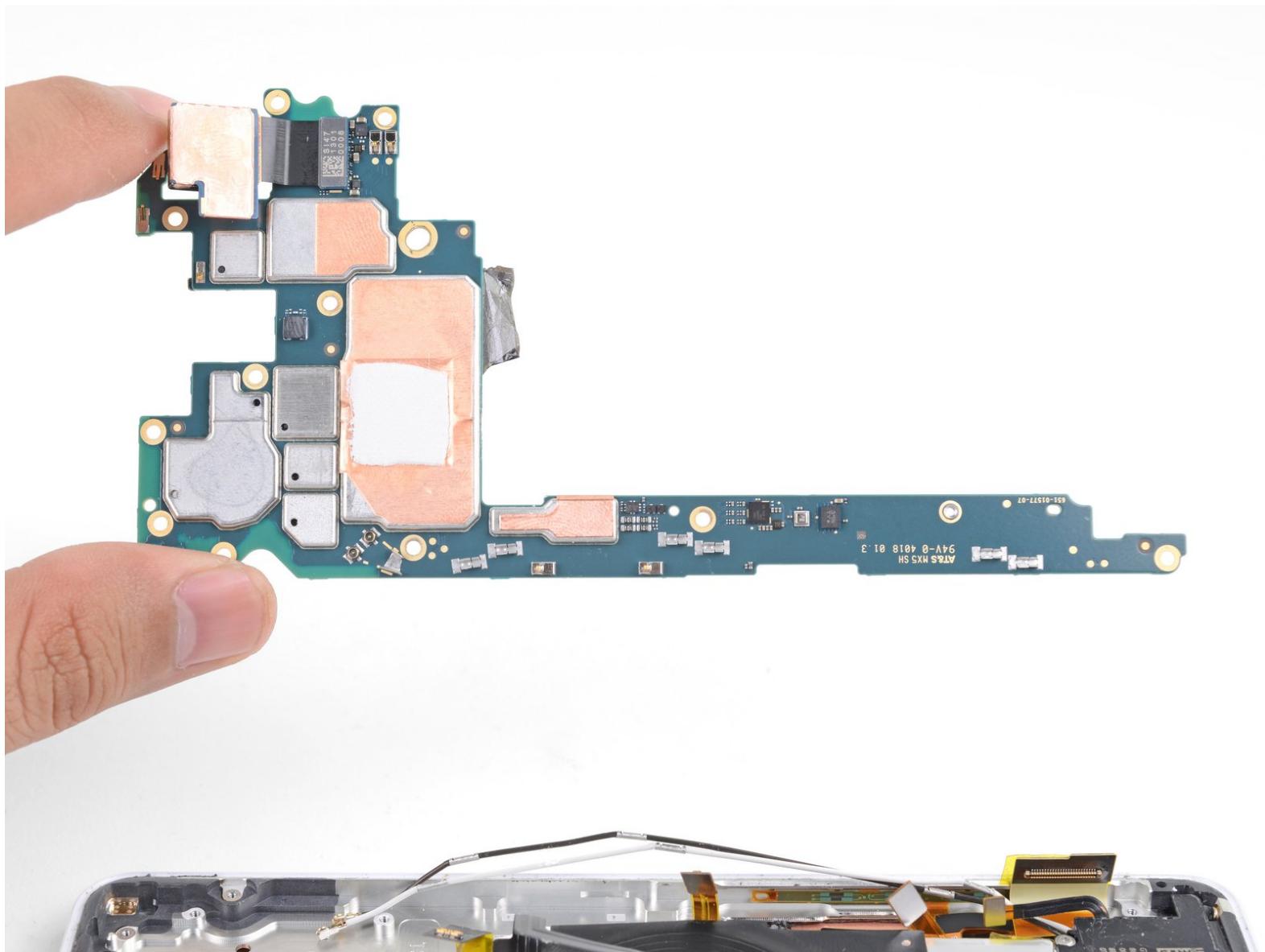




Google Pixel 3 XL Motherboard Replacement

Follow this guide to remove and replace the motherboard for your Google Pixel 3 XL.

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INTRODUCTION

This guide shows how to remove the motherboard for a Pixel 3 XL.

