



# Huawei P20 Home Button with Fingerprint Sensor Replacement

How to replace a defective home button with fingerprint sensor in your Huawei P20.

Written By: Dominik Schnabelrauch



## INTRODUCTION

Use this guide to replace a defective home button with fingerprint sensor in your Huawei P20.

Opening the Huawei P20 will **damage the splash and dust protection seals** on the device. If you do not replace the adhesive seals, your phone will function normally but will **lose its protection**.

Due to the phone's design, we recommend removing the lithium-ion battery in order to remove the screen and have better access to the components. However, it is possible to remove the screen without removing the battery. **Reusing a deformed battery after it has forcefully been removed, is a potential safety hazard. In this case, replace it with a new battery.**

**Before disassembling your phone, discharge the battery below 25%.** The battery can catch fire and/or explode if accidentally punctured, but the chances of that happening are much lower if discharged.

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

### TOOLS:

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

### PARTS:

- Tesa 61395 Tape (1)
- Huawei P20 Replacement Battery (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.

**⚠** In the next few steps whilst cutting around the rear camera make sure you only use the tip of the opening pick to avoid smearing the lens or damaging the camera.

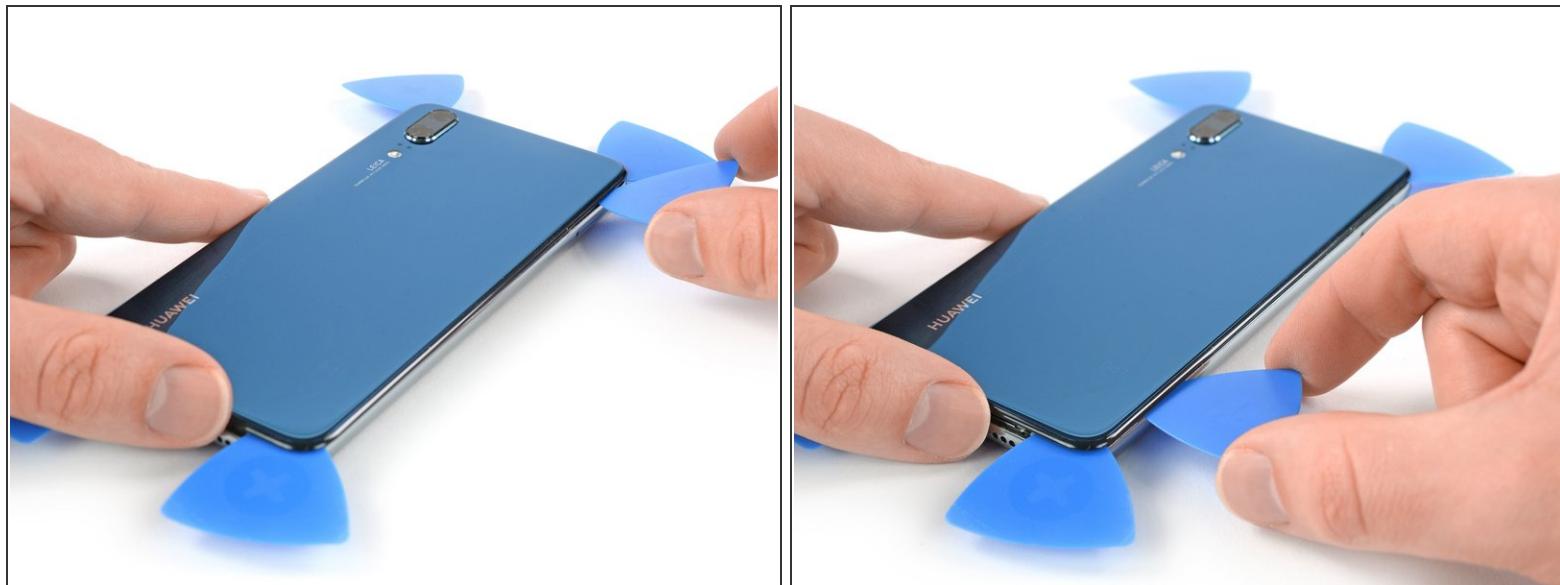
- Start to slide the tip of the opening pick from the bottom left corner along the side of the phone to cut the adhesive.
- Leave the opening pick in its place at the top left corner to prevent the adhesive from resealing.

