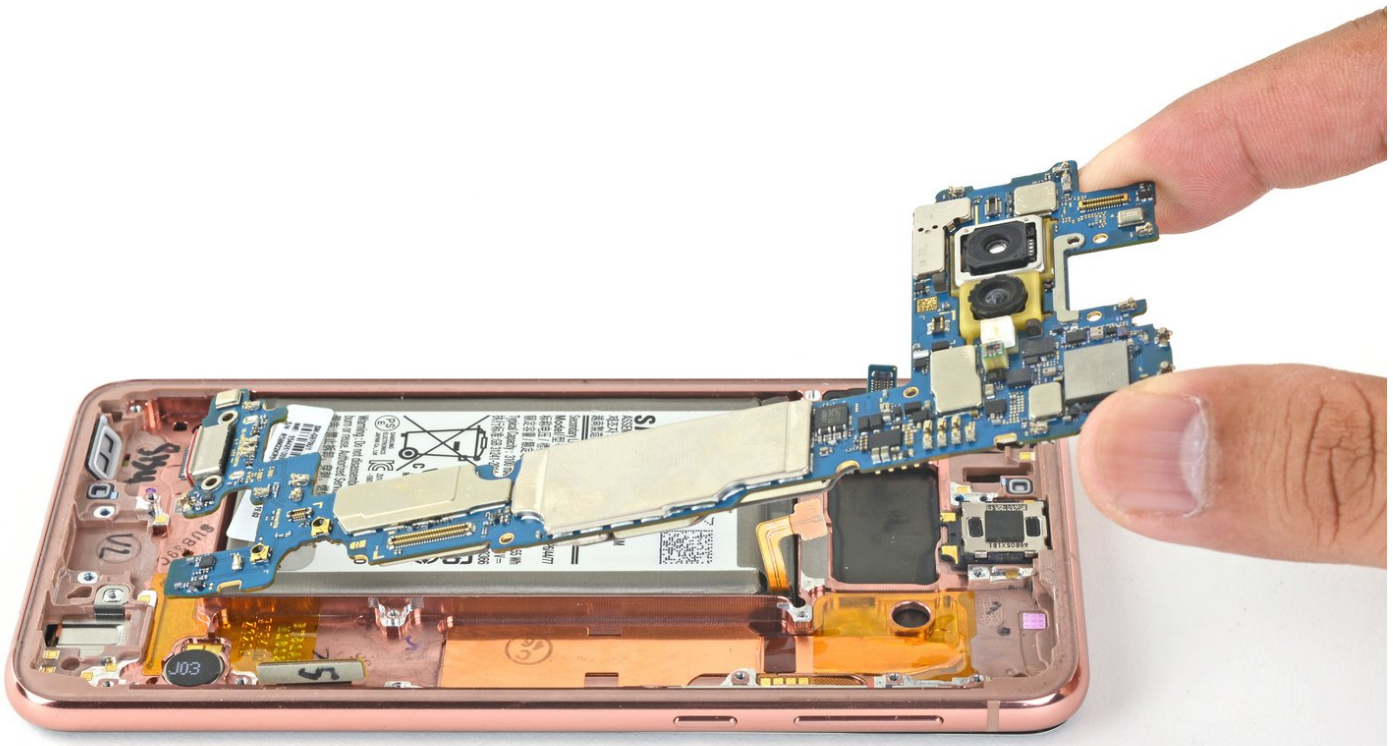
# Samsung Galaxy S10e Motherboard Replacement

How to remove and replace the motherboard for a Samsung Galaxy S10e.

Written By: Arthur Shi



## INTRODUCTION

This guide shows how to remove and replace the motherboard for a Samsung Galaxy S10e.

### TOOLS:

- SIM Card Eject Tool (1)
- iOpener (1)
- Suction Handle (1)
- iFixit Opening Tool (1)
- iFixit Opening Picks (Set of 6) (1)
- Tweezers (1)
- Isopropyl Alcohol (1)
- Spudger (1)
- Phillips #00 Screwdriver (1)

### PARTS:

- Galaxy S10e Rear Cover Adhesive (1)



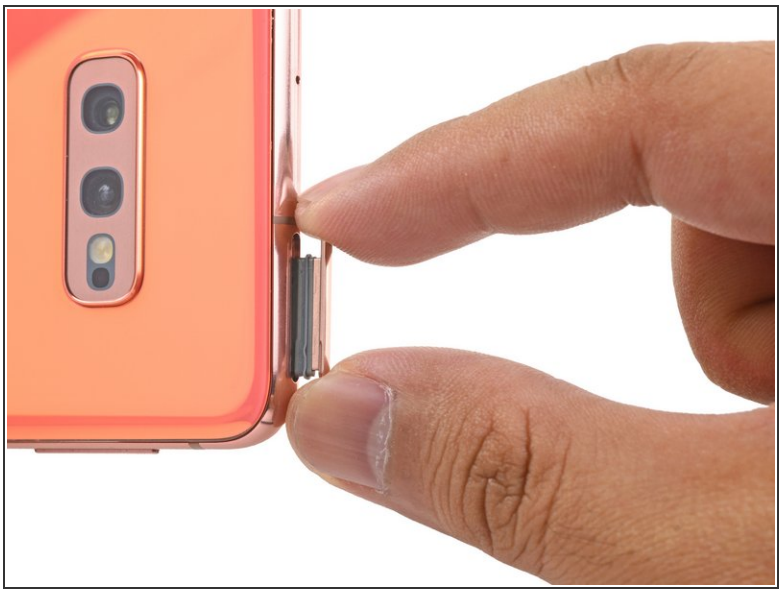
## Step 1 — Eject the SIM/Micro SD tray

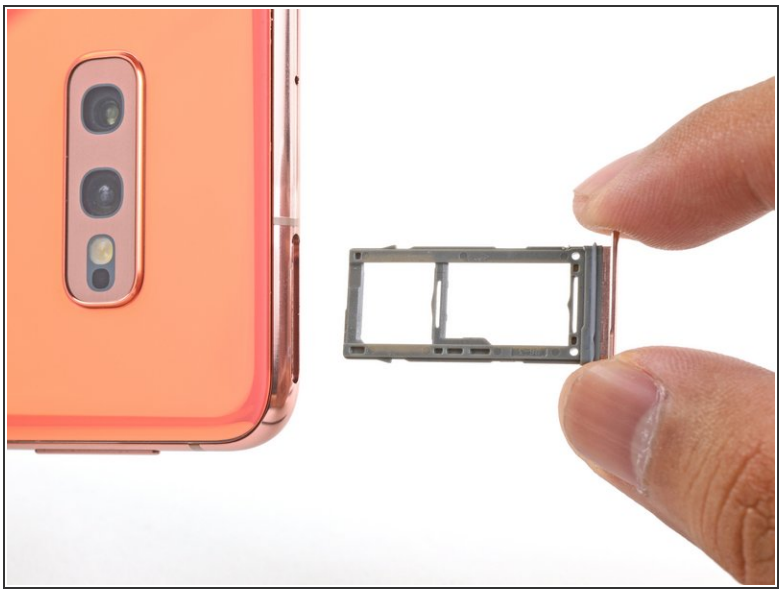
- Insert a SIM card eject tool, bit, or a straightened paperclip into the small hole in the SIM card tray.

  ⓘ If you accidentally inserted the SIM eject tool into a different hole, don't worry! You most likely haven't damaged anything.

- Press firmly to eject the tray.

## Step 2 — Remove the SIM/Micro SD tray





- Pull the tray straight out to remove it.



## Step 3 — Heat the back cover


Opening your phone will compromise its waterproof seals. Have replacement adhesive ready before you proceed, or take care to avoid liquid exposure if you reassemble your phone without replacing the adhesive.

- Turn your phone off completely before you begin this repair.
- Prepare an iOpener and heat the back of the phone along the right edge for about two minutes. This will help soften the adhesive securing the back cover.

  You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.

  A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the OLED display and internal battery are both susceptible to heat damage.