TOOLS:

- iOpener (1)
- Suction Handle (1)
- iFixit Opening Picks set of 6 (1)
- Tweezers (1)
- T3 Torx Screwdriver (1)
- Spudger (1)

PARTS:

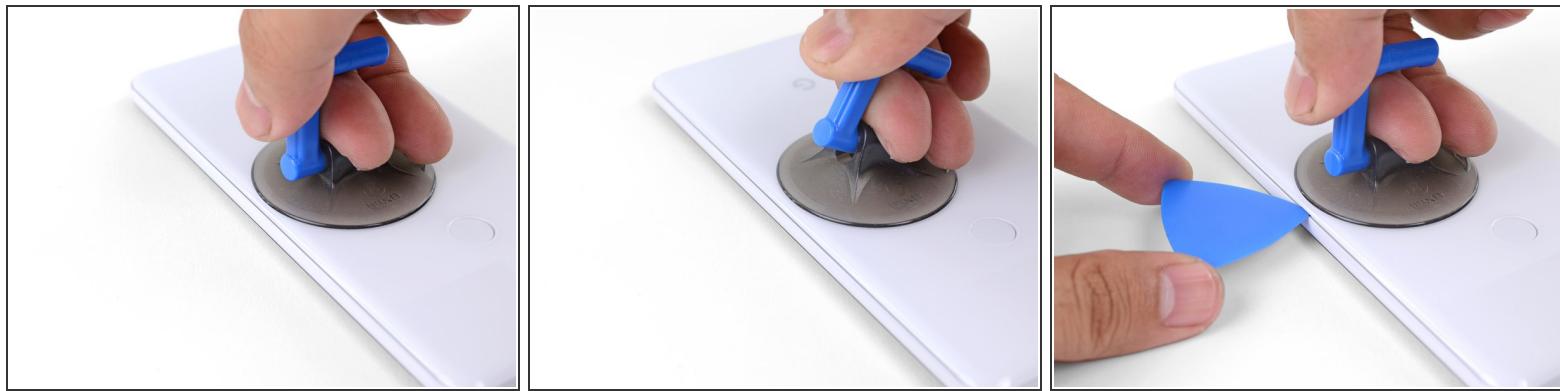
- Google Pixel 3 XL Back Panel Adhesive (1)

Step 1 — Heat the edge of the back panel



- [Heat an iOpener](#) and apply it to the right edge of the back panel for a minute.
- *i* 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 panel:
 - 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 2 — Create a gap under the back panel



- Apply a suction cup to the heated edge of the back panel, 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 3 — 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 4 — Heat the bottom edge of the back panel



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

Step 5 — 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.
- 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 6 — 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 7 — Slice through the leftover adhesive



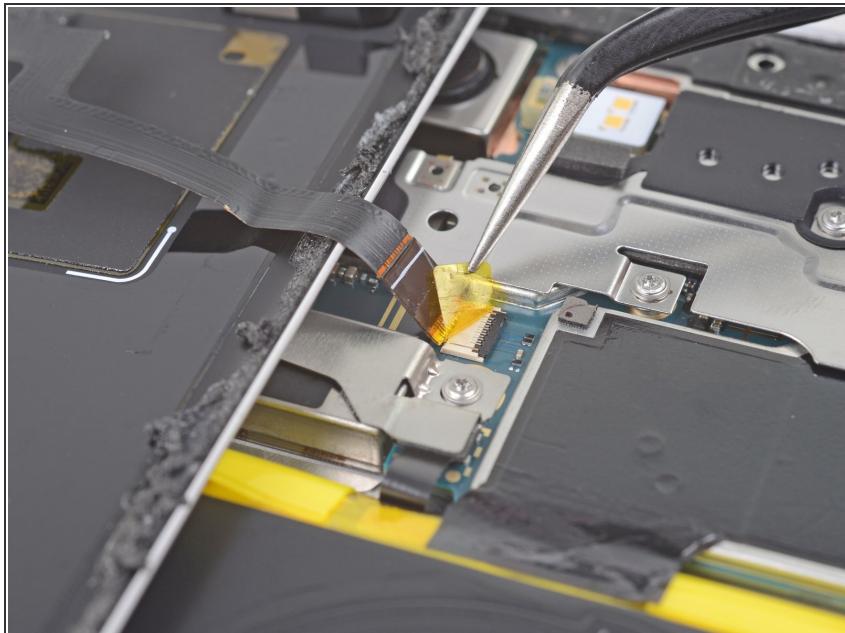
- Gently pry up the right edge of the back panel.
- Use an opening pick to slice through any remaining adhesive along the edges.

Step 8 — Swing open the back panel



- Swing the right edge of the back panel 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 panel.

Step 9 — Remove the fingerprint sensor tape



- Use tweezers to carefully peel up and remove the yellow tape over the fingerprint sensor connector.

Step 10 — 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 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 11 — Remove the back panel



- Remove the back panel.