## Step 5



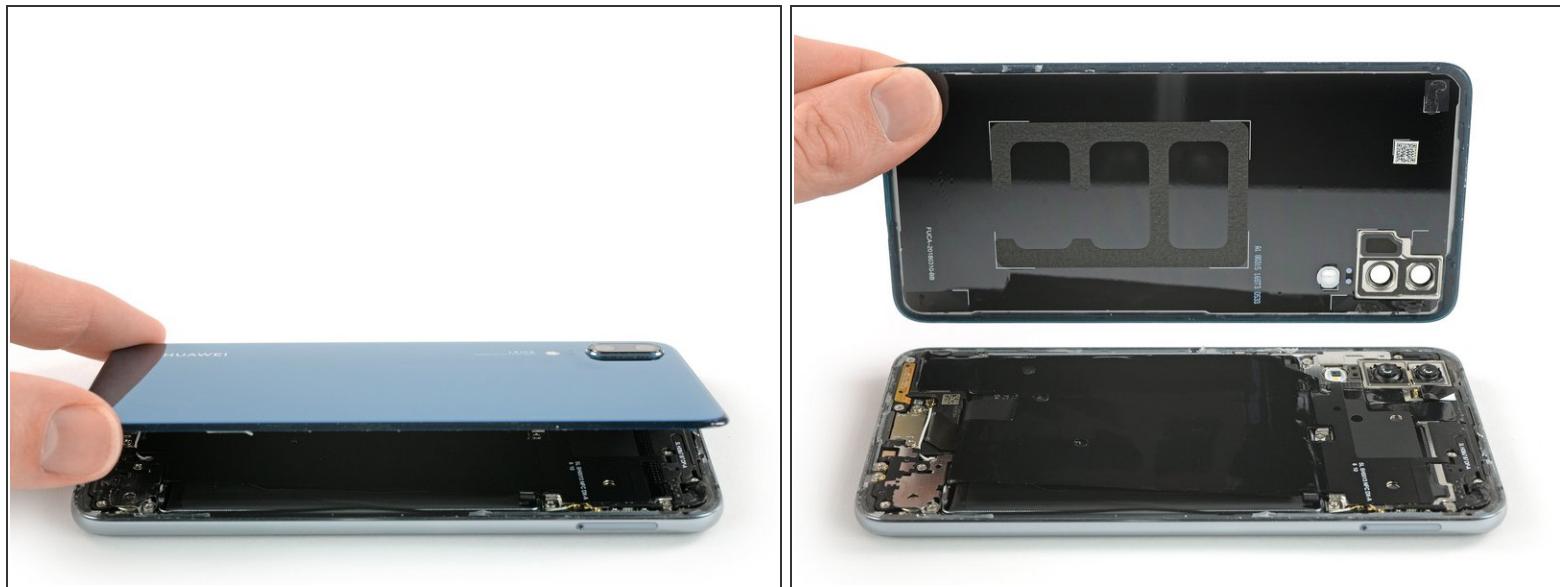
- If the adhesive becomes hard to cut it most likely cooled down. [Use your iOpener](#) to reheat it.
- Insert a fourth opening pick under the top left corner of the back cover.
- Slide the opening pick along the top edge of the phone to cut the adhesive.
- Leave the opening pick in the top right corner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

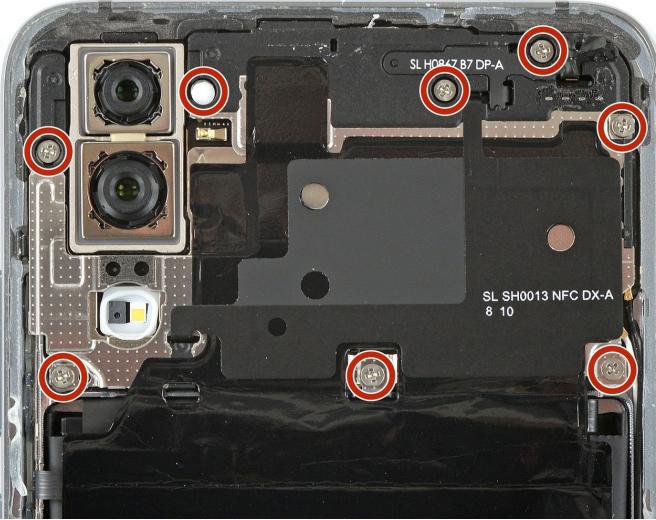
## Step 8 — Motherboard Cover with NFC



- Use a pair of tweezers to peel the black tape next to the rear camera off the motherboard cover.

## Step 9

- Remove the eight Phillips #00 screws (3.1 mm length).



## Step 10



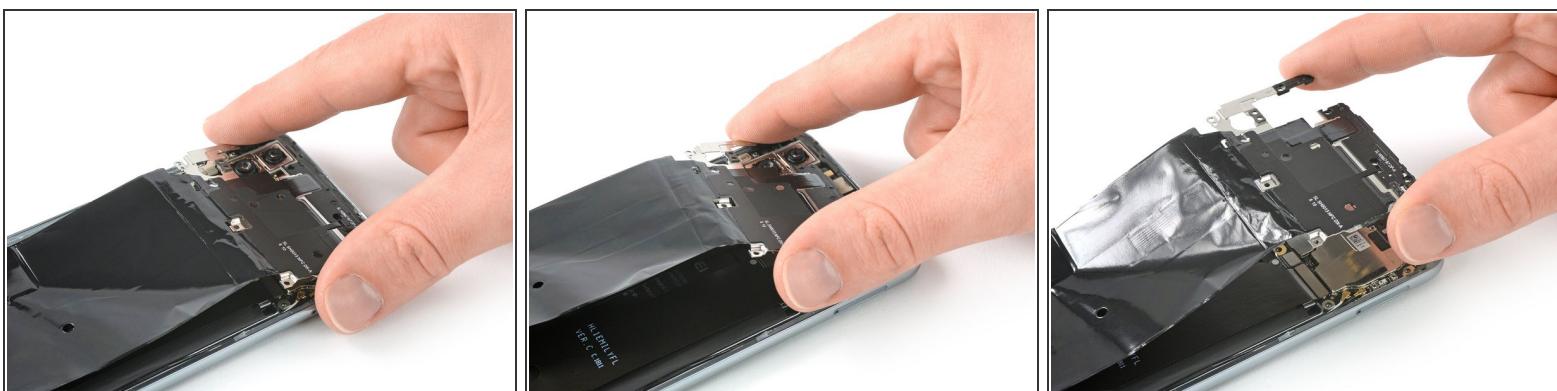
- Use a pair of tweezers to peel the black foil at the bottom end of the phone off the loudspeaker.

## Step 11



- Slide an opening pick under the right side of the motherboard cover.
- Rotate the opening pick slightly to pry up the motherboard cover.

## Step 12



- Remove the motherboard cover with NFC.

## 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 (3.2 mm length).

## Step 15



- Use a pair of tweezers to remove the daughterboard cover.

## Step 16 — Charging Board with Main Flex



- Remove the two Phillips #00 screws (3.2 mm length).