## Step 4 — Prepare to slice the adhesive


- In the following steps, you'll be cutting through the adhesive securing the back cover.

The adhesive is laid out as seen in the first image, which shows the inside of the cover after it has been removed.

- As seen from the outside of the phone, you'll be slicing through the adhesive in the highlighted areas.
- The adhesive is the thinnest on the right side of the phone, just below the Bixby button.

## Step 5 — Secure a suction cup

- Secure a suction cup to the back cover, as close to the heated edge as possible, just under the Bixby button where the adhesive is thinnest.

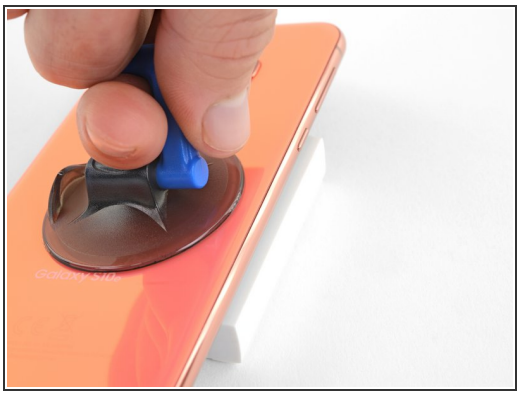
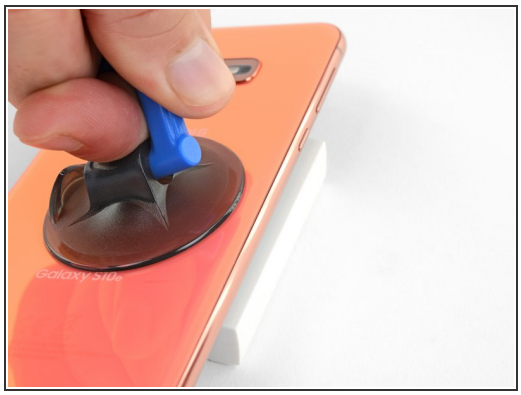
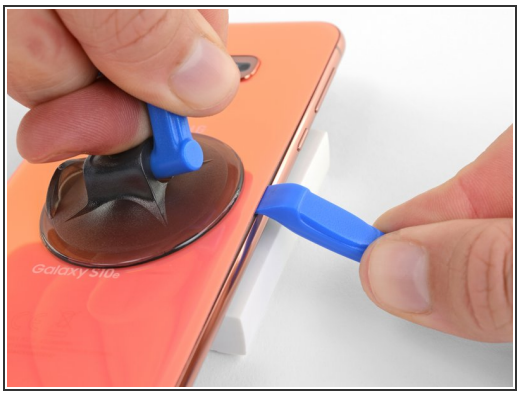
The suction cup will not make a good seal on the curved portion of the glass, so avoid putting it on the very edge.

If the phone's back cover is cracked, the suction cup may not stick. Try lifting it with strong tape, or superglue the suction cup in place and allow it to cure so you can proceed.



## Step 6 — Create an opening gap

- Prop up the heated edge of the phone on something that is about 0.5 inches (13 mm) thick. This will angle the phone so that the opening tool is easier to insert.
- Lift the back cover's right edge with your suction cup, opening a slight gap between the back cover and the frame.
  - This may require a significant amount of force. If you have trouble, apply more heat to further soften the adhesive, and try again. The adhesive cools very fast, so you may need to heat it repeatedly.

    If you're using an iOpener, follow the heating instructions to avoid overheating it, or the gel pack may burst.
- Press the edge of an opening tool into the gap.

The rear glass can break if you use too much force or attempt to pry with metal tools.

## Step 7



- Slide the opening tool along the right edge of the phone to slice through the adhesive securing the back cover.

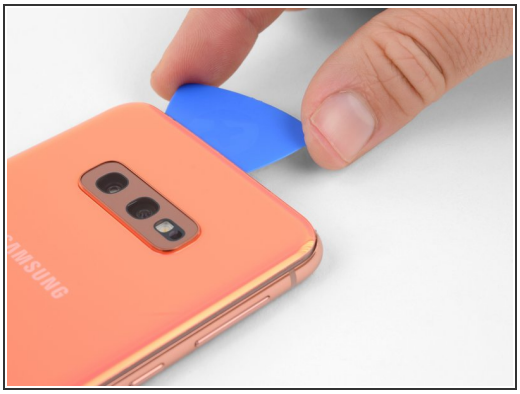
## Step 8


- Insert an opening pick into the edge next to the opening tool. Leave the pick here to prevent the separated glue from re-adhering.

## Step 9


- Apply a heated iOpener to the top edge of the phone for two minutes.

## Step 10



- Insert an opening pick near the top right corner of the phone and slide it around the corner and across the top edge of the phone.

  The glued area is larger here, so you'll need to insert your pick farther into the phone to separate it.

- Leave the opening pick in place to prevent the adhesive from re-adhering.



## Step 11


- Apply a heated iOpener to the left edge of the phone for two minutes.

## Step 12

- Insert a new opening pick near the top left corner and slide it along the left edge of the phone.
- Again, leave the opening pick in place in the left edge of the phone to prevent the adhesive from resealing.



## Step 13


- Apply a heated iOpener to the bottom edge of the phone for two minutes.

## Step 14

- Insert an opening pick near a bottom corner of the phone, and slide it along the bottom edge of the phone to separate the adhesive there.

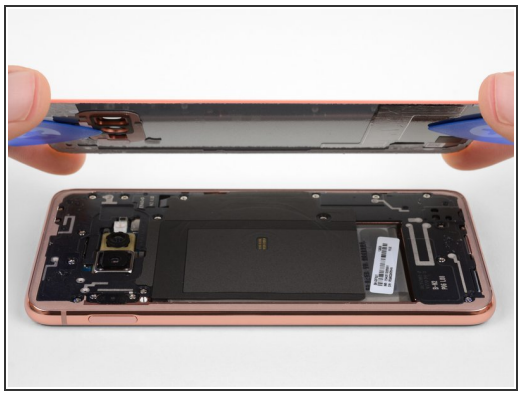
ⓘ The glued area is larger here, so you'll need to insert your pick farther into the phone to fully separate it.



