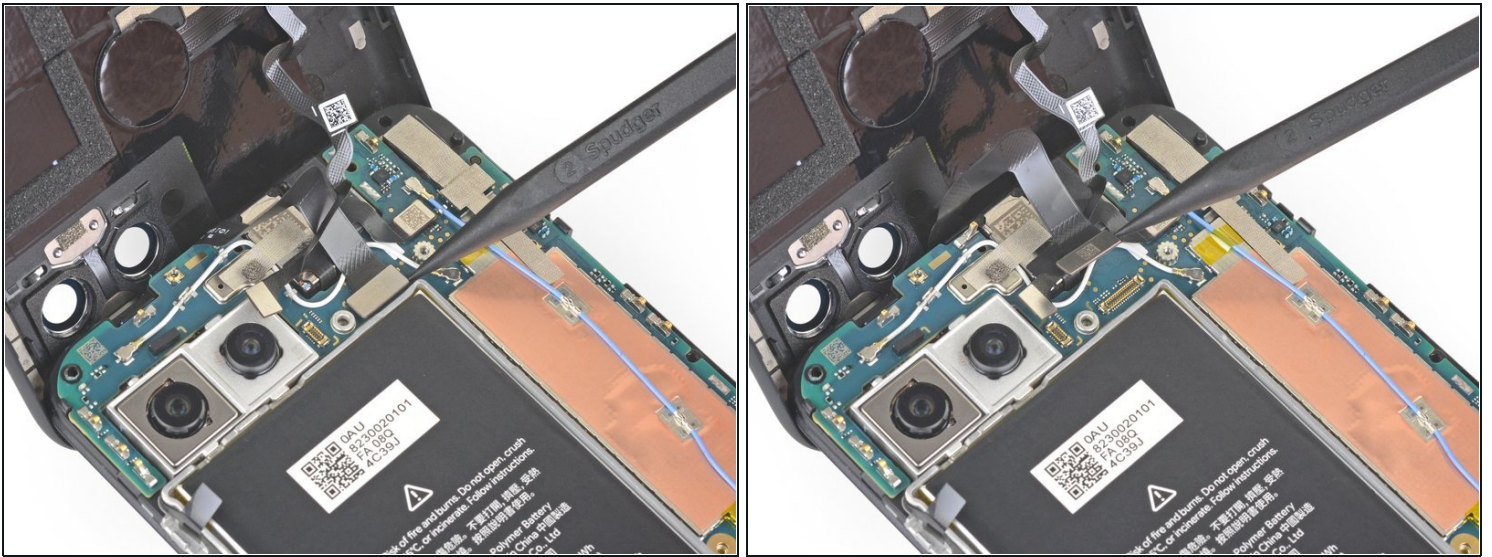
- Use the tip of a spudger to disconnect the battery cable from the motherboard.

Step 24 — Remove the back cover



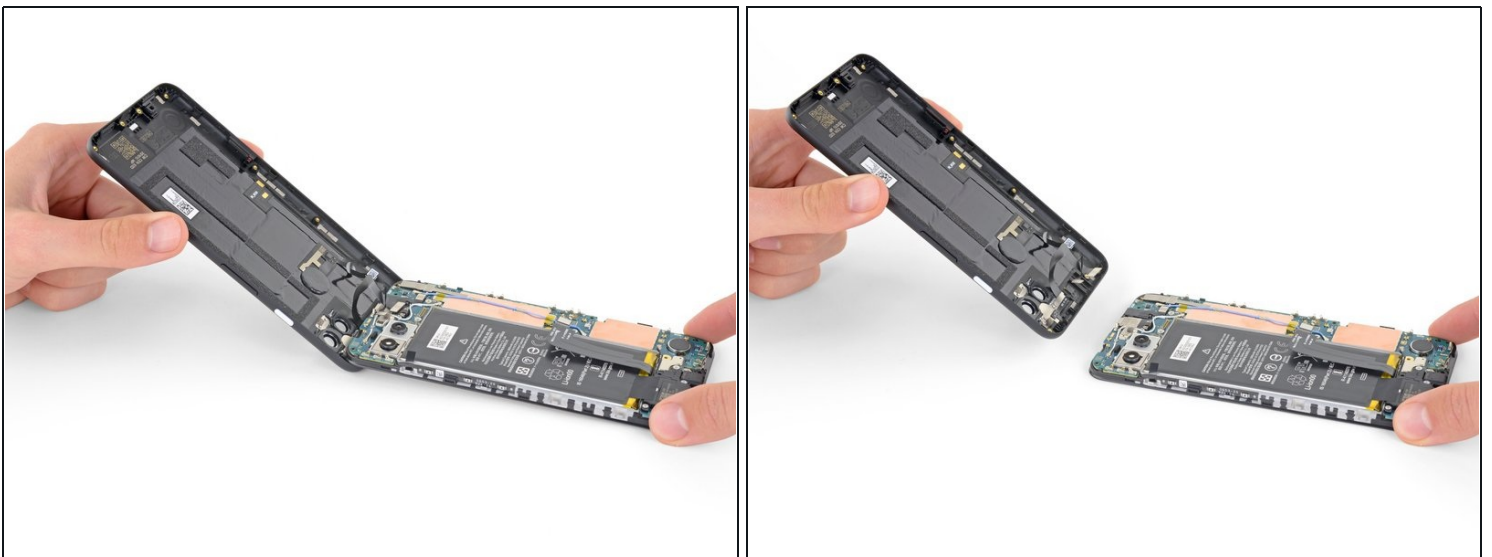
- Use the tip of a spudger to pry up and disconnect the fingerprint sensor cable.

