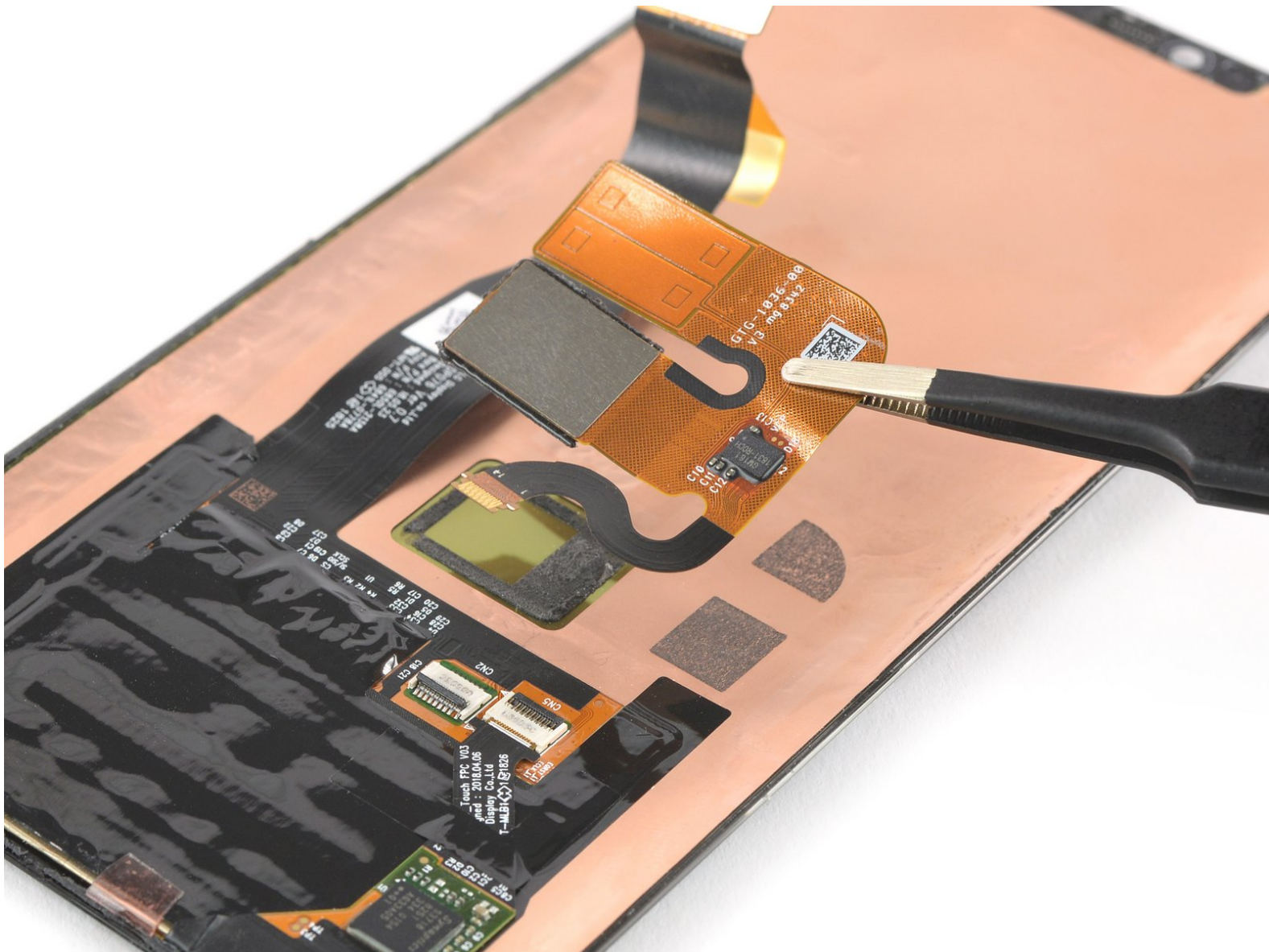




# Huawei Mate 20 Pro Fingerprint Sensor Replacement

How to replace or remove the fingerprint sensor in your Huawei Mate 20 Pro.

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## INTRODUCTION

Use this guide to replace or remove the in display finger print sensor in your Huawei Mate 20 Pro.

Opening the Huawei Mate 20 Pro will **damage the waterproof sealing** on the device. If you do not replace the adhesive seals, your phone will **function normally** but will **lose its water-protection**.

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.

Due to the phone's design, you need to remove the lithium-ion battery in order to remove the screen and the fingerprint sensor afterwards. **Reusing a deformed battery after it been removed is a potential safety hazard. Replace it with a new battery.**

You'll need **replacement adhesive** to reattach components when reassembling the device.



### TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [iOpener](#) (1)
- [Suction Handle](#) (1)
- [iFixit Opening Picks set of 6](#) (1)
- [Spudger](#) (1)
- [ESD Safe Tweezers Blunt Nose](#) (1)
- [Tweezers](#) (1)



### PARTS:

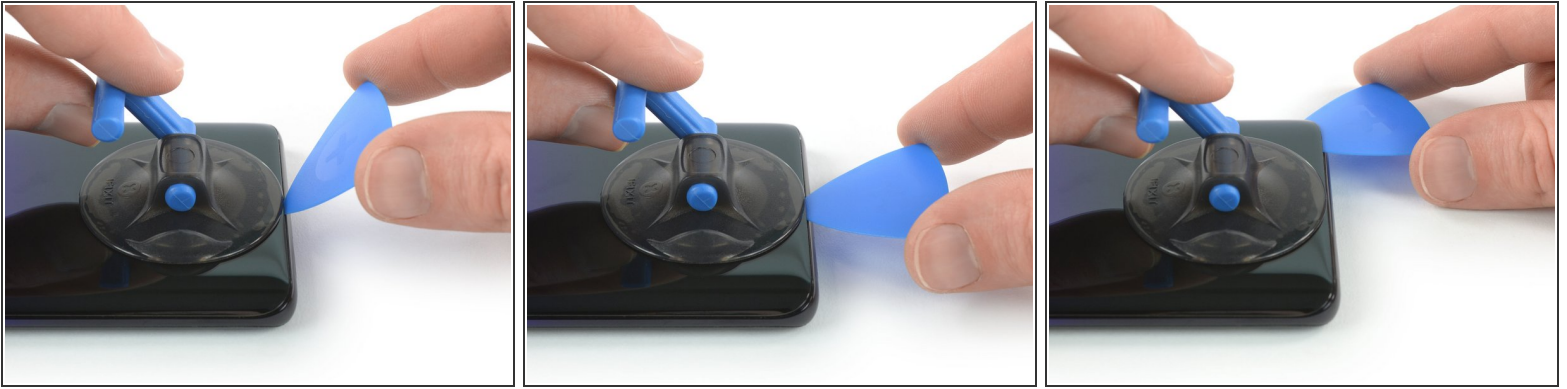
- [Huawei Mate 20 Pro/P30 Pro Replacement Battery](#) (1)
- [Tesa 61395 Tape](#) (1)

