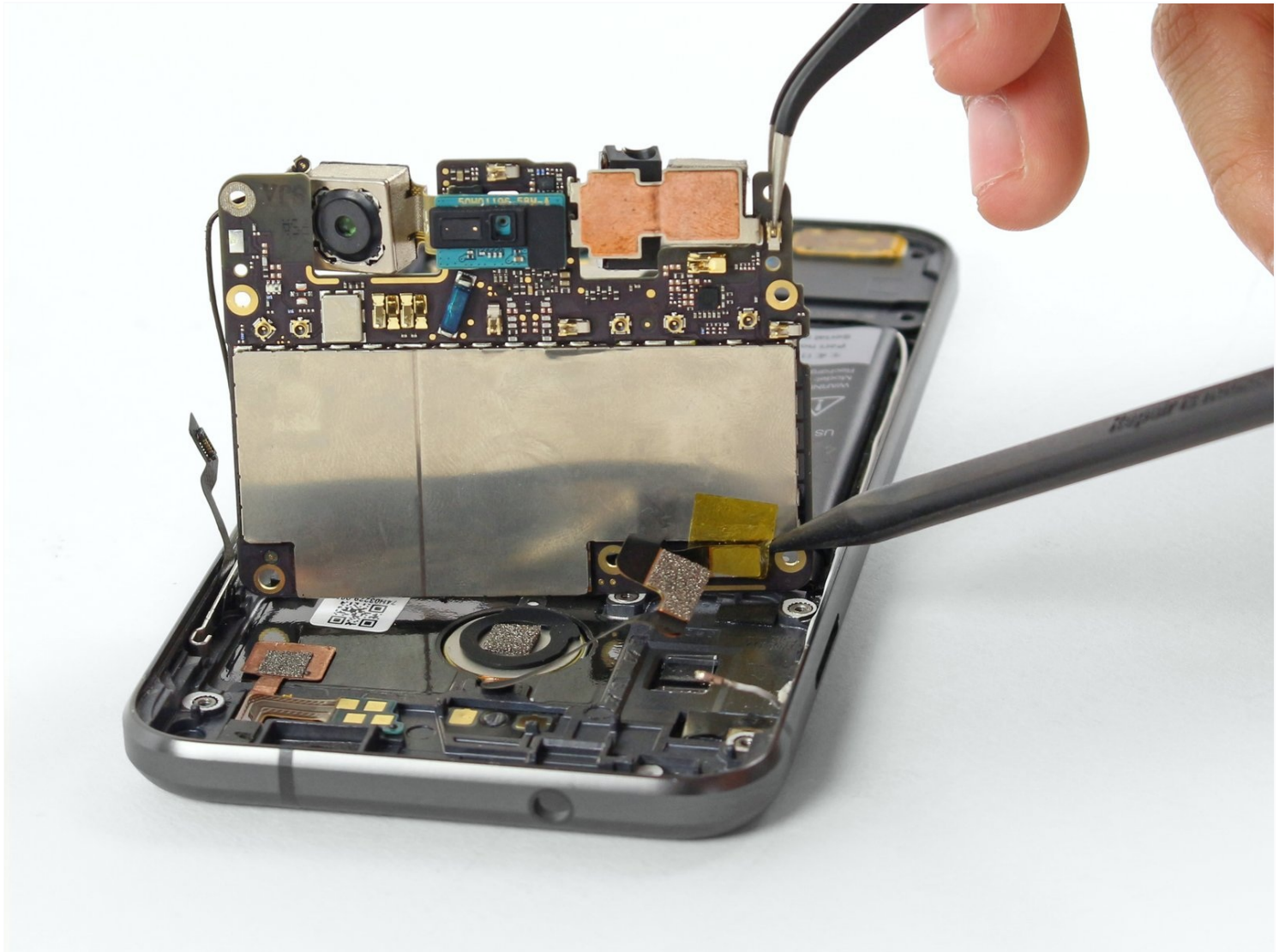




Google Pixel Motherboard Replacement

This repair guide was authored by a member of...

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INTRODUCTION

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

This guide will show you how to replace a Google Pixel motherboard. If you're having issues with the overall functionality of your phone and are unable to diagnose the root cause, consider replacing the motherboard of your device.

