



# Samsung Galaxy S20 Ultra 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 S20 Ultra 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:

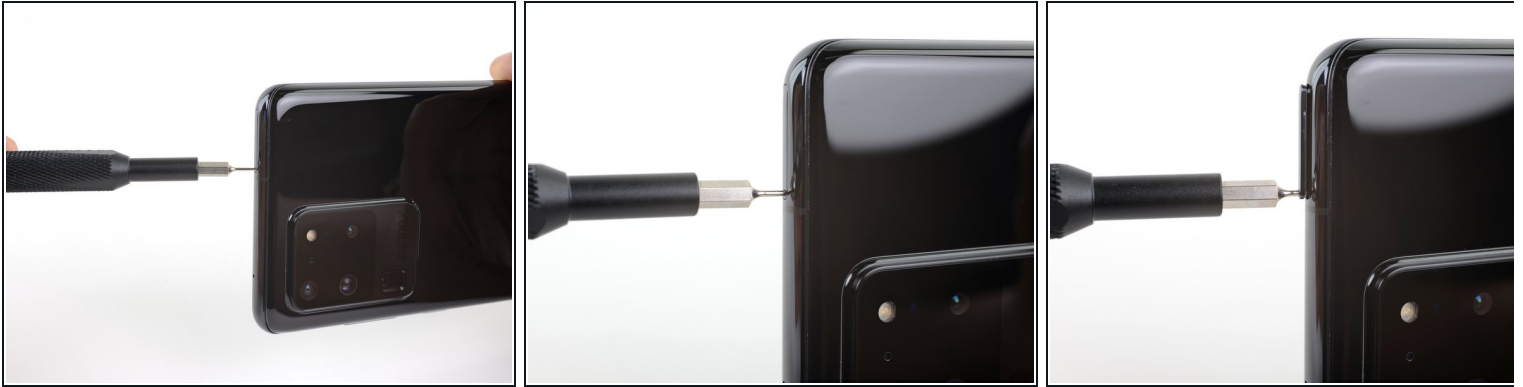
[SIM Card Eject Tool](#) (1)  
[iOpener](#) (1)  
[Suction Handle](#) (1)  
[iFixit Opening Picks \(Set of 6\)](#) (1)  
[Spudger](#) (1)  
[Phillips #00 Screwdriver](#) (1)  
[Heat Gun](#) (1)  
[Isopropyl Alcohol \(90% or Greater\)](#) (1)  
[Microfiber Cleaning Cloths](#) (1)  
[Tweezers](#) (1)



## PARTS:

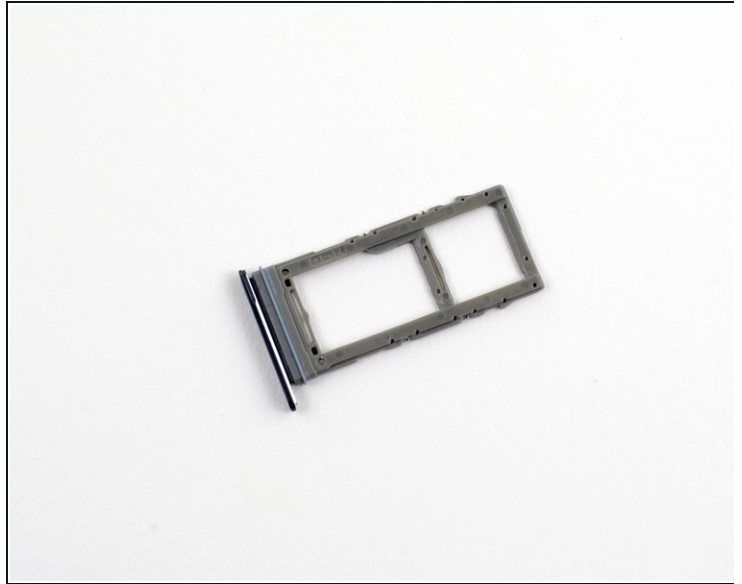
[Samsung Galaxy S20 Ultra \(USA\) Screen and Battery - Genuine](#) (1)

## Step 1 — Eject the SIM Tray





- Insert a SIM card eject tool, bit, or a straightened paperclip into the hole on the SIM tray, located at the top edge of the phone next to the plastic antenna band.
- ① If you inserted the tool [into the other hole](#), don't worry—the microphone and the ingress gasket are mounted out of harm's way.
- Press in firmly to eject the tray.