## Step 17



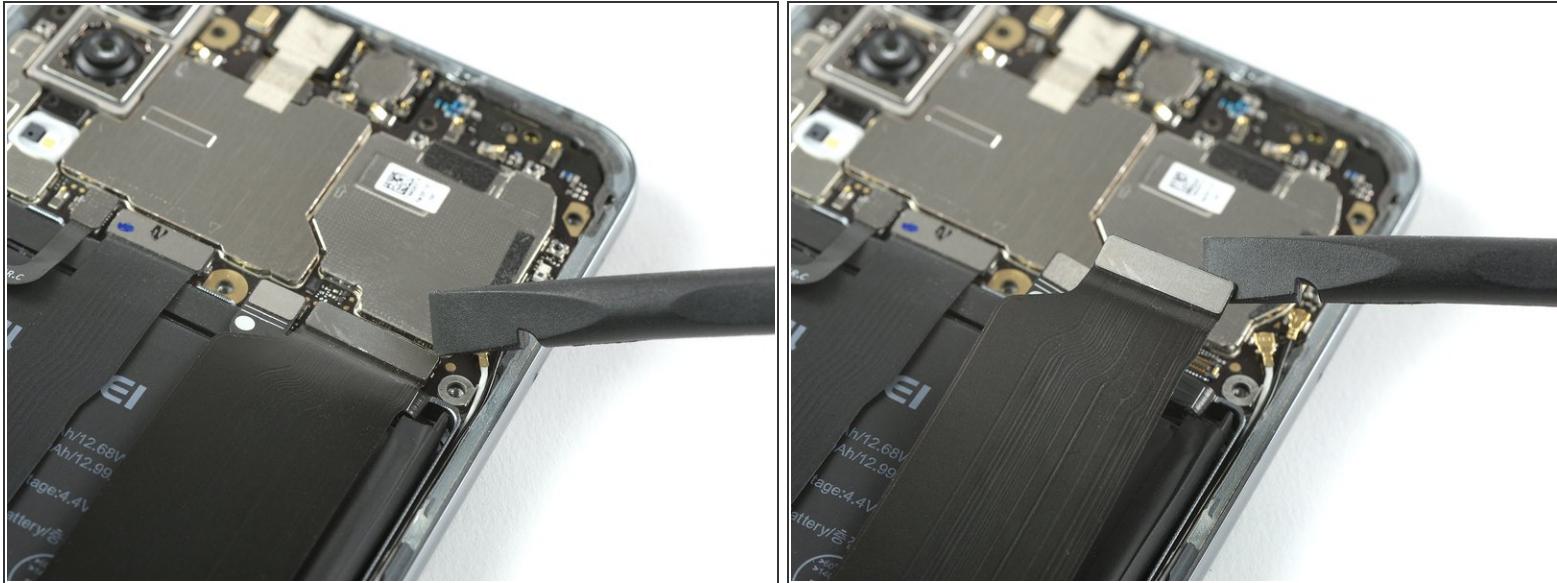
- Use a spudger to pry up and disconnect the main daughterboard connector from the daughterboard.

## Step 18



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

## Step 19



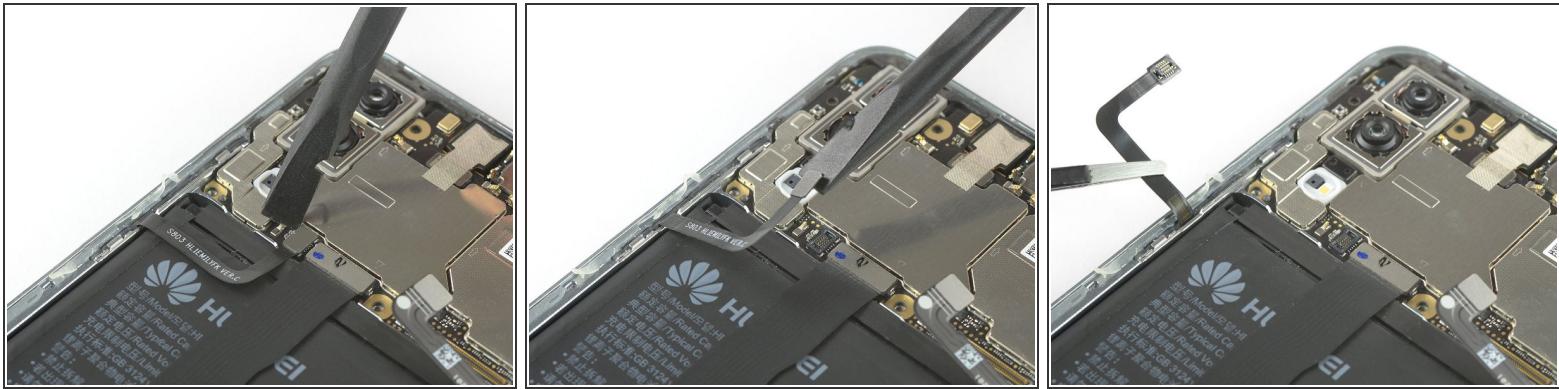
- Use a spudger to disconnect the main flex cable connector from the motherboard.