TOOLS:

[Suction Handle](#) (1)
[iFixit Opening Picks \(Set of 6\)](#) (1)
[iFixit Opening Tool](#) (1)
[Spudger](#) (1)
[T5 Torx Screwdriver](#) (1)
[Tweezers](#) (1)
[iOpener](#) (1)
[SIM Card Eject Tool](#) (1)

PARTS:

[Google Pixel G-2PW4100 Motherboard](#) (1)
[Google Pixel/Pixel XL SIM Card Tray](#) (1)
[Google Pixel/Pixel XL Rear Camera](#) (1)

Step 1 — Display



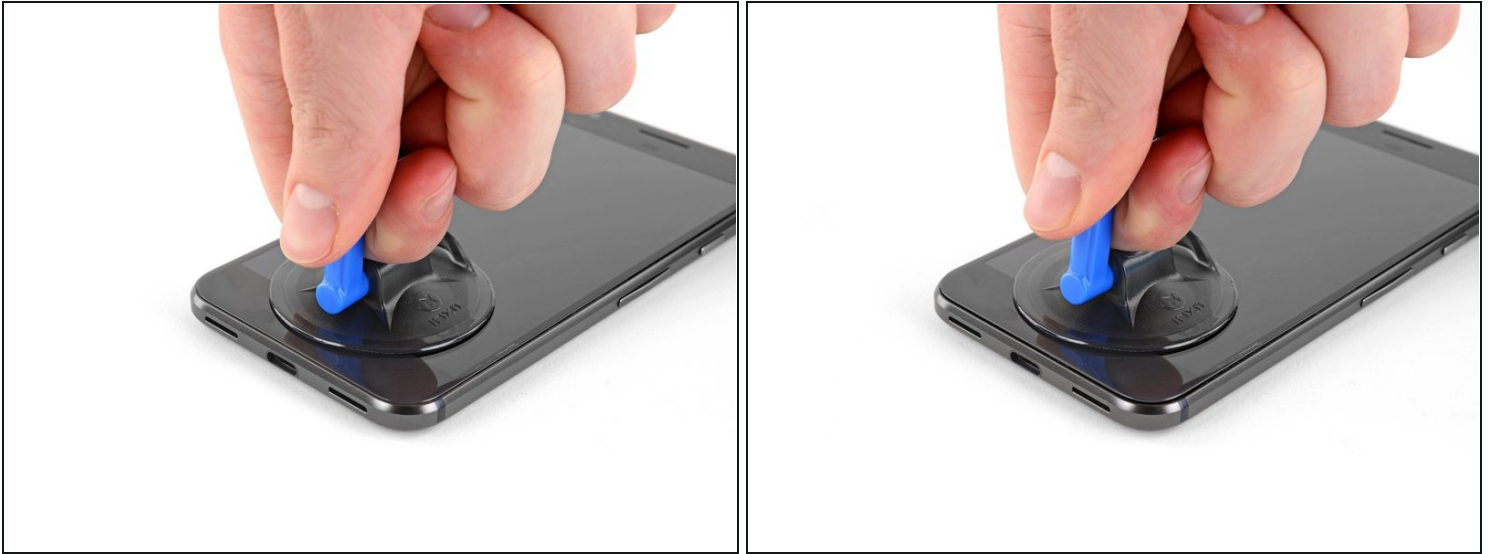
- Turn off the device.
- [Prepare an iOpener](#) to heat the edges of the display and soften the adhesive underneath. Alternatively, you may use a heat gun or a hair dryer.
- ① The surfaces near the speaker and microphone (top and bottom respectively) have larger adhesive sections. These areas may require slightly longer heat exposure. The display should be heated until it's slightly too hot to touch, for roughly two minutes.

Step 2



- ⓘ In the following steps, you will separate the display panel by slicing through the adhesive bonding the display to the Pixel's chassis.
- For reference, the back of the display panel is shown at left. Note the narrow clearance between the side of the display unit and the OLED panel. (The bezels indicate this spacing on the front.)
- ⚠ Inserting an opening tool deeper than 1.5 mm into the sides of the device, or 9 mm into the top and bottom can permanently damage the display.

