



# Samsung Galaxy S21 Screen and Battery Assembly Replacement

Follow this guide to replace the screen and...

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# INTRODUCTION

Follow this guide to replace the screen and battery assembly on your Samsung Galaxy S21 with a genuine Samsung part.

**This guide is written for the genuine Samsung screen and battery assembly.** The assembly consists of the screen, battery, and frame together in one part. Be sure you have the right part before you begin the repair.

Before you begin, refer to the [Samsung Self-Repair document](#) for safety information.

If your battery is swollen, [take appropriate precautions](#). Before disassembling your device, **completely discharge the battery**. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair.

Note: Retaining water resistance after the repair will depend on how well you reapply the adhesive, but your device will lose its IP (Ingress Protection) rating.

Some images in this guide may show minor discontinuities. They should not affect the overall guide procedure.



## TOOLS:

- [SIM Card Eject Tool](#) (1)
- [Tweezers](#) (1)
- [Phillips #00 Screwdriver](#) (1)
- [iFixit Opening Picks \(Set of 6\)](#) (1)
- [iOpener](#) (1)
- [Suction Handle](#) (1)
- [Spudger](#) (1)
- [Isopropyl Alcohol \(90% or Greater\)](#) (1)
- [Coffee Filters or a lint-free cloth](#) (1)



## PARTS:

- [Samsung Galaxy S21 G5 \(USA\) Screen and Battery - Genuine](#) (1)

## Step 1 — Remove the SIM card tray



- Insert a SIM eject tool, bit, or straightened paper clip into the SIM card tray hole on the bottom edge of the phone.
  - Press the SIM eject tool into the SIM card tray hole to eject the SIM card tray.
  - Remove the SIM card tray.
- i** If you accidentally inserted the SIM eject tool into a microphone hole, don't worry! [You most likely didn't damage the microphone.](#)

## Step 2 — Heat the bottom edge



**!** Completely power off your phone before you begin.

- [Heat an iOpener](#) and apply it to the back cover's bottom edge for two minutes.
- i** A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the display, internal battery, and plastic back cover are both susceptible to heat damage.

### Step 3 — Separate the bottom adhesive



- Apply a suction cup to the back of the phone, as close to the center of the bottom edge as possible.
- Pull up on the suction cup with strong, steady force to create a gap between the back cover and the frame.
  - ⓘ Depending on the age of your phone, this may be difficult. If you're having trouble, apply more heat to the edge and try again.
- Insert an opening pick into the gap.
  - ⚠ Only insert the pick up to 5 mm, as you may damage internal components if you go further.

### Step 4 — Slice the bottom adhesive



- Slide the pick back and forth along the bottom edge to slice through the adhesive.
- Leave the pick in to prevent the adhesive from resealing.



## Step 5 — Heat the left edge



- Apply a heated iOpener to the back cover's left edge for two minutes.

## Step 6 — Separate the left adhesive



- Apply a suction cup to the back of the phone, as close to the center of the left edge as possible.
- Pull up on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert an opening pick into the gap.

**⚠ Only insert the pick up to 5 mm, as you may damage internal components if you go further.**

## Step 7



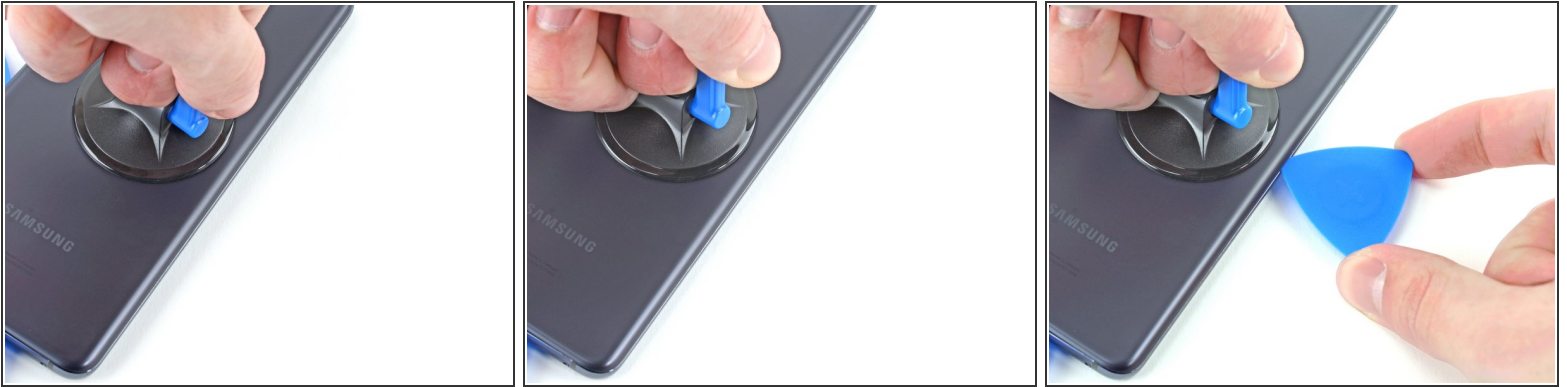
- Slide an opening pick along the left edge towards the bottom left corner to cut the adhesive.  
**⚠ Don't cut past where the camera shell meets the back cover, as you risk cracking the plastic.**
- Leave the pick in to prevent the adhesive from resealing.

## Step 8 — Heat the right edge



- Apply a heated iOpener to the back cover's right edge for two minutes.

## Step 9 — Separate the right adhesive



- Apply a suction cup to the back of the phone, as close to the center of the right edge as possible.
- Pull up on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert an opening pick into the gap.

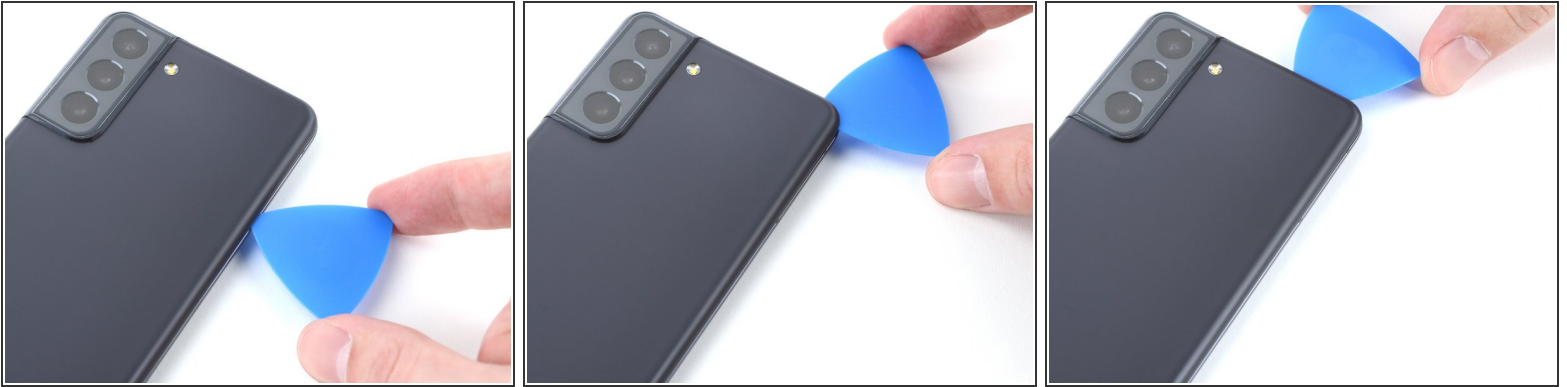
**⚠ Only insert the pick up to 3 mm, as you may damage the secondary interconnect cable, which runs parallel to the right edge.**