## Step 2 — Remove the SIM Tray



- Remove the SIM card tray.

 The SIM card will fall out of the tray easily.

-  When you reinsert the SIM card, ensure that it is in the proper orientation relative to the tray.
-  A thin rubber gasket around the SIM tray provides water and dust protection. If this gasket is damaged or missing, replace the gasket or the entire SIM tray to protect your phone's internal components.

### Step 3 — Heat the bottom edge



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

## Step 4 — Separate the bottom edge adhesive



- Apply a suction cup to the back of the phone, as close to the center of the bottom edge as possible.
    - ① If the back cover is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else fails, you can superglue the suction cup to the broken cover.
  - Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
  - Insert the point of an opening pick into the gap.
    - ① Due to tight tolerances, this may take multiple attempts of reheating with the iOpener and separating with the suction cup before you get it right.
    - ① If you are having trouble creating a gap, apply more heat to the edge and try again.
- ⚠ Do not apply excessive force with the pick, or you risk cracking the back cover glass.**

## Step 5 — Slice the adhesive



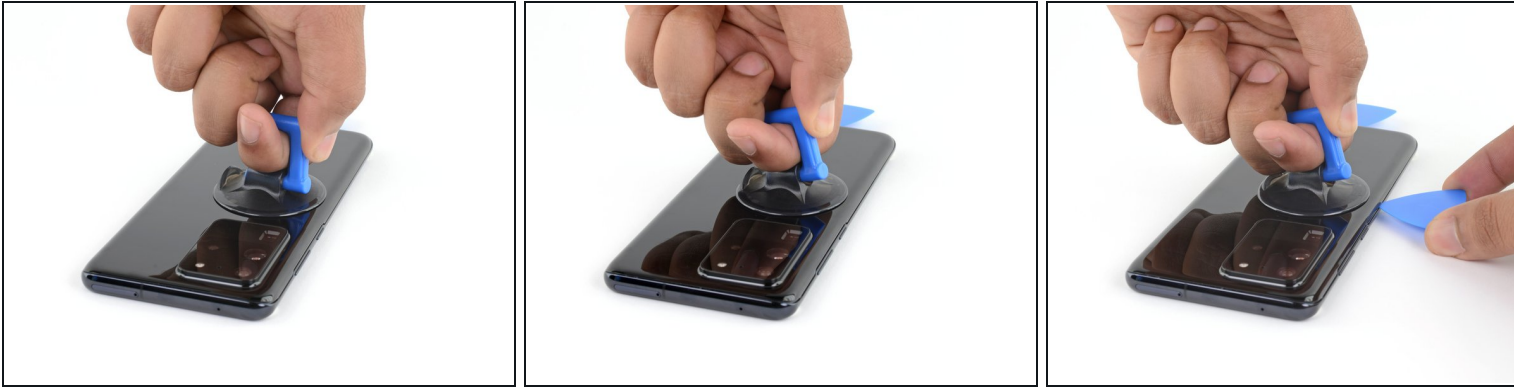
- Slide the pick back and forth along the bottom edge to slice through the adhesive.  
**⚠ Do not attempt to cut the adhesive near the corners of the phone where the glass is curved or you risk cracking the glass panel.**
- Leave your opening pick in the seam to prevent the adhesive from resealing.

