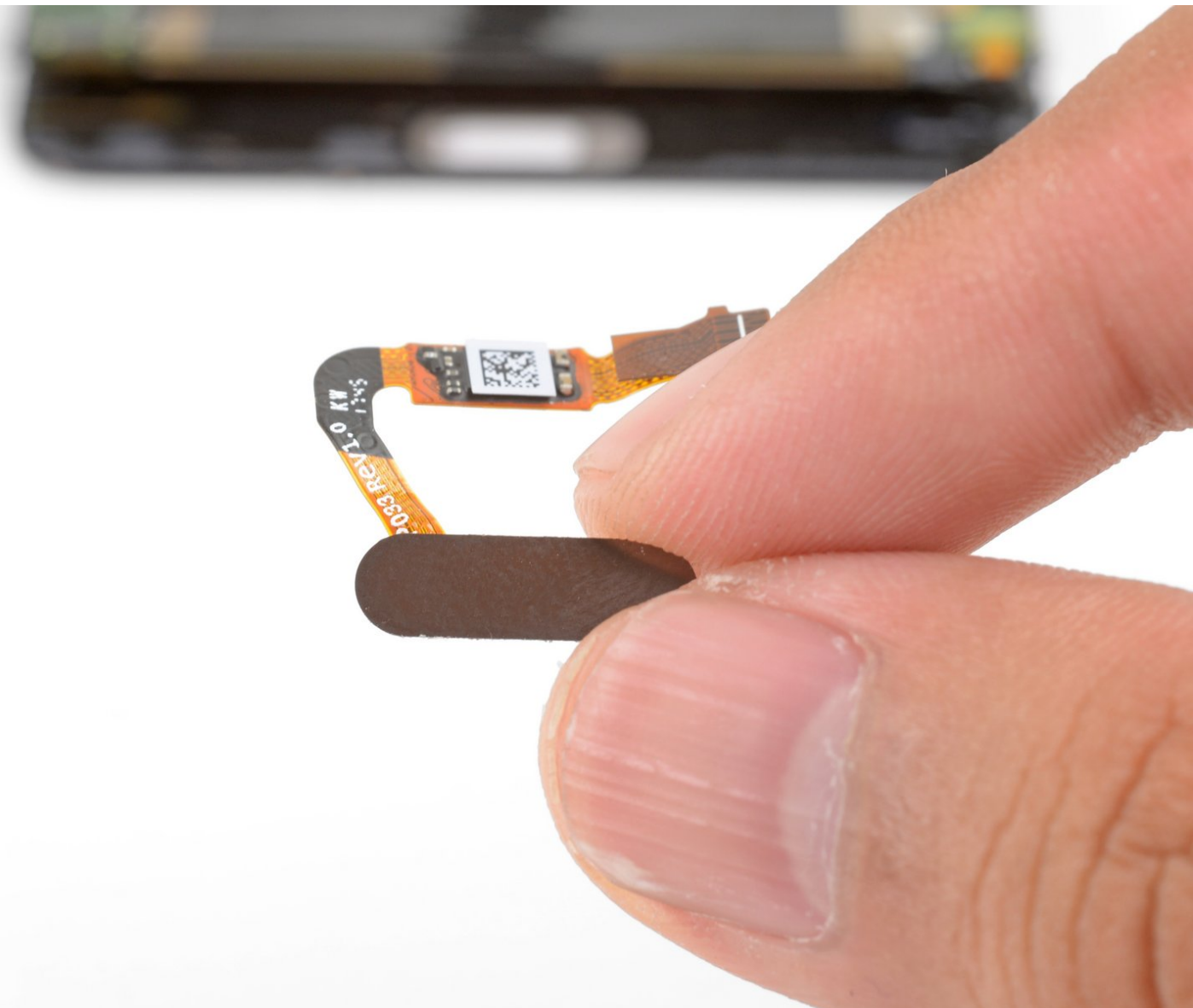




Huawei Mate 10 Fingerprint Sensor Replacement

This guide shows how to remove and replace a broken fingerprint sensor for the Huawei Mate 10.

Written By: Arthur Shi



INTRODUCTION

Follow this guide to remove and replace a broken fingerprint sensor for the Mate 10. The process is very extensive, requiring the removal of many heavily-glued-in components.

Note that the procedure will destructively remove the screen. The Mate 10 uses very strong adhesive to hold the screen in place, making non-invasive removal very difficult without specialty tools.

Gaining access to the fingerprint sensor also requires removing the firmly glued battery. **Do not reuse the battery after it has been removed, as doing so is a potential safety hazard. Replace it with a new battery.**

If your battery is swollen, [take appropriate precautions](#). **For your safety, discharge your battery below 25% before disassembling your phone.** This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair.

The back cover held in place with a very strong perimeter adhesive. During removal, the adhesive may rip out parts of the coating from the glass back cover, leaving behind patches of clear glass.



TOOLS:

- [iFixit Opening Tool](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [Plastic Cards](#) (1)
- [Isopropyl Alcohol](#) (1)
- [Jimmy](#) (1)
- [Spudger](#) (1)
- [Tweezers](#) (1)
- [iFixit Opening Picks \(Set of 6\)](#) (1)
- [Suction Handle](#) (1)
- [iOpener](#) (1)



PARTS:

- [Huawei Mate 10 Back Cover Adhesive](#) (1)

Step 1 — Remove the back cover



- [Heat an iOpener](#) and apply it to the bottom edge of the phone for two minutes. Re-heat the iOpener as needed.
- ⓘ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone.
- While you wait, note the location of the adhesive holding the back cover in place.

Step 2



- Place a suction cup near the bottom edge of the back cover, on the right side (opposite the speaker grille) of the USB-C charging port, above the microphone hole.
 - ⓘ If your back cover is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. If all else fails, you can superglue the suction cup to the back cover.
- Pull on the suction cup with strong, steady force to create a gap.
 - ⓘ Due to the adhesive's strength, this is very difficult and may take multiple attempts. If you can't create a gap, re-apply heat and try again.
- Insert the point of an opening pick into the gap.