## Step 10



- Slide an opening pick back and forth along the back cover's right edge to cut the adhesive.
- Leave the pick in to prevent the adhesive from resealing.

## Step 11 — Separate the corner adhesive



- Rotate the right-edge opening pick around the top-right corner of the phone.

**⚠ Only insert the pick up to 5 mm, as you may damage internal components if you go further.**

- ① This procedure can be applied to each corner, except the top-left where the rear-facing camera is located.

## Step 12 — Reposition the opening picks



- Slide the top-most opening pick as close to the camera shell as possible.
- Repeat for the left-edge pick.



## Step 13 — Heat the camera shell



- Heat an iOpener and apply it to the camera shell for two minutes.
- i** As you wait for the adhesive to loosen, note the following:
  - There's additional adhesive to the right of the camera that you need to cut through.
  - ⚠** There's a plate on the back cover surrounding the phone's flash that the pick can get stuck on:
    - Angle the pick downward to avoid any damage.

## Step 14 — Separate the camera shell adhesive



- Rotate the back cover counterclockwise to create a gap between the camera shell and the frame.
  - ⚠** Only insert the pick up to 5 mm to avoid scratching the camera.
- Insert an opening pick in the gap.
- i** If this method doesn't work, move to the next step for an alternative method; otherwise, skip the next step.



## Step 15



- Slide an opening pick between the camera shell and the frame to cut the adhesive.
- ⓘ There's a significant amount of adhesive securing the frame to the camera shell, so multiple rounds of heating may be needed.

## Step 16





- Line up the opening pick's tip with your phone's flash
- Insert the pick slowly, making sure to avoid the flash's plate.
- ⚠ The plate's resistance can feel similar to adhesive. Angle the pick downward to keep the pick from sliding into the plate.
- Slice the adhesive to the right of the camera.

## Step 17 — Remove the back cover



- Remove the back cover.

 If your back cover is still sticking to the frame, slide the pick around the edges of the phone until the back cover completely separates.

 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.
- Remove any adhesive chunks with a pair of tweezers or your fingers. Apply heat if you're having trouble separating the adhesive.
- If you're using Samsung custom-cut adhesives, [follow this guide](#).
- If you're using double-sided tape, [follow this guide](#).

## Step 18 — Unfasten the motherboard bracket



- Use a Phillips screwdriver to remove the five 4 mm-long screws securing the motherboard bracket to the frame.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3427**.

## Step 19 — Unclip the motherboard bracket

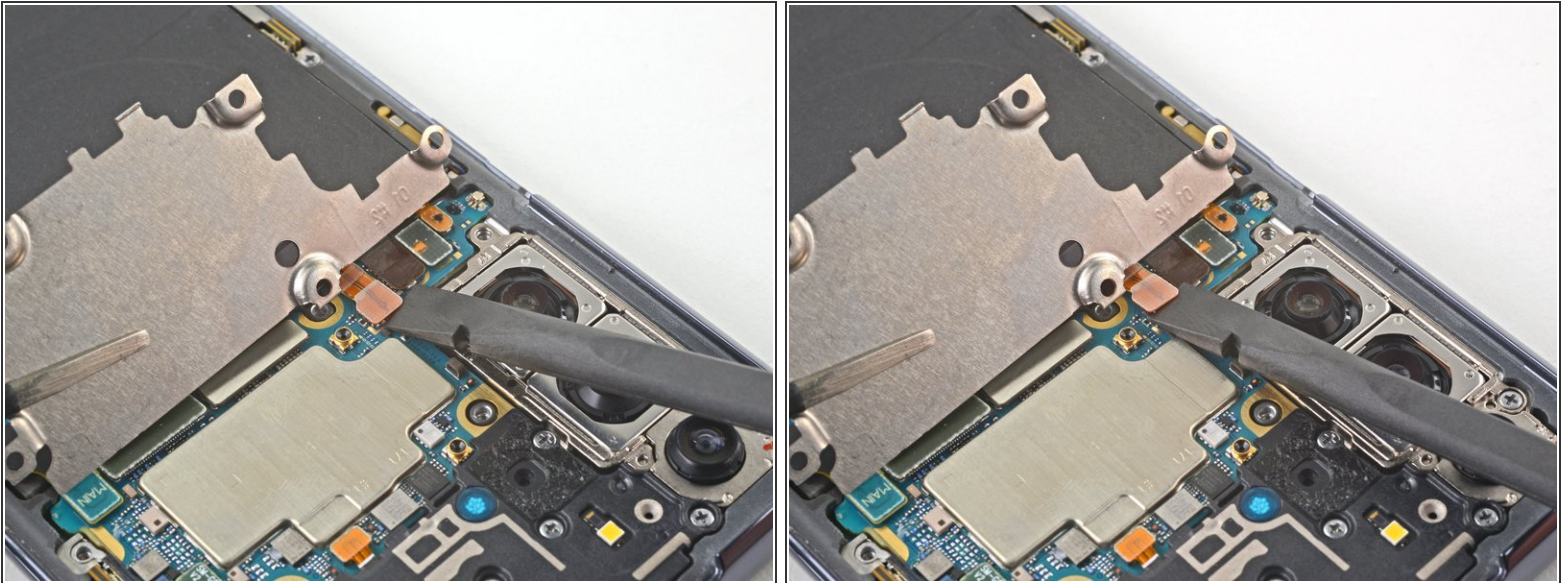


- Use a pair of tweezers to gently pull up and unclip the motherboard bracket from the frame.

⚠ Do not completely remove the bracket yet, as it's still attached to the wireless charging coil.



## Step 20 — Disconnect the battery



- While using tweezers, or your fingers, to hold the motherboard bracket out of the way, use a spudger to pry up the battery press connector.

**⚠ Take care to pry only under the edge of the connector to prevent damaging the socket itself and surrounding components.**

- ☞ 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.