Step 25



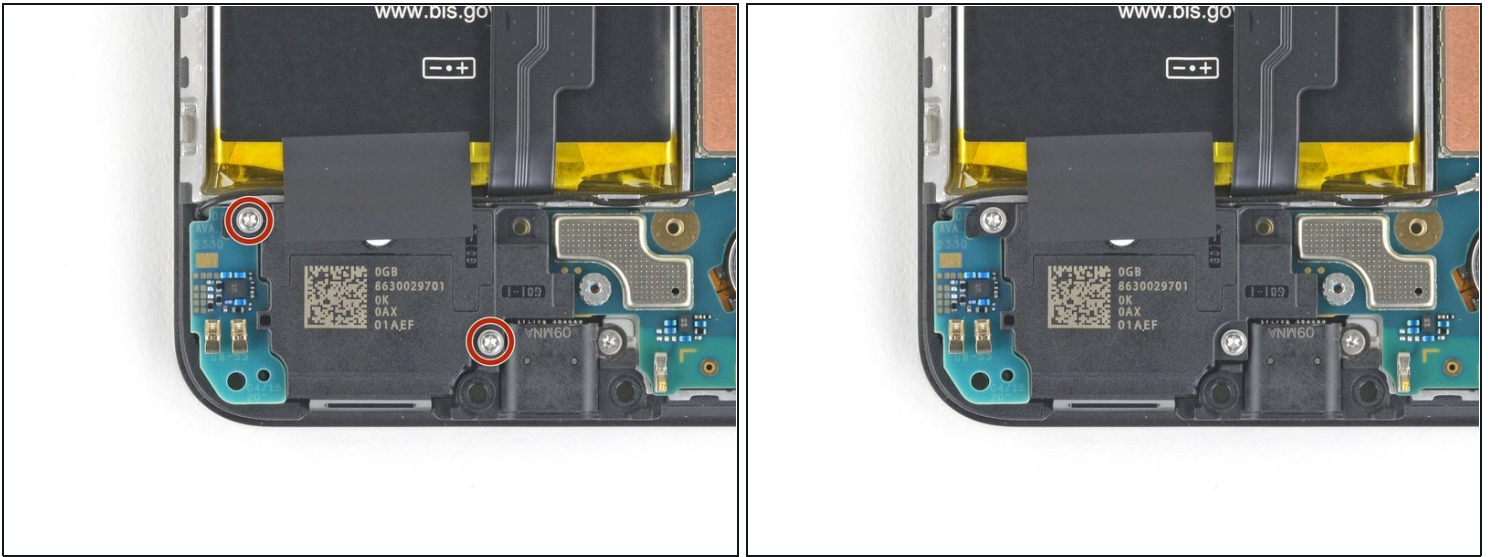
- Use the tip of a spudger to pry up and disconnect the front sensor array cable.

Step 26



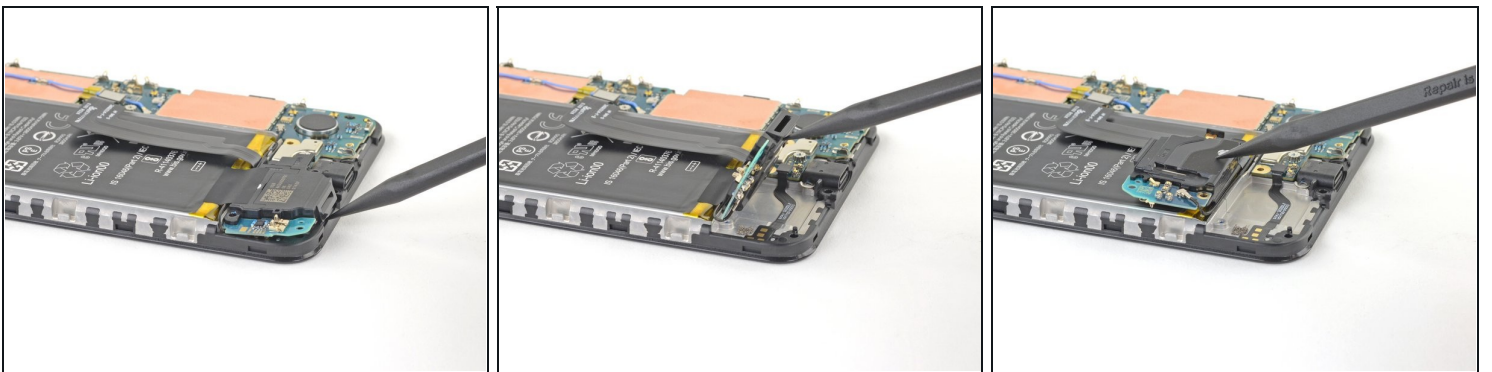
- Remove the back cover.

Step 27 — Remove the loudspeaker



- Use a T3 Torx driver to remove the two 4.2 mm-long screws from the loudspeaker assembly.