Step 3



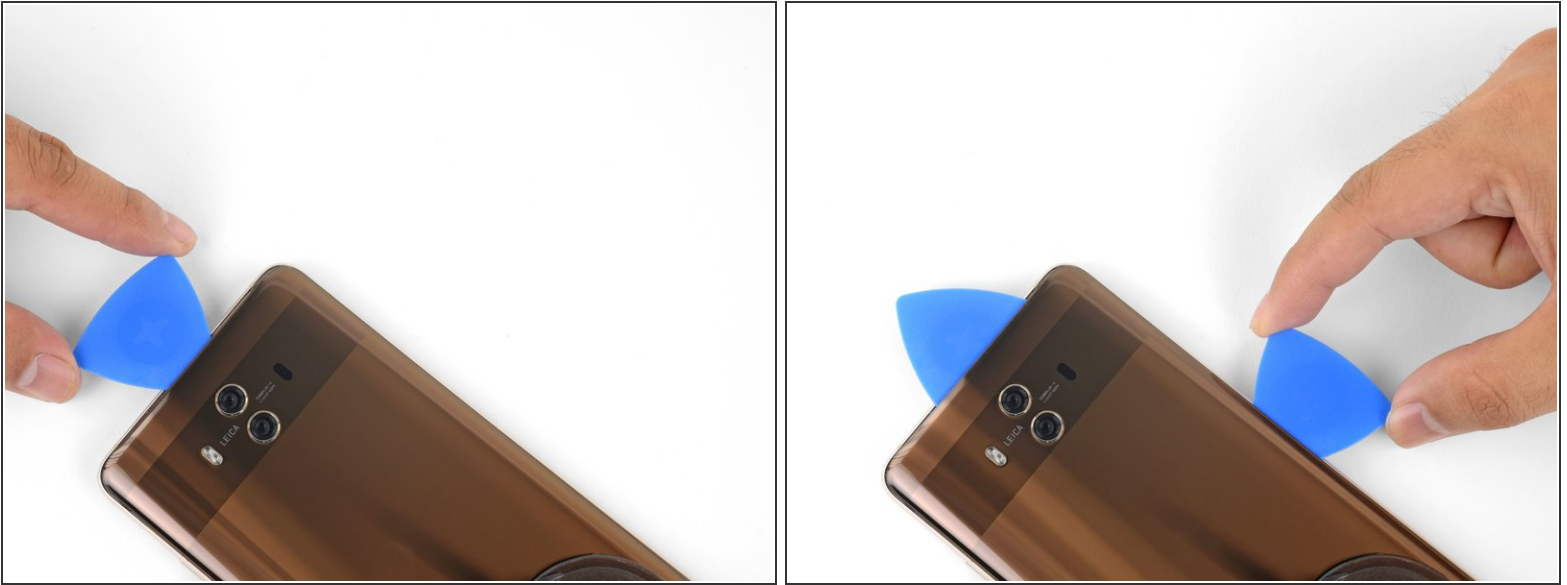
- Slide the pick along the bottom edge and around the bottom-left corner, slicing through the adhesive.
- If the adhesive feels tacky and difficult to slice, re-apply heat to the edge and try again.
- Leave an opening pick in the seam to prevent the edge from re-sealing.

Step 4



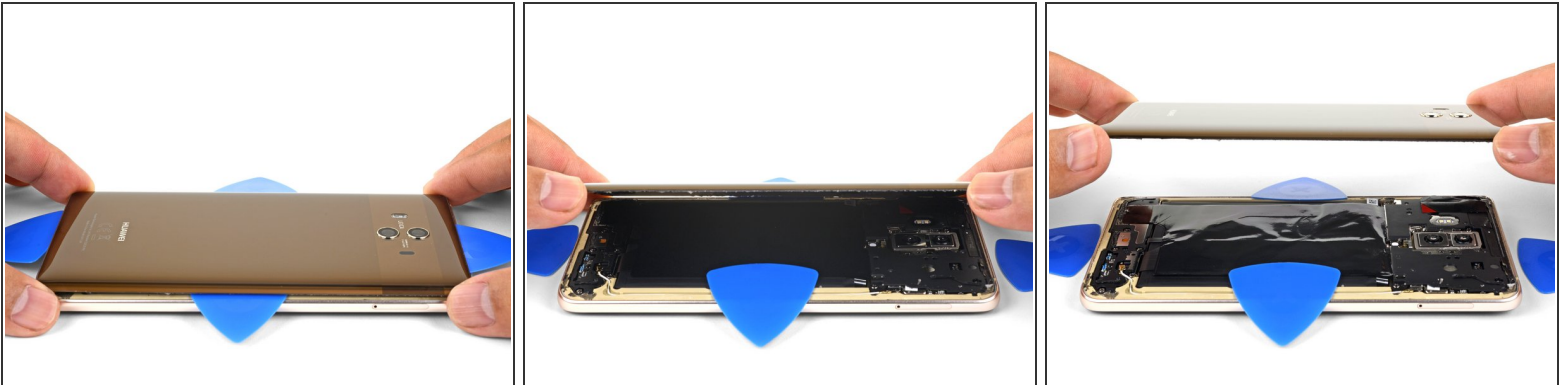
- Apply a heated iOpener to the left edge of the phone.
- Use an opening pick to slice through the adhesive on the left edge of the phone.
- i** The adhesive is very thick in some areas. Sustained exposure to heat will help weaken the stubborn adhesive. Take your time, and apply heat liberally.

Step 5



- Continue heating and slicing through the remaining edges, leaving opening picks in the seams to prevent the adhesive from re-sealing.

Step 6



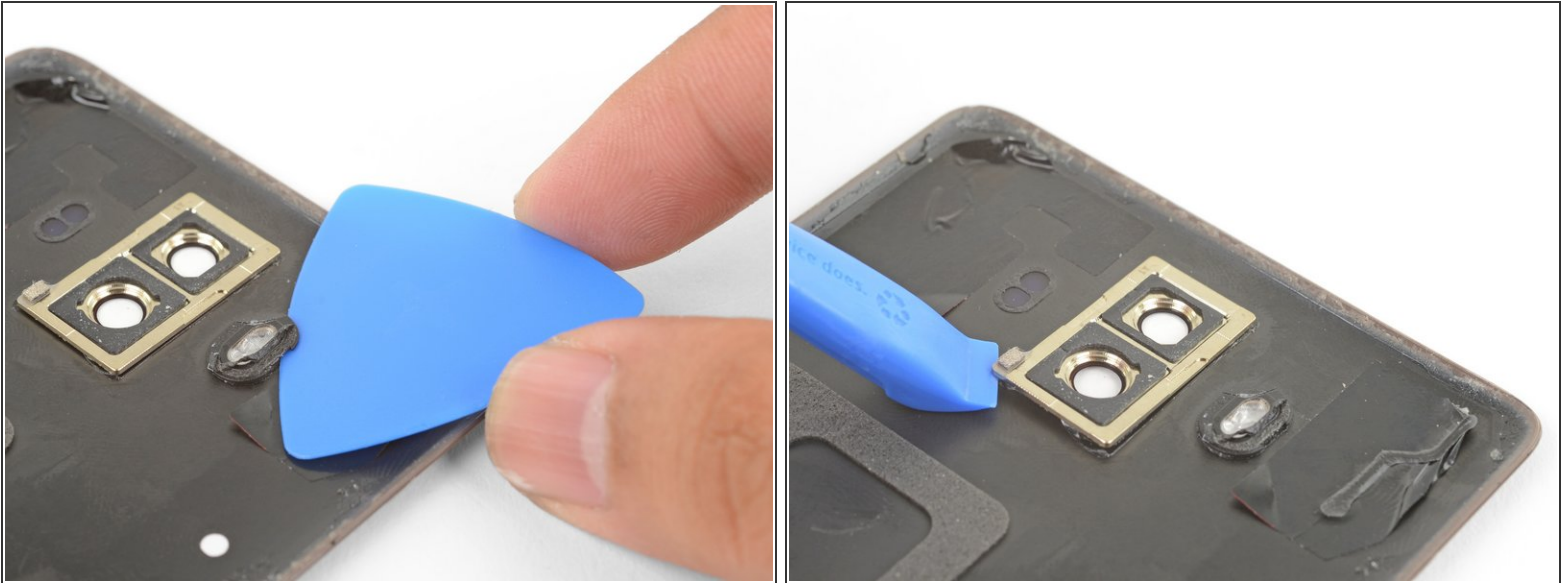
- After you cut through the adhesive around the entire perimeter of the back cover, begin to lift it away from the phone.
 - Use an opening pick to slice any remaining adhesive.
 - Remove the back cover.
- ✦ During reassembly, this is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.