Step 12 — 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

Step 13 — Remove the metal cover bracket



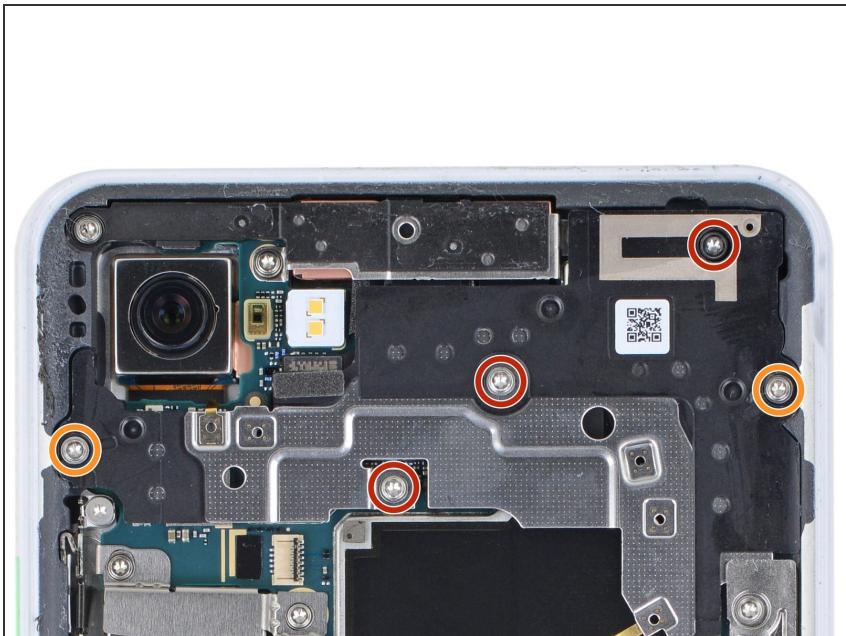
- Insert the flat end of a spudger underneath the top right edge of the metal bracket and pry up to loosen it.
- Remove the metal cover bracket.

Step 14 — 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 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 15 — Remove the motherboard shield screws



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

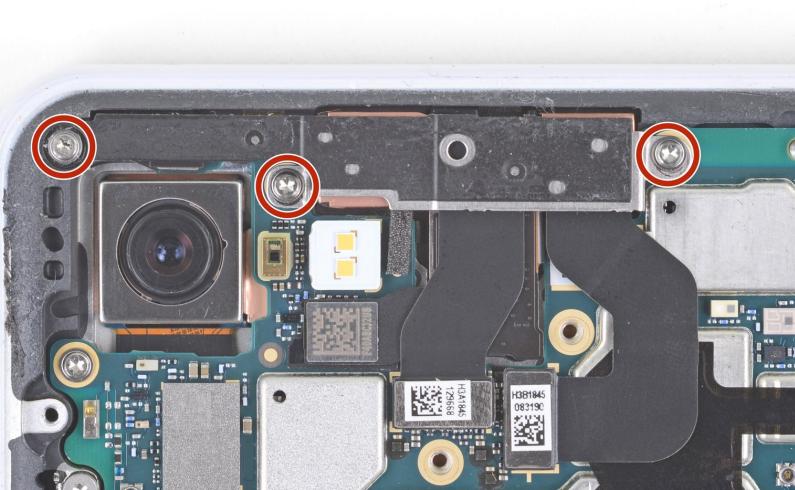
Step 16 — Remove the motherboard shield

- Remove the motherboard shield.

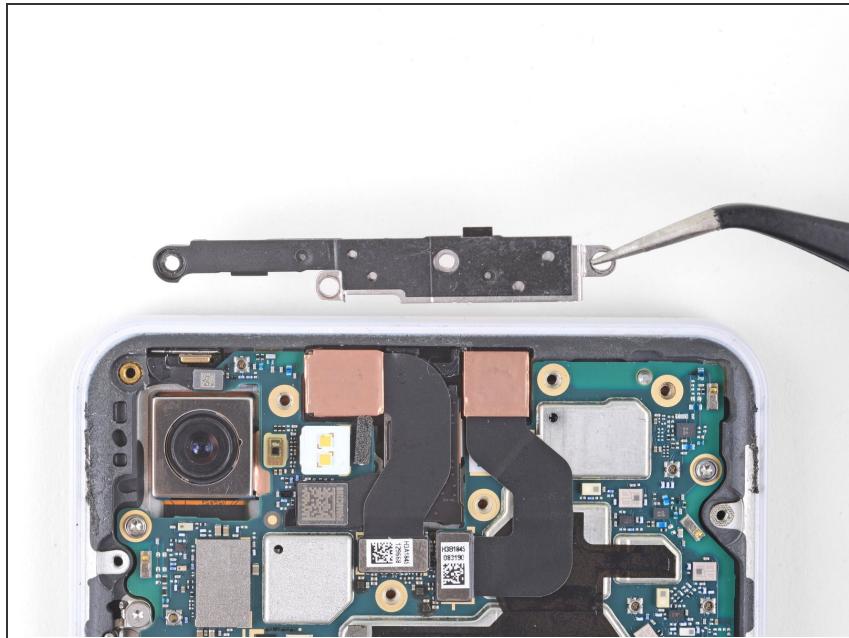


Step 17 — Remove the front camera bracket

- Remove the three 3 mm long T3 screws securing the front camera bracket.