## Step 20



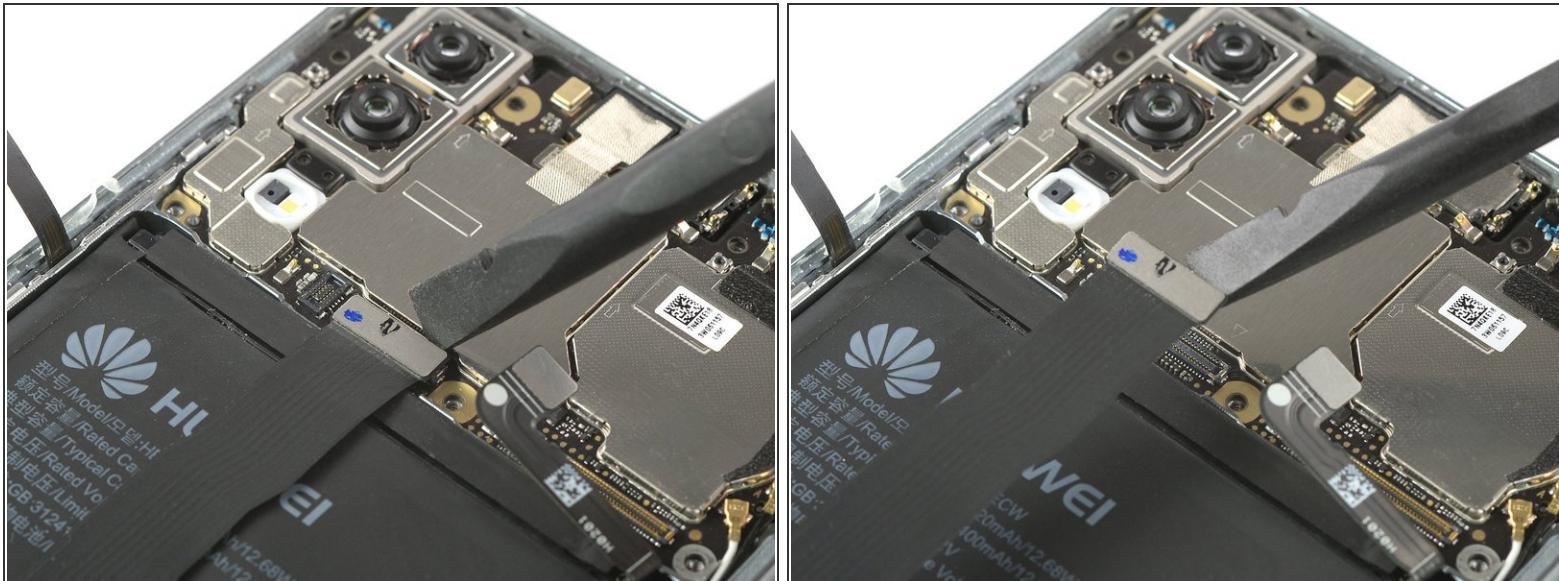
- Remove the charging port and main flex cable by lifting it upwards and then pulling it in the direction of the motherboard.

## Step 21 — Battery



- Use a spudger to pry up and disconnect the power and volume button flex connector.

## Step 22



- Use a spudger to pry up and disconnect the display flex connector and fold the display cable out of your way to remove the battery.

## Step 23



- Apply a [heated iOpener](#) to the screen to loosen the adhesive beneath the battery. Apply the iOpener for at least two minutes.

 Try your best not to deform the battery during the following removal process. Soft-shell lithium-ion batteries can leak dangerous chemicals, catch fire, or even explode if damaged. Do not use excessive force or pry at the battery with metal tools.

## Step 24



- Start to slide a plastic card under the bottom right corner of the battery to cut the adhesive.
- Slide the plastic card along the right side of the battery to further release the adhesive. Gently start to pry up the battery while doing so.

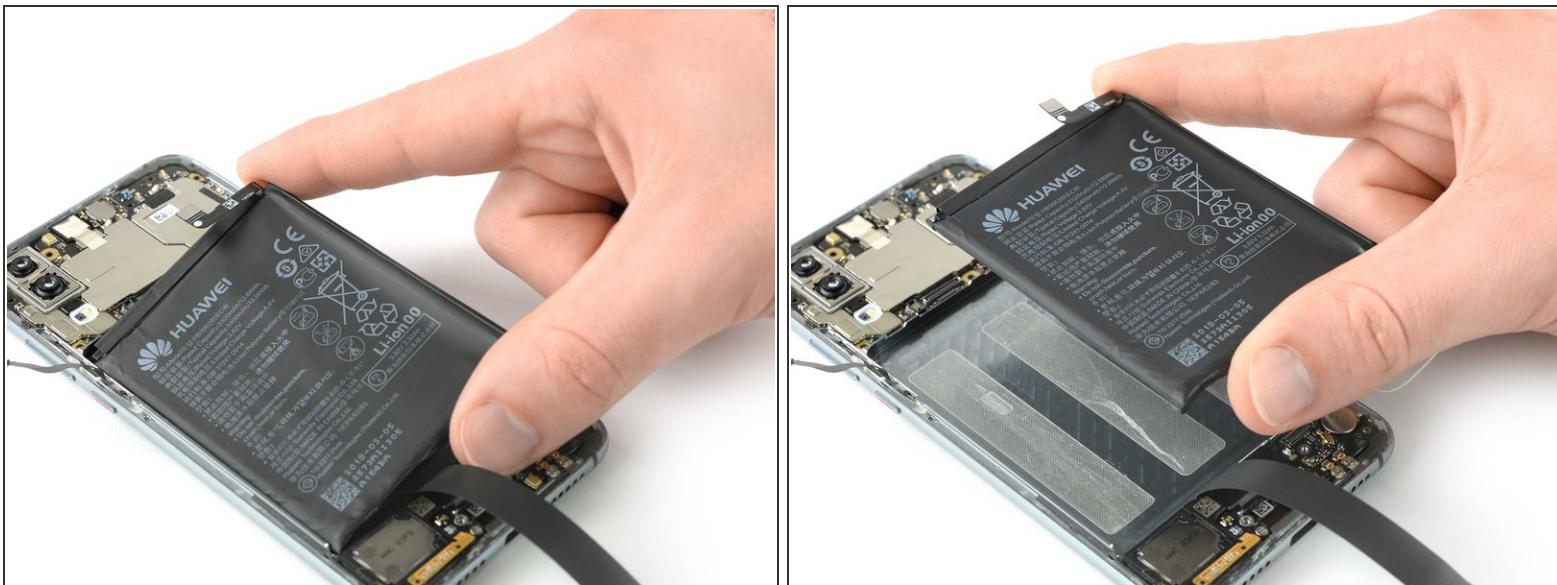
 If you have trouble prying up the battery, the adhesive may not be loose enough. You can apply some isopropyl alcohol under each corner of the battery and allow it to penetrate for about two minutes to help weaken the adhesive.