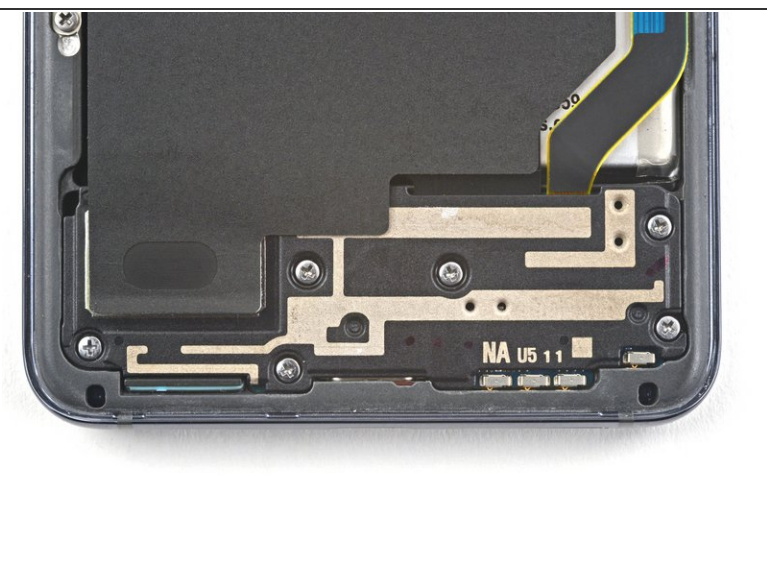
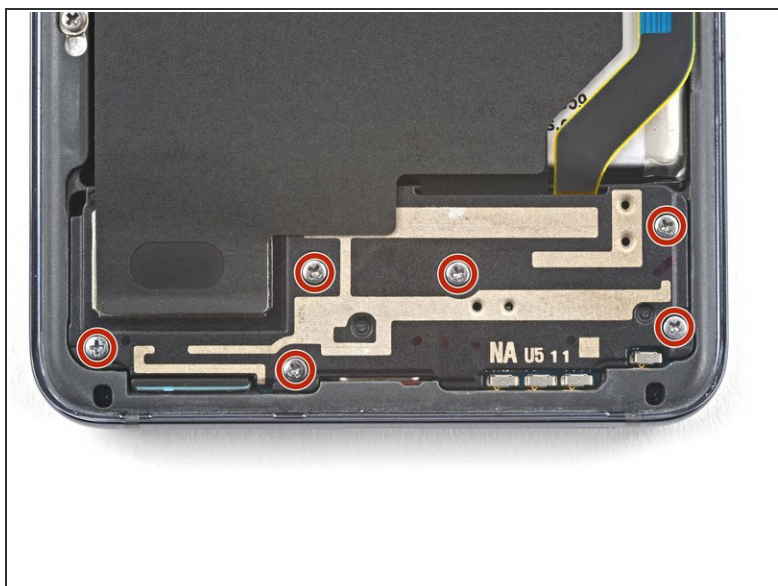


## Step 21 — Disconnect the wireless charging coil



- While holding the motherboard bracket out of the way, use a spudger to pry up and disconnect the wireless charging coil's press connector.

## Step 22 — Unfasten the loudspeaker



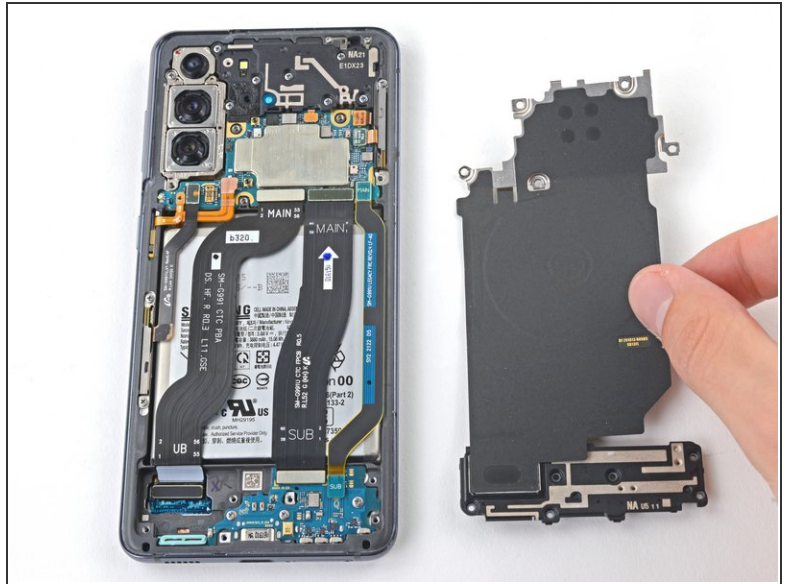
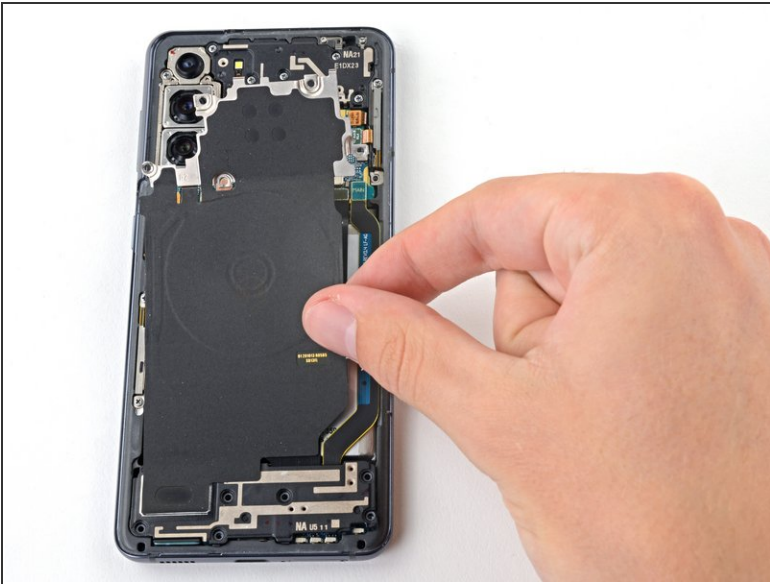
- Use a Phillips screwdriver to remove the six 4 mm-long screws securing the loudspeaker to the frame.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3427**.

## Step 23 — Disconnect the loudspeaker



- Insert the point of a spudger into the notch in the top-left corner of the loudspeaker and pry up to release the clips holding it in place.

## Step 24 — Remove the wireless charging coil



- Remove the wireless charging coil.