Step 7 — Prep the phone for a new back cover



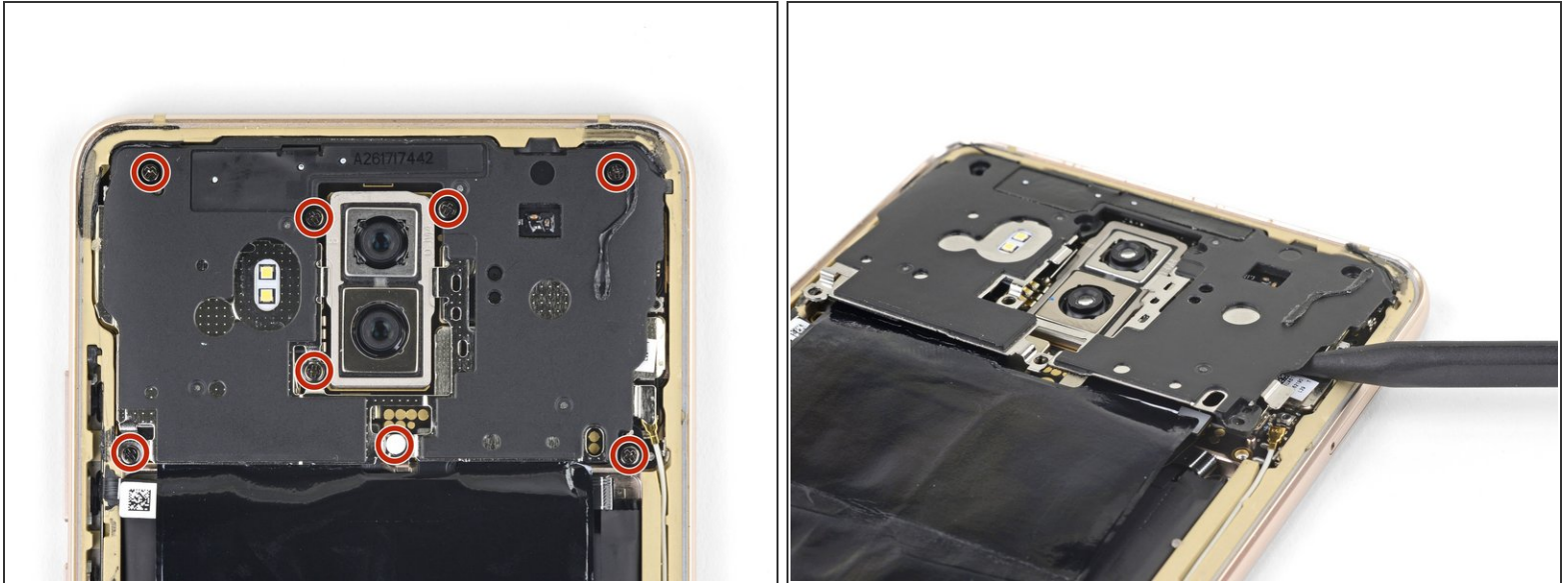
- ✦ Before you install a replacement back cover, be sure to remove all traces of perimeter adhesive from the phone frame.
- ✦ If you are re-using the back cover, carefully remove all traces of adhesive from the back cover.
- ⓘ The glass back cover is fragile and prone to cracking. Don't apply uneven pressure to the back cover as you clean.
 - You may pull up chunks of the cover's color coating as you remove the adhesive. To reduce the chances of this occurring, apply heat or high concentration isopropyl alcohol to the adhesive to weaken it.



Step 8



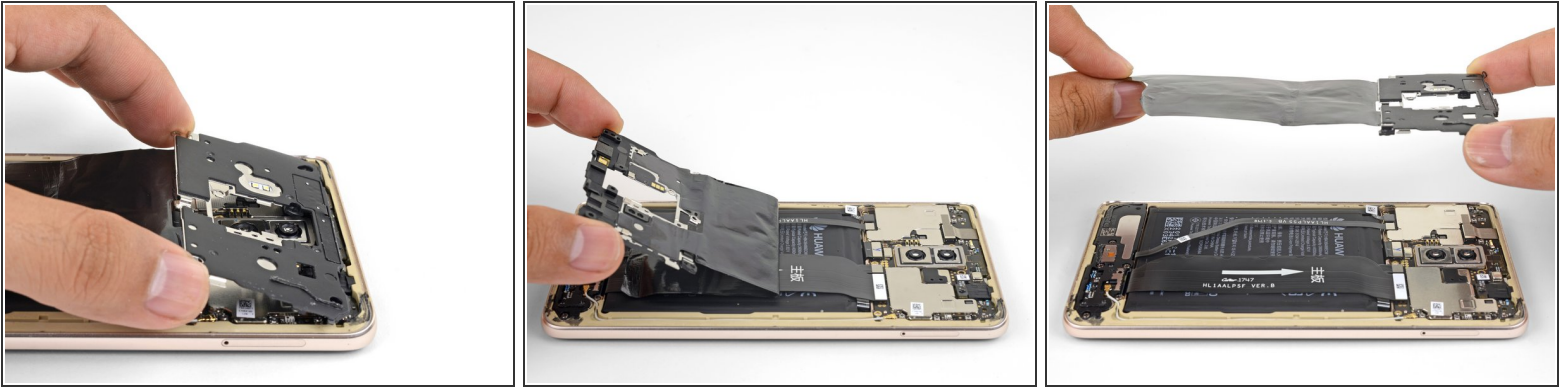
- ✦ If your replacement back cover did not come with a flash diffuser or camera bezel, you will need to transfer them from your old cover to the new one.
- Apply a heated iOpener directly over the bezels for a minute.
 - Use an opening pick to slice around the flash diffuser to loosen the adhesive.
 - ⓘ The flash diffuser is made of plastic and cracks easily. Be sure to slice around the flash completely before you pry it off.
 - Use an opening tool to pry up and remove the camera bezel.
 - Transfer the parts to your replacement cover.

Step 9 — Remove the plastic bracket



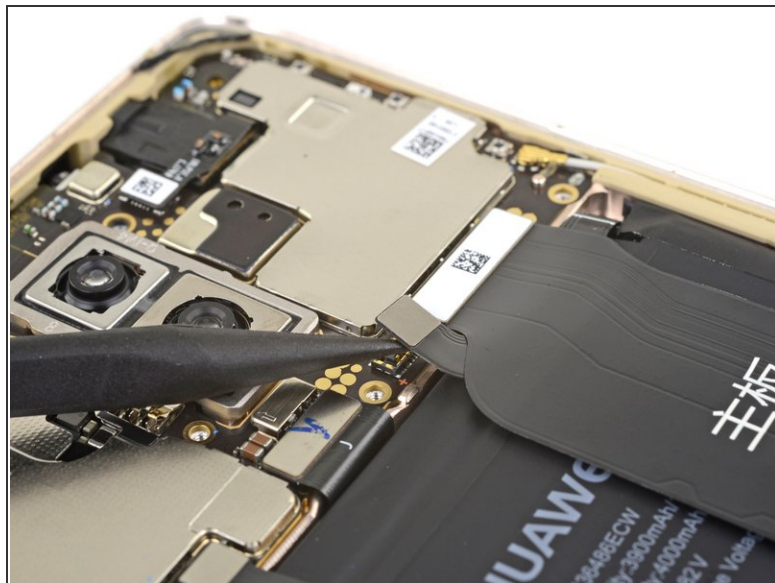
-  The next two steps show how to remove the heat dissipation layer, along with its plastic bracket.
- Remove the eight 3.4 mm long Phillips screws securing the plastic bracket.
 -  One screw lies beneath a white sticker. Remove the sticker.
 - Insert the point of a spudger underneath the right edge of the plastic bracket and pry up slightly to loosen the shield.