Step 3



- Use a [suction handle](#) to pull up on the display and create a slight gap between the display and the phone's chassis.
- ① If your display is cracked, [cover it with packing tape](#) to help the suction cup adhere and prevent glass shards from popping loose.
- You may need to apply more heat if this doesn't come up. Don't be impatient, **this will take time**. Once you can gently insert a tool in the gap, move on to the next step.

Step 4



- Insert an opening pick or a playing card into the gap between the chassis and the display assembly.
- Begin to slide the opening pick around the edge of the display, cutting through the adhesive that secures it.

⚠ Do not try to lift or pry the screen off with the pick. Simply slide it around to detach the adhesive.

ⓘ The display panel is extremely fragile. If you plan to re-use your display, take care to insert your tool only as far as necessary to separate the adhesive. Inserting the tool any further can damage the OLED panel under the glass.

Step 5



- Continue carefully separating the adhesive around the rest of the device.

⚠ 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.

⚠ Take extra care with the side bezels, which are only 1.5 mm deep.

Step 6



- With the adhesive cut, slowly lift the display up from the top (the side with the speaker-grille cutout), carefully flip it over vertically toward the bottom of the device, and rest it on its face, as shown.
 - ⓘ Don't forget there's sticky adhesive everywhere, so consider resting an [opening pick](#) between the screen and display, to avoid spreading the gunk!

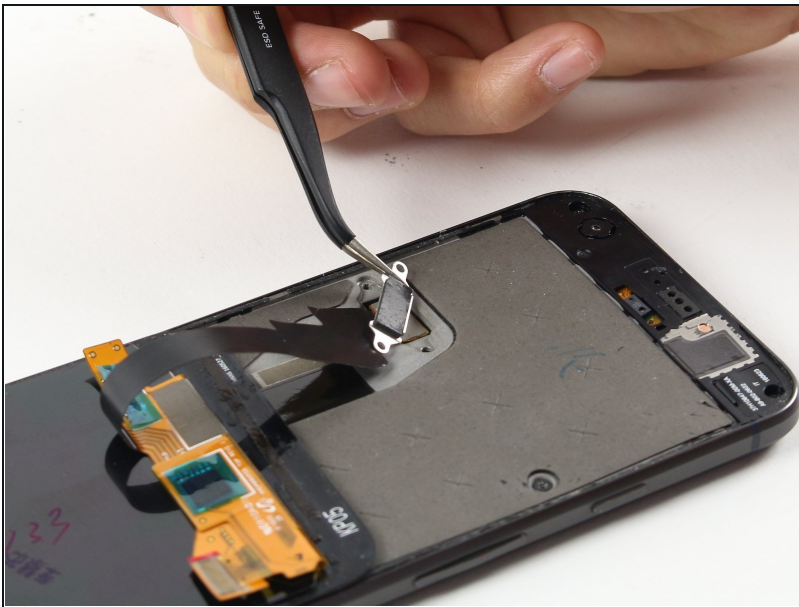
⚠ Do not attempt to completely remove the display yet, as it is still connected by a fragile ribbon cable. Be careful to not to strain the cable while positioning the display.

Step 7



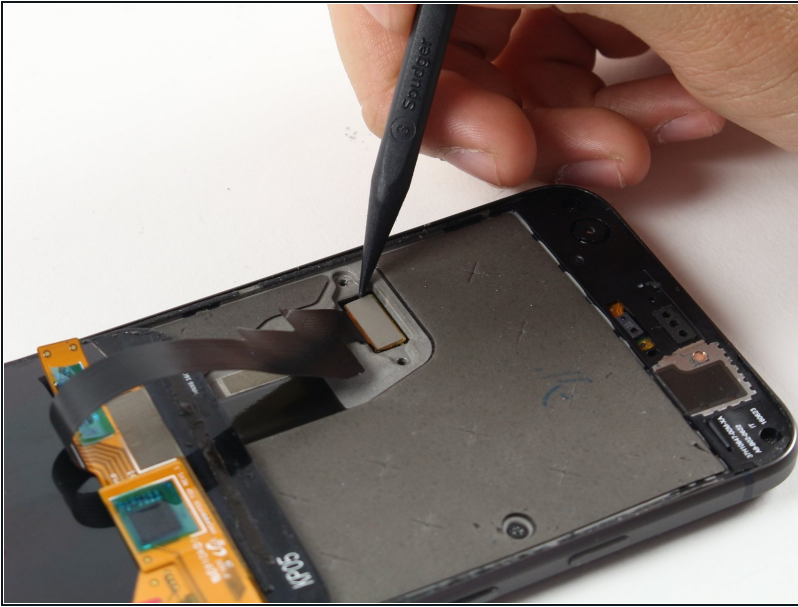
- Use a T5 Torx driver to remove the two black 3.5 mm T5 screws securing the display cable connector bracket.
- ① Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.