## Step 25



- Slide the plastic card under the whole upper part of the battery and cut the adhesive with it.
- Slide the plastic card down to the bottom end of the battery to cut the remaining adhesive.
- Use the plastic card to pry up the battery.

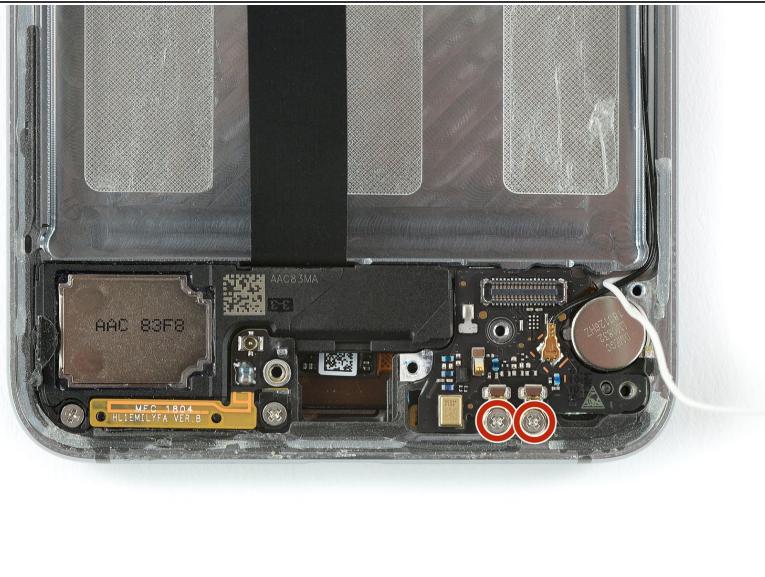
## Step 26



- Remove the battery.

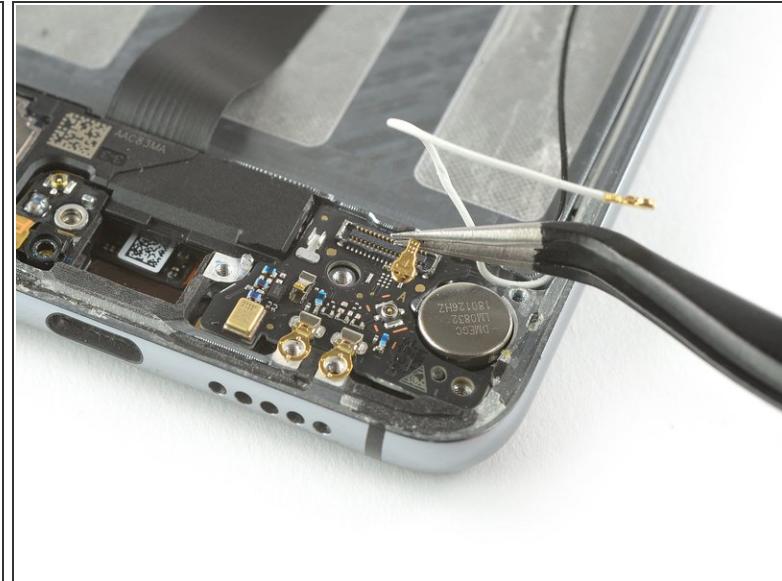
**⚠** Do not reinstall a damaged or deformed battery, as doing so is a potential safety hazard. Replace it with a new battery.

## Step 27 — Daughterboard



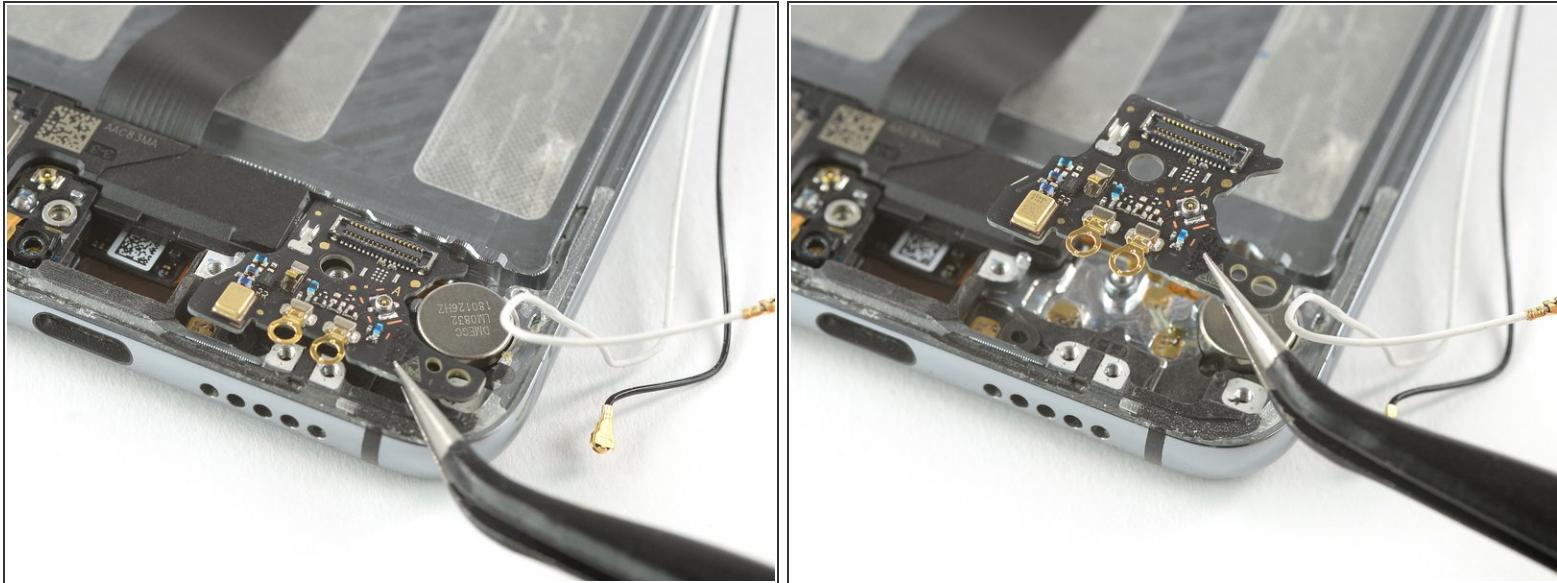
- Remove the two Phillips #00 screws (3.4 mm length).