Step 28

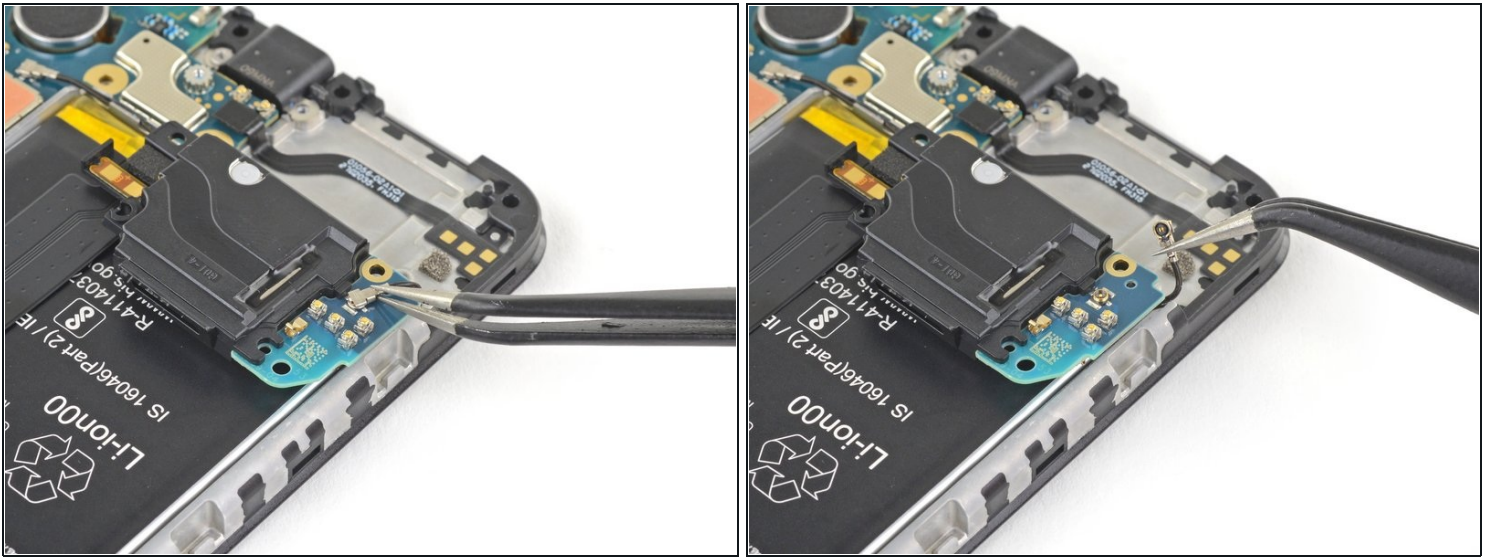


- Insert the tip of a spudger underneath the loudspeaker assembly.

⚠ Be careful not to puncture the white membranes on either side of the loudspeaker if you are intending to reuse it.

- Flip the loudspeaker assembly over so it lightly rests on top of the battery.

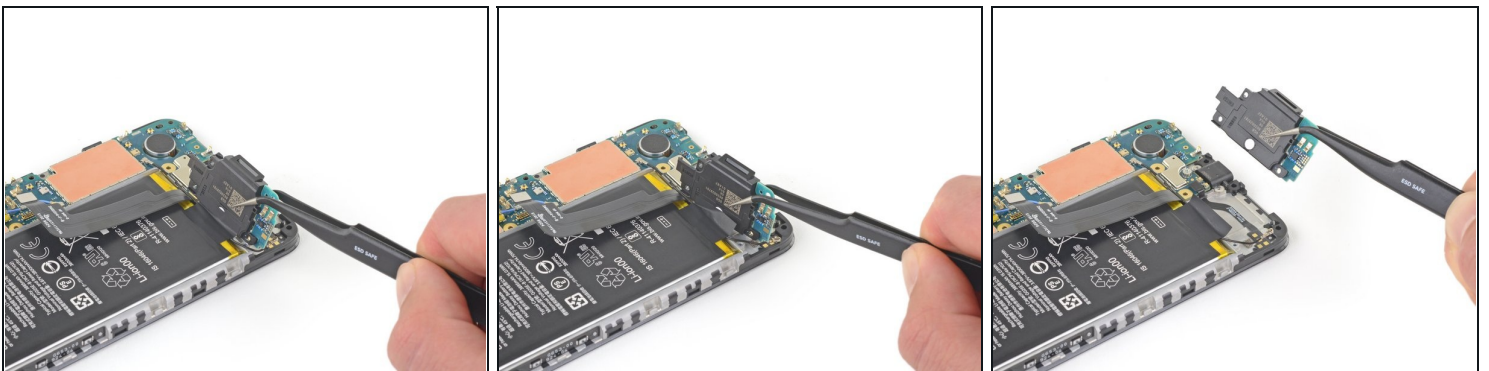
Step 29



- Use a pair of tweezers to disconnect the antenna cable from the loudspeaker assembly.

⚠ Grab the metal connector of the antenna cable with your tweezers—**not** the plastic cable.