## Step 1 — Rear Glass



- Before you begin, switch off your phone.
- Apply a [heated iOpener](#) to the back of the phone to loosen the adhesive beneath the back cover. Apply the iOpener for at least two minutes.

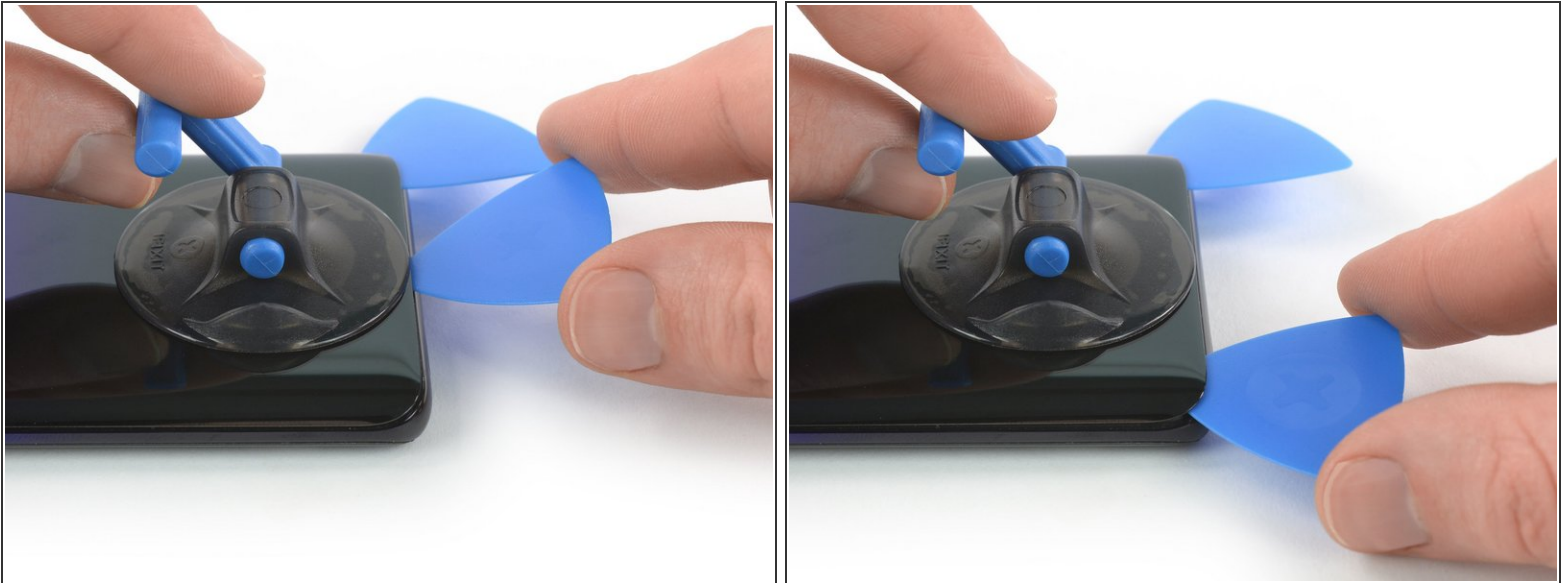
## Step 2



- Secure a suction handle to the bottom of the back cover, as close to the edge as possible.
  - ⓘ If the phone's rear glass is cracked, the suction handle may not stick. Try [lifting it with strong tape](#), or superglue the suction handle in place and allow it to cure so you can proceed.
- Lift the back cover with the suction handle to create a small gap between the cover and the frame.
- Insert an opening pick into the gap.
  - ⓘ If you have trouble, apply more heat to further soften the adhesive. Follow the iOpener instructions to avoid overheating.
- Slide the opening pick to the bottom right corner.



### Step 3



- Insert a second opening pick and slide it to the bottom left corner to cut the adhesive.
- Leave the opening picks in place to prevent the adhesive from resealing.

### Step 4



- Insert a third opening pick at the bottom left corner.
- Slide the tip of the opening pick from the bottom left corner along the side of the phone to cut the adhesive.
- Leave the opening pick in its place at the top left corner to prevent the adhesive from resealing.

## Step 5



- If the adhesive becomes hard to cut, it has most likely cooled down. [Use your iOpener](#) to reheat it.
- Insert a fourth opening pick under the top left corner of the back cover.
- Slide the opening pick along the top edge of the phone to cut the adhesive.
- Leave the opening pick in the top right corner to prevent the adhesive from resealing.

## Step 6



- Insert a fifth opening pick at the top right corner of the phone.
- Slide the opening pick along the right side to cut the remaining adhesive.