## Step 6 — Heat the left edge



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

## Step 7 — Separate the left edge adhesive

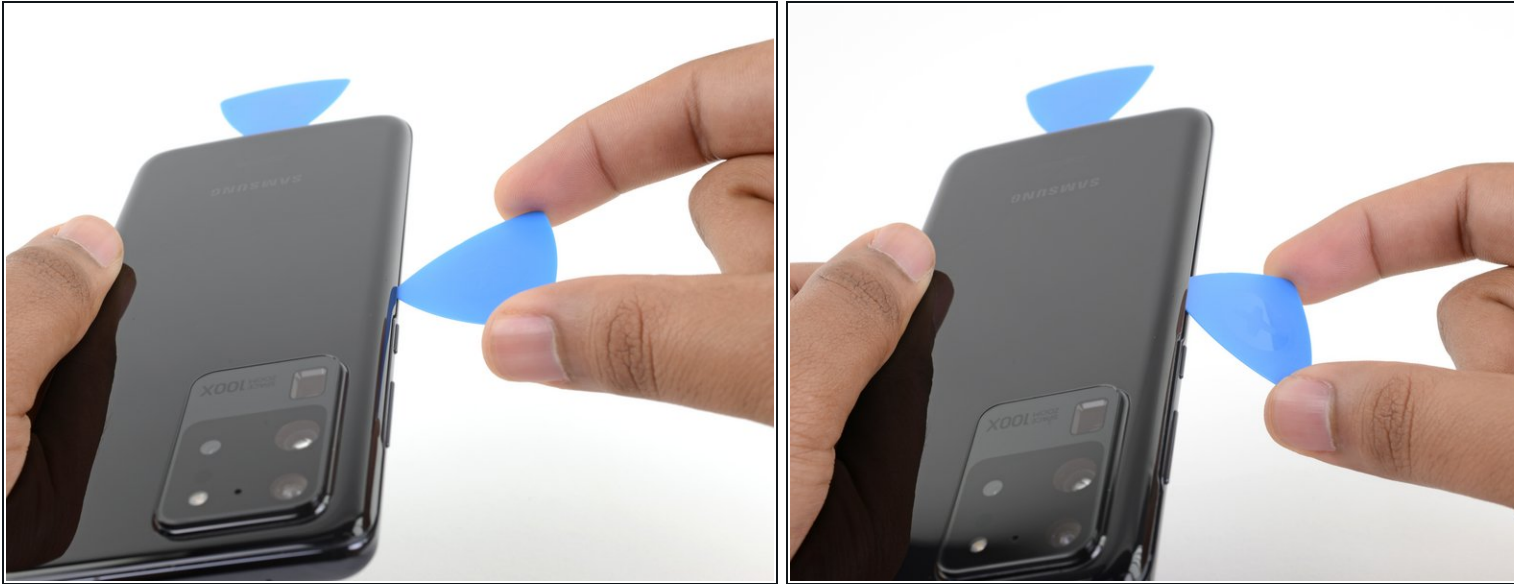


- Apply a suction cup to the back of the phone, as close to the center of the left edge as possible.
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
  - ① As the glass on this edge is curved, you won't be able to insert this pick very far. As long as the very tip of the pick is underneath the glass's edge, you will be able to proceed.
- ① Due to tight tolerances, this may take multiple attempts.
  - ① If you are having trouble creating a gap, apply more heat to the edge and try again.
- You can try also applying a few drops of high concentration (over 90%) isopropyl alcohol into the seam to help loosen the adhesive.