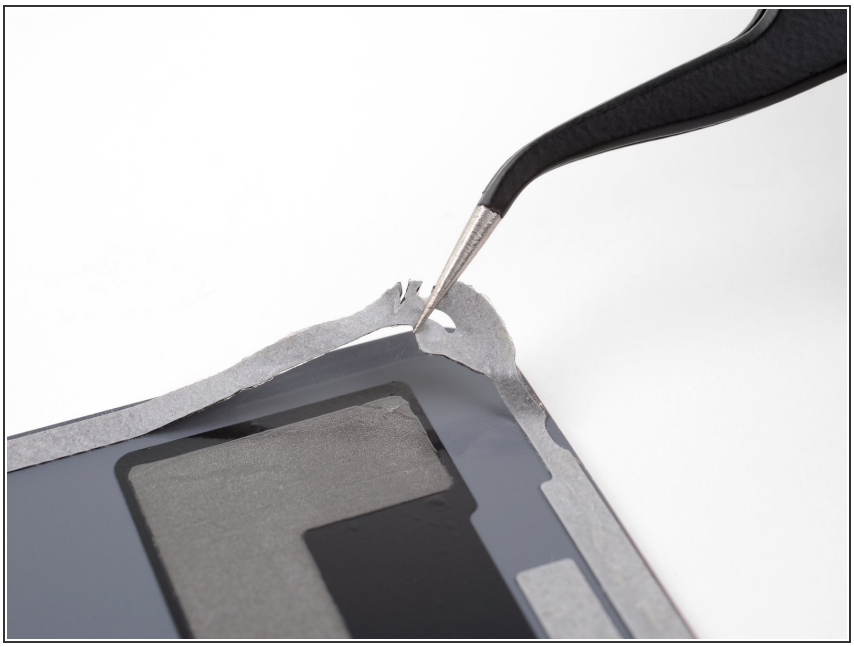
## Step 15





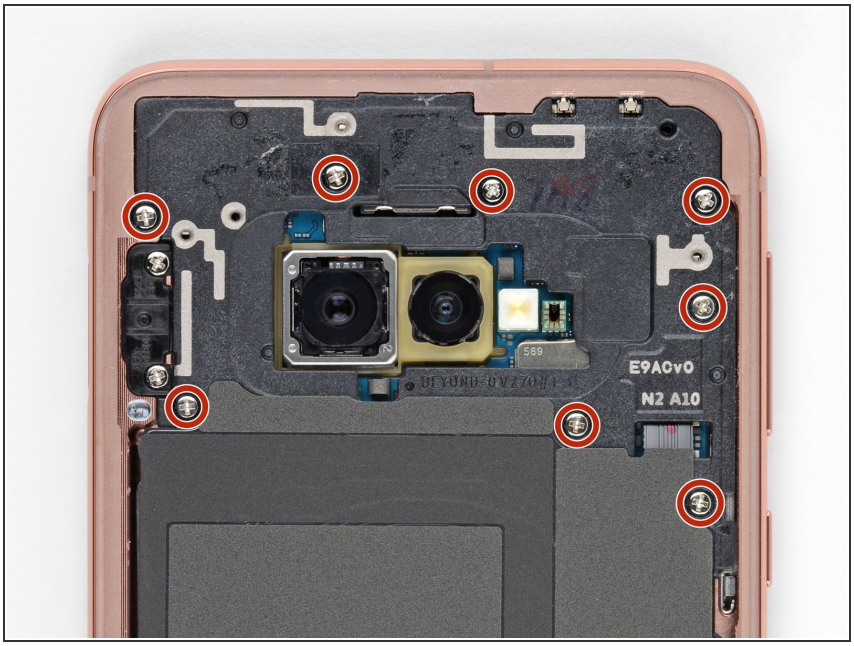
- Use the opening picks to very carefully pry up the back cover.
  - If you encounter any resistance, stop prying and use an opening pick to cut any remaining adhesive.
- Remove the back cover.

## Step 16



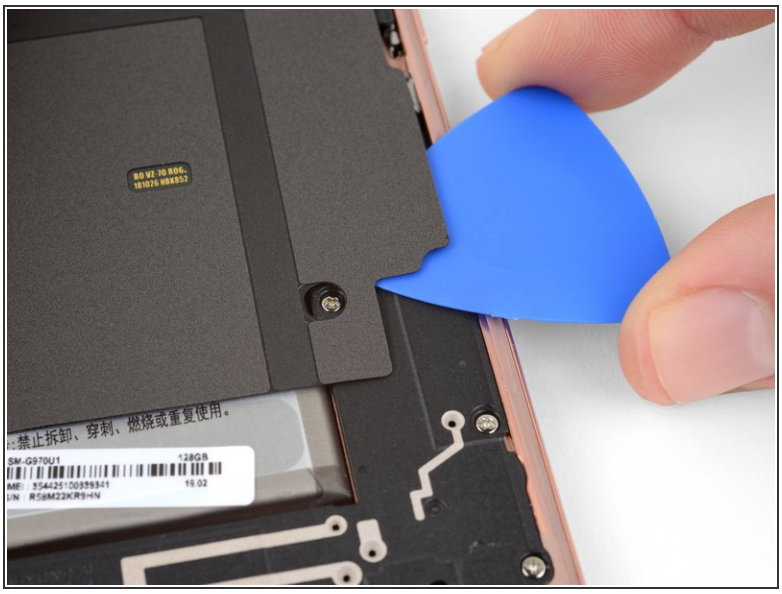
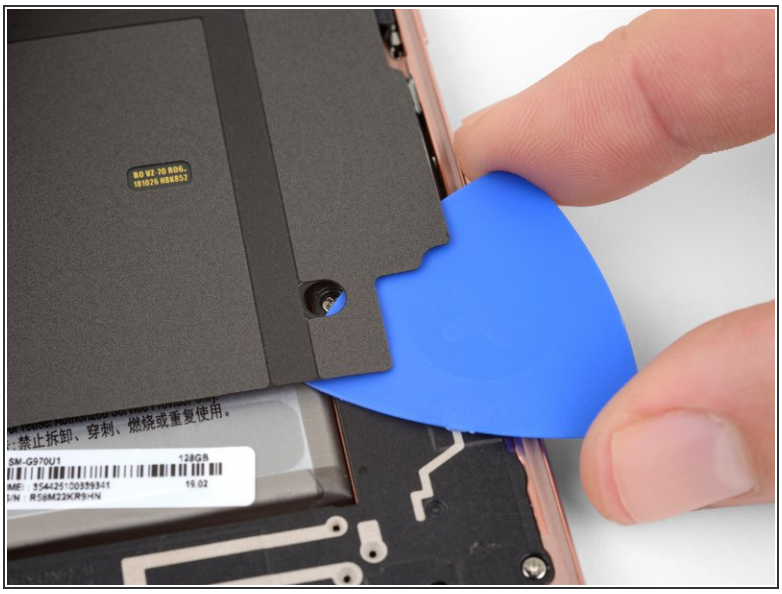
- [Follow this guide] to reinstall the back cover and replace the adhesive.
  - Be sure to turn on your phone and test your repair before installing new adhesive and resealing the phone.
- If desired, you may reinstall the back cover without replacing the adhesive. Remove any large chunks of adhesive that might prevent the back cover from sitting down flush. After installation, heat the back cover and apply pressure to secure it. **It won't be waterproof**, but the leftover adhesive is usually more than strong enough to hold.

## Step 17 — Remove the midframe



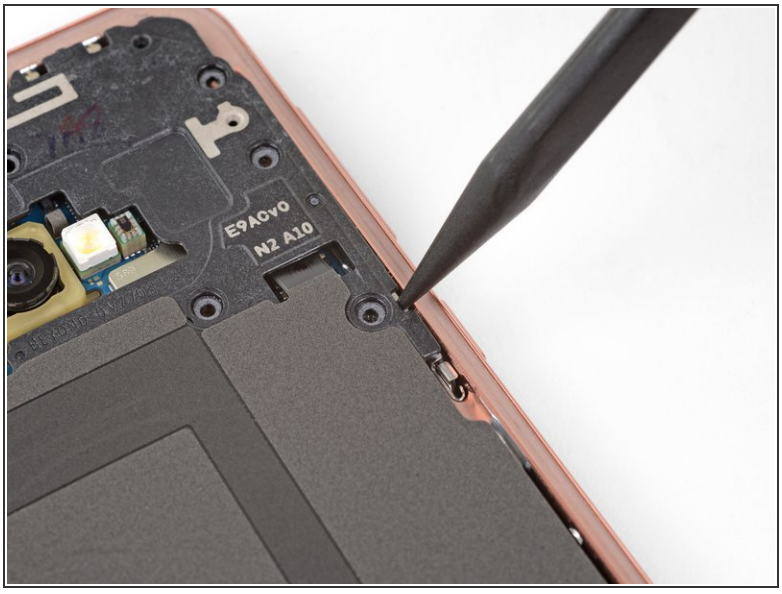
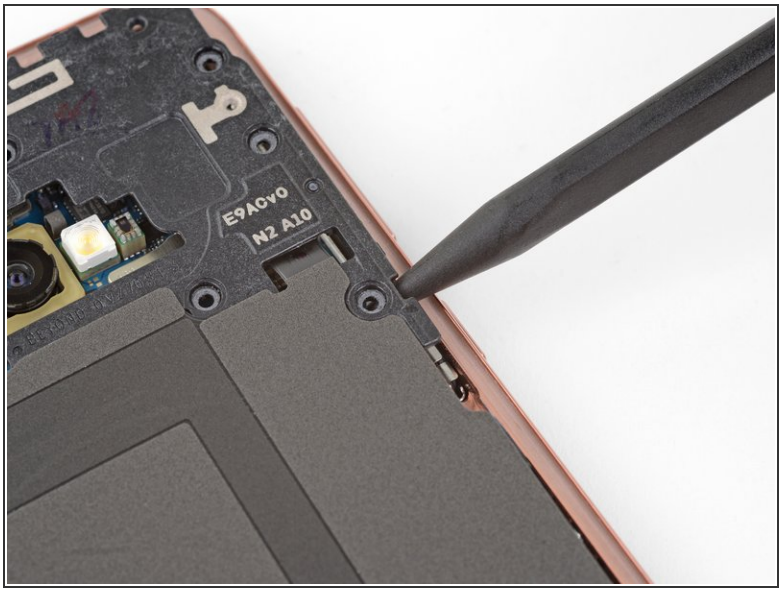

- Remove the eight 3.9 mm Phillips screws securing the upper midframe to the phone.