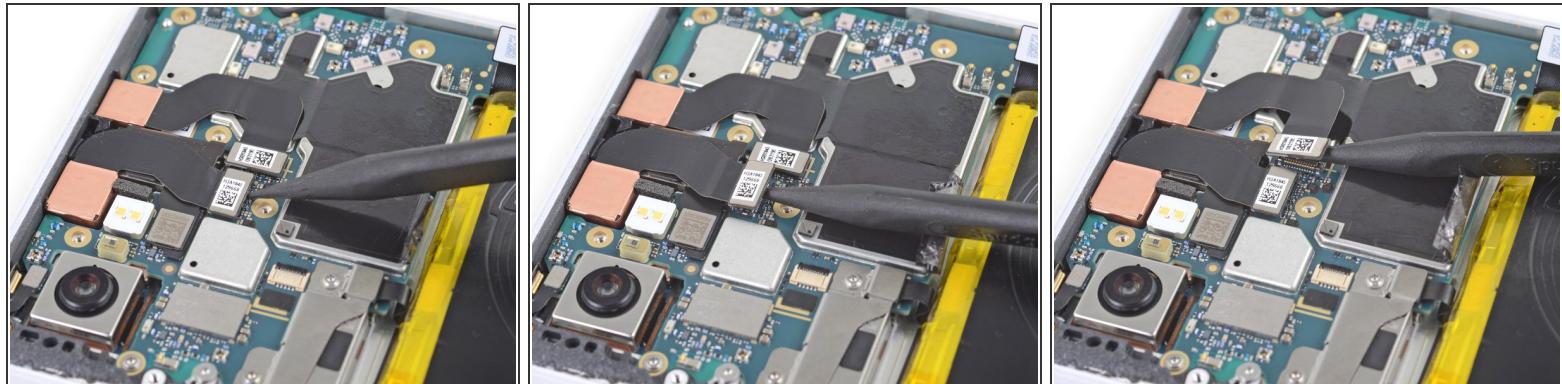


Step 18 — Remove the front camera bracket



- Remove the front camera bracket.

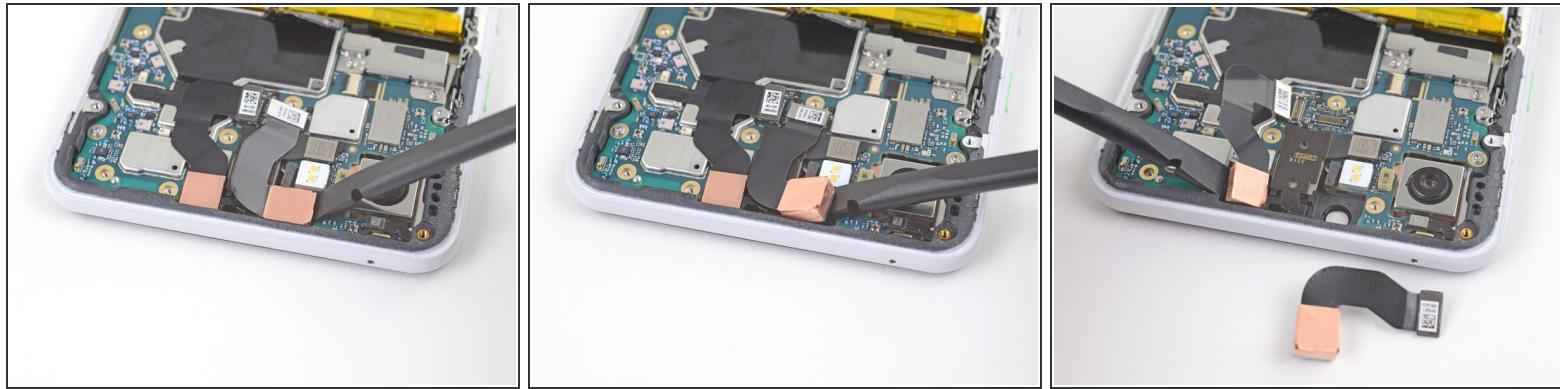
Step 19 — Disconnect the front cameras



- 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.