Step 10



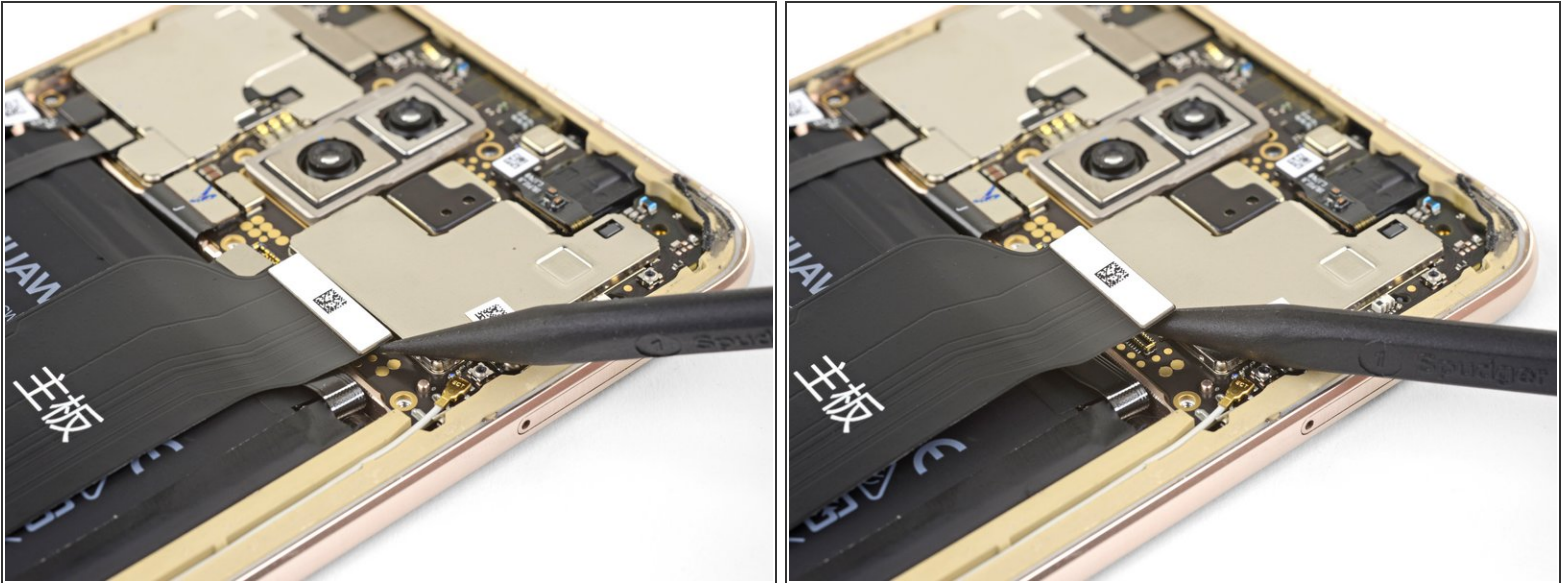
- Grasp the the lower edge of the plastic bracket with your fingers and lift the edge up slightly.
- Pull the plastic bracket away from the top edge of the phone.
- Slowly peel the black heat dissipation layer away from the phone. It is held in place with small patches of adhesive.
- Remove the plastic bracket along with the heat dissipation layer.

Step 11 — Disconnect the battery



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

Step 12 — Disconnect the interconnect cable



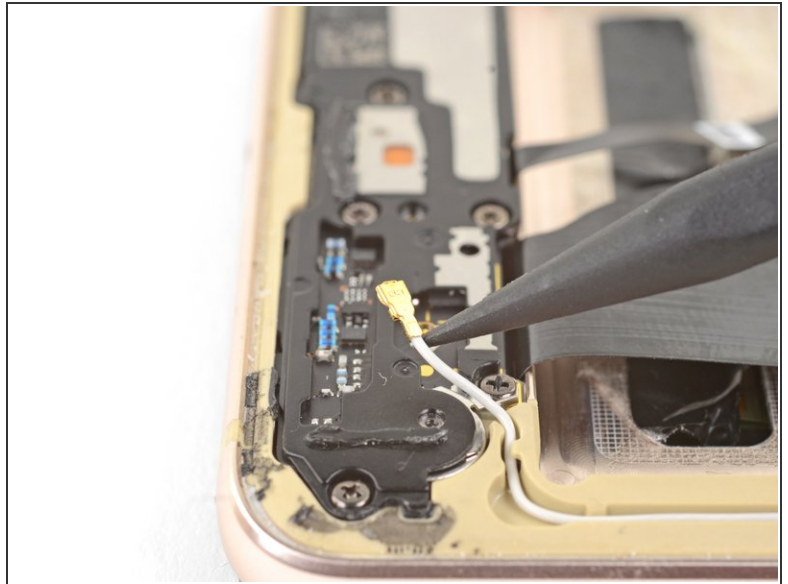
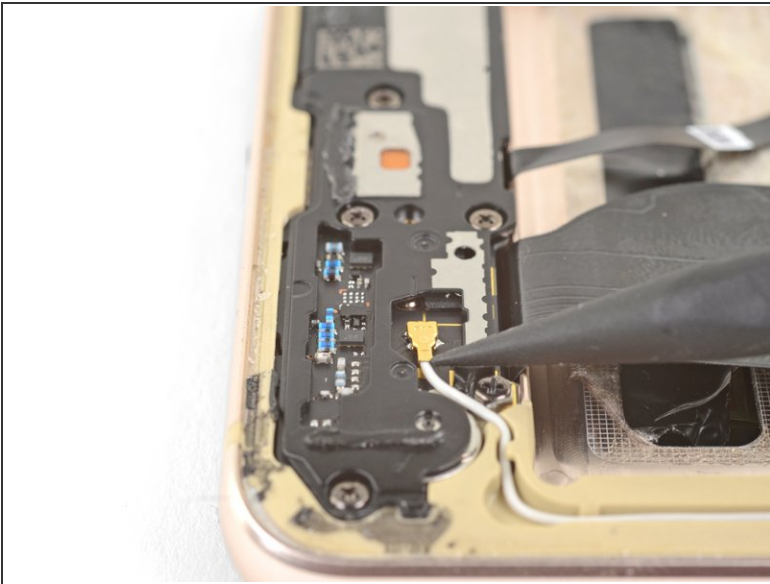
- Use the point of a spudger to pry up and disconnect the wide interconnect flex cable from its motherboard socket.
- ⓘ To re-attach [press connectors](#) like this one, carefully align and press down on one side until it clicks into place, then repeat on the other side. Do not press down on the middle. If the connector is misaligned, the pins can bend, causing permanent damage.