## Step 18

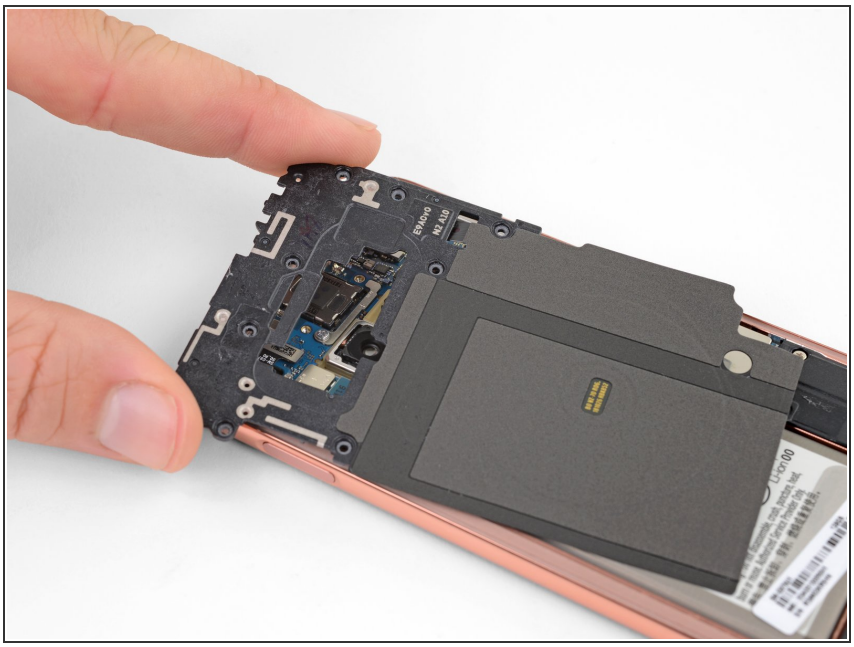
- Slide an opening pick under the bottom right corner of the upper midframe to separate the adhesive holding it to the lower midframe.

## Step 19

- Insert the point of a spudger in the small cutout on the right edge of the plastic part of the upper midframe, near the Bixby button.
- Use the point of the spudger to pry the midframe up from the phone chassis.

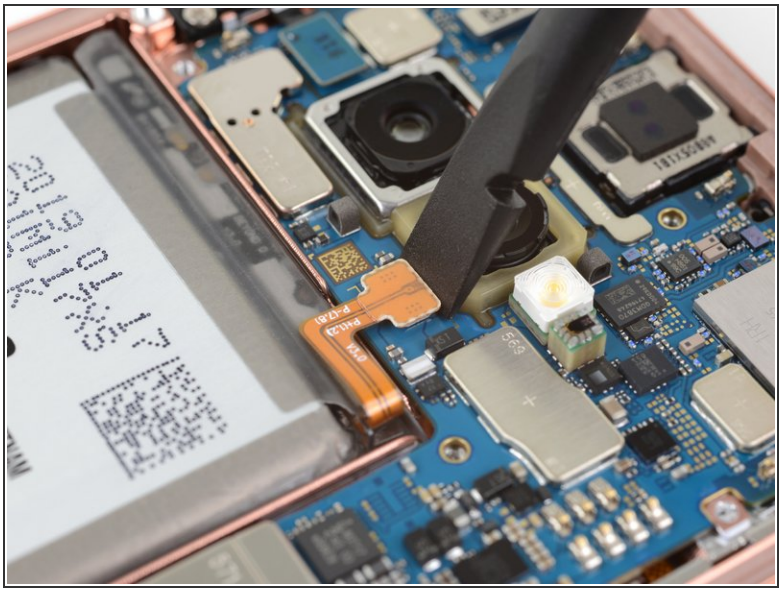
## Step 20

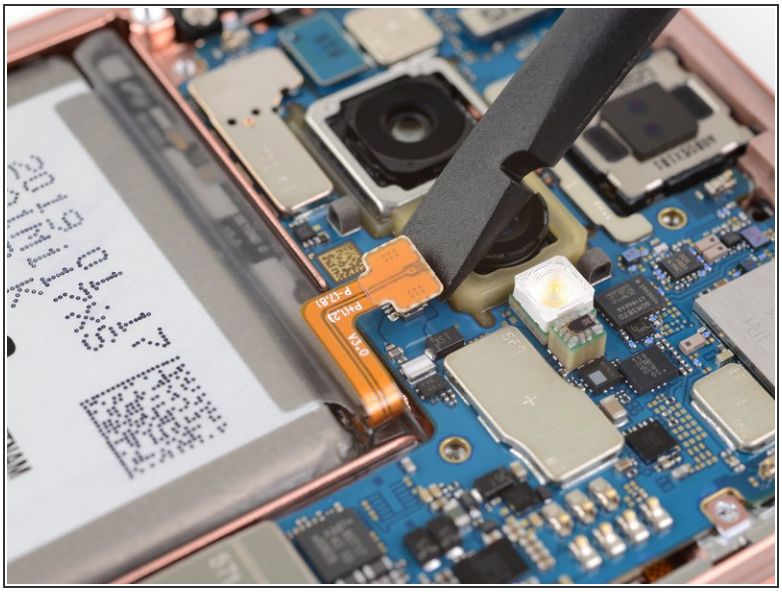


- Lift the midframe by the plastic section and remove it from the phone.

To reinstall, first insert the top edge of the assembly into the phone's frame, and then gently press down on the rest of the assembly to snap it into place.

## Step 21 — Disconnect the battery



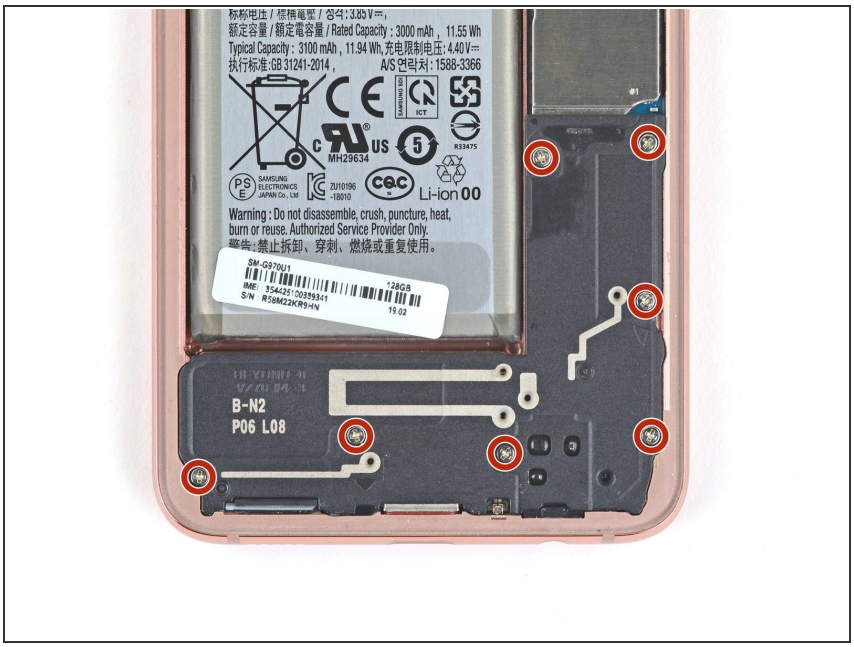


- Use the flat end of a spudger to pry the battery connector straight up from its socket and disconnect it.