**⚠ Do not apply excessive force with the pick, or you risk cracking the back cover glass.**



## Step 8



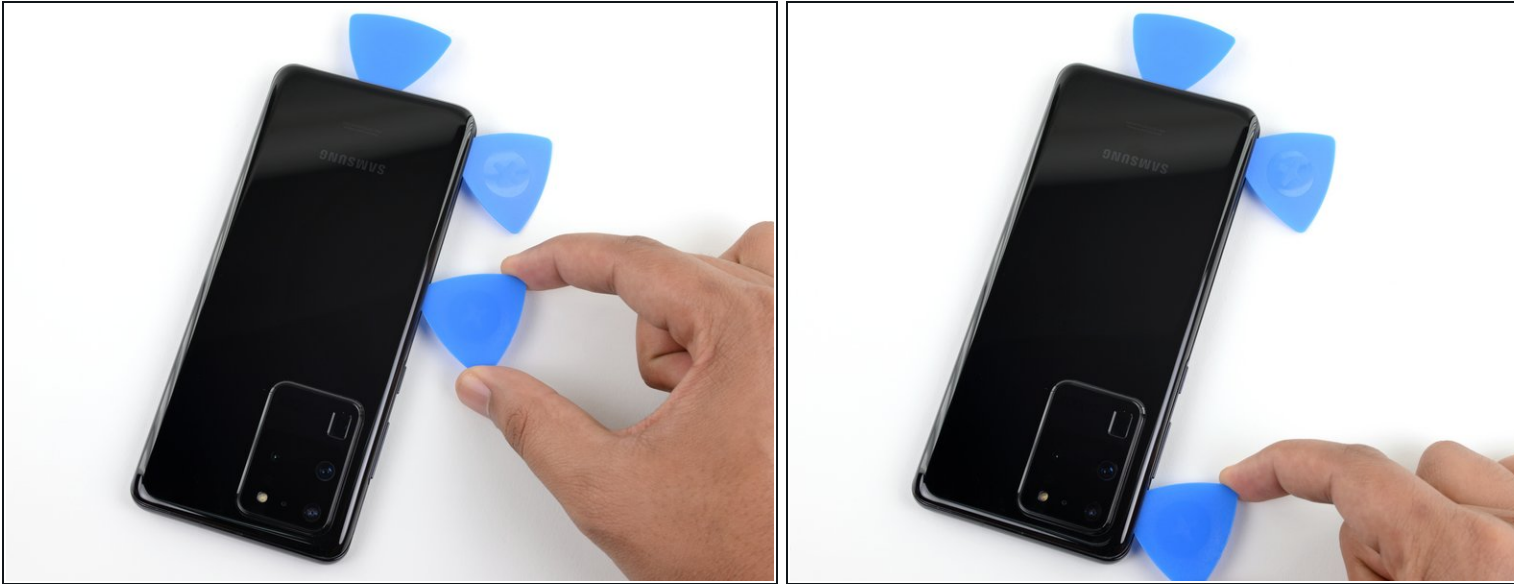
- Once the pick is underneath the glass's edge, tilt it downward and insert it further to fully separate the back cover's adhesive.

## Step 9



- Slide the pick towards the bottom edge of the phone to separate the back cover's adhesive.
- Leave your pick under the left edge of the glass near the bottom of the device to prevent the adhesive from resealing.

## Step 10



- Insert another pick under the center of the left edge of the back cover.
- Gradually slide the pick towards the top of the device to separate the back cover's adhesive.  
**⚠ Take care when sliding across the ridge in the frame surrounding the volume and power buttons—the cutout in the glass may make it more prone to cracking.**
- Leave your pick under the left edge of the glass near the top of the device to prevent the adhesive from resealing.