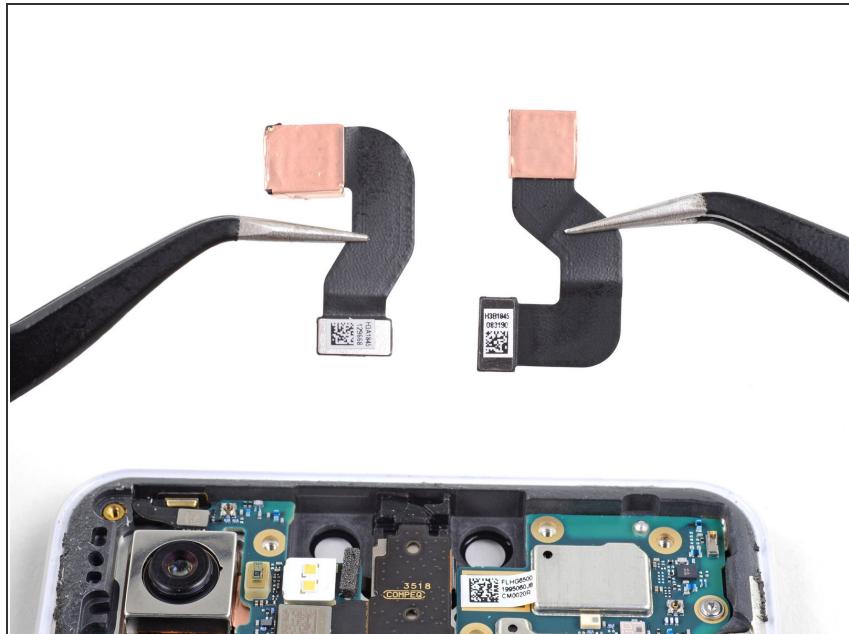
Step 20 — Loosen the front cameras



(i) The cameras are lightly adhered in place.

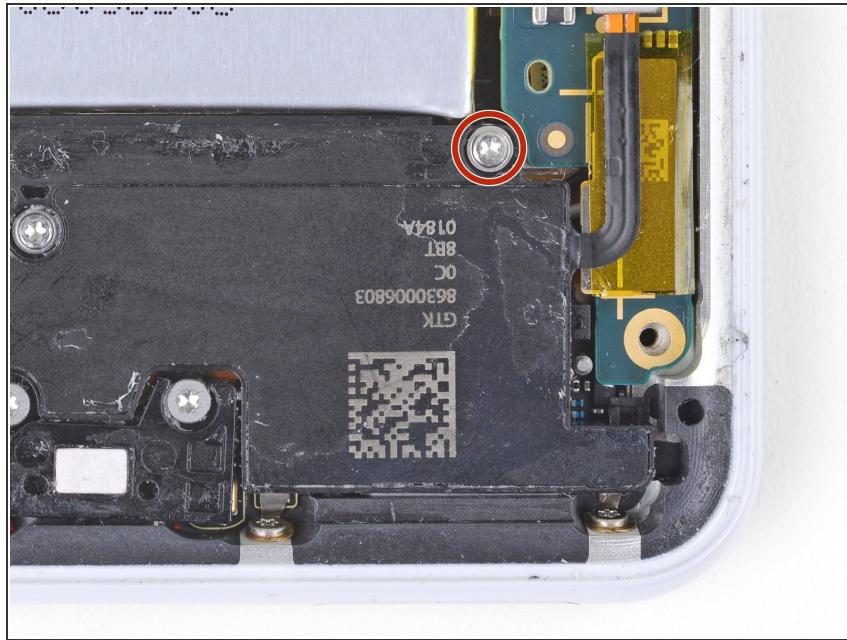
- Use the flat end of a spudger to pry up and loosen the camera modules from their recess.

Step 21 — Remove the front-facing cameras



- Remove the front-facing cameras.

Step 22 — Remove one loudspeaker screw



- Remove the 4 mm long T3 screw securing the top-right corner of the loudspeaker.

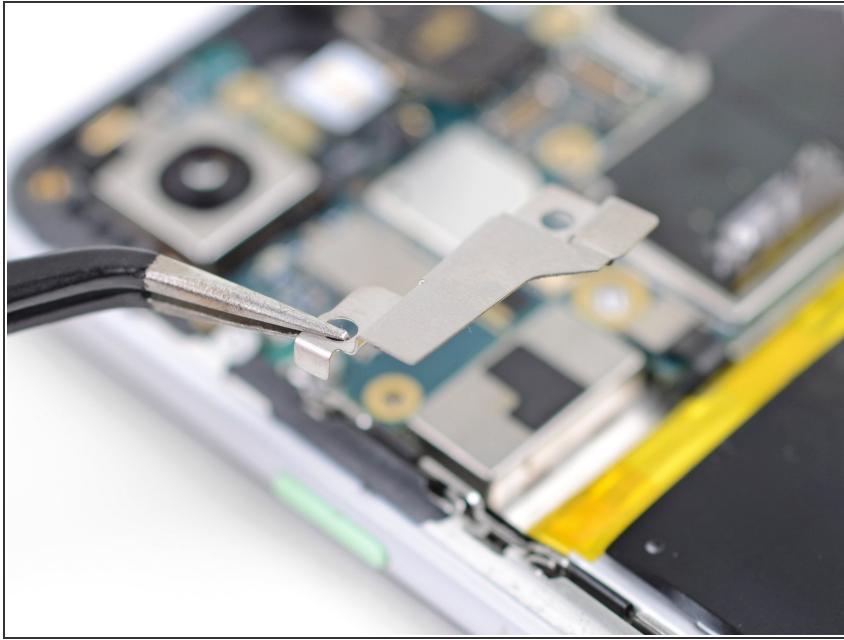
(i) Removing this screw will give you slightly more wiggle room when removing the motherboard.