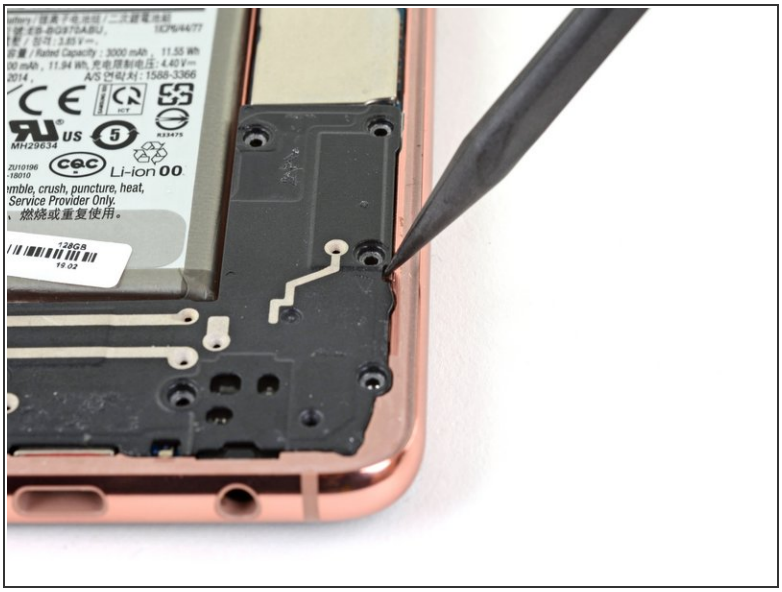
 

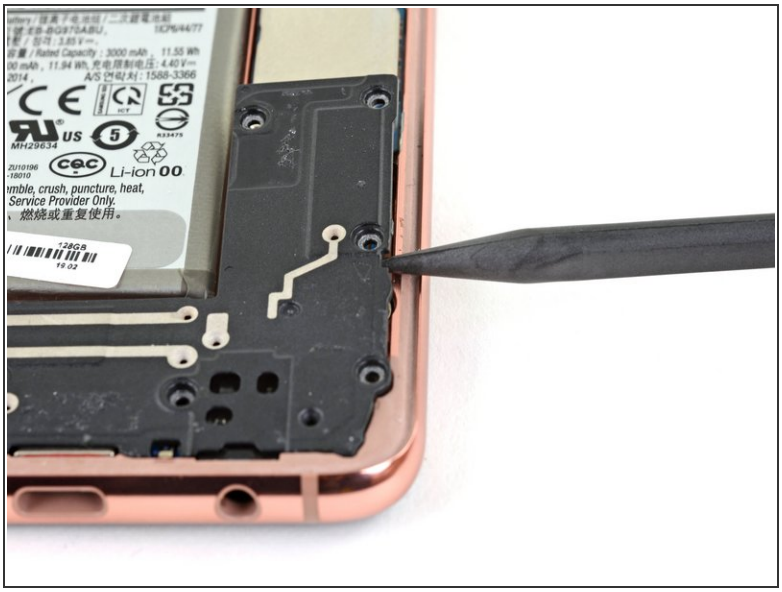
## Step 22 — Remove the loudspeaker




- Use a Phillips driver to remove the seven 3.9 mm screws securing the loudspeaker.

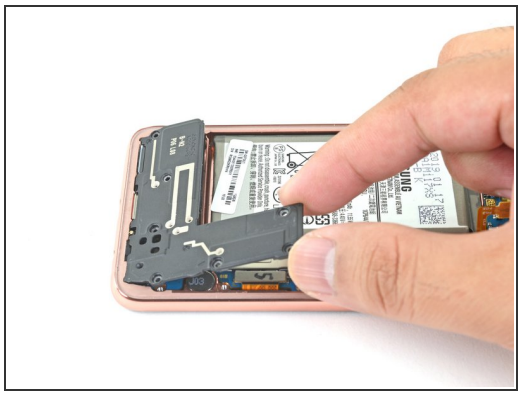
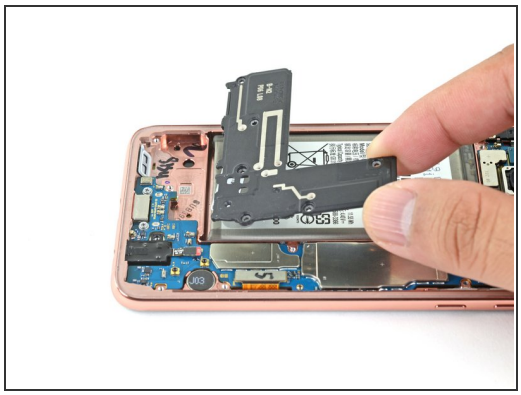
## Step 23





- Insert the point of a spudger into the notch on the right edge of the loudspeaker.
- Pry up with the spudger to loosen the loudspeaker.

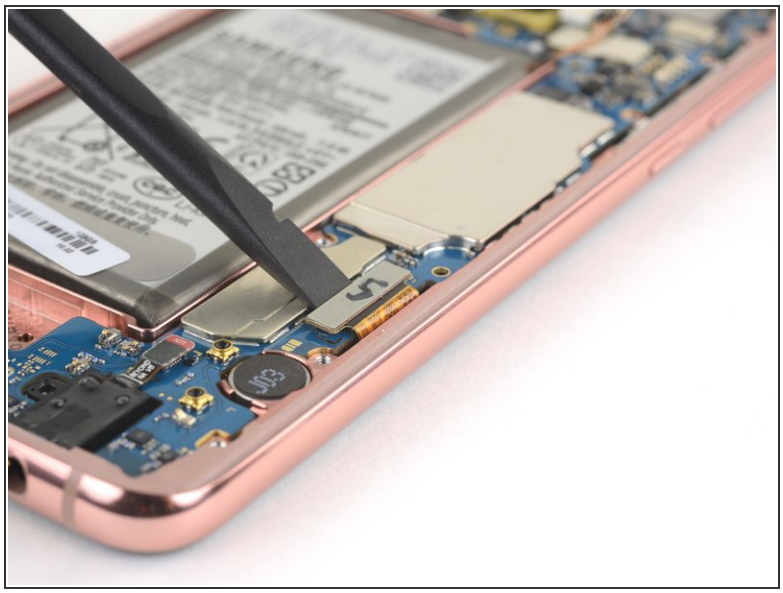
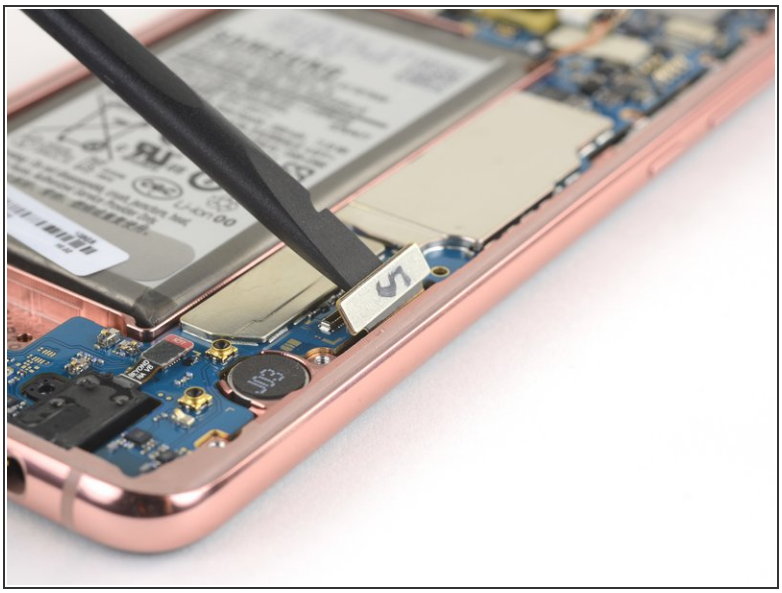
## Step 24

- Lift the loudspeaker up and remove it.

To reassemble, press the loudspeaker edges until it snaps into place.