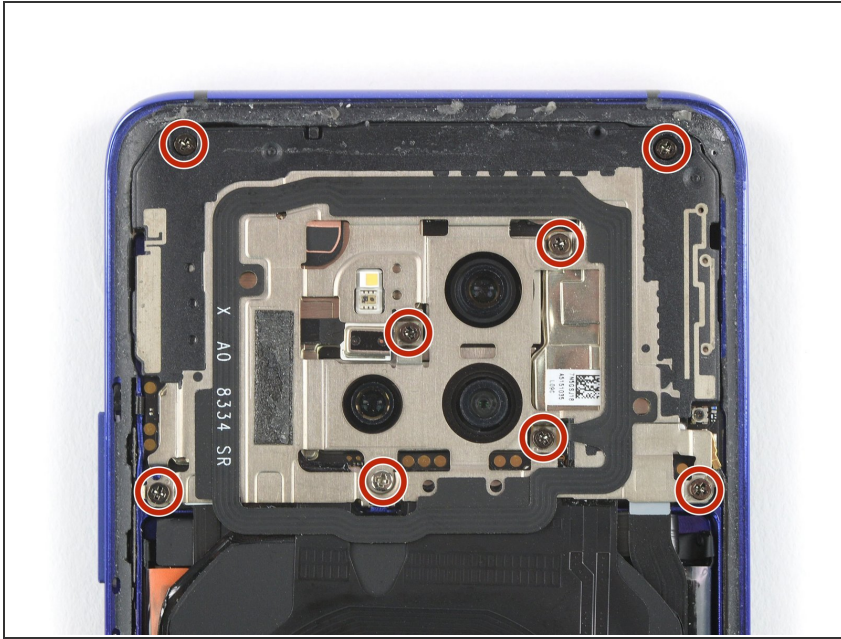
## Step 7



- Lift and remove the back cover.
- ✦ Before installing fresh adhesive and reassembling, remove any remaining adhesive from the phone, and clean the glued areas with isopropyl alcohol and a lint-free cloth.
- ✦ 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.
- ✦ Secure the new back cover with pre-cut adhesive or double-sided adhesive tape. [After installing the rear glass](#), apply pressure for several minutes to help the adhesive form a good bond, such as by placing it under a stack of heavy books.



## Step 8 — Motherboard Cover with NFC & Charging Coil



- Remove the eight Phillips #00 screws (4.3 mm length).

## Step 9




- Slide an opening pick under the black adhesive at the bottom left of the charging coil.
- Carefully slide the opening from the left to the right side to loosen the adhesive.

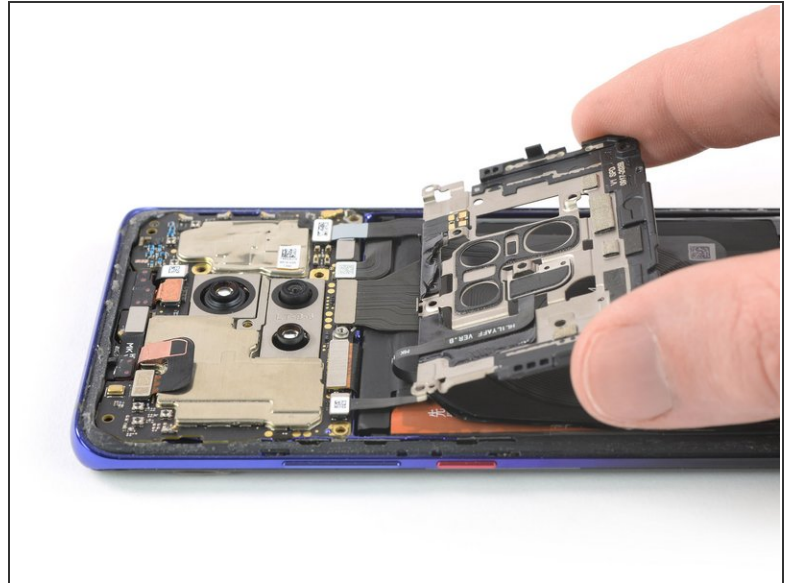
## Step 10



- Insert an opening pick under the bottom left corner of the motherboard cover.
- Use the opening pick to pry up the motherboard cover.

 Do not try to remove the motherboard cover all the way yet. The flex cable of the flash assembly is still connected to the motherboard.

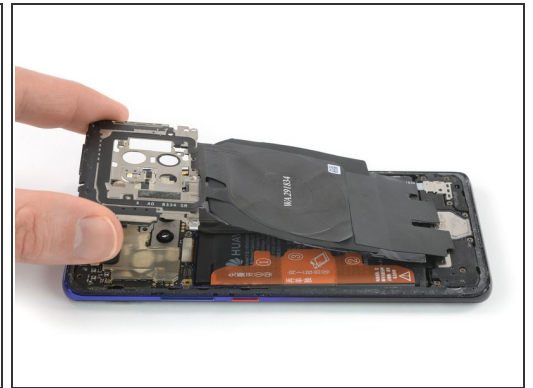
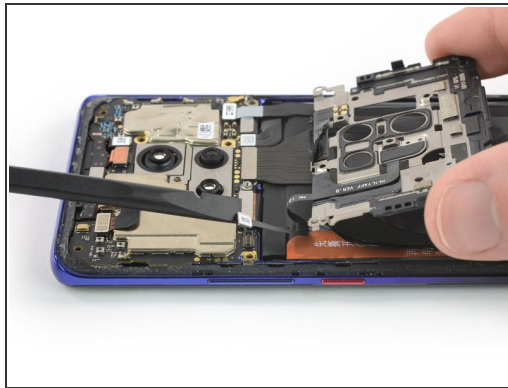
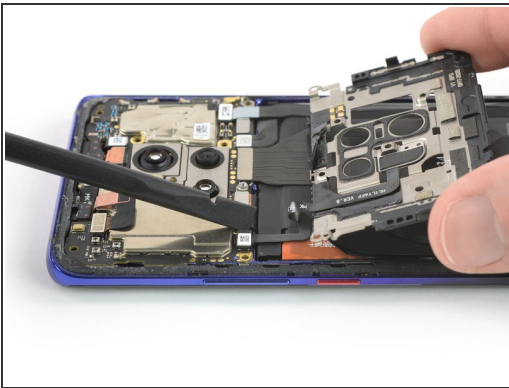
## Step 11



- Carefully fold the motherboard cover in the direction of the battery.

⚠ Take special care to avoid ripping the flash assembly flex cable as it is still connected to the motherboard.

## Step 12



- Use a spudger to pry up and disconnect the flash assembly flex cable.
- ☑ When you disconnect connectors like these, be careful not to dislodge the small surface-mounted components surrounding the socket.
- Remove the motherboard cover including the NFC and charging coil.