Step 30

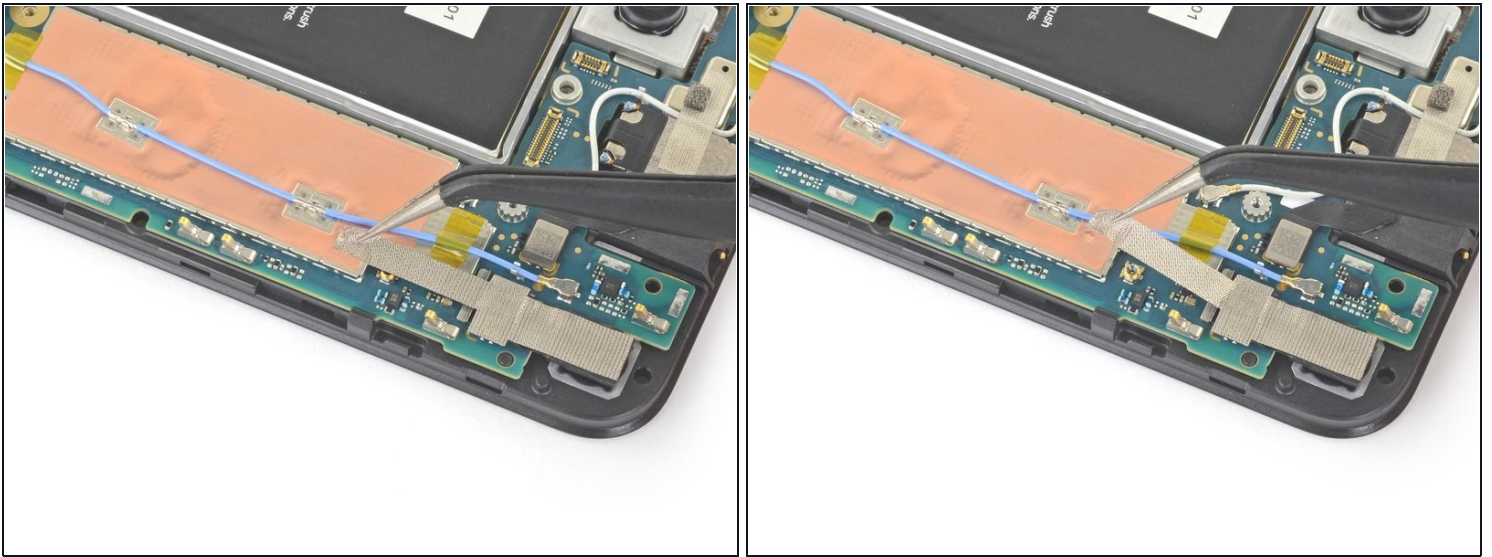


- Carefully peel the loudspeaker assembly up off the tape underneath it.

⚠ Be careful not to puncture the white membranes on either side of the loudspeaker if you are intending to reuse it.

- Remove the loudspeaker assembly.

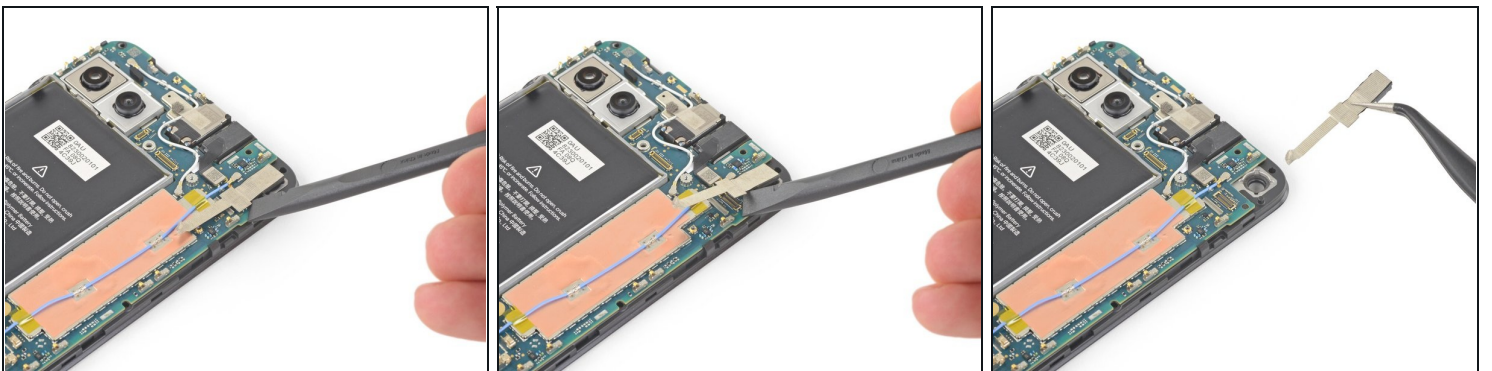
Step 31 — Remove the front-facing camera



- Use your fingers or a pair of tweezers to peel the tape off of the copper foil.

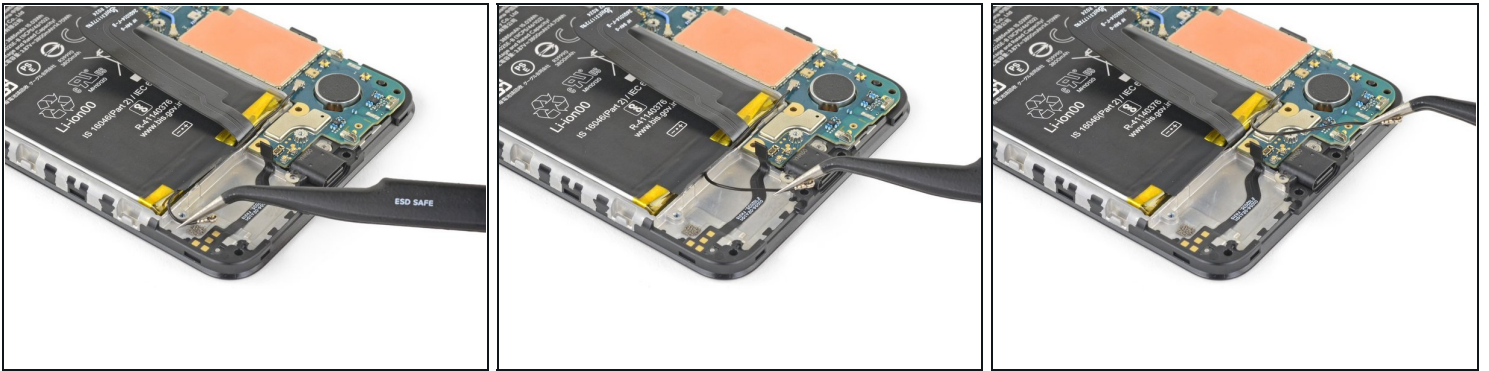
⚠ The copper foil is thin and easily punctured.