Step 13



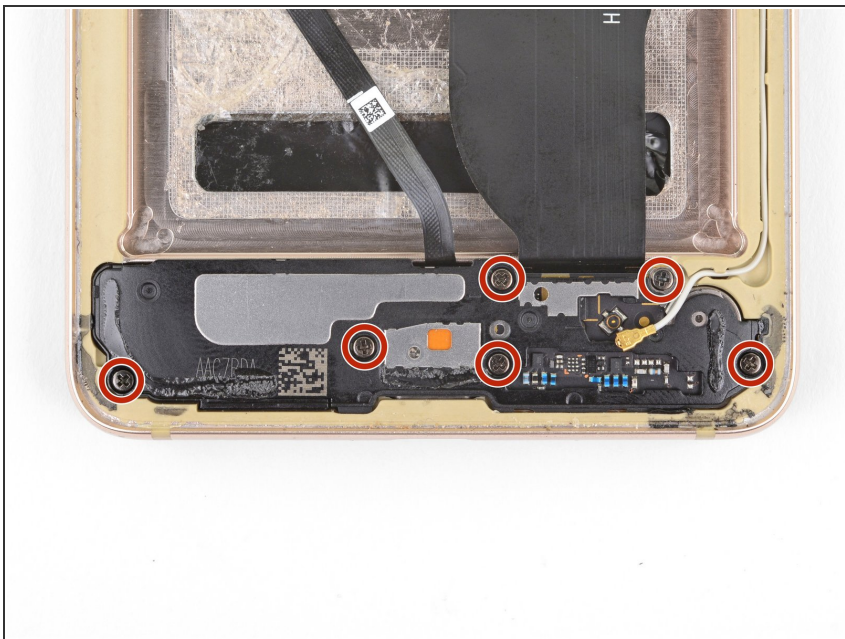
- Use the point of a spudger to pry up and disconnect the fingerprint extension cable from its motherboard socket.

Step 14 — Remove the loudspeaker



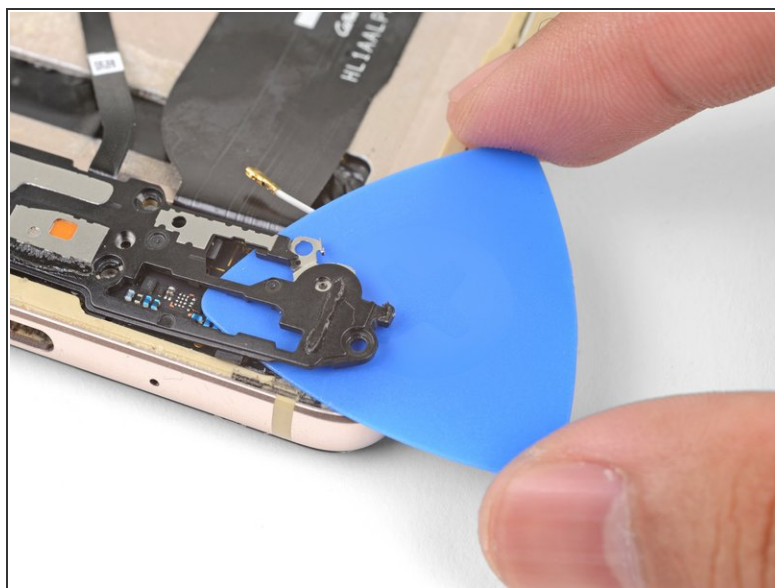
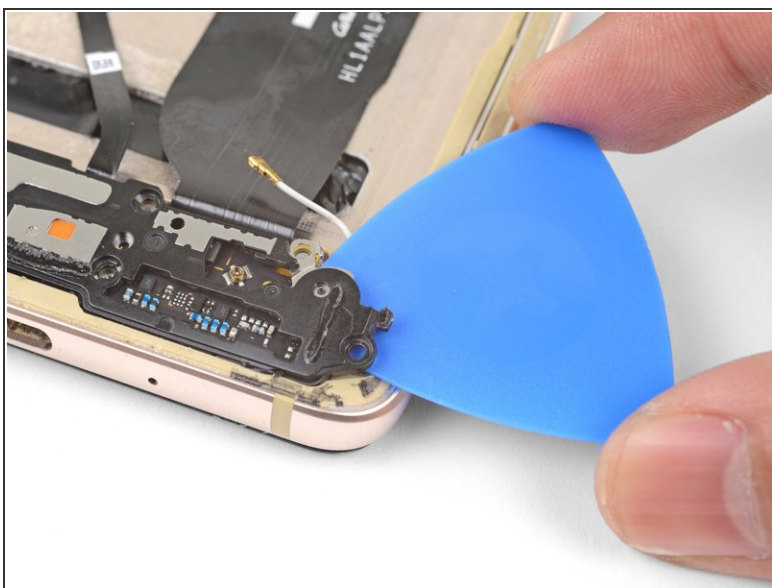
- Use the point of a spudger to pry up and disconnect the white antenna cable from the bottom of the phone.

Step 15



- Remove the six 3.4 mm Phillips screws holding the loudspeaker in place.

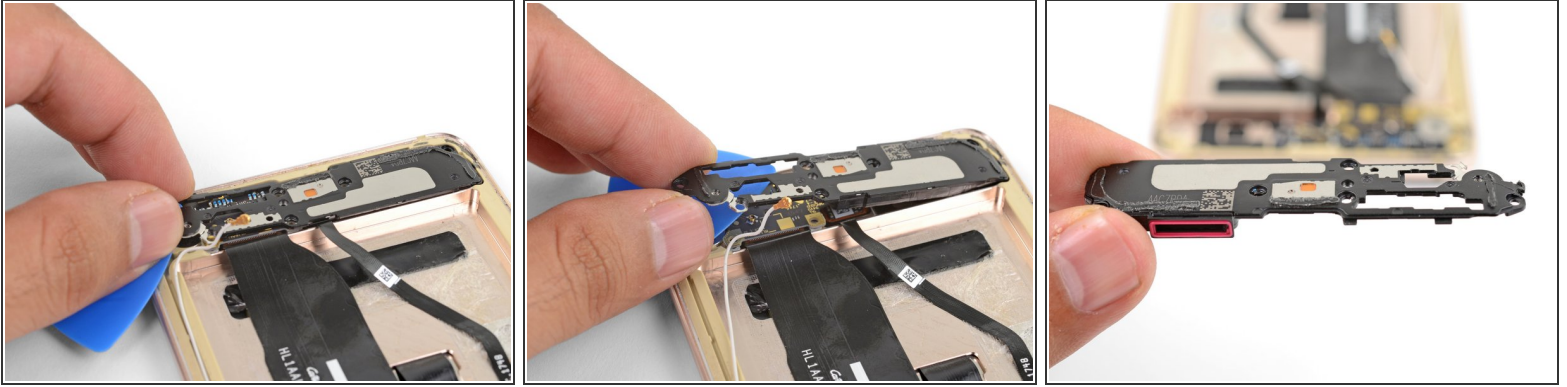
Step 16



i The loudspeaker is still held in place by adhesive and clips.