Step 8



- Use [tweezers](#) to remove the bracket that holds the display connector in place.
- This is just a piece of metal, and should come up very easily. (The cable is removed in the next step.)

Step 9



- Use a spudger to pry up the [display cable connector](#), freeing the display.

★ On reassembly, gently snap one side in, then the other.

⚠ Do not force this type of connector into place, as damage can occur. (You will need to feel a light snap, but force beyond this will permanently damage your connector.)

Step 10



- Remove the display.
- ☑ Some replacement displays do not come with an [earpiece speaker grille](#). If your replacement screen doesn't have one, be sure to transfer the grille from your old display to the new one.
- ☑ During reassembly, pause here to test the functionality of your new part and [replace the display adhesive](#).
- ☑ 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.

Step 11 — Midframe



- Use a T5 Torx driver to remove the nine 3.5 mm screws securing the midframe.

Step 12



- The midframe is held tightly in place by five clips. To release these clips, apply inward pressure with an opening tool as shown in the steps below.

Step 13



- Wedge an opening pick into the notch that is located at the bottom right corner of the phone.

Step 14



- Slide the opening pick up both sides of the device in the small space between the midframe and the rear case to release the clips holding it in place.
 - ① Note that the clips are not released by sliding *through* them, but rather the inward pressure the opening pick creates as it enters the gap *around* them.
 - ① If the clasps fail to come undone, try pushing the edge you're working on inward with your hand, or using a thicker tool like a spudger.

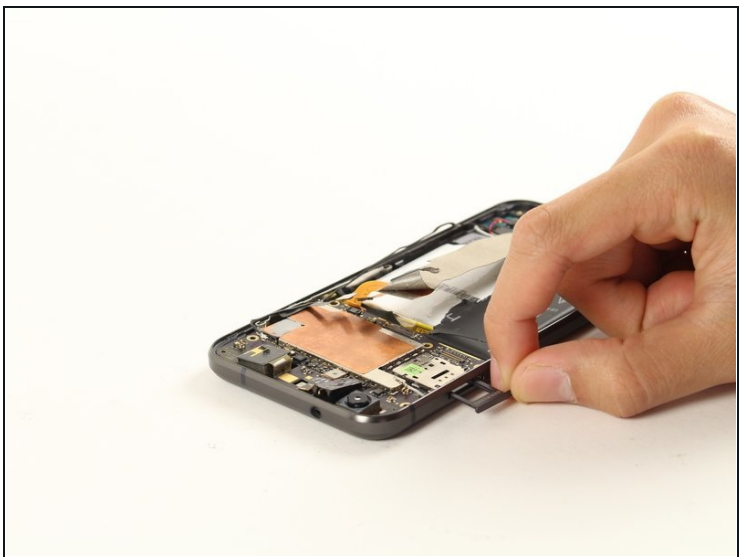
⚠ Do not attempt to remove the midframe yet! There is still a fragile ribbon cable underneath connecting the earpiece speaker to the motherboard.