## Step 28



- Use a pair of tweezers to disconnect the black coax cable and fold it out of your way.

## Step 29



- Use a pair of tweezers to remove the daughterboard.

## Step 30 — Loudspeaker



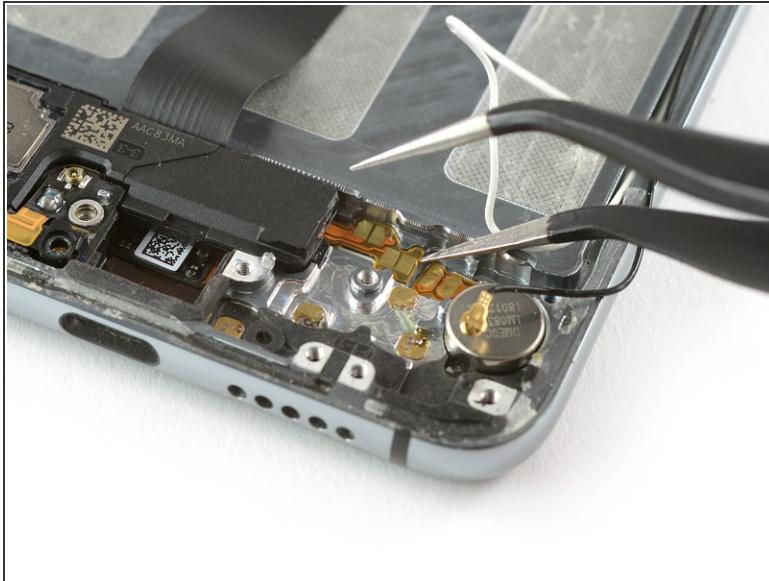
- Remove the two Phillips #00 screws (3.2 mm length).

## Step 31



- Apply a [heated iOpener](#) to the bottom end of the screen to loosen the adhesive underneath the loudspeaker. Apply the iOpener for at least two minutes.

## Step 32



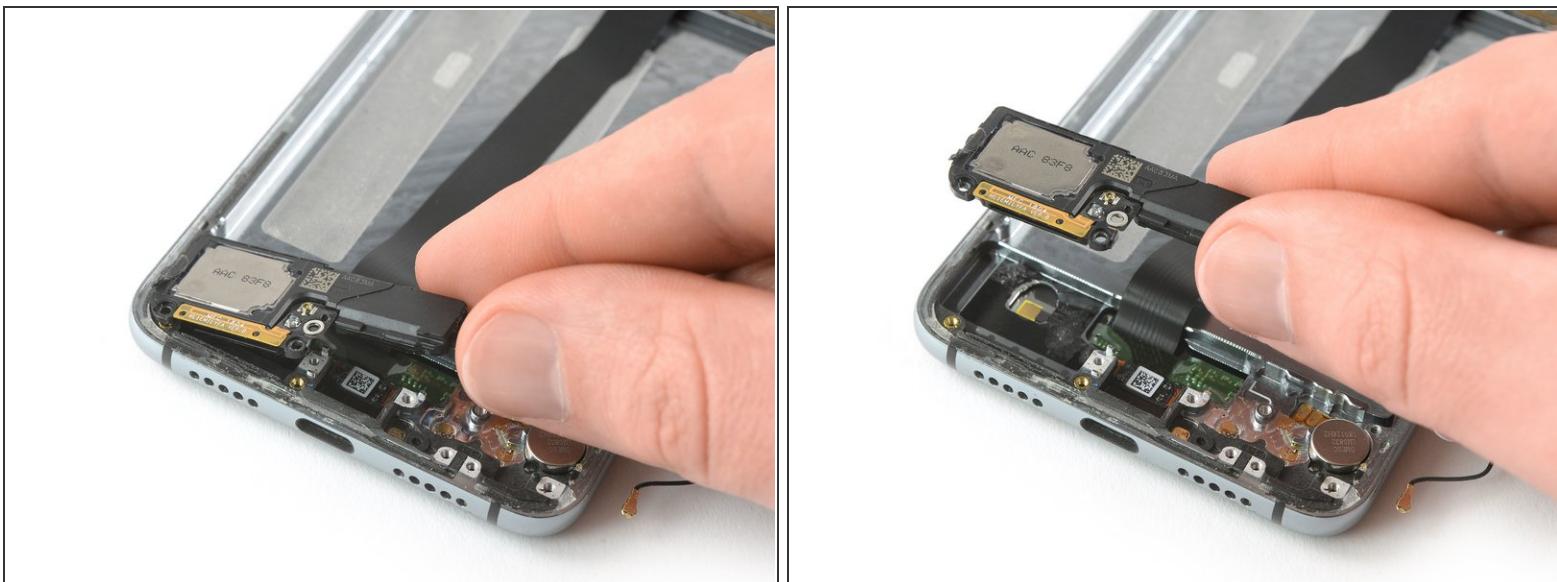
- Use one arm of a pair of tweezers to peel up the contact cable of the loudspeaker.