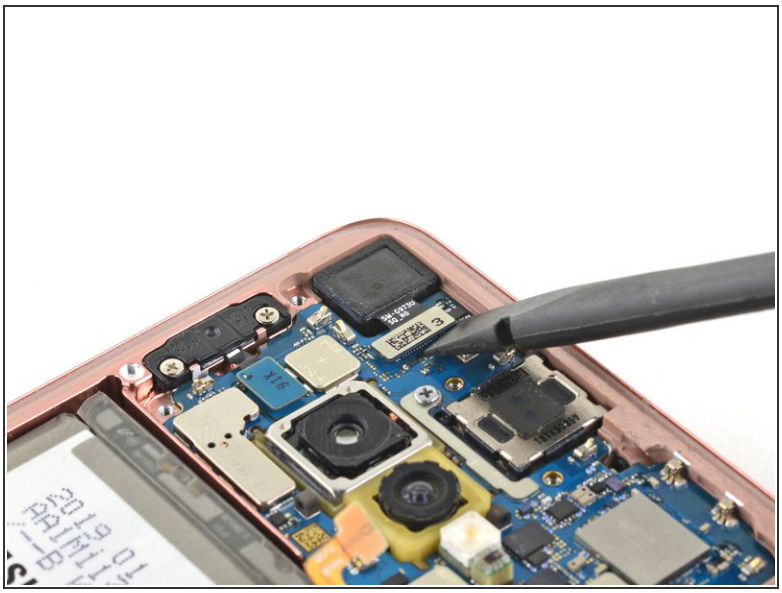
## Step 25 — Disconnect the screen

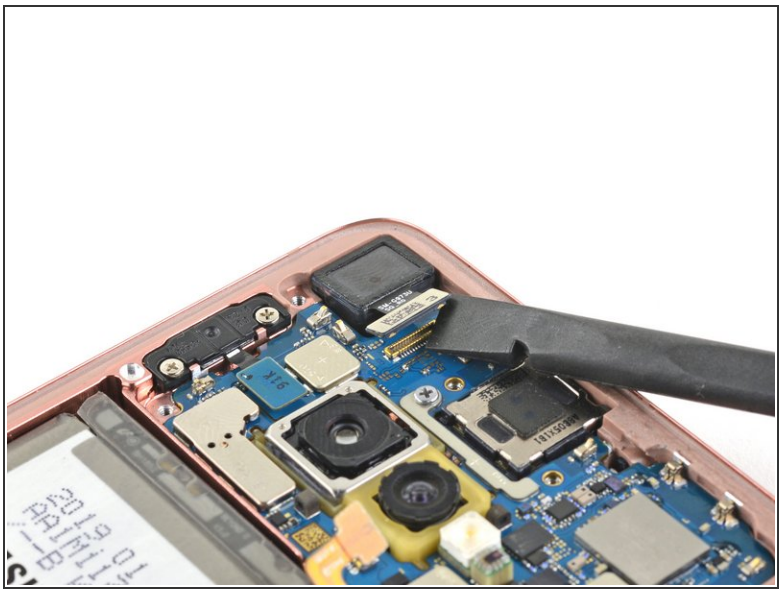



- Use the flat end of a spudger to pry up and disconnect the screen connector from its motherboard socket.

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 26 — Disconnect the front facing camera





- Use a spudger to pry up and disconnect the front facing camera connector from its motherboard socket.

⚠ When you disconnect connectors like these, be careful not to dislodge the small surface-mounted components surrounding the socket.

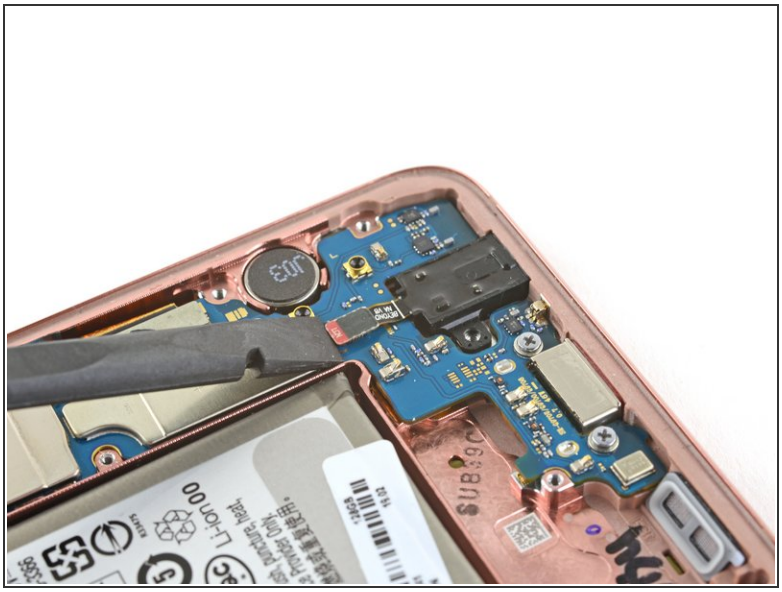


## Step 27 — Disconnect the fingerprint sensor

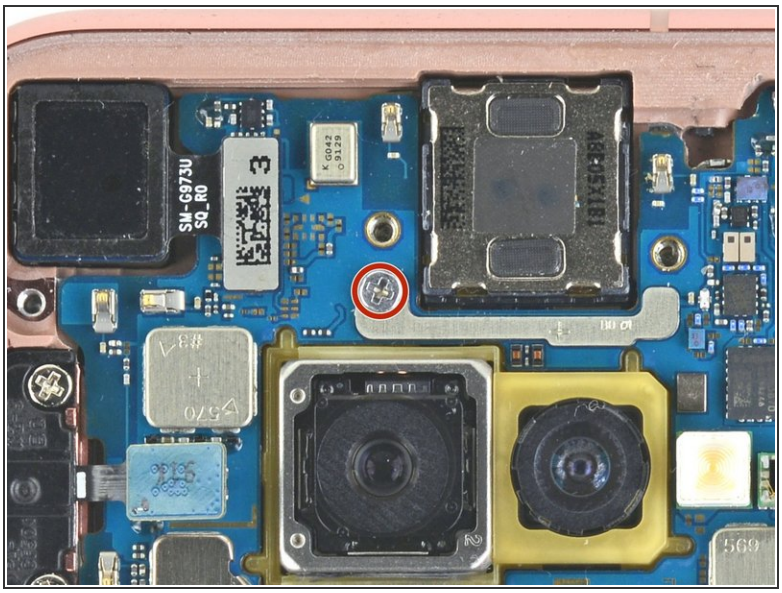

- Use the point of a spudger to pry up and disconnect the fingerprint sensor connector from its motherboard socket.

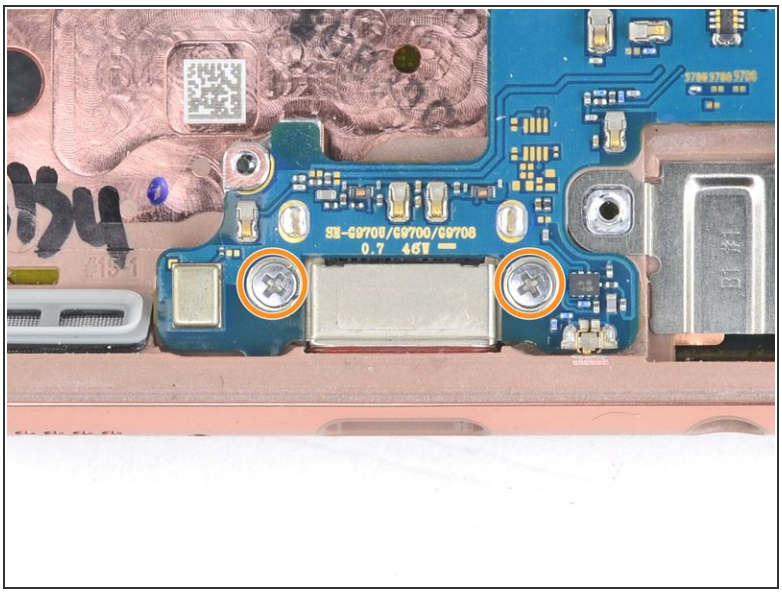
## Step 28 — Disconnect the headphone jack




- Use a spudger to pry up and disconnect the headphone jack connector from its motherboard socket.