Step 23 — Remove the squeeze sensor bracket screws



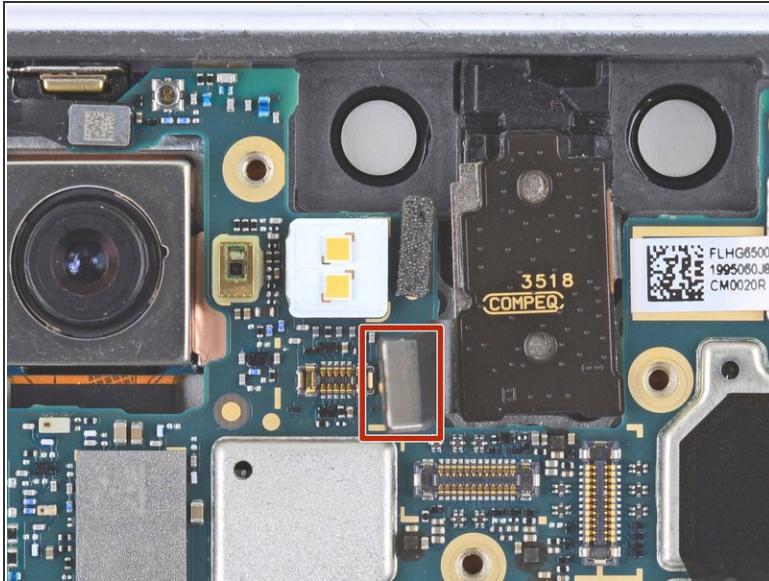
- Remove the two 3 mm long T3 screws securing the left squeeze sensor bracket.

Step 24 — Remove the squeeze sensor bracket



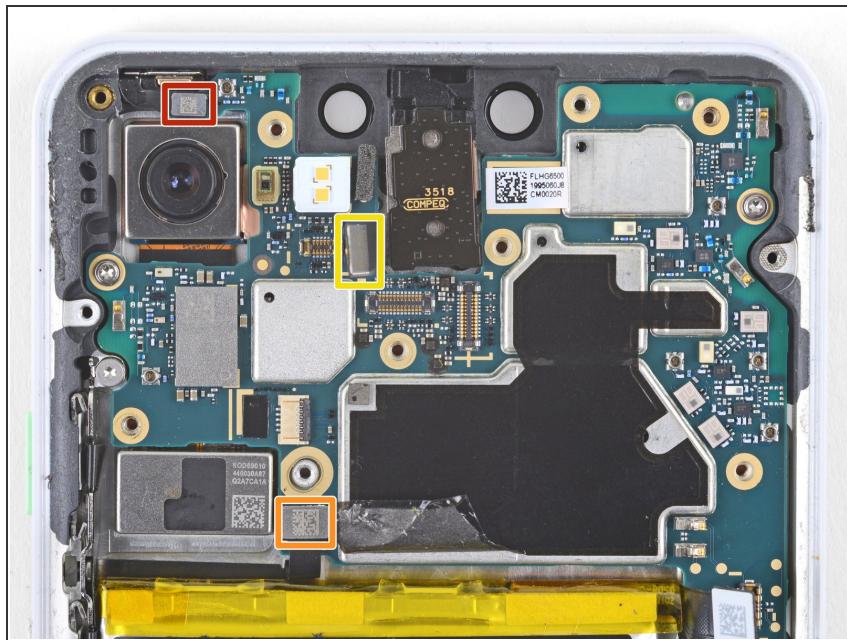
- Remove the squeeze sensor bracket.

Step 25 — 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 26 — Disconnect the motherboard connectors