## Step 33



- Insert a spudger between the midframe and the right side of the loudspeaker.
- Use the spudger to pry up the loudspeaker.

## Step 34



- Remove the loudspeaker.

## Step 35 — Screen



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

## Step 36



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

**⚠** Make sure you get in [the right gap between the display and the plastic bezel](#). Do not pry between the bezel and the midframe.

## Step 37



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

## Step 38



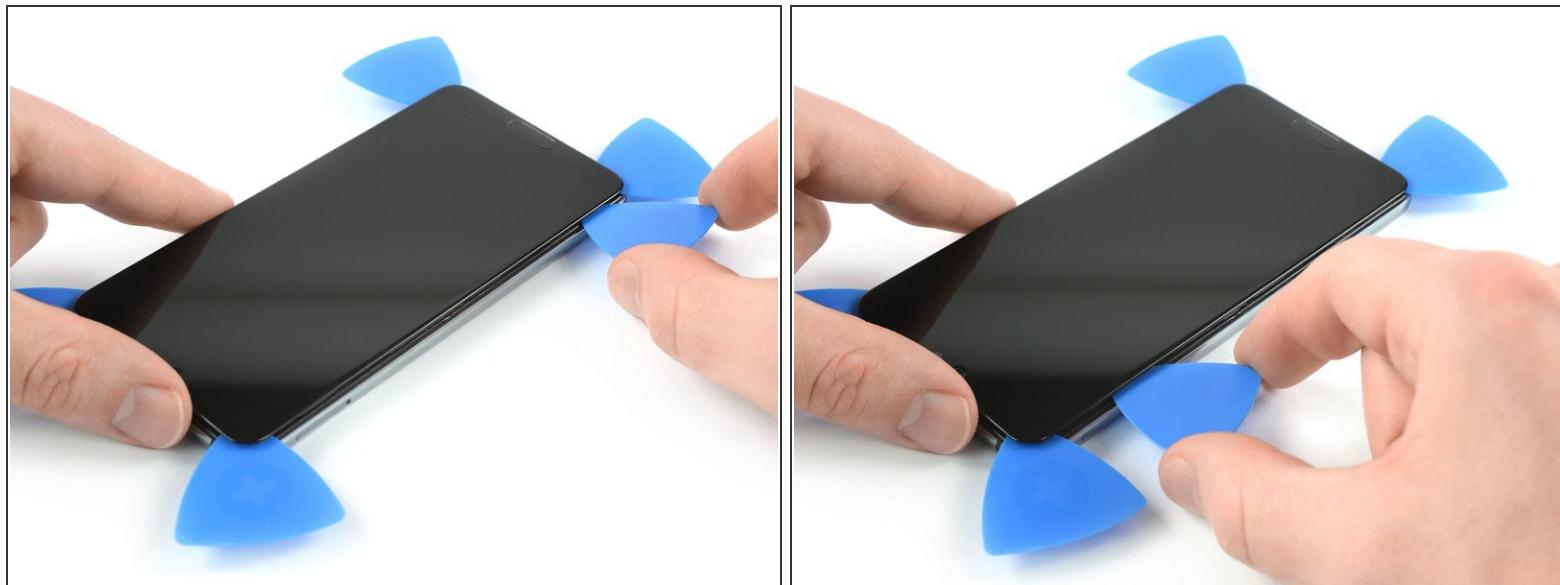
- Insert a third opening pick under the top right corner of the phone.
- Slide the opening pick down to the bottom right corner to cut the adhesive. Leave it at the bottom right corner to prevent the adhesive from resealing.
- If cutting becomes too difficult, [reheat](#) and reapply the iOpener.

## Step 39



- Insert the tip of a fourth opening pick at the bottom right corner.
- Slide the opening pick along the bottom edge of the phone to cut the adhesive.  
⚠ When nearing the fingerprint sensor, only work with the tip of the opening pick to avoid damaging the fingerprint sensor flex cable.
- Leave the opening pick in the bottom left corner to prevent the adhesive from resealing.

## Step 40



- Insert a fifth opening pick and slide it along the left 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 adhered on the inner side of the midframe.

## Step 41



- Thread the display flex cable through the gap in the midframe and remove the display.
- ★ Before installing a new display, it's important to remove all traces of the old adhesive from the frame, and clean the glued areas with isopropyl alcohol (>90%) and a lint-free cloth.
- ★ In case your replacement screen isn't equipped with a new home button with fingerprint sensor, [follow this guide to remove the button from your old screen.](#)