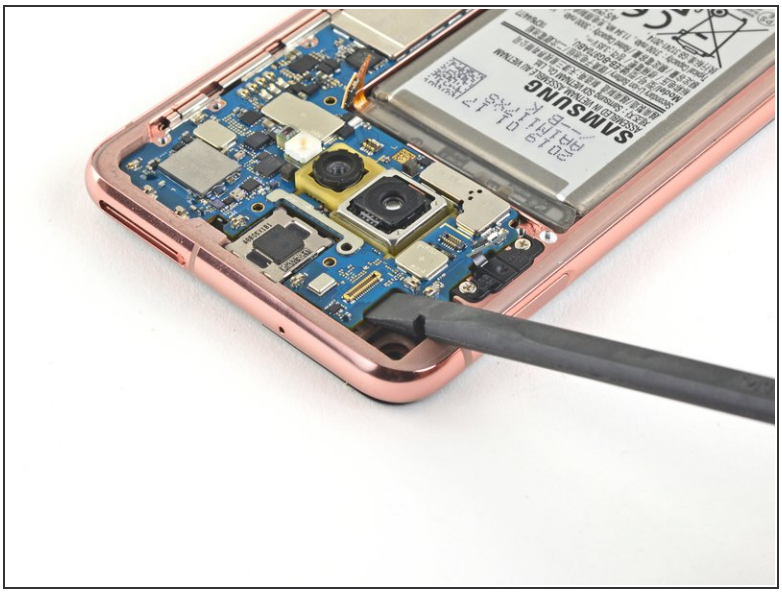
## Step 29 — Loosen the motherboard

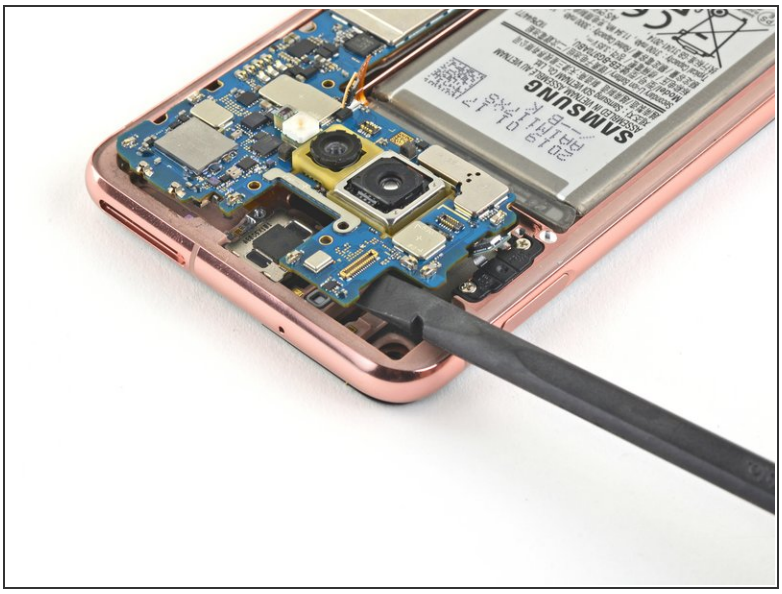



- Use a Phillips driver to remove the three screws securing the motherboard:
  - One 3.7 mm screw above the rear-facing camera
  - Two 3.7 mm screws flanking the USB-C port
    - These screws are different compared to the one marked in red.

## Step 30





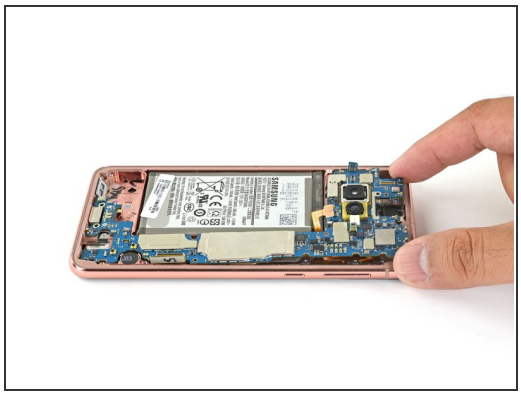
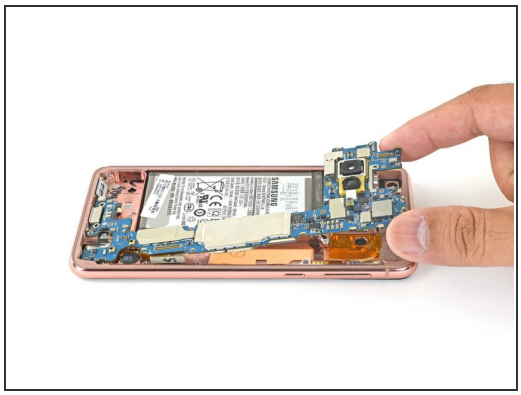
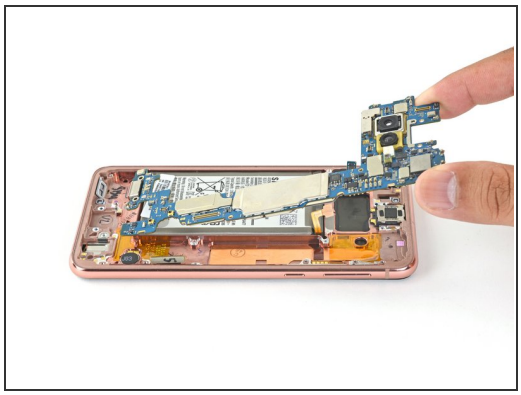
- Use the flat end of a spudger to pry up and loosen the top portion of the motherboard.

⚠ If the motherboard doesn't budge, stop and check if you've ejected the SIM/Micro SD tray.



## Step 31 — Remove the motherboard

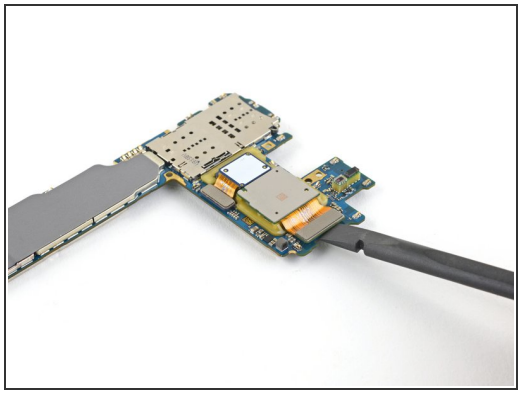
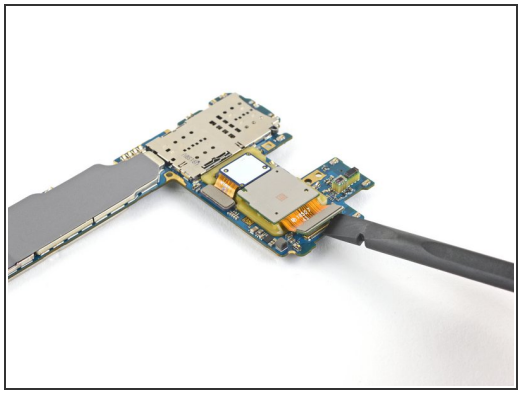
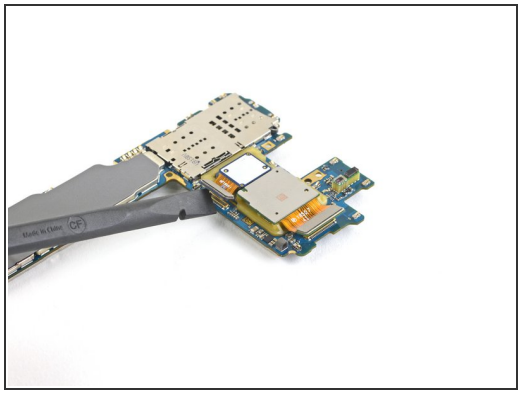




- Use your fingers to lift the top edge of the motherboard out of the frame.
- Gently pull the motherboard towards the top of the frame to release the lightly adhered USB-C port.
- Remove the motherboard.