Step 32



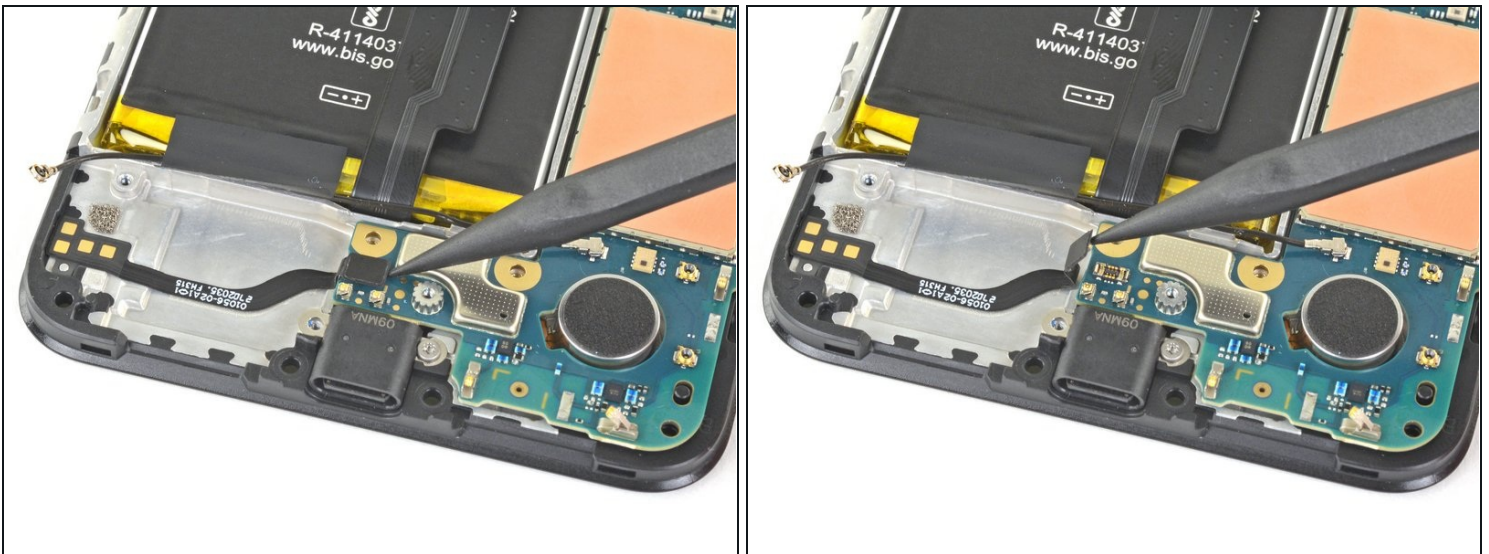
- Use the flat end of a spudger to disconnect the front-facing camera from the motherboard.
- Remove the front-facing camera.

Step 33 — De-route the antenna flex cable



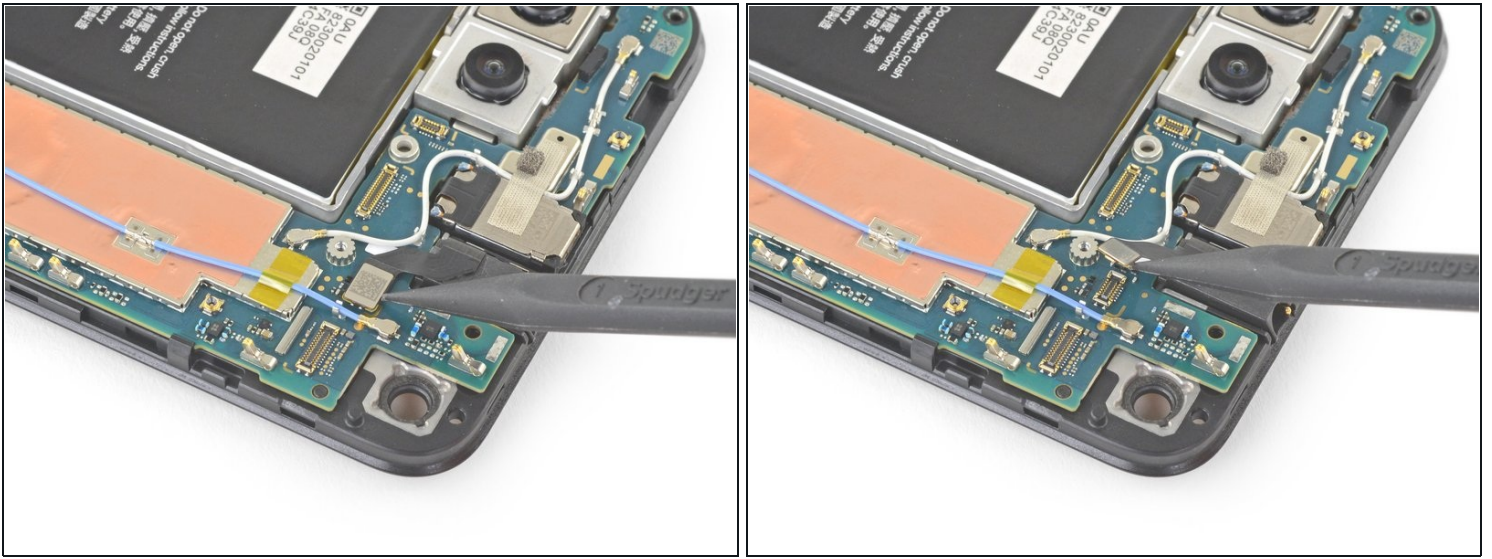
- Use your fingers or a pair of tweezers to pull the antenna cable out from underneath the tape covering it.