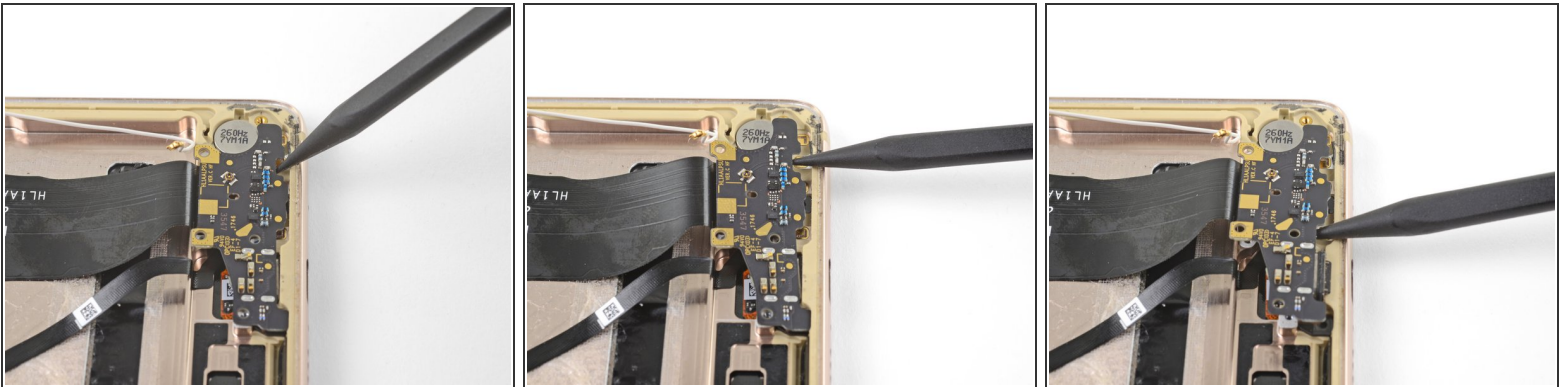
- Insert an opening pick underneath the right edge of the loudspeaker assembly.
- Carefully slide the opening pick under the right half of the assembly to loosen the clips.

Step 17



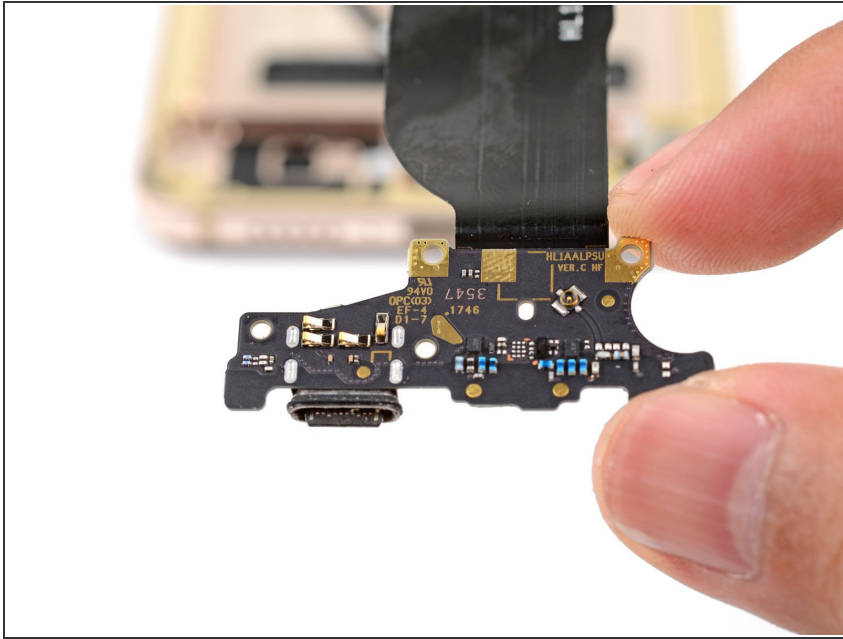
- Grasp the loosened edge of the loudspeaker and gently pull the assembly away from the bottom edge of the phone.
- ❗ You may need to wiggle the assembly a little to loosen it from the frame.
- Remove the loudspeaker.

Step 18 — Remove the daughterboard



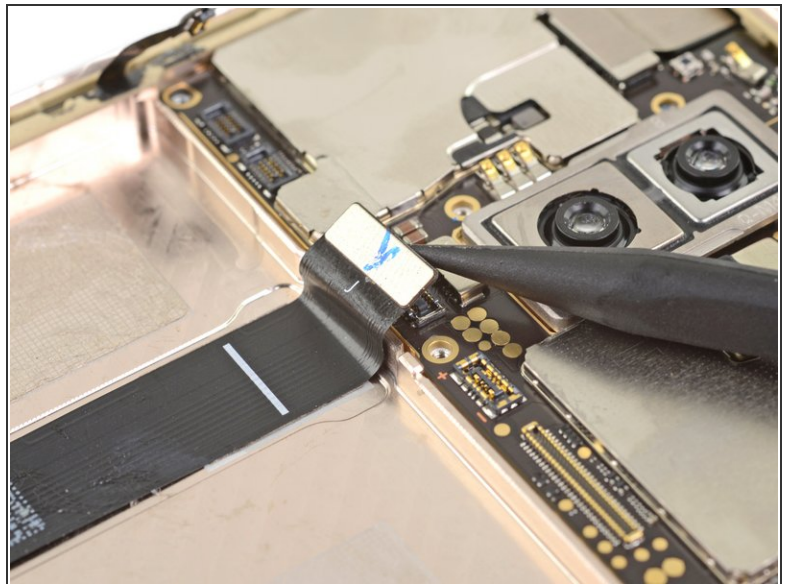
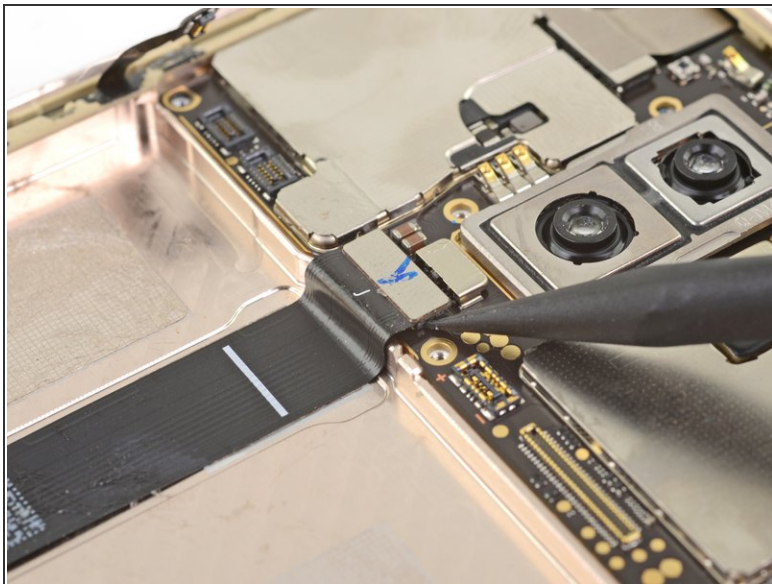
- Insert the point of a spudger in one of the notches along the bottom edge of the daughterboard.
- Push the daughterboard away from the bottom of the phone to loosen the board.
- Repeat the process with a second notch to fully release the daughterboard.