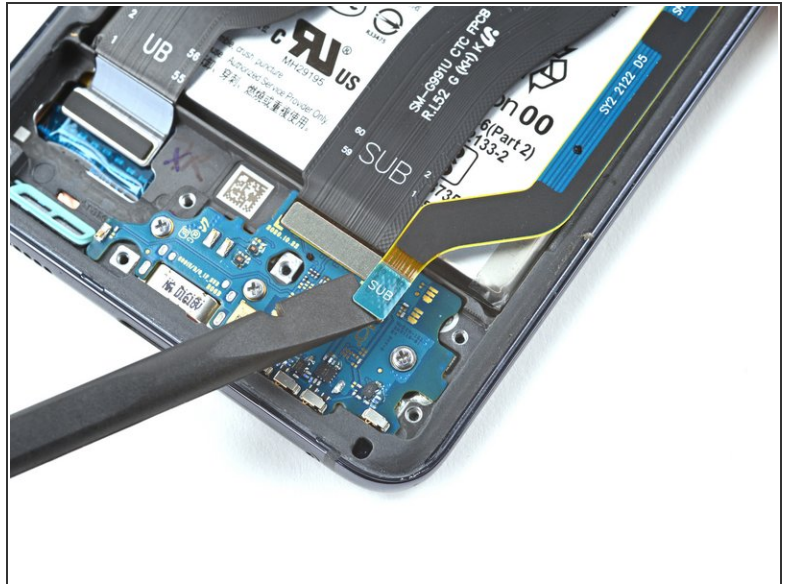
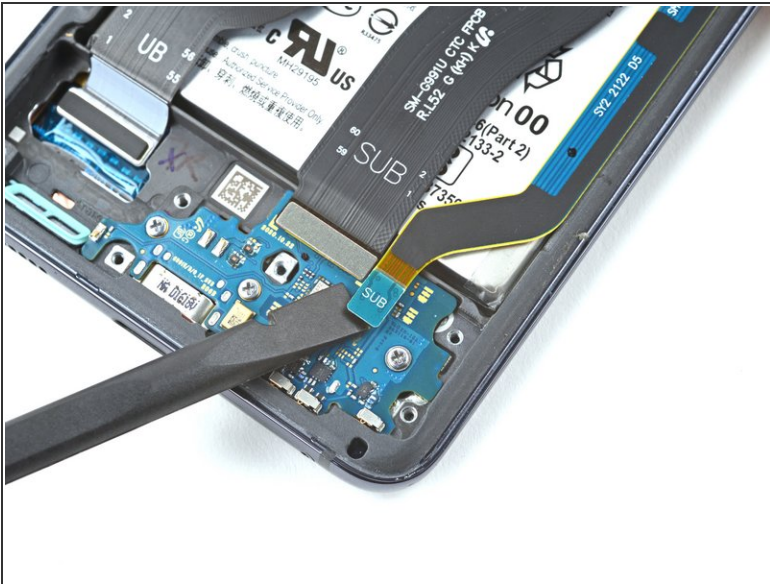


## Step 25 — Disconnect the primary interconnect cable



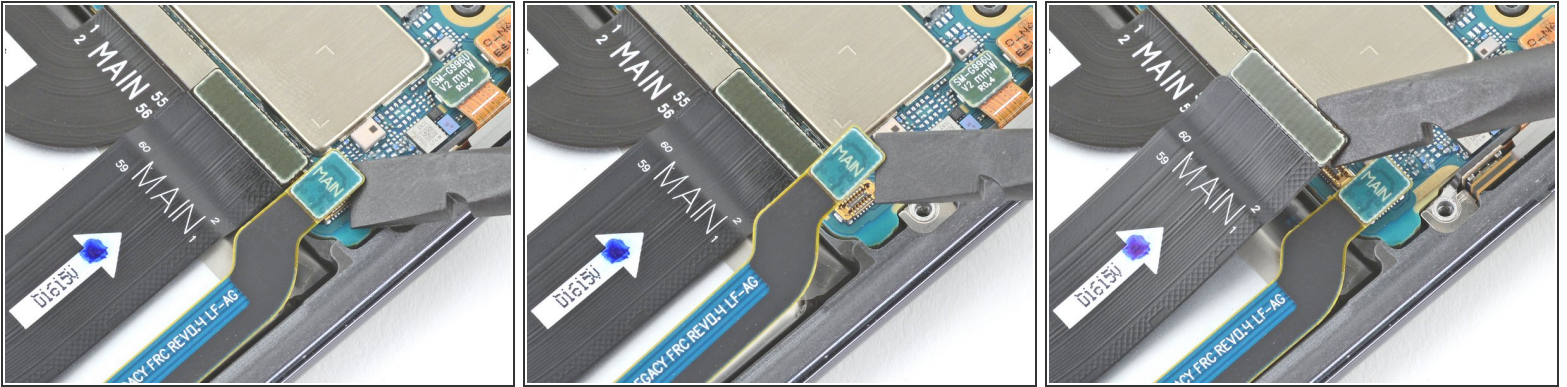
- Use the flat end of a spudger to pry up and disconnect the primary interconnect cable's press connector.

## Step 26 — Disconnect the secondary interconnect cable



- Use the flat end of a spudger to pry up and disconnect the secondary interconnect cable's press connector.

## Step 27 — Disconnect the secondary/primary interconnect cables



- Use a spudger to pry up and disconnect the secondary interconnect cable's press connector.
- Repeat for the main interconnect cable's press connector.

## Step 28 — Remove the secondary/primary interconnect cables



- Use tweezers or your fingers to remove both cables.
- ☒ Set the cables aside. You'll reuse them during reassembly.