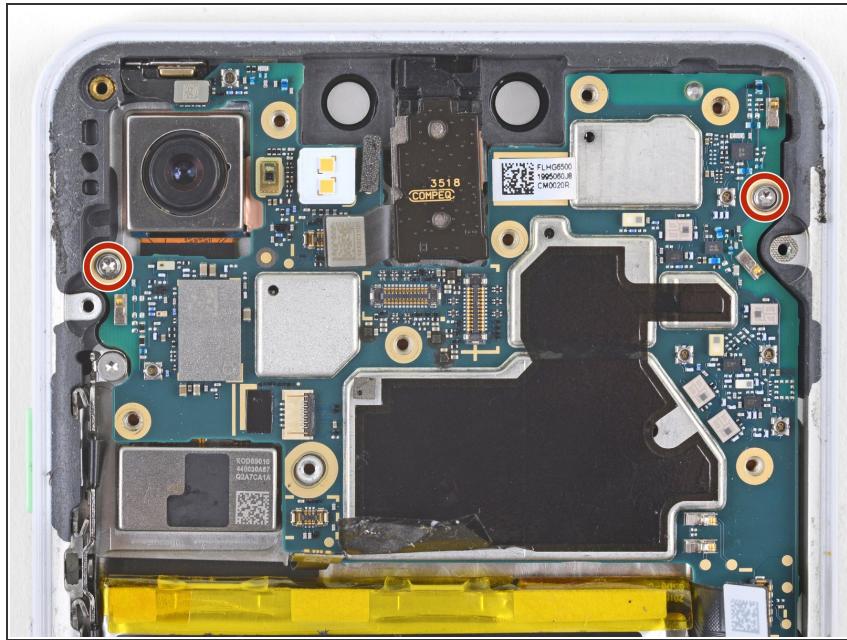
- Use the point of a spudger to pry up and disconnect the following:
 - Microphone connector
 - Button array connector
 - Earpiece connector (should already be disconnected)

Step 27



- 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 28 — Remove the motherboard screws



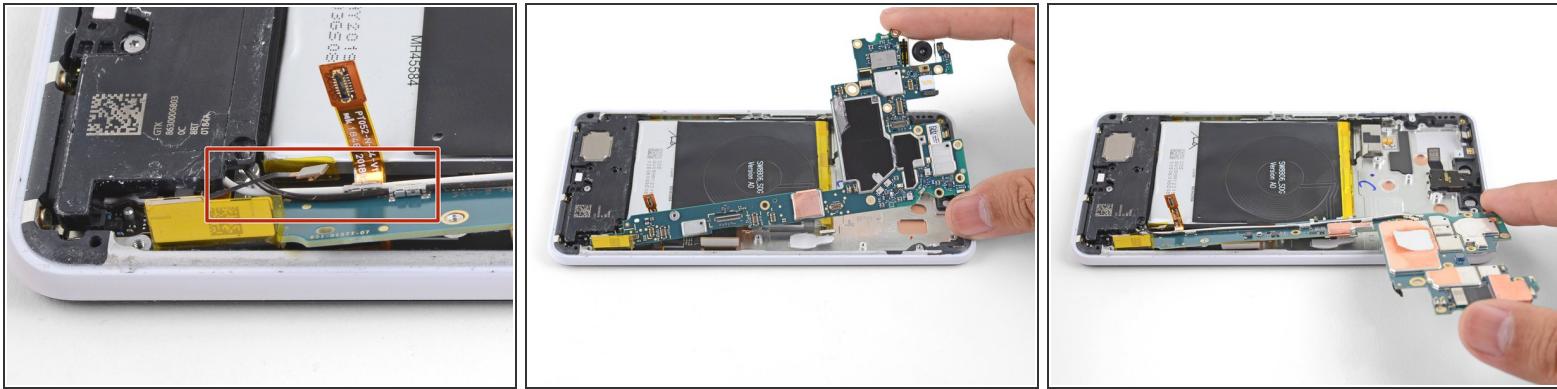
- Remove the two 3 mm long T3 screws securing the motherboard.

Step 29 — 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.
 - *i* If the earpiece speaker pops open (as shown in the third photo of this step), carefully align and press the module back in place.