## Step 13 — Battery Disconnect



- Use a spudger to pry up and disconnect the battery connector.

## Step 14 — Daughterboard Cover



- Remove the three Phillips #00 screws (4.3 mm length).
- If you want to remove or replace the loudspeaker, daughterboard, battery, or the OLED screen, remove the four Phillips #00 screws (4.3 mm length) which hold down the loudspeaker assembly.

## Step 15



- Slide an opening pick under the top right corner of the daughterboard cover.
- Use the opening pick to pry up the daughterboard cover. Remove the daughterboard cover with tweezers.

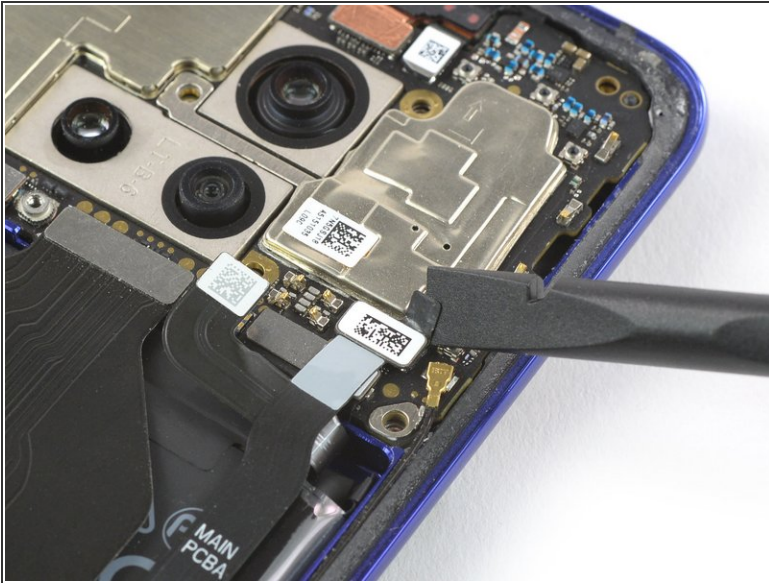
## Step 16 — Loudspeaker & Daughterboard



- Use a Spudger to pry up and disconnect the interconnect flex cable from the daughterboard.



## Step 17



- Use a Spudger to pry up and disconnect the interconnect flex cable from the motherboard.
- Remove the interconnect flex cable.

## Step 18



- Use a pair of tweezers to pry up and disconnect the connector of the black coax cable from the daughterboard.
- Unroute the black coax cable from the metal clip on the daughterboard and fold it to the side.

## Step 19



- Slide an opening underneath the top left corner of the loudspeaker cover.
- Use the opening pick to pry up the loudspeaker and daughterboard assembly.

## Step 20



- Remove the loudspeaker and daughterboard assembly.



## Step 21 — Charging Port with Main Flex Cable



- Use a spudger to pry up and disconnect the main flex cable from the motherboard.

## Step 22



- Use a spudger to pry up and disconnect the main flex cable from the left daughterboard.

## Step 23



- Slide the flat end of a spudger under the right side of the main flex cable next to the charging port.
- Use the spudger to pry up the main flex cable and to lever the charging port out of its recess.

## Step 24



- Remove the main flex cable including the charging port by lifting it upwards and then pulling it in the direction of the motherboard.

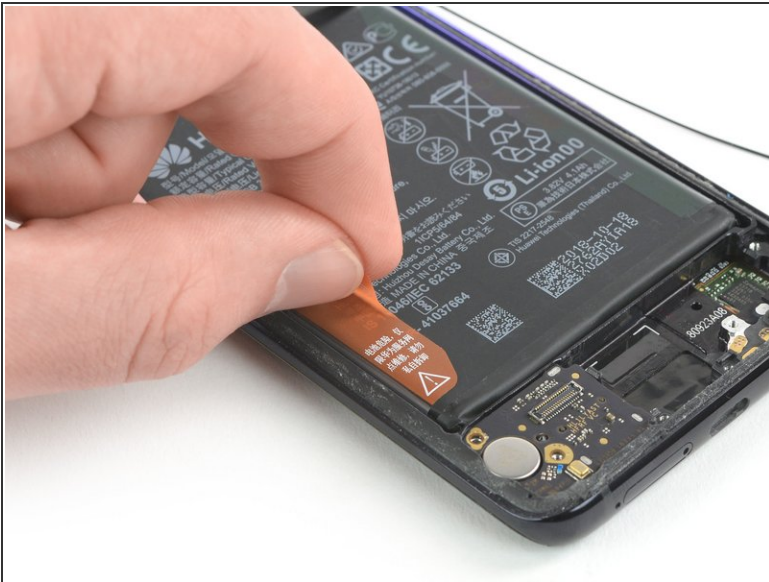


## Step 25 — Battery



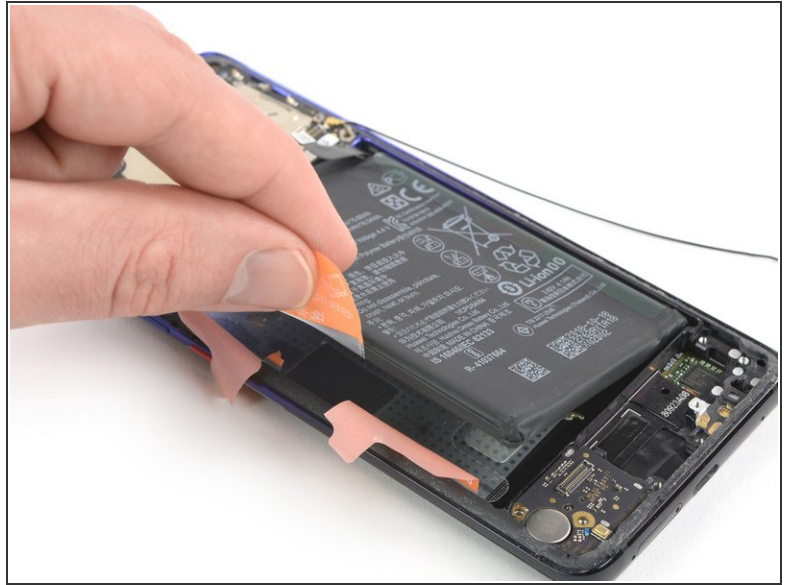
- Peel the orange adhesive strip labeled with a **1** off the battery. The orange adhesive tape will rip along a small perforated line.