Step 15



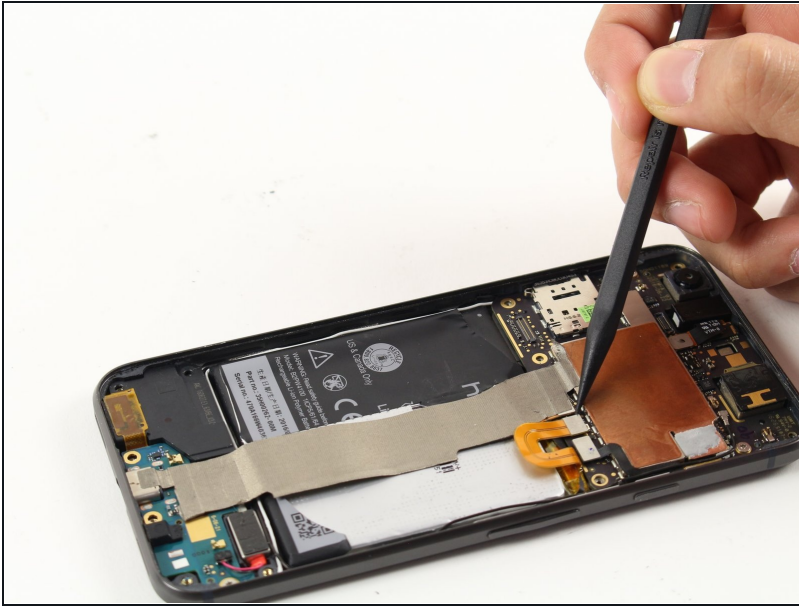
- Use a spudger to pry the earpiece speaker cable connector straight up, disconnecting it from the motherboard.
- Remove the mid-frame from the device.
- ☑ During reassembly, reattach the earpiece speaker cable and insert the top side of the midframe before you snap the clips back into place.

Step 16 — Motherboard



- Use a SIM ejection tool to remove the SIM card tray located at the top left of the device.

Step 17



- Using a spudger, disconnect the battery ribbon cable from the motherboard.

Step 18



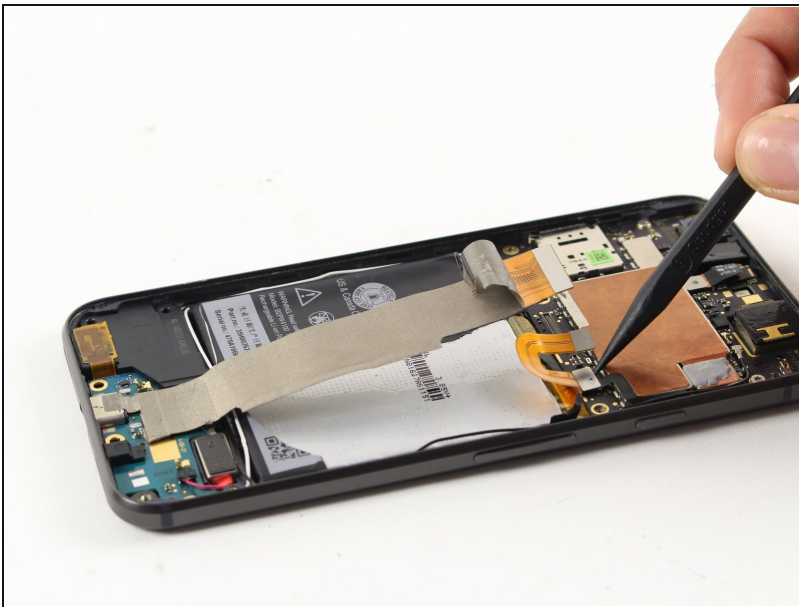
- Use [tweezers](#) to lift up the adhesive strip at the top of the battery, and peel it back to expose the connector underneath.