Step 34 — Disconnect the loudspeaker cable



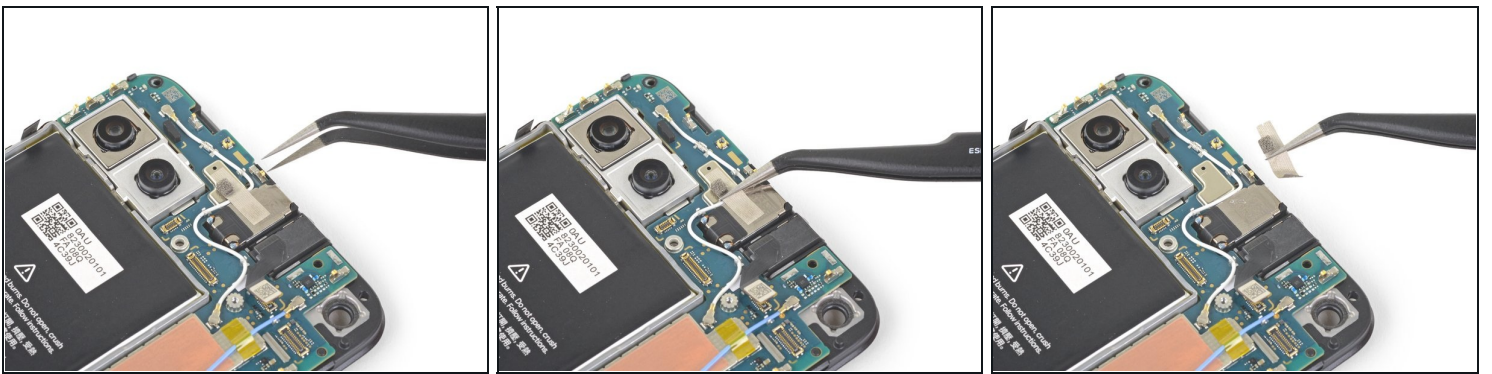
- Use the tip of a spudger to disconnect the loudspeaker cable from the motherboard.

Step 35 — Disconnect the headphone jack



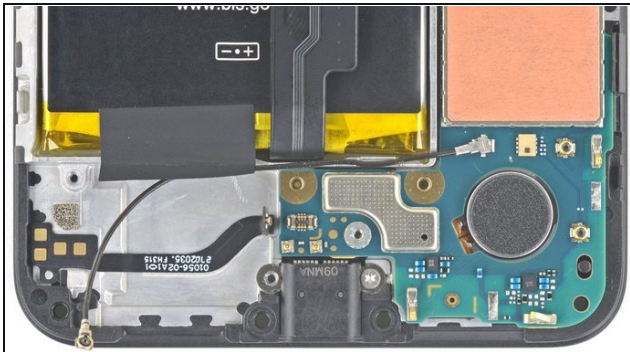
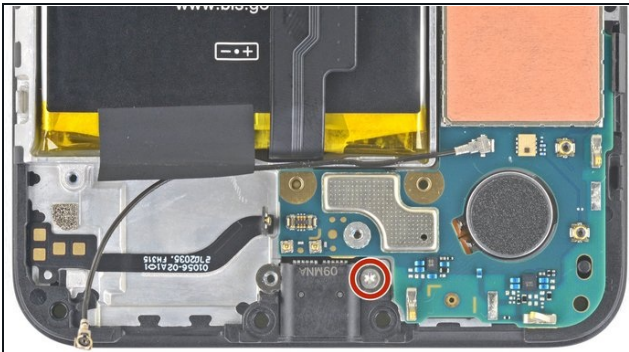
- Use the tip of a spudger to disconnect the headphone jack cable from the motherboard.

Step 36



- Use a pair of tweezers to remove the tape on the earpiece speaker covering the antenna flex cable.

Step 37 — Remove the charging port screw



- Use a T3 Torx screwdriver to remove the 2.1 mm-long screw securing the charging port.

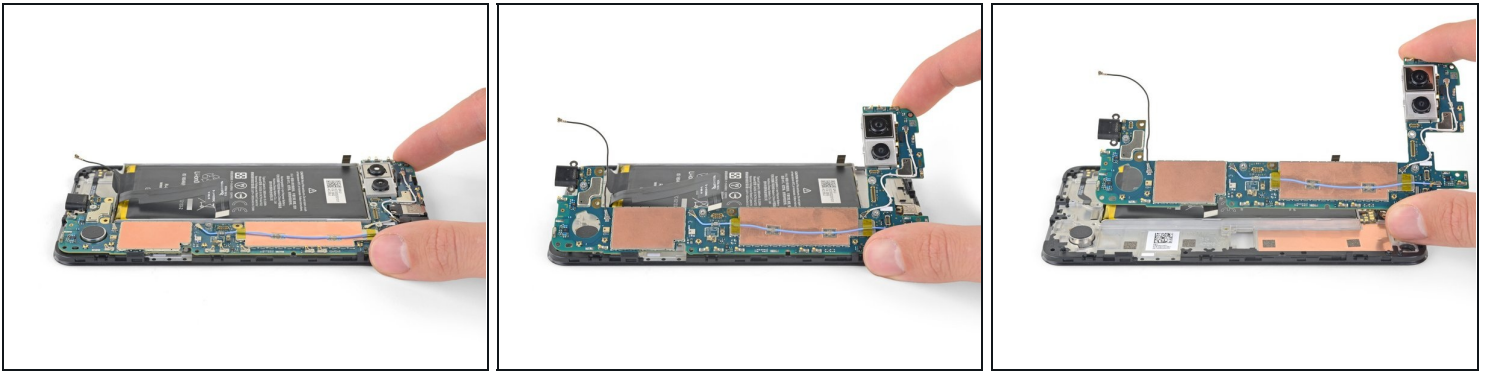
Step 38 — Remove the motherboard



i The motherboard is secured to the midframe by plastic clips.