## Step 26



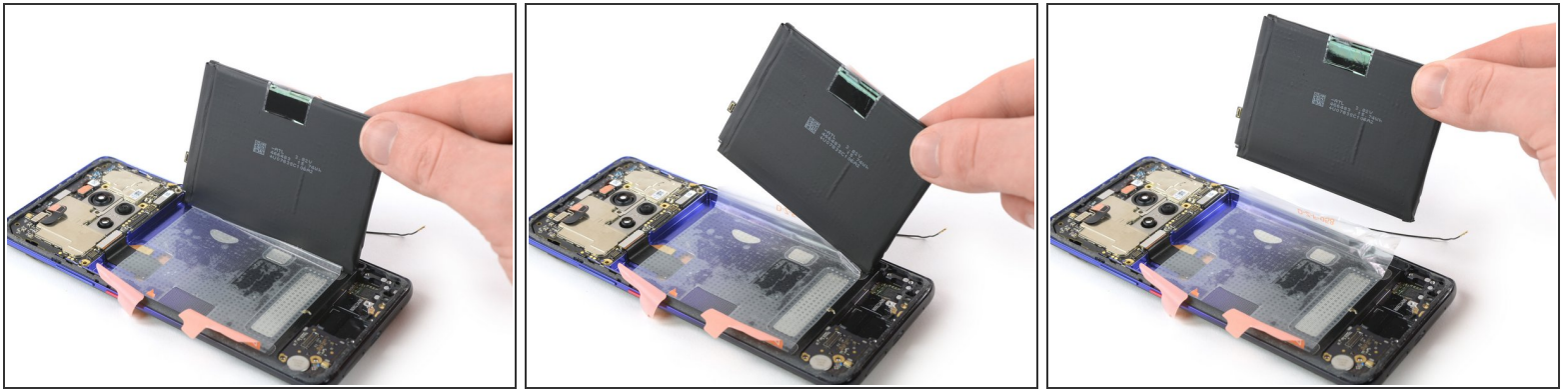
- Peel the orange adhesive strip labeled with a **2** off the battery. The orange adhesive tape will rip along a small perforated line.

## Step 27



- Peel the orange adhesive strip labeled with a **3** off the battery.
- Pull up the orange adhesive strip to lift the battery out of its recess.
- ⓘ Although these new adhesive tabs are supposed to make the battery removal easier, these may require some force. In case you're having trouble removing the battery, you can apply [a heated iOpener](#) to the center of the display, to loosen the adhesive underneath.

## Step 28



- Swing the battery up to an upright position.
  - Peel the battery off the remaining adhesive.
  - Remove the battery.
- ☒ During re-assembly, temporarily re-connect the battery to the motherboard to help align it correctly. Disconnect the battery after it is seated.

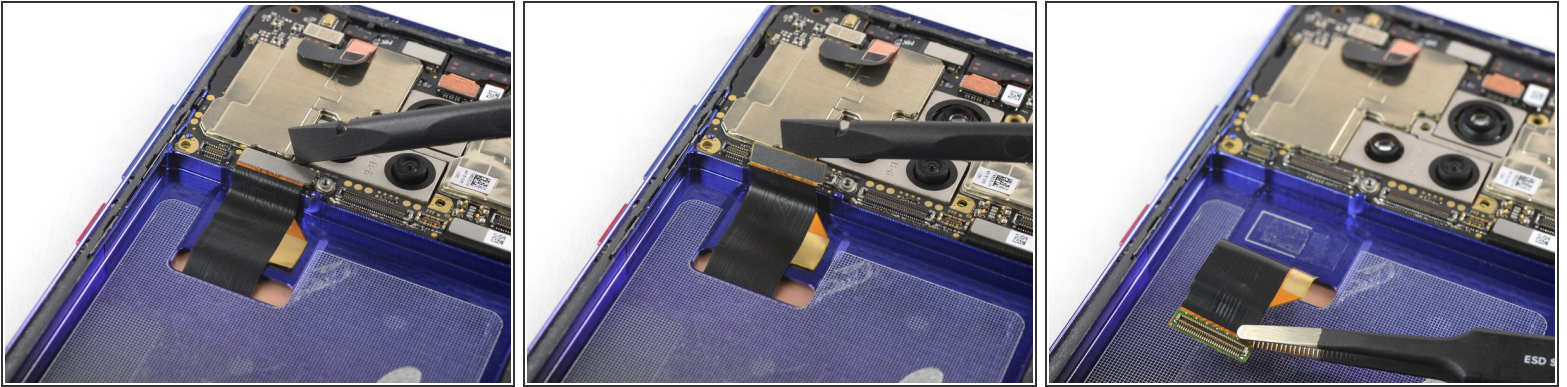


## Step 29



- Peel the battery's adhesive sticker off the midframe.
  - ⓘ This step is mandatory if you are replacing the screen. However it is highly recommended to use a fresh adhesive sticker as well, when installing a new battery.
- ✦ Secure the new battery with pre-cut adhesive or double-sided adhesive tape. In order to position it correctly, apply the new adhesive into the phone at the places where the old adhesive was located, not directly onto the battery. Press the new battery firmly into place.

## Step 30 — OLED Screen & Digitizer



- Use a spudger to pry up and disconnect the display flex cable from the motherboard.
- The display flex cable holds onto the midframe because of mild adhesive underneath. Use a pair of tweezers to peel the flex cable off the midframe.

## Step 31



- Apply a [heated iOpener](#) to the screen and all edges of the phone for at least two minutes, to loosen the adhesive.



## Step 32 — OLED Screen & Digitizer



- Once the screen is warm to the touch, apply a suction cup to the bottom edge of the phone.
- Pull the suction cup upwards and insert an opening pick in the gap between the display glass and the midframe. Start to cut the adhesive by sliding the opening pick to the bottom right corner.