Step 19



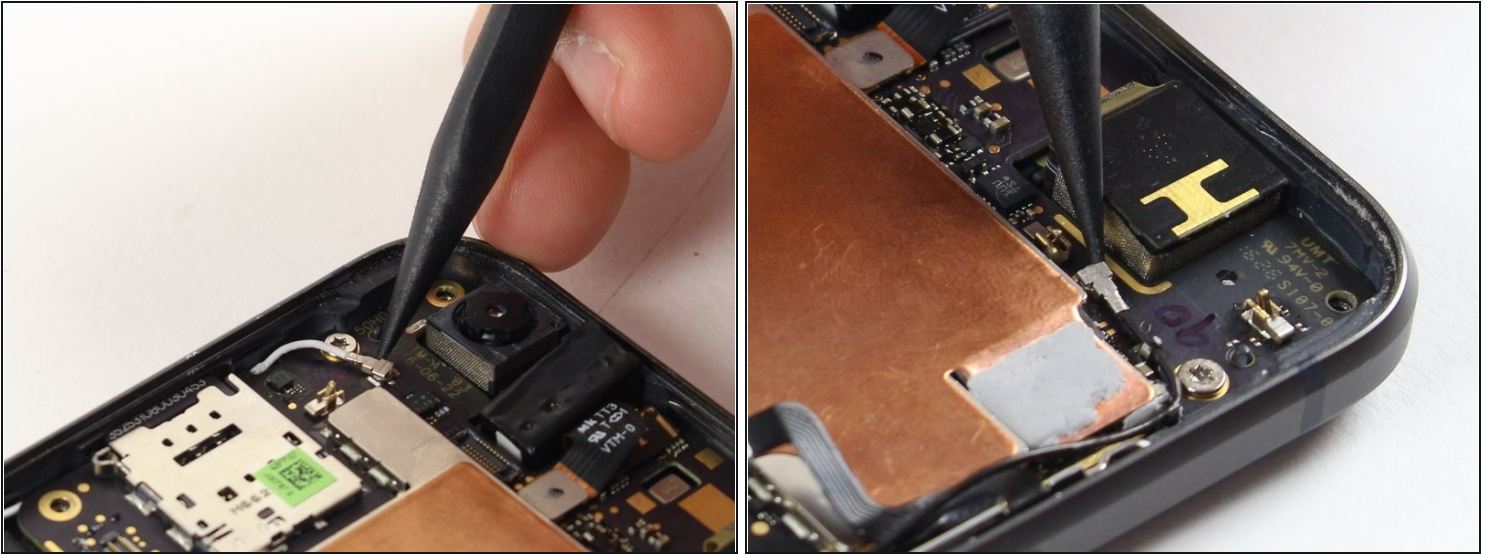
- Use a spudger to disconnect the charging port ribbon cable from the motherboard.

Step 20



- Use a spudger to disconnect the thin, black ribbon cable connecting the power and volume buttons to the motherboard.

Step 21

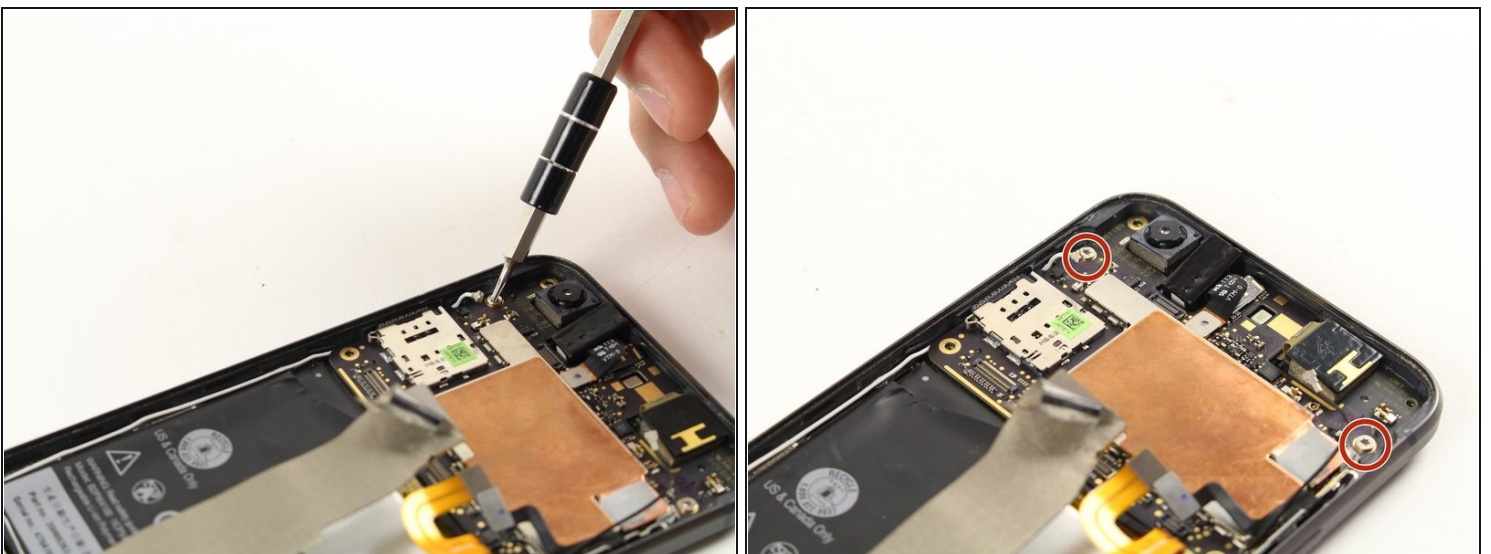


- Use a spudger to pry up the black and white [coaxial cables](#) attached to the upper right and left-hand sides of the motherboard.