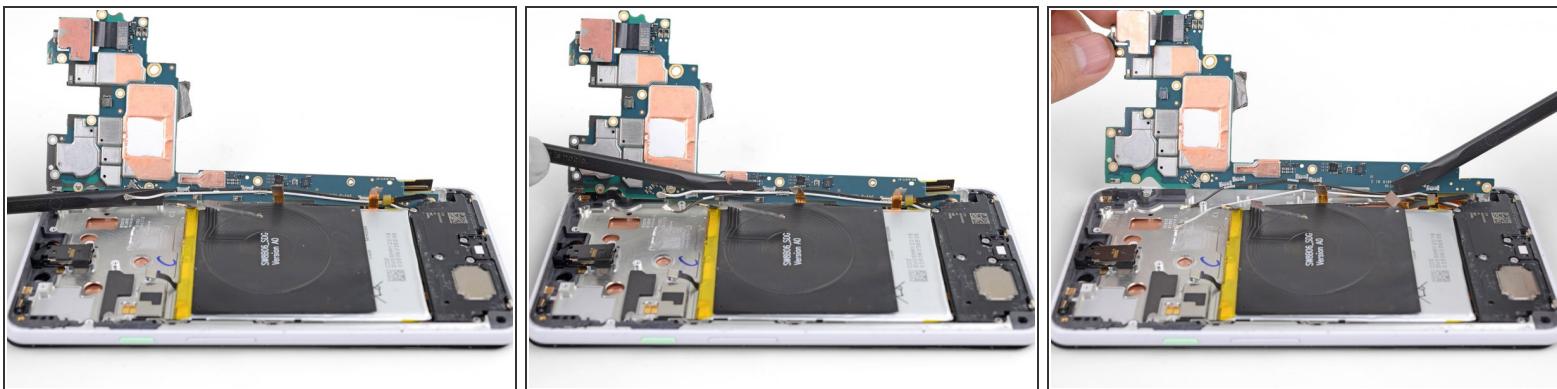
Step 30



***(i)* Do not attempt to remove the motherboard from the phone. It is 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.

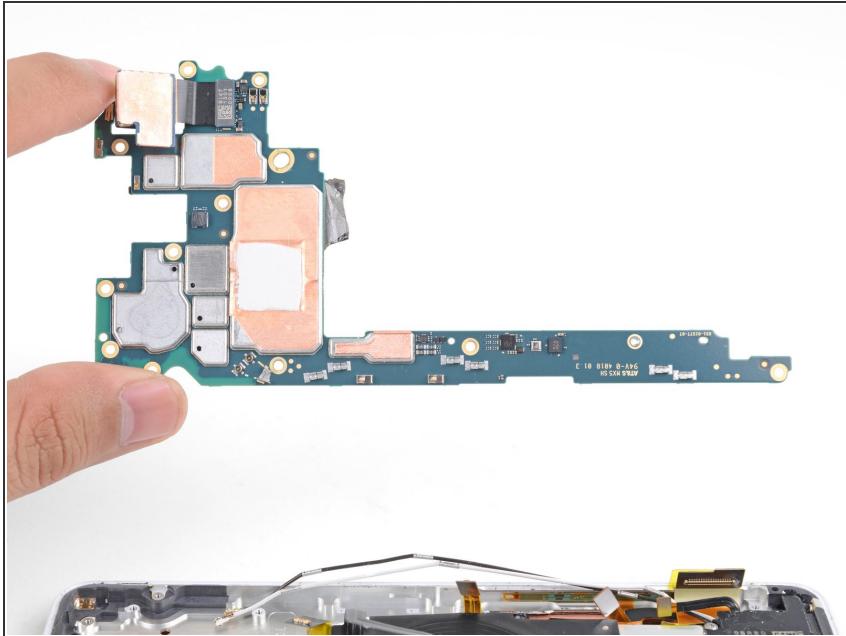
Step 31 — Loosen the antenna cables



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

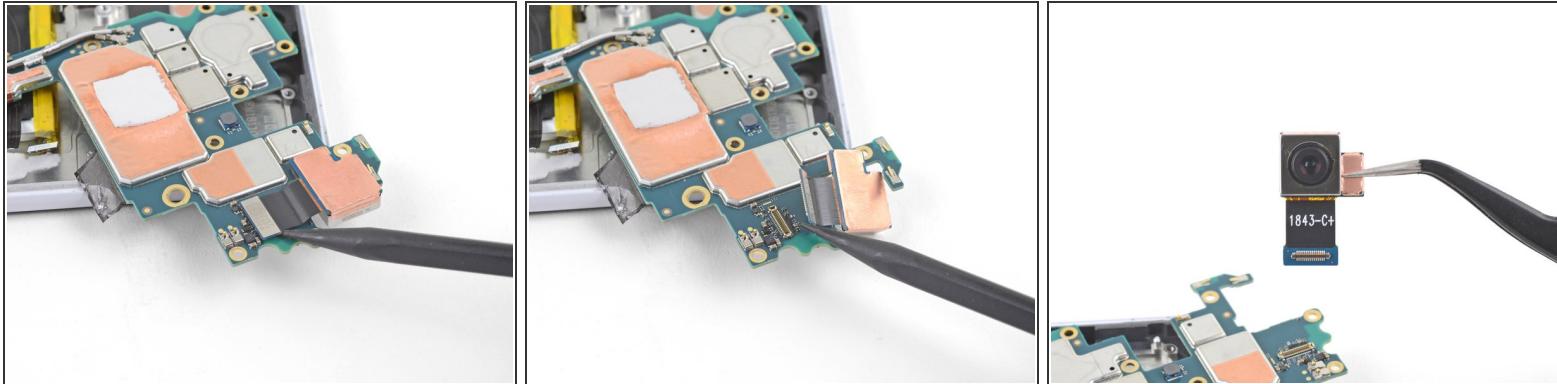
***(i)* The cables are fragile and the clips hold onto them tightly. Be patient and pry as close to the base of the clips as possible.**

Step 32 — Remove the motherboard



- Remove the motherboard.

Step 33 — 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.

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