## Step 11 — Heat the right edge



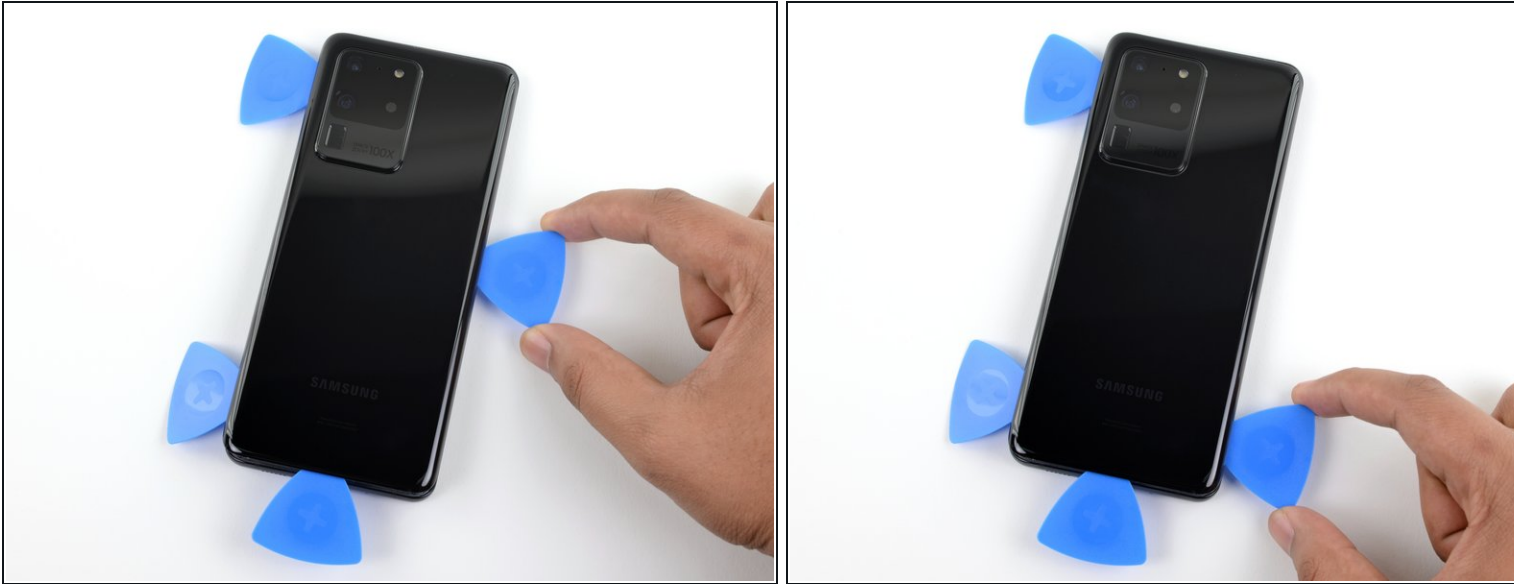
- Apply a heated iOpener to the right edge of the back cover for two minutes.
- ⓘ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the display and internal battery are both susceptible to heat damage.