## Step 33



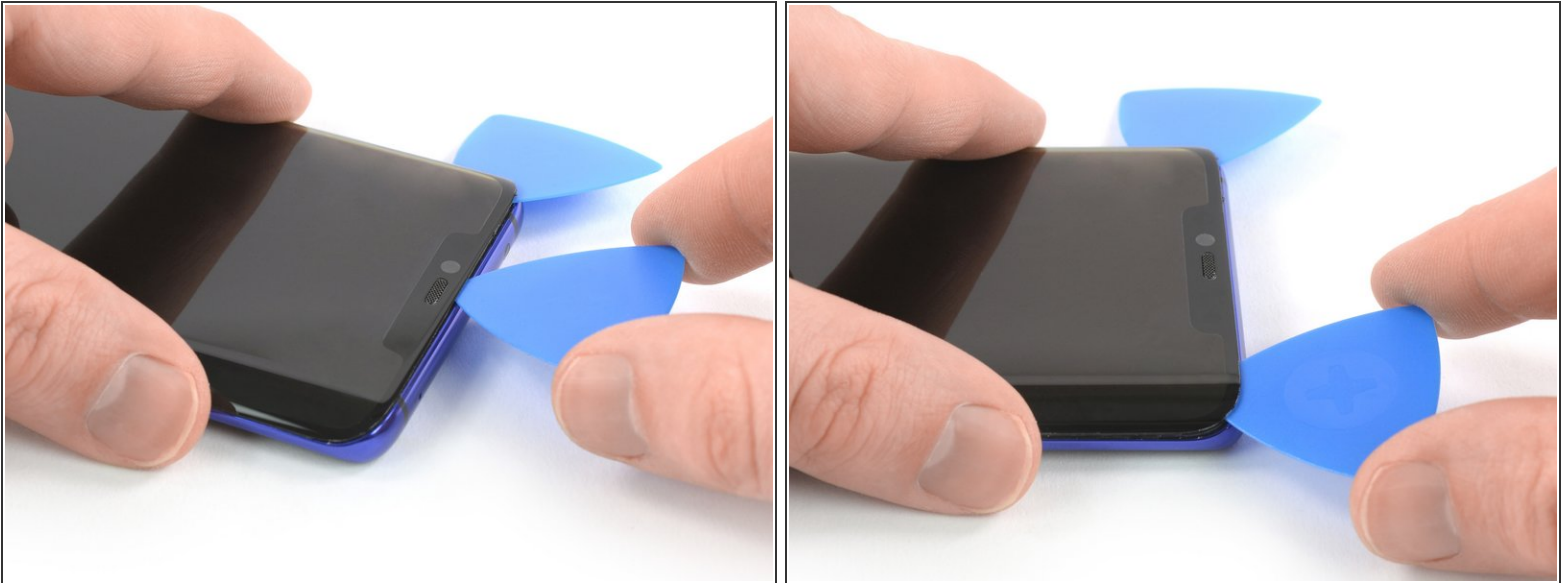
- Insert a second opening pick and slide it to the bottom left corner of the phone to cut the adhesive.
- Leave the picks in their place to prevent the adhesive from resealing.

## Step 34




- Insert a third opening pick under the bottom left corner of the phone.
  - Slide the opening pick up to the top left corner to cut the adhesive. Leave it there to prevent the adhesive from resealing.
- ☑ If cutting becomes too difficult, [reheat](#) and reapply the iOpener.

## Step 35

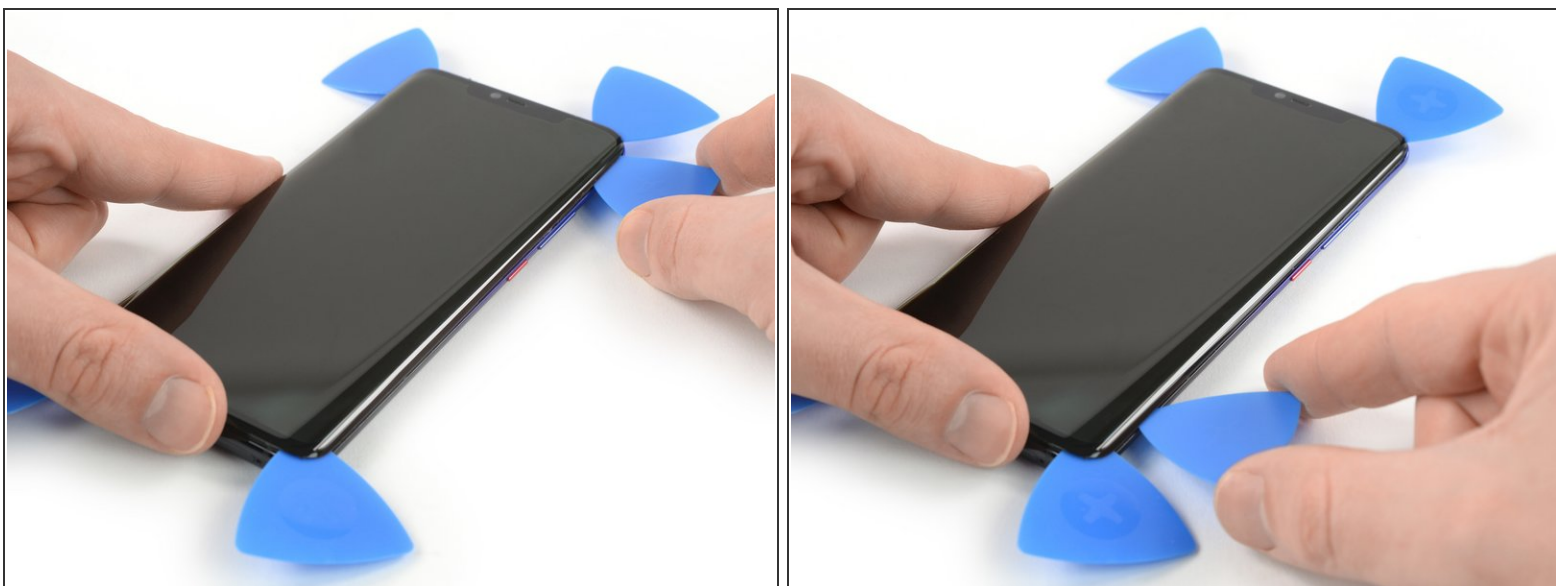


- Insert a fourth opening pick at the top left corner.