⚠ Coaxial cable connectors and sockets are fragile. To avoid damaging the connectors, be sure to gently pry them straight up with your spudger.

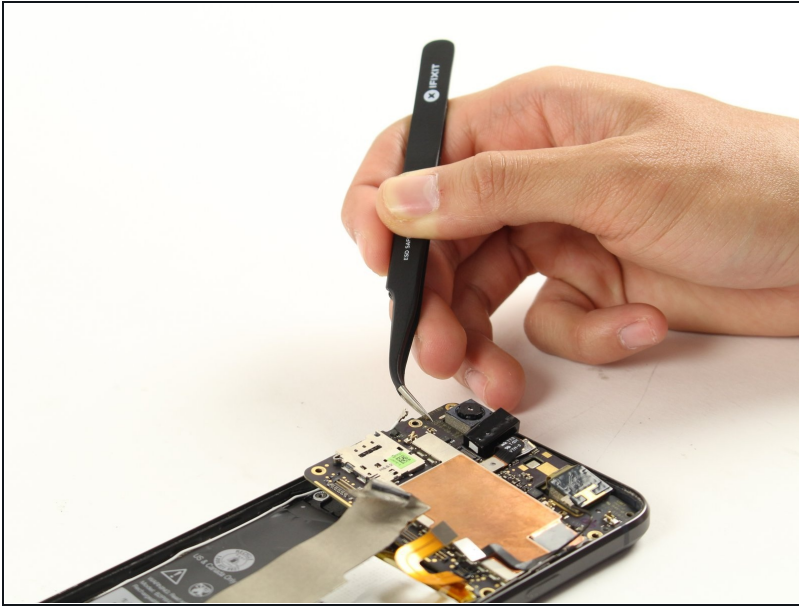
- ☑ To reconnect these cables, use tweezers to position each one carefully over its socket on the board, and then press it straight down until it snaps into place.

Step 22



- Remove the two silver 2.5 mm T5 screws holding the motherboard in place.

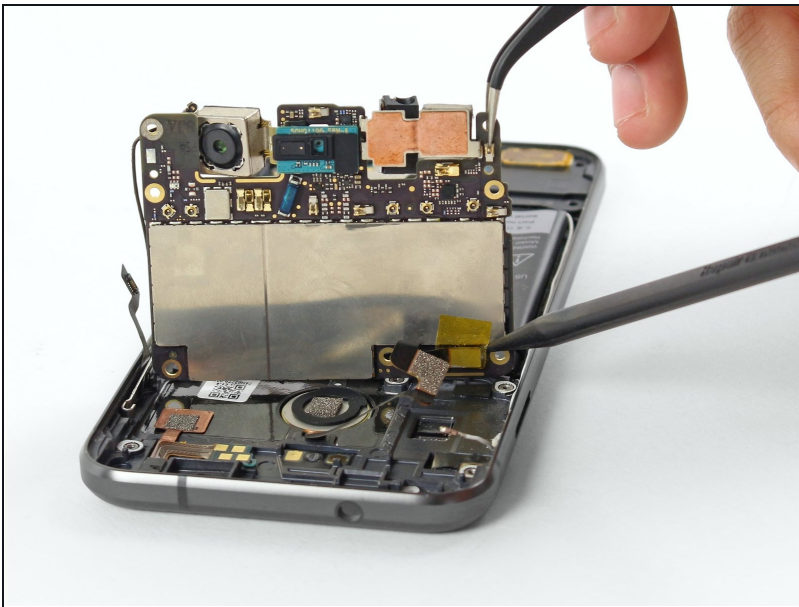
Step 23



- Use tweezers to carefully lift the top (the camera side) of the motherboard out of the device.

⚠ Don't try to fully remove the motherboard yet—there is a fragile cable on the backside that is still connected to the fingerprint sensor.

Step 24



- While holding the motherboard up with tweezers, use a spudger to disconnect the fingerprint sensor cable from the motherboard.
- Remove the motherboard completely from the device.

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? Check out our [Answers community](#) for troubleshooting help.