## Step 12 — Separate the right edge adhesive



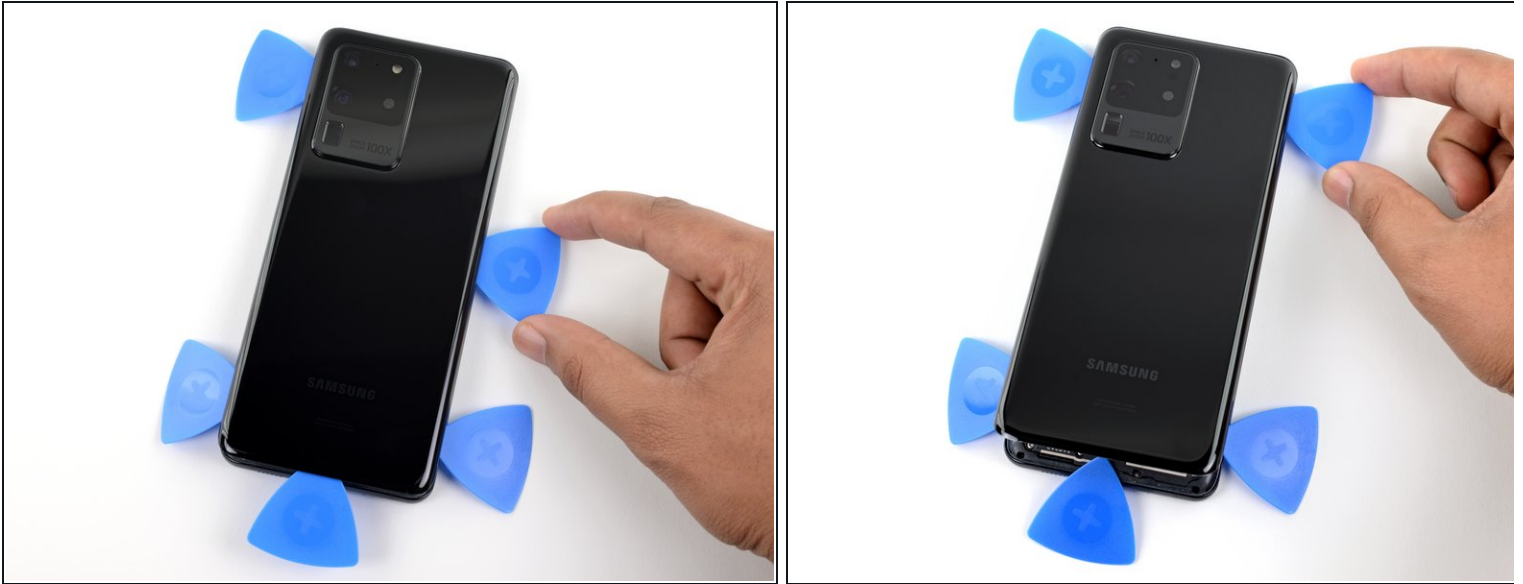
- Apply a suction cup to the back of the phone, as close to the center of the right edge as possible.
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
- ⓘ Like with the previous edge, you will need to tilt the opening pick downward to fully insert it underneath the back cover.

## Step 13



- Slide the pick towards the bottom edge of the phone to separate the back cover's adhesive.
- Leave your pick under the right edge of the glass near the bottom of the device to prevent the adhesive from resealing.

## Step 14



- Insert another pick underneath the center of the right edge of the back cover.
- Gradually slide the pick towards the top of the device to separate the back cover's adhesive.
  - ⓘ As you do this, the bottom edge of the back cover may release the three picks located there. If this occurs, set these picks aside as the bottom edge shouldn't reseal from this point onward.

## Step 15 — Heat the top edge



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

## Step 16 — Separate the top edge adhesive



**⚠** The glass near the corners of the back cover is curved and very susceptible to cracking. Be gentle during this step to prevent damaging your back cover.

- Gradually slide the pick from the right edge of the device around the top right corner.
- Continue slicing along the top edge to fully separate the back cover adhesive.
- ① If the slicing becomes difficult at any point, stop and reapply heat before continuing.