## Step 29 — Unfasten the daughterboard



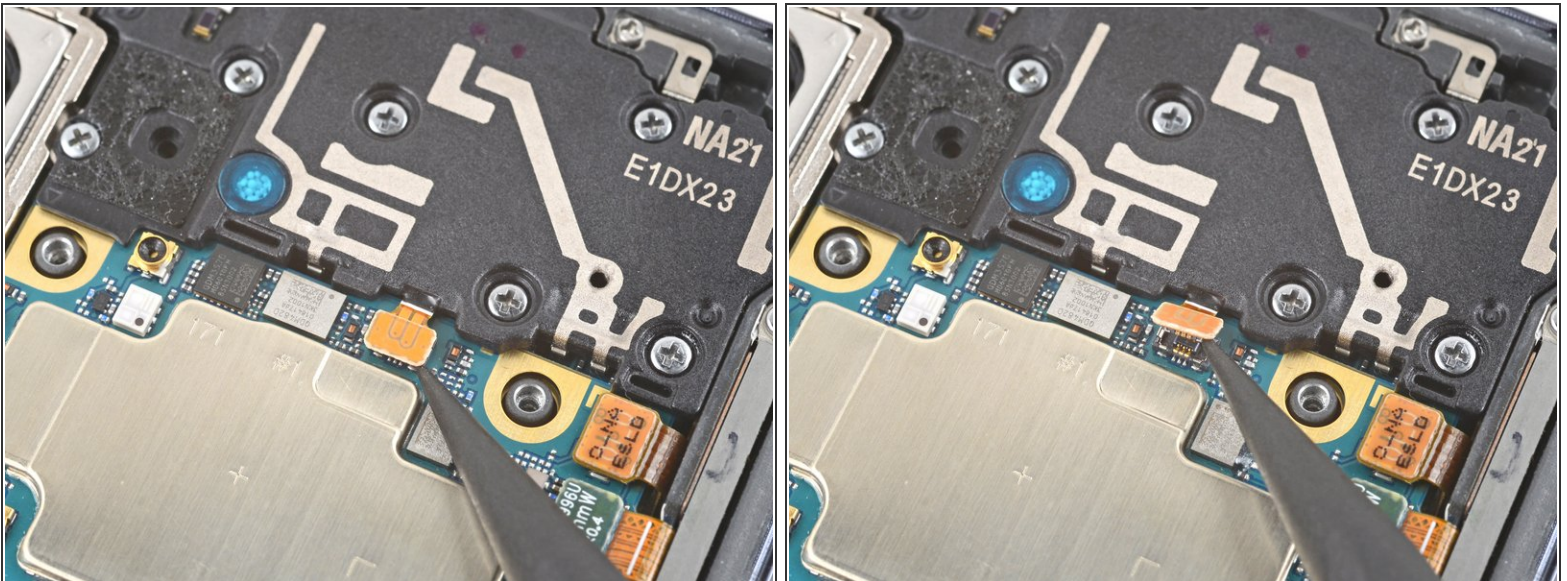
- Use a Phillips screwdriver to remove the three 3.5 mm-long screws securing the daughterboard to the frame.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3428**.

## Step 30 — Remove the daughterboard



- Use the point of a spudger to pry up the daughterboard.
- Use your fingers to pull the daughterboard up and away from the bottom of the phone and remove it.
- ❗ If you feel any resistance, the USB-C port could still be caught in its groove. Gently wiggle the daughterboard while pulling until it completely separates from the phone.

## Step 31 — Disconnect the earpiece speaker cable



- Use the point of a spudger to pry up and disconnect the earpiece speaker cable's press connector.

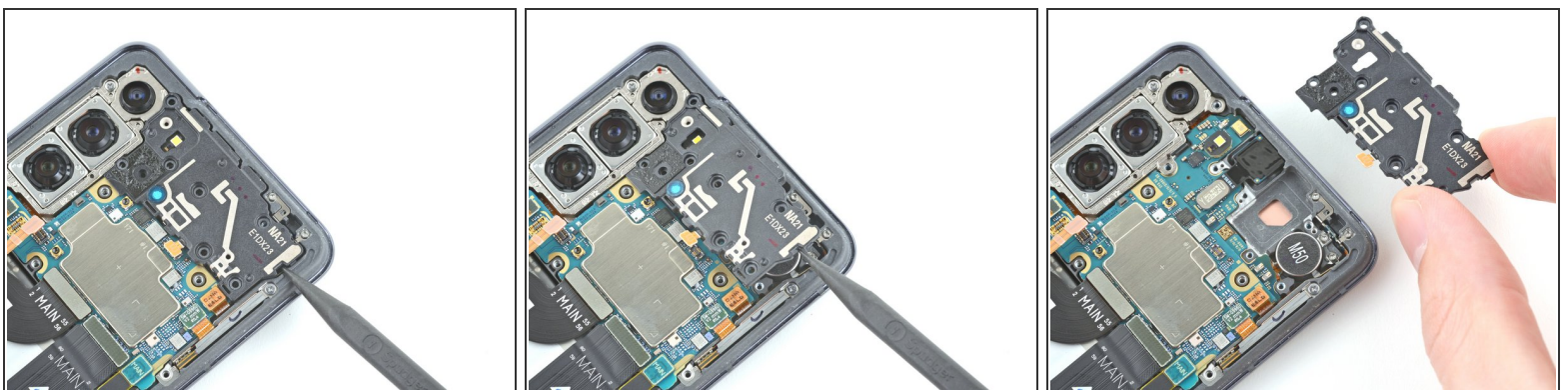


## Step 32



- Use a Phillips screwdriver to remove the seven 4 mm-long screws securing the earpiece speaker to the motherboard.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3427**.

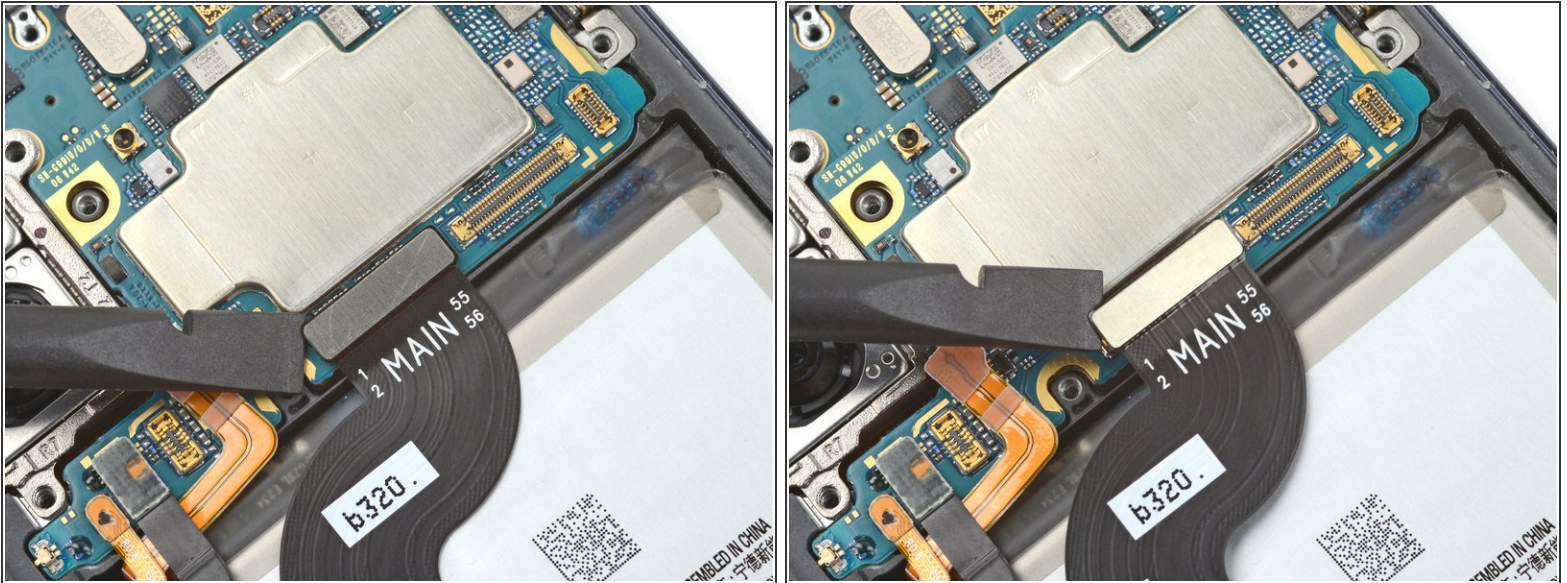
## Step 33 — Remove the earpiece speaker



- Insert the point of a spudger into the gap between the right-most edge of the earpiece speaker and the phone.
- Use the spudger to pry up and release the clips holding the earpiece speaker in place.
- Use tweezers, or your fingers, to remove the earpiece speaker.