Step 19



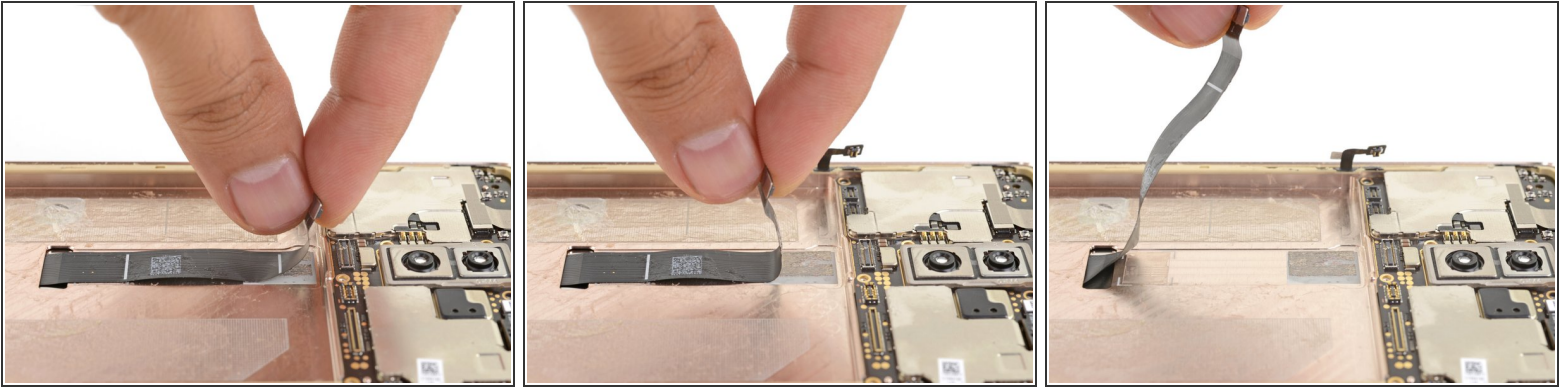
- Remove the daughterboard.

Step 20 — Fingerprint Sensor



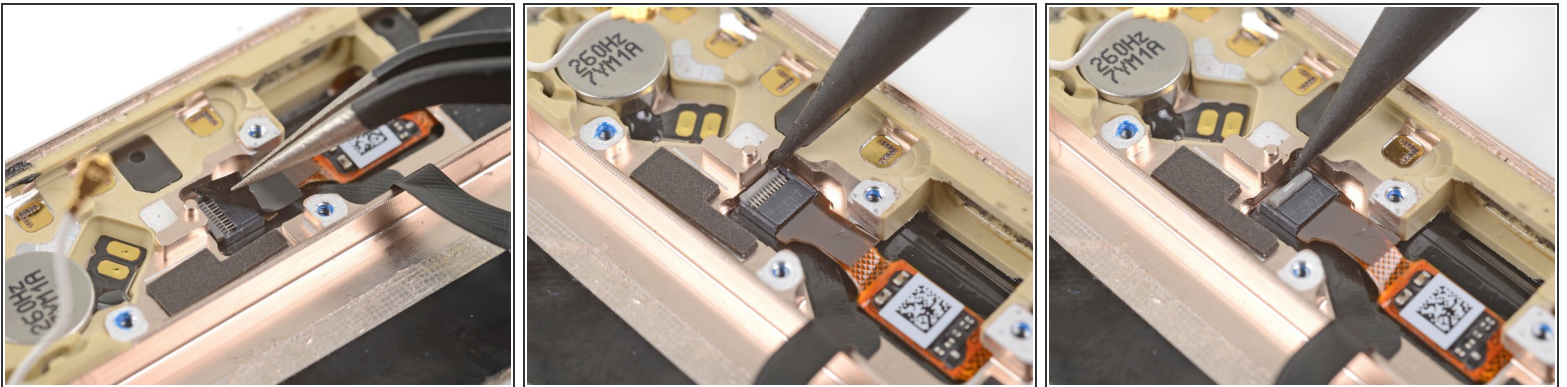
- Use the point of a spudger to pry up and disconnect the display cable from its motherboard socket.

Step 21



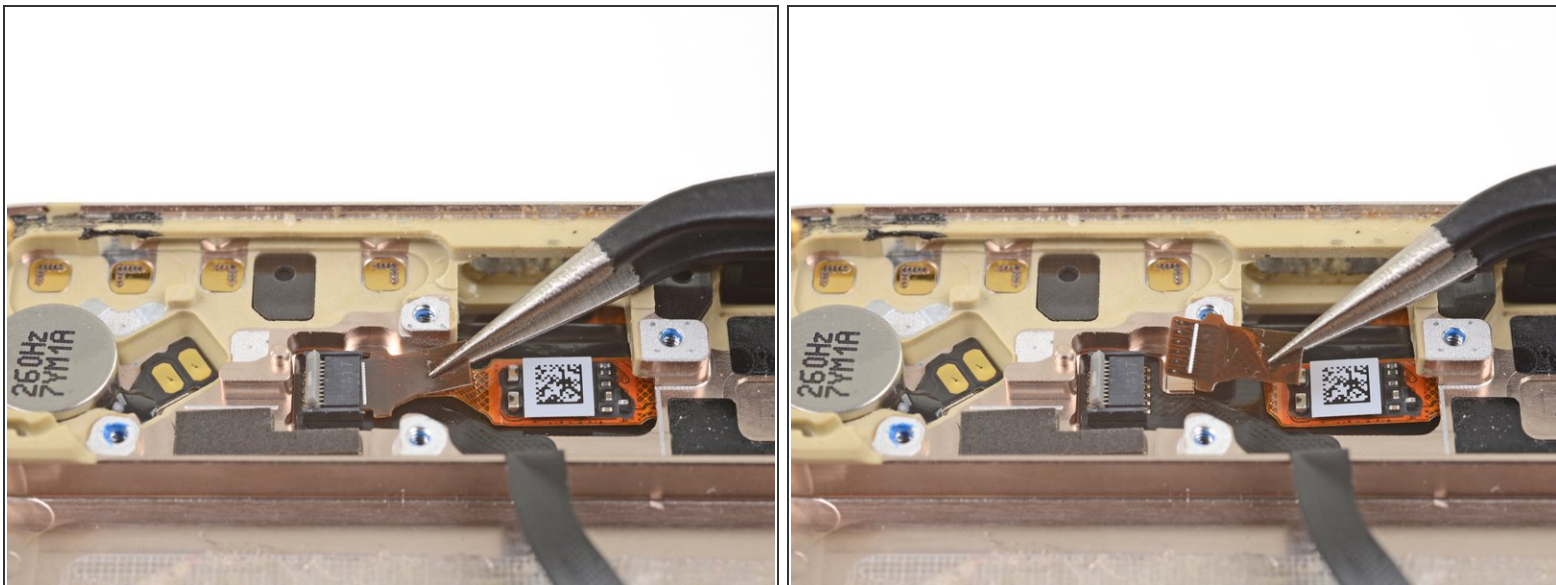
- Grasp the display cable with your fingers and gently pull it away from the phone frame.

Step 22



- Use tweezers to peel the tape covering the fingerprint sensor cable connector near the bottom edge of the phone.
- ⓘ The cable is held in place with a ZIF socket.
- Use the point of a spudger to flip up the gray bar on the socket to unlock the cable.