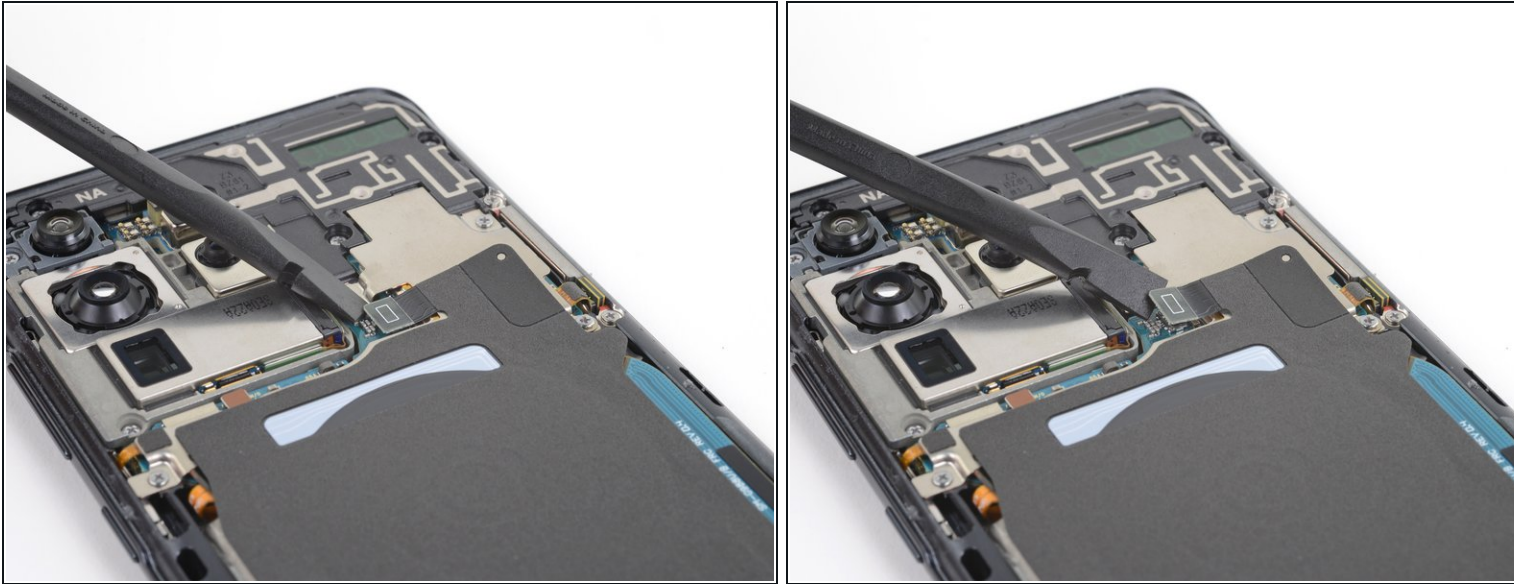


## Step 17 — Remove the back cover



- Lift the back cover slowly. Use opening picks 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.
  - 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 — Disconnect the wireless charging coil