 When nearing the front facing camera, only work with the tip of the opening pick to avoid damaging or smearing the camera.

- Slide the opening pick along the top edge of the phone to cut the adhesive. Leave the pick in the top right corner of the screen to prevent the adhesive from resealing.

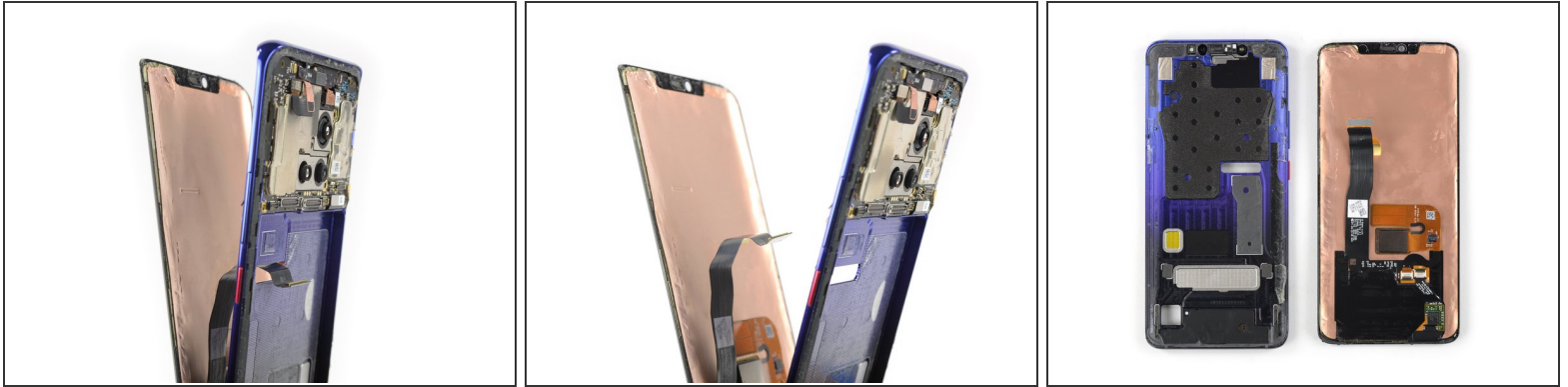
## Step 36



- Insert a fifth opening pick and slide it along the right edge of the phone to cut the remaining adhesive.

⚠ Try not to remove the display all the way yet, the display cable is still threaded through the frame and possibly adhered on the inner side of the midframe.

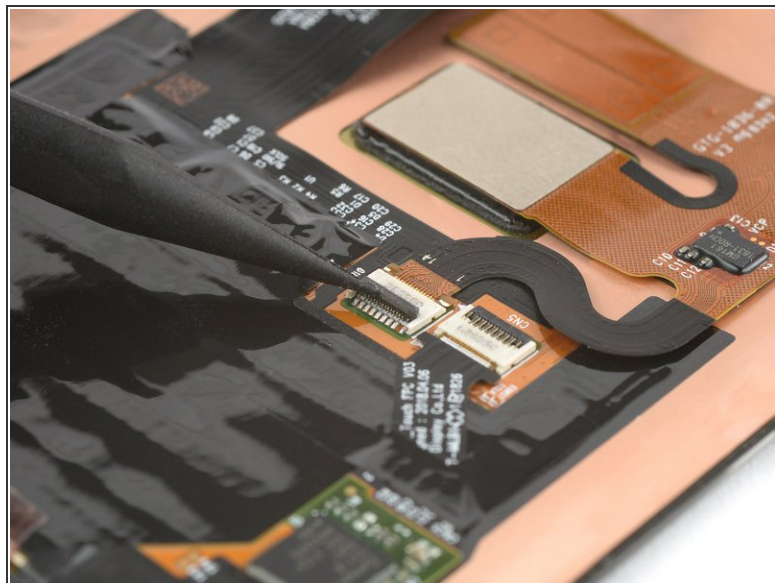
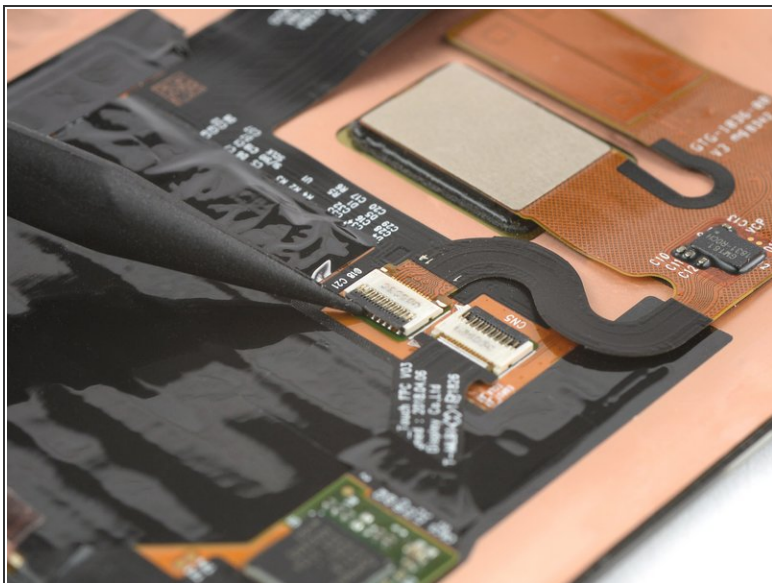
## Step 37



- Thread the display flex cable through the gap in the midframe and remove the display.
- Not all replacement screens come with a new preinstalled fingerprint sensor. In case you need to transfer your old fingerprint sensor to your replacement screen you can [follow this guide, to remove it](#).
- ☑ Before installing a new display, remove all traces of the old adhesive from the frame, and clean the glued areas with isopropyl alcohol (>90%) and a lint-free cloth.
- ☑ The best way to secure the new screen is with a sheet of [custom-cut double-sided tape](#). Apply the tape to the back of the screen, then carefully feed the display cable through the frame. Align the screen and press it into place.