## Step 42 — Home Button with Fingerprint Sensor



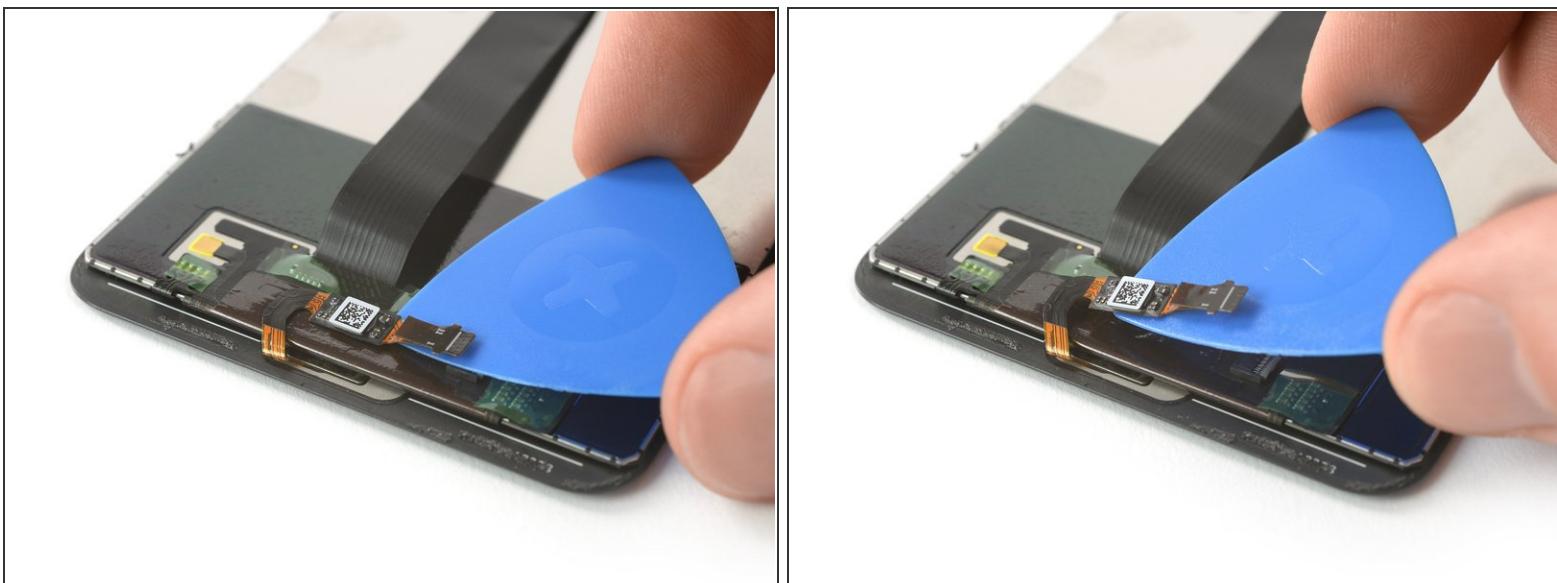
- Use the pointed end of a spudger to open the ZIF connector of the home button.

## Step 43



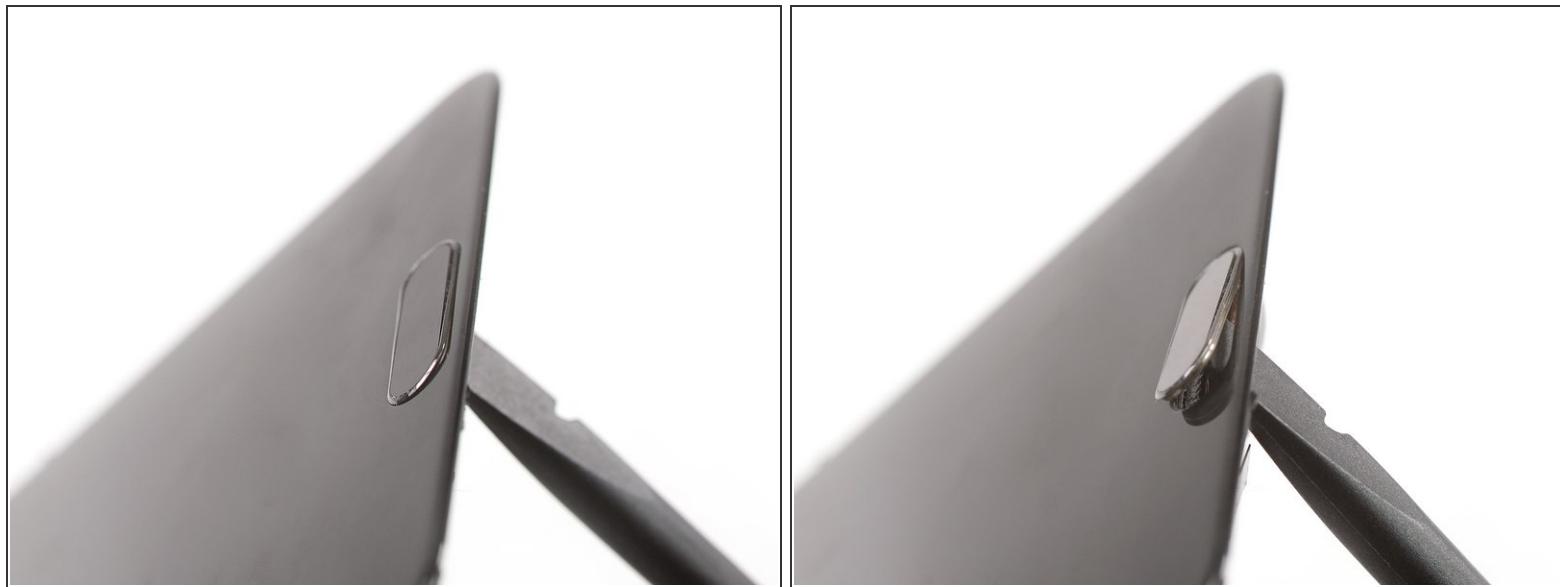
- Use a pair of tweezers to pull the home button flex cable out of its ZIF connector.

## Step 44



- Carefully slide an opening pick under the home button cable to loosen the adhesive underneath.

## Step 45



- Apply a spudger to the backside of the home button and push it out towards the front until it comes off the screen.
- *i* In case the home button doesn't budge, you can apply a [heated iOpener](#) to the bottom end of the screen to loosen the adhesive underneath.

## Step 46



- Carefully grab the home button with a pair of tweezers and thread its flex cable through the gap in the screen.
- Remove the home button.

 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 phone and **test your repair** before installing new adhesive and resealing the phone.

To reassemble your device, follow these instructions in reverse order.

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.

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.