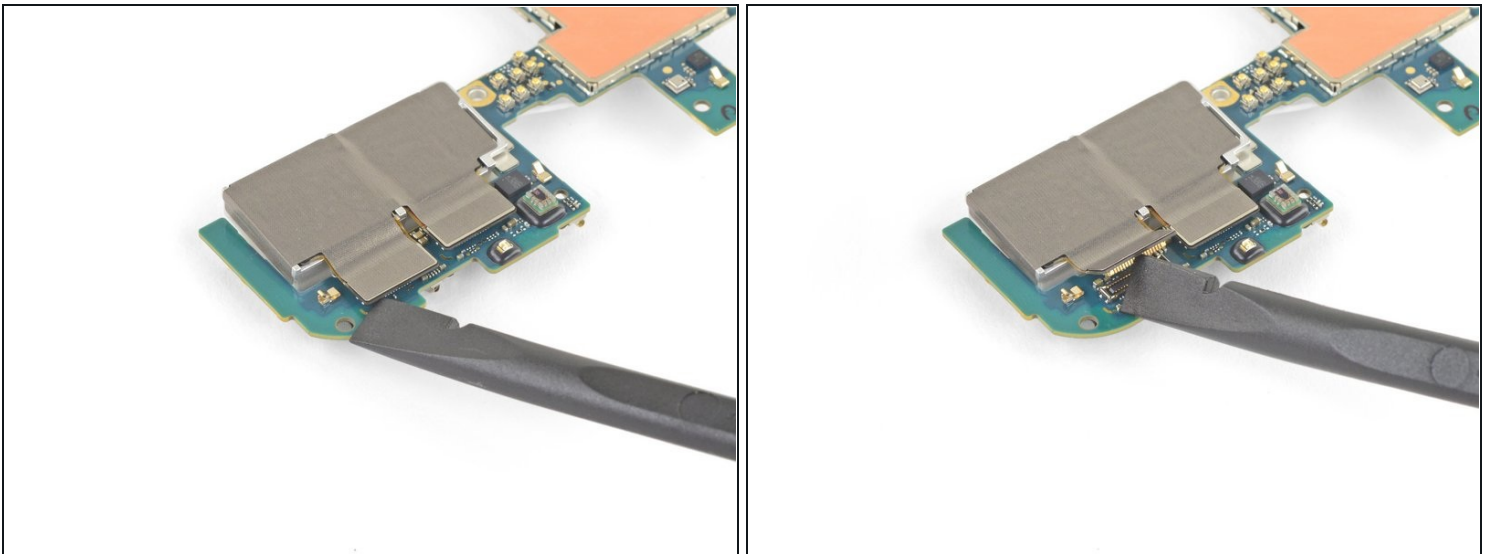
- Insert the tip of a spudger into the gap between the motherboard and the midframe near the front-facing cameras to pop it free from the first clip.

Step 39



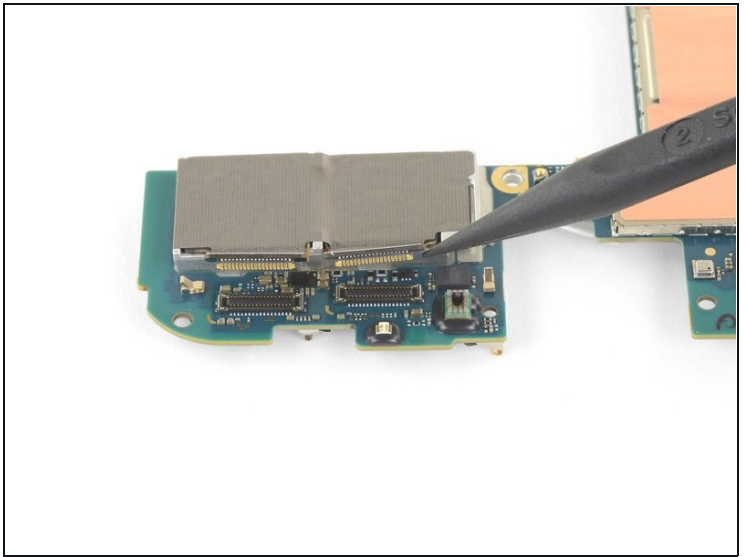
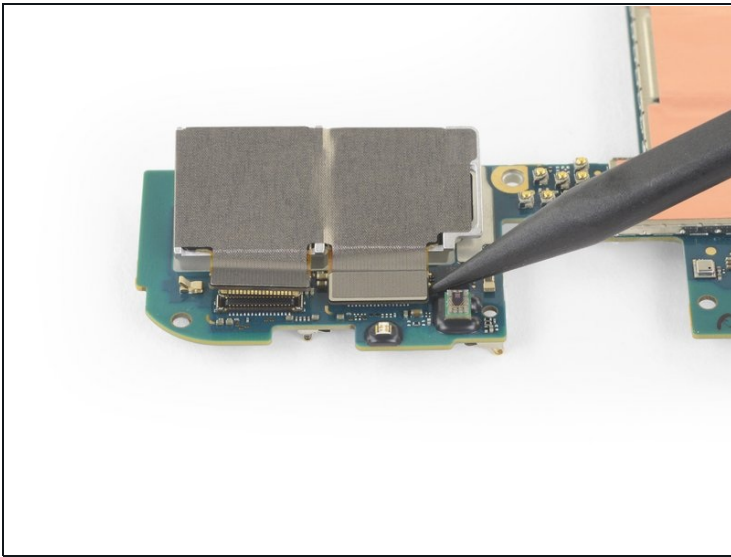
- Grab the motherboard with your fingers and open it like a book.
 - ⓘ This will release the rest of the clips.
- Lift the motherboard straight out to remove it.

Step 40 — Disconnect the camera assembly



- Use the flat end of a spudger to disconnect the left camera from the motherboard.