## Step 38 — Fingerprint Sensor



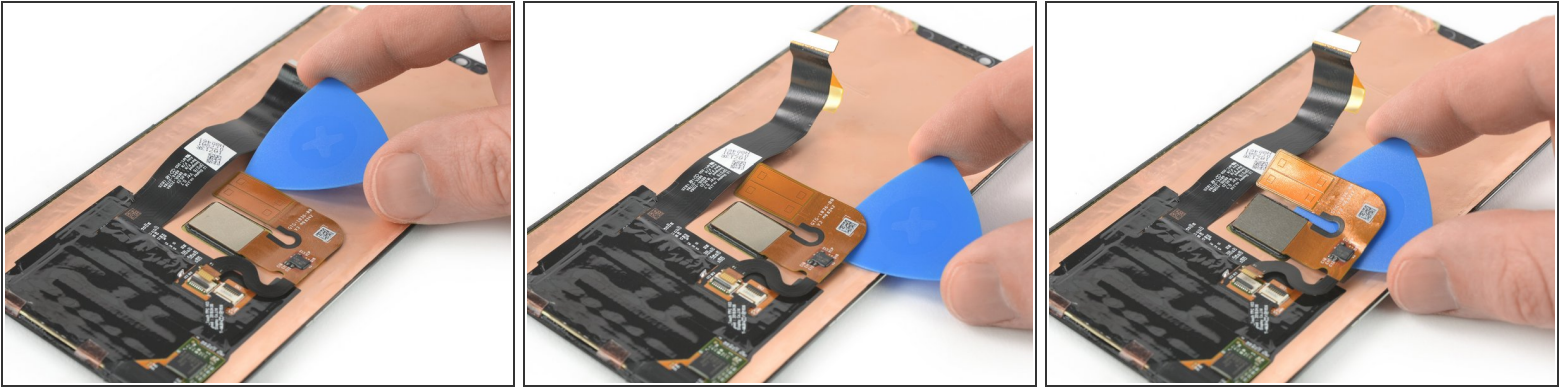
- Use the pointed end of a spudger to open the ZIF connector of the fingerprint sensor.

## Step 39



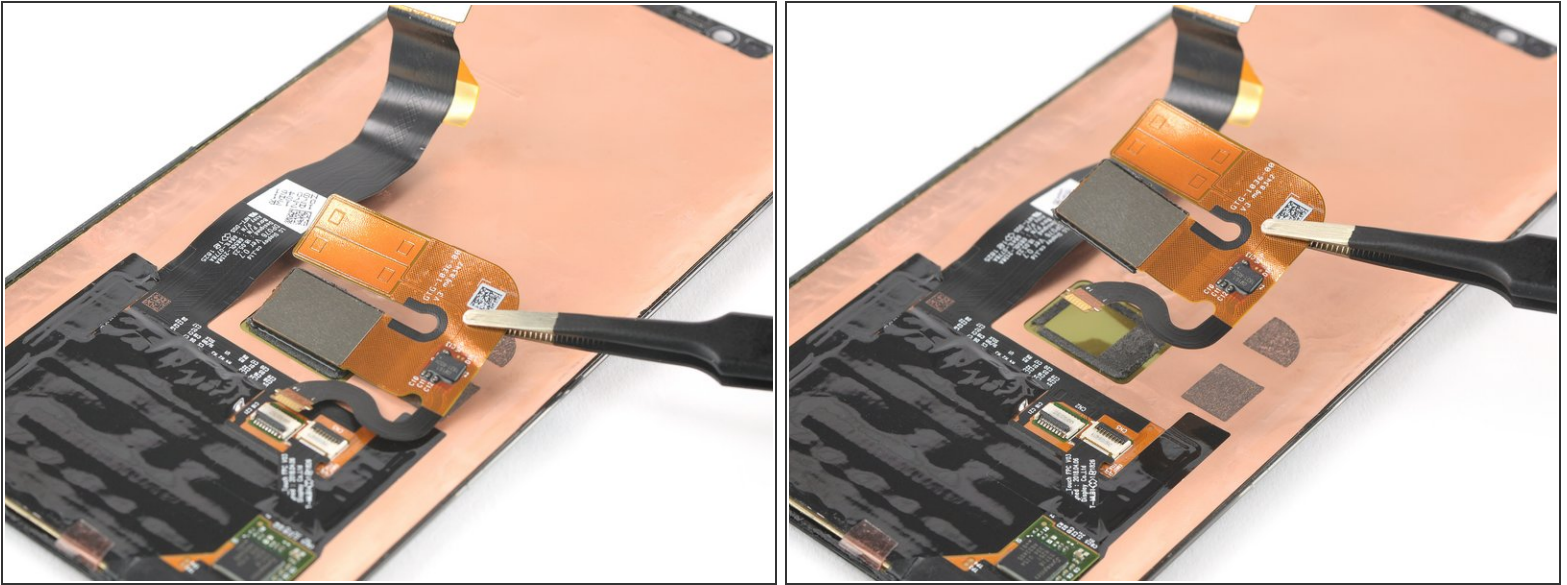
- Use a pair of tweezers to carefully pull the flex cable of the fingerprint sensor out of the ZIF connector.

## Step 40



- ✦ The fingerprint sensor flex cable is glued onto the rear side of the screen with mild adhesive. In case you're having trouble with removing the flex cable, you can [apply an iOpener](#) to the front of the display to loosen the adhesive underneath.
- Slide an opening under the upper end of the fingerprint flex cable.
- Carefully work your way into the direction of the ZIF connector and use the opening pick to separate the fingerprint flex cable from the screen.

## Step 41



- Use a pair of tweezers to remove the fingerprint sensor.
- ✦ Before reassembling your phone, it's important to remove all traces of old adhesive from the frame and any components you're going to reuse, and clean the glued areas with isopropyl alcohol (>90%) and a lint-free cloth.

If possible, turn on your device and test your repair before installing new adhesive and resealing.

To reassemble your device, follow these instructions in reverse order. Apply new adhesive where necessary after cleaning the relevant areas with isopropyl alcohol (>90%).

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.