Step 23



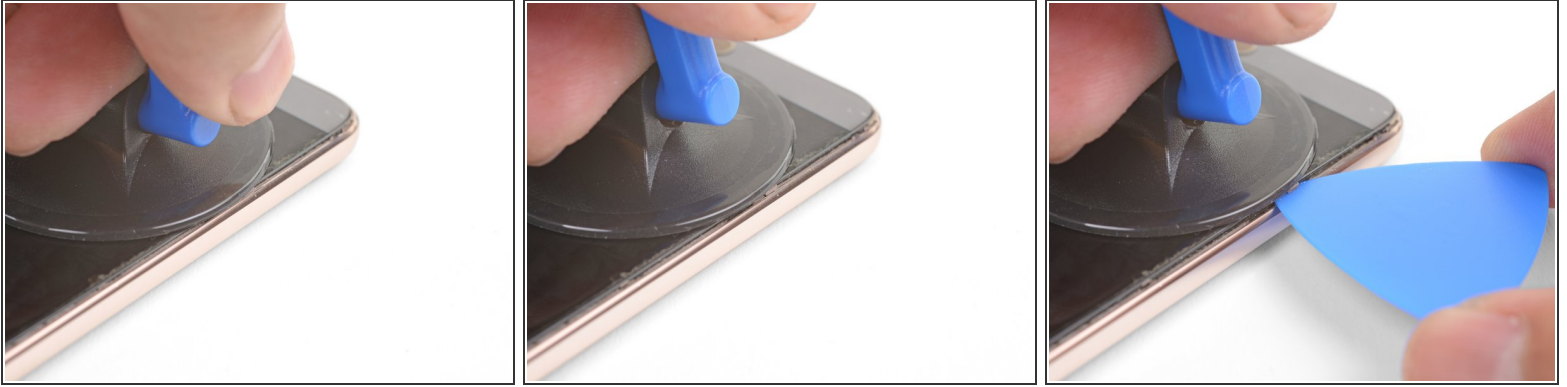
- Use tweezers to grasp the cable's brown pull tab and pull the cable out of the socket.
- ✦ To reinstall the fingerprint sensor cable:
- Align and push the cable back into the connector, up to the white line marked on the cable.
 - Carefully flip the gray bar on the socket down to lock the cable in place.

Step 24



- i** The next steps show how to remove the heavily glued screen from the phone. While it is possible to replace the top glass alone, it is very difficult to accomplish without damaging the LCD.
- Apply a heated iOpener to the left edge of the phone for two minutes.
- i** A hair dryer, heat gun, or hot plate may also be used. Since you don't need to worry about overheating the battery or screen, you can apply more heat than usual.

Step 25



- Place a suction cup near the bottom left corner of the phone. The edge there has slightly thinner adhesive.
 - Pull on the suction cup with strong, steady force to create a gap in the seam.
 - Insert an opening pick in the gap.
- i** Depending on how old your phone is, creating this initial gap may be very difficult. Here are some things you can try if you're having trouble:
- Repeat the heating and pulling process multiple times to soften the adhesive.
 - Use a playing card instead of an opening pick to insert in the gap.
 - Try heating and prying at a different location.
 - [Use a Jimmy to make the initial entry](#). Be careful working with metal tools, as they will scratch the frame and chip the glass screen.

Step 26



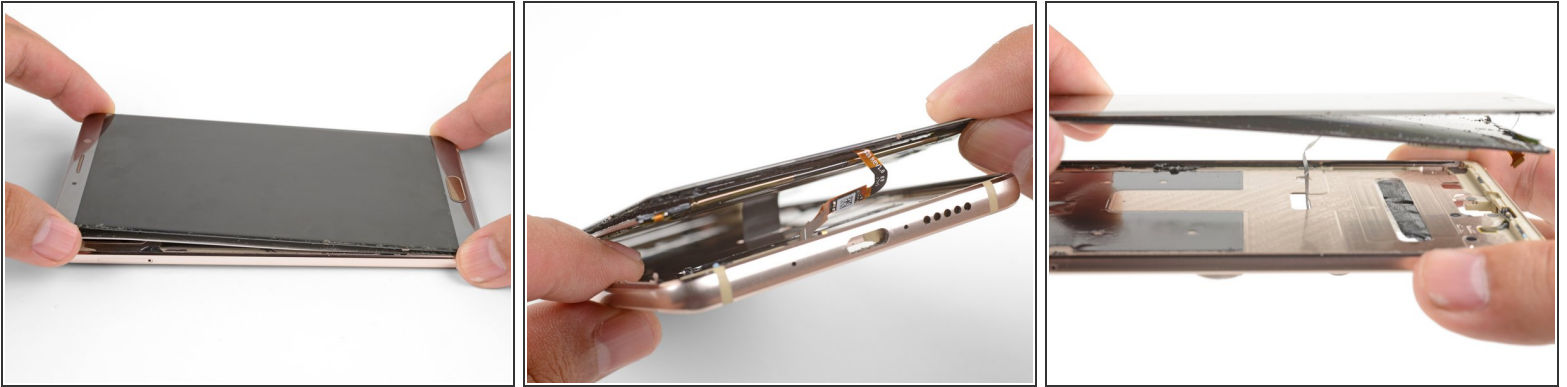
- Once you've made the initial entry, slice through the left, top, and right phone edges. Apply heat to help soften the adhesive.
- ⓘ The top edge has adhesive that's as thick as the bezel. Make sure to slice through all of the adhesive.

Step 27



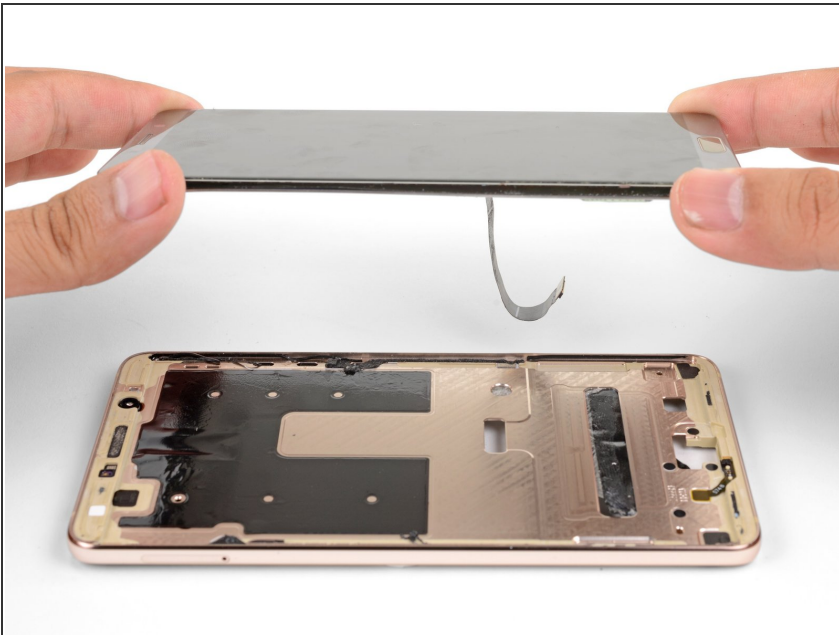
- As you slice through the bottom edge, be careful not to slice near the right of the fingerprint sensor. It contains the sensor ribbon, which is prone to damage.
- Slice through the bottom edge of the phone, making sure to skip the fingerprint sensor area as marked.

Step 28



- Once you have sliced around the perimeter, grasp the screen from the top corners and lift up.
- Use an opening pick to slice through any remaining adhesive holding onto the screen.
- Carefully thread the fingerprint sensor cable through its frame cutout.
- Thread the display cable through its frame cutout.

Step 29



- Remove the screen.
- ⓘ You may need to transfer the fingerprint sensor to your new screen. Follow the next step to remove the fingerprint sensor.

Step 30



- Position your finger or the flat end of a spudger on the fingerprint sensor's backside and push gently to dislodge the sensor.
- Carefully thread the sensor cable through the screen's cutout.
- Remove the fingerprint sensor.

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 [Mate 10 Answers community](#) for help.