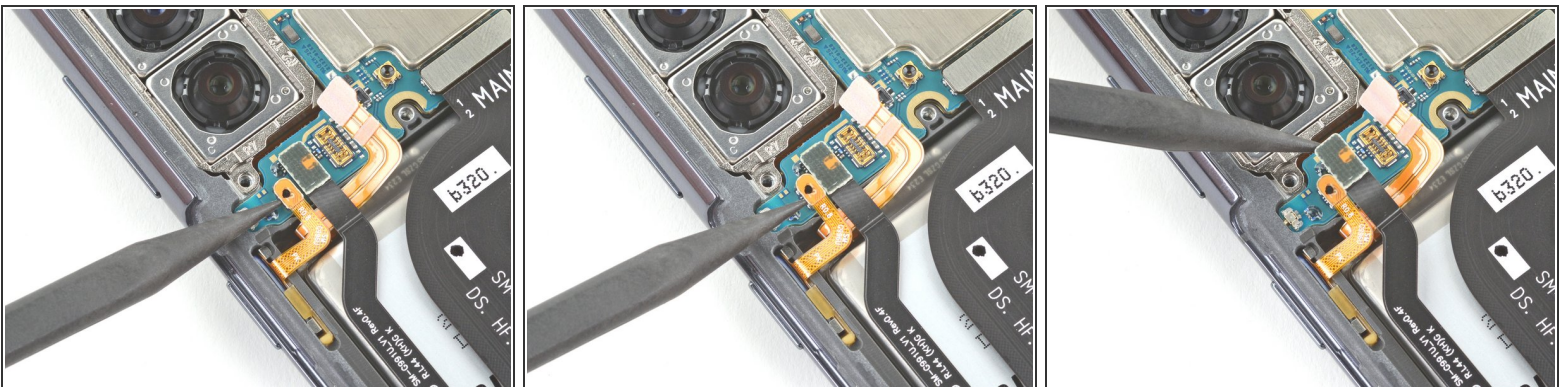
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## Step 34 — Disconnect the display cable



- Use a spudger to pry up and disconnect the display cable's top press connector.

## Step 35 — Disconnect left-edge cables



- Use a spudger to pry up and disconnect the left 5G mmWave antenna cable's press connector.
- Repeat for the power button cable's press connector.



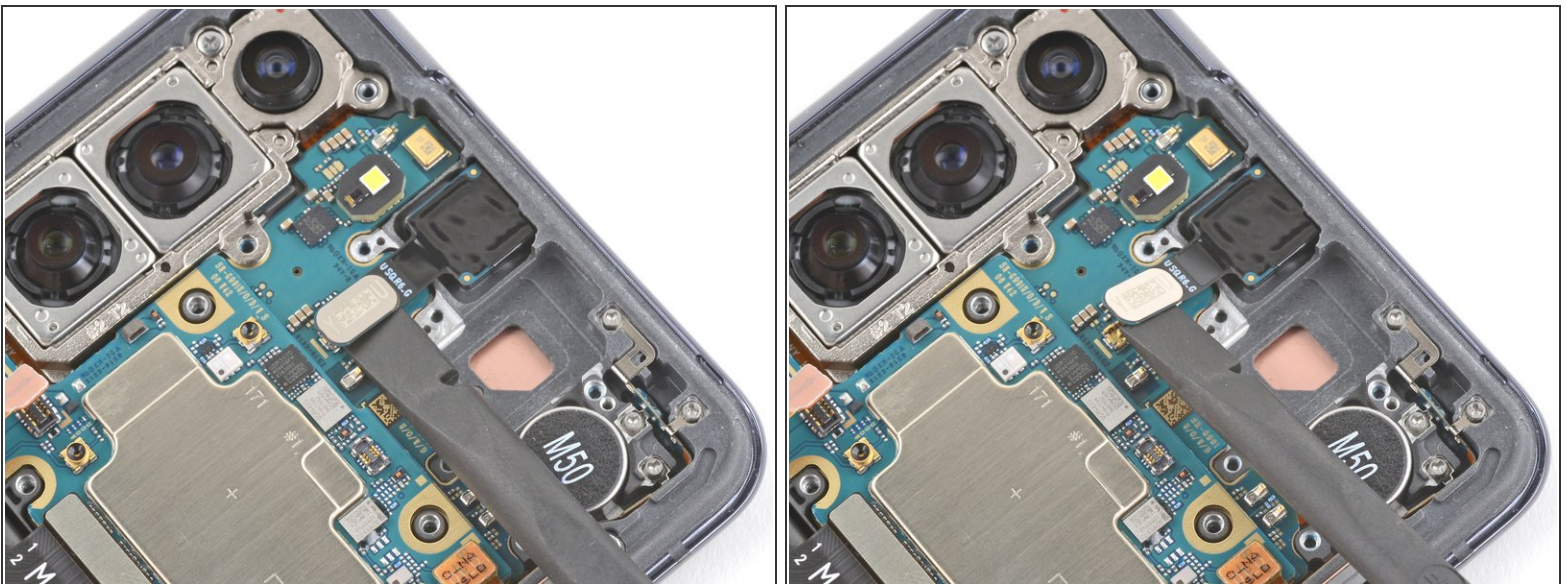
## Step 36 — Reposition the left-edge cables



- Use tweezers, or your fingers, to bend the power button cable away from the phone.
- Repeat for the left-edge 5G mmWave antenna cable.

⚠ Avoid folding or sharply bending the cables while repositioning them—doing so could tear the cables.

## Step 37 — Disconnect the front camera



- Use the flat end of a spudger to pry up and disconnect the front camera's press connector.