To reinstall the motherboard:

- Seat the USB-C port end of the motherboard firmly against the bottom frame edge.
- Lay the motherboard into the frame and make sure not to trap any connectors underneath it.

## Step 32 — Disconnect the camera module

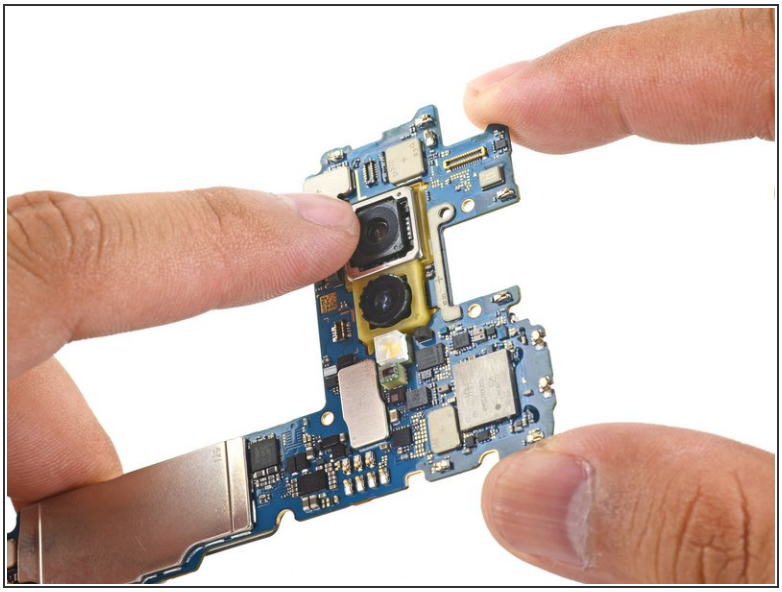




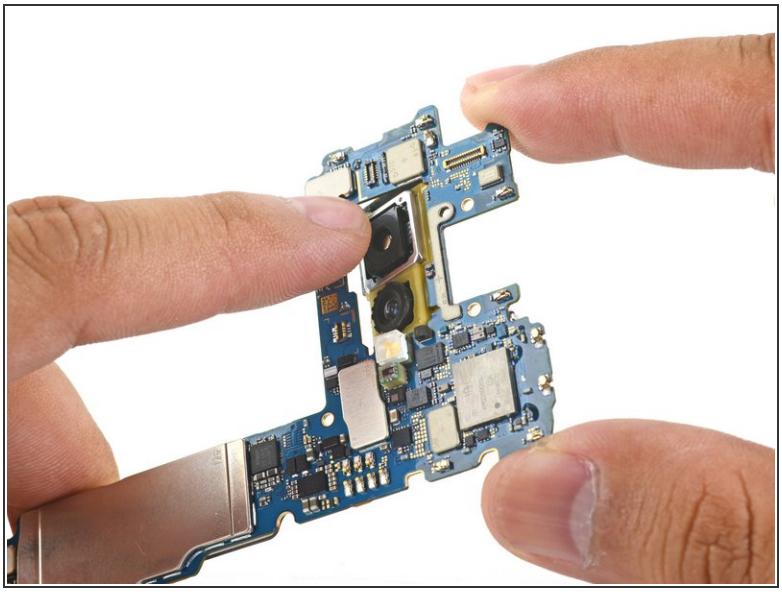
- Flip the motherboard over.
- Use a spudger to pry up and disconnect the two camera connectors from their motherboard sockets.

## Step 33 — Remove the camera module


- Apply a heated iOpener to the camera module for one minute to loosen the adhesive.

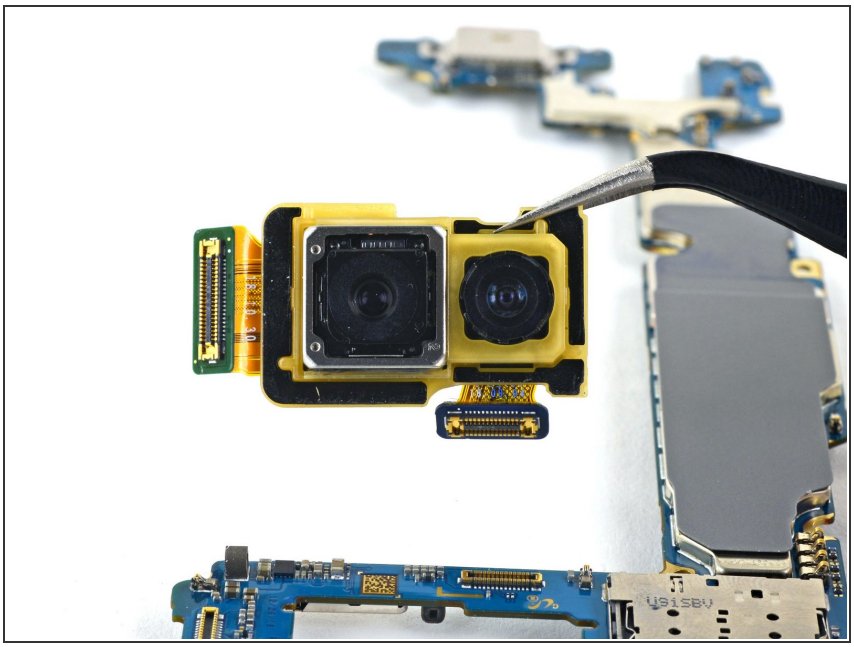
## Step 34





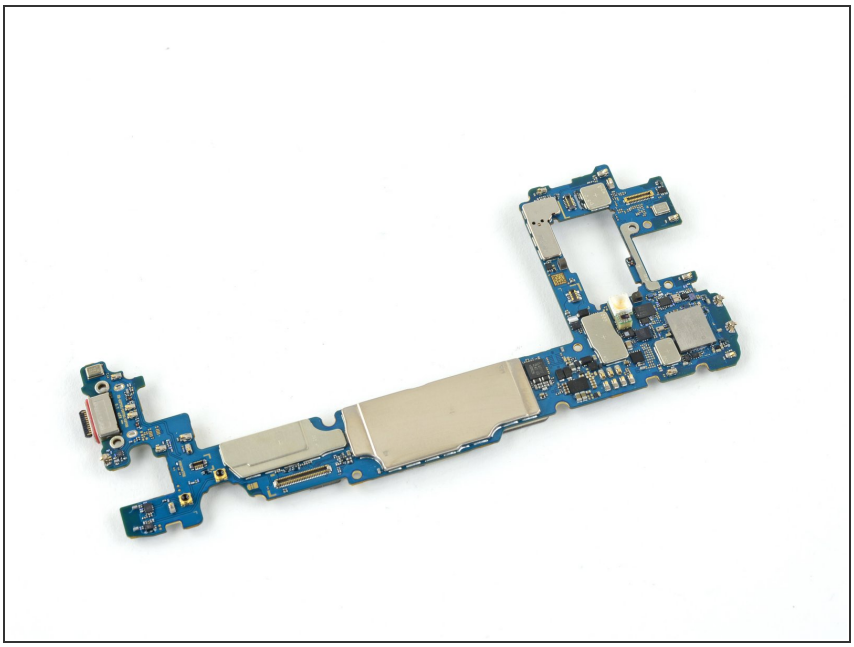
- Use your finger to apply firm, steady pressure to the camera module to loosen it from the motherboard.

## Step 35



- Remove the dual rear camera module.

## Step 36 — Only the motherboard remains



- Only the motherboard remains.

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 you install it.



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

Take your e-waste to an R2 or e-Stewards certified recycler.

After you've completed the repair, follow this guide to test your repair.

Repair didn’t go as planned? Try some basic troubleshooting, or ask our Answers community for help.