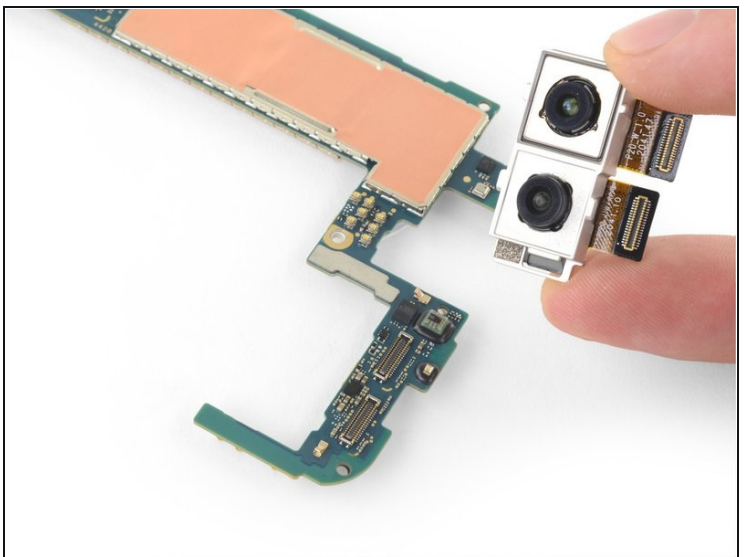
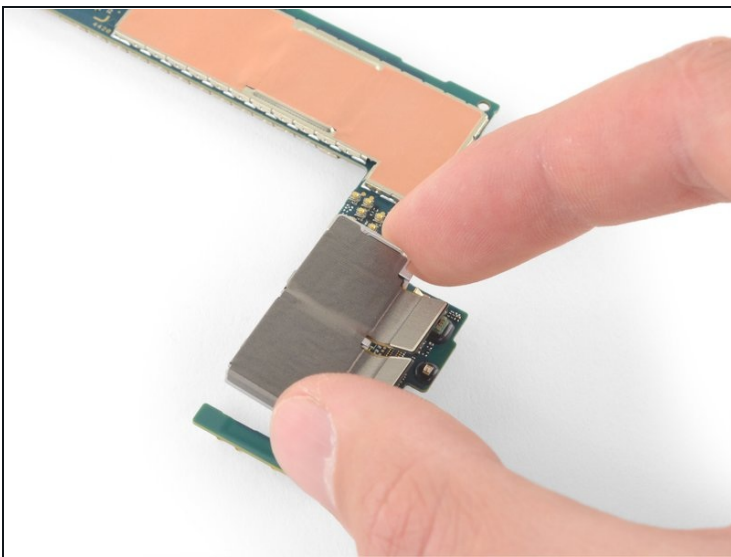
Step 41



- Use the tip of a spidger to disconnect the right camera from the motherboard.

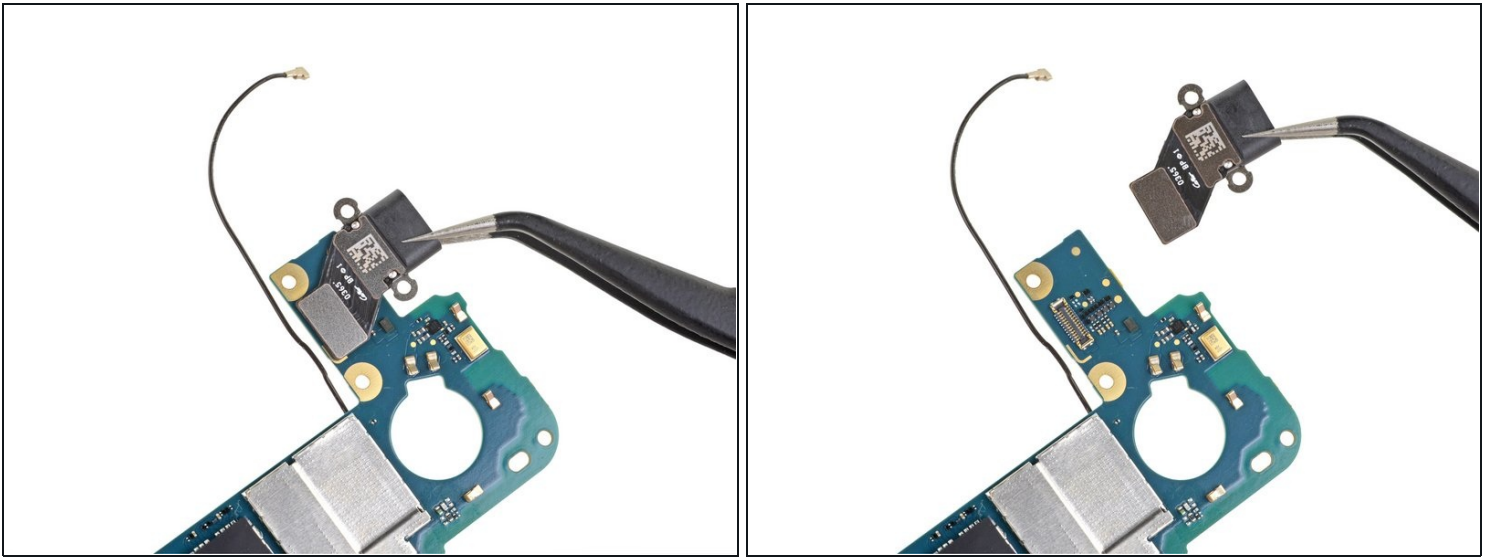
⚠ Use caution not to damage the small capacitors on the motherboard.

Step 42 — Remove the front-facing camera assembly



- Remove the front-facing camera assembly.
- ☒ If your replacement camera module has a plastic spacer, be sure to remove it before you install the module.
- ☒ Make sure the lens surface is smudge and dust free before you install the camera assembly.

Step 43 — Remove the USB-C port assembly



- Remove the USB-C port assembly from the motherboard.
- Only the motherboard remains.

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? Try some [basic troubleshooting](#), or ask our [Answers community](#) for help.