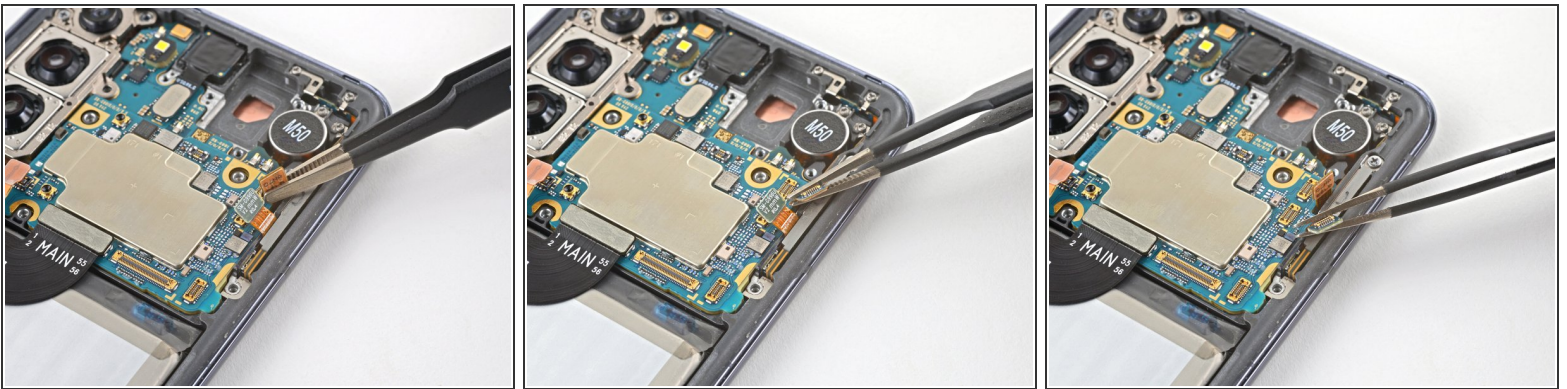


## Step 38 — Disconnect the right-edge cables



- Use a spudger to pry up and disconnect the orange press connector adjacent to the 5G mmWave antenna cable's press connector.
- Repeat for the green 5G mmWave antenna cable's press connector.

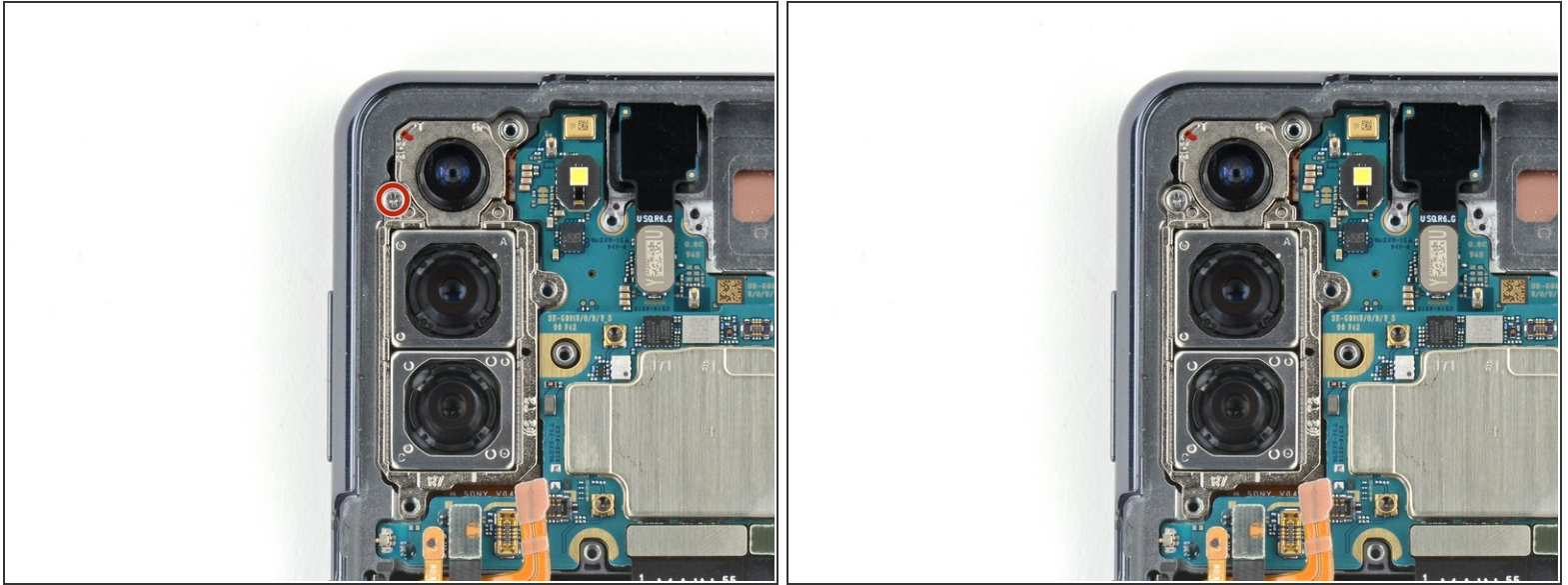
## Step 39 — Reposition the right-edge cables



- Use tweezers or your fingers to bend both right edge cables away from the motherboard.

**⚠ Avoid folding or sharply bending the cables while repositioning them—doing so could tear the cables.**

## Step 40 — Unfasten the motherboard/camera bracket



- Use a Phillips screwdriver to remove the 4 mm-long screw securing the camera bracket and the motherboard to the frame.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screw with a new one labeled **#3427**.

## Step 41 — Remove the motherboard



- Insert a spudger between the bottom-right edge of the motherboard and the frame.
- Pry up with the spudger to release the clips securing the motherboard.
- Use your fingers to remove the motherboard.



## Step 42 — Heat the front camera



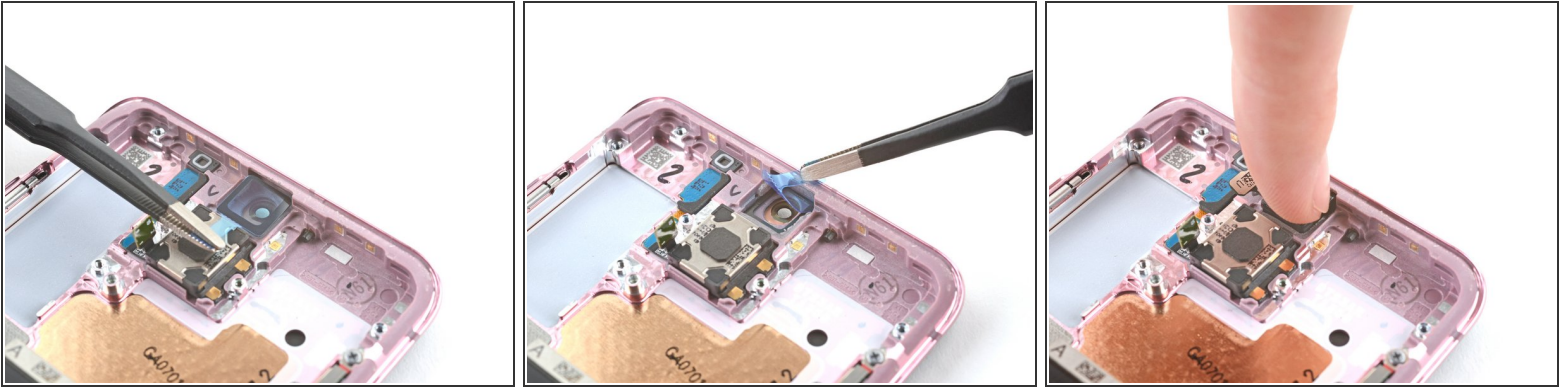
- Apply a heated iOpener to the front camera for 90 seconds.

## Step 43 — Remove the front camera



- Insert the point of a spudger into the gap between the frame and the front camera.
- Pry up with the spudger to detach the front camera.
  - ⓘ If you're having trouble separating the front camera from the frame, apply more heat; it may take a while for the adhesive to loosen.
- Use tweezers, or your fingers, to remove the front camera.

## Step 44 — Front camera reassembly instructions



✦ During reassembly, follow these instructions to reinstall your front camera:

- Peel off the front camera adhesive from its liner and apply the sticky end to the frame.
- Use tweezers, or your fingers, to pull on the tab and expose the top layer of adhesive.
- Insert the front camera and apply pressure to adhere it to the frame.

## Step 45 — Unfasten the 5G mmWave brackets

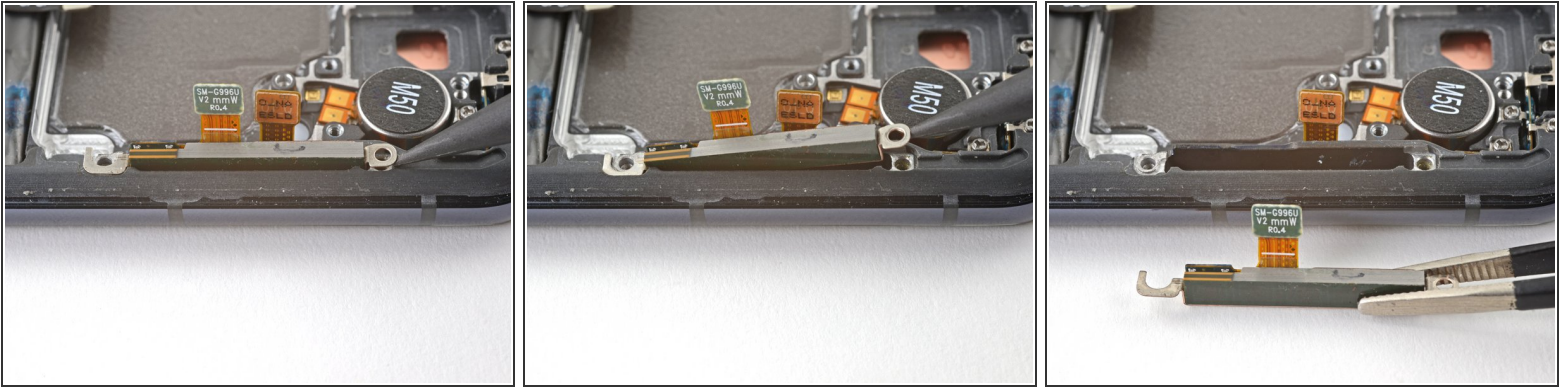


- Use a Phillips screwdriver to remove the three 3.5 mm-long screws securing the 5G mmWave antenna brackets to the frame.
- ✦ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3428**.

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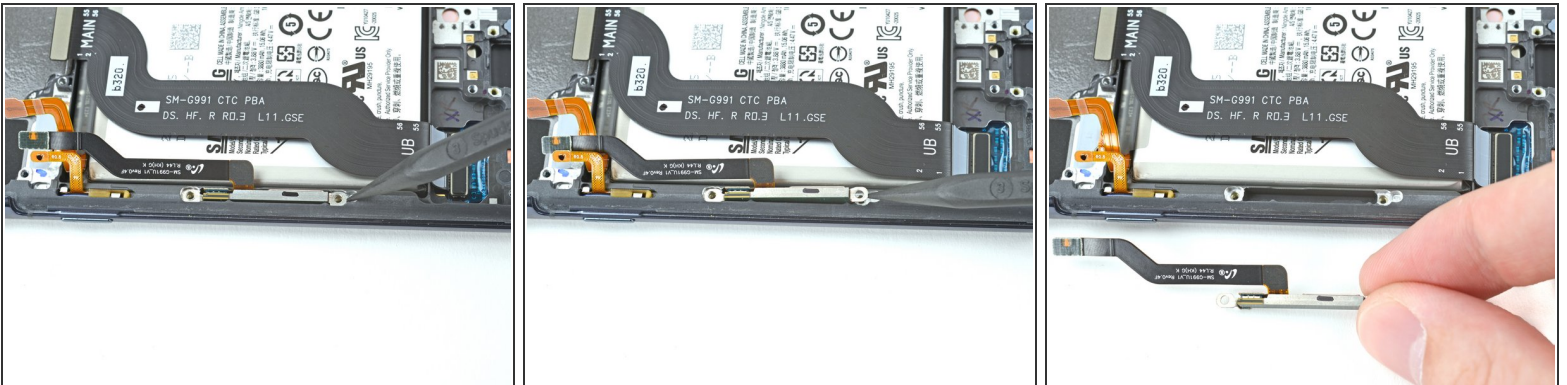


## Step 46 — Remove the right 5G mmWave antenna



- Use the point of a spudger to pry up on the right 5G mmWave antenna bracket's bottom screw tab.
  - Use tweezers, or your fingers, to remove the 5G mmWave antenna.
- ☑ Set the antenna aside. You'll reuse it during reassembly.

## Step 47 — Remove the left 5G mmWave antenna



- Use the point of a spudger to pry up on the left 5G mmWave antenna bracket's top edge.
  - Use tweezers, or your fingers, to remove the 5G mmWave antenna.
- ☑ Set the antenna aside. You'll reuse it during reassembly.

## Step 48 — Disconnect the display cable



- Use a spudger to pry up and disconnect the display cable's press connector near the bottom of the device.

## Step 49 — Remove the display cable



- Use tweezers, or your fingers, to remove the display cable.
- ☒ Set the cable aside. You'll reuse it during reassembly.

## Step 50 — Only the screen and battery assembly remains



- You're now left with the screen and battery assembly.
- ☑ 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 the instructions in reverse order** and perform the opposite actions, e.g., "reattach" instead of "removing." Skip steps that use heating and prying, and pay close attention to the bullets as you work through the steps.

After you've completed the repair, download the Samsung Members App from the Galaxy Store or the Play Store, and [follow the Samsung Self-Repair document](#) (beginning page 10) to make sure your device is fully functional.

Download the [Self Repair Assistant](#) on your device and [follow the Samsung Self-Repair document](#) (beginning page 11) to perform a battery cycle reset.

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.