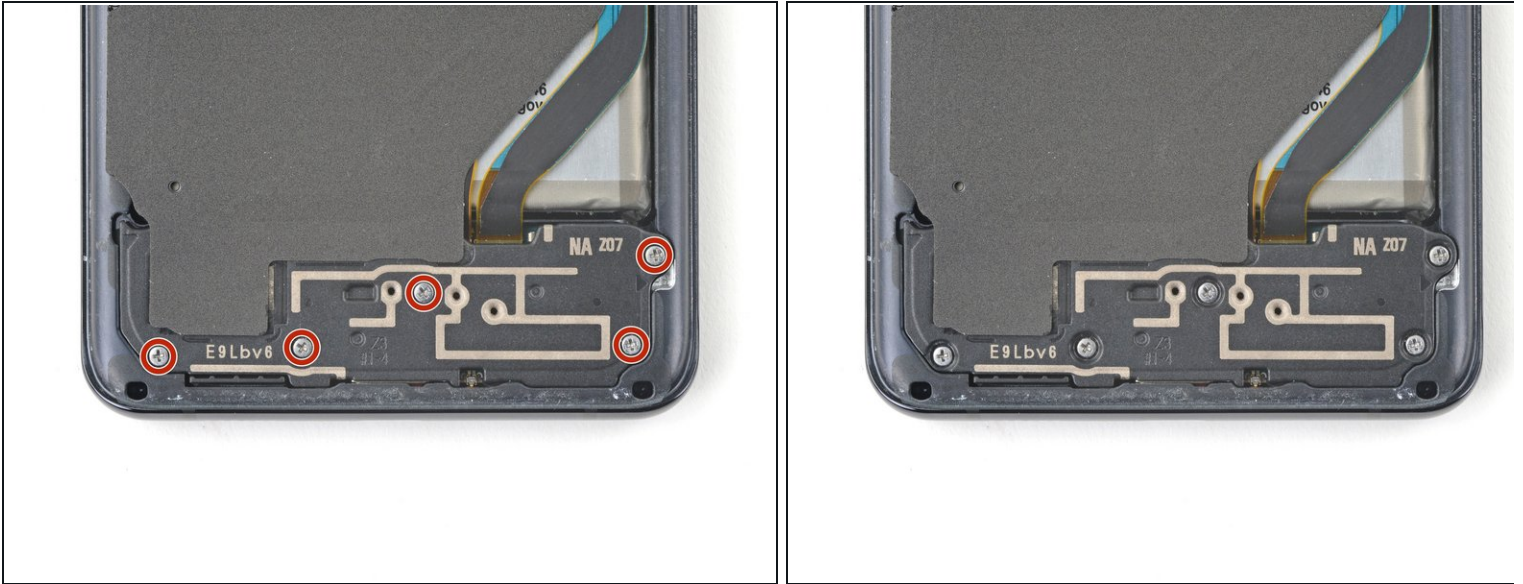


- Use a spudger to pry up and disconnect the wireless charging coil connector.

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

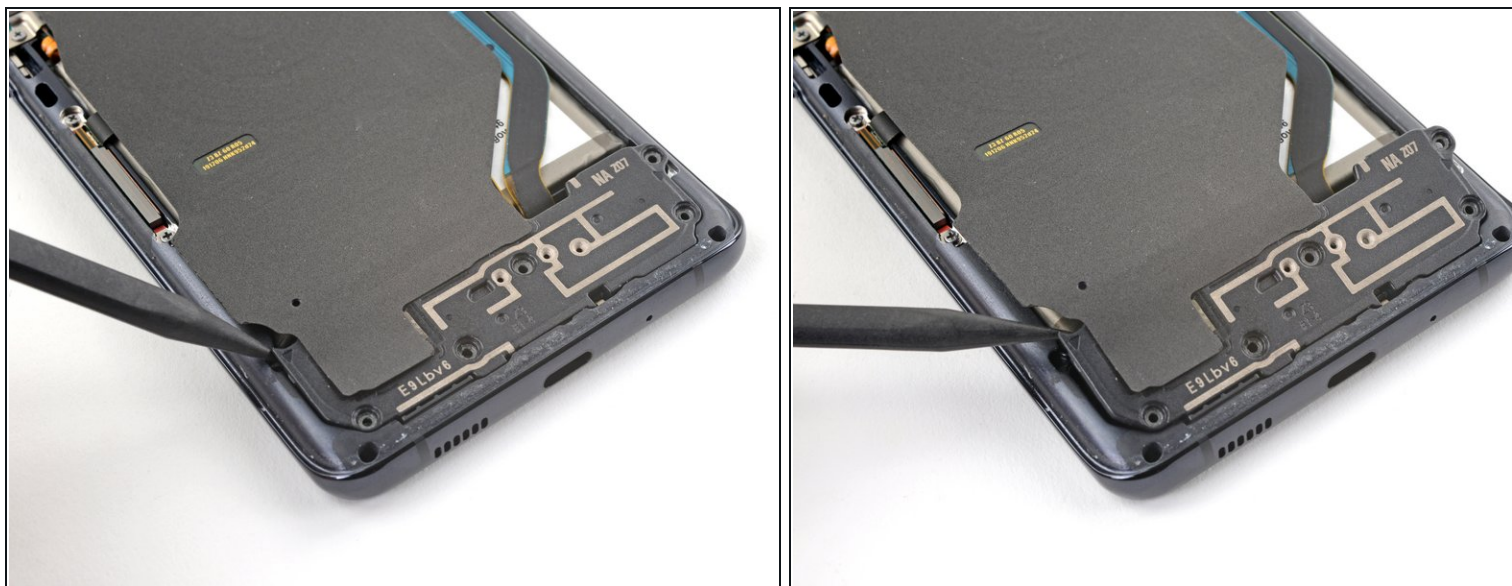


## Step 19 — Unfasten the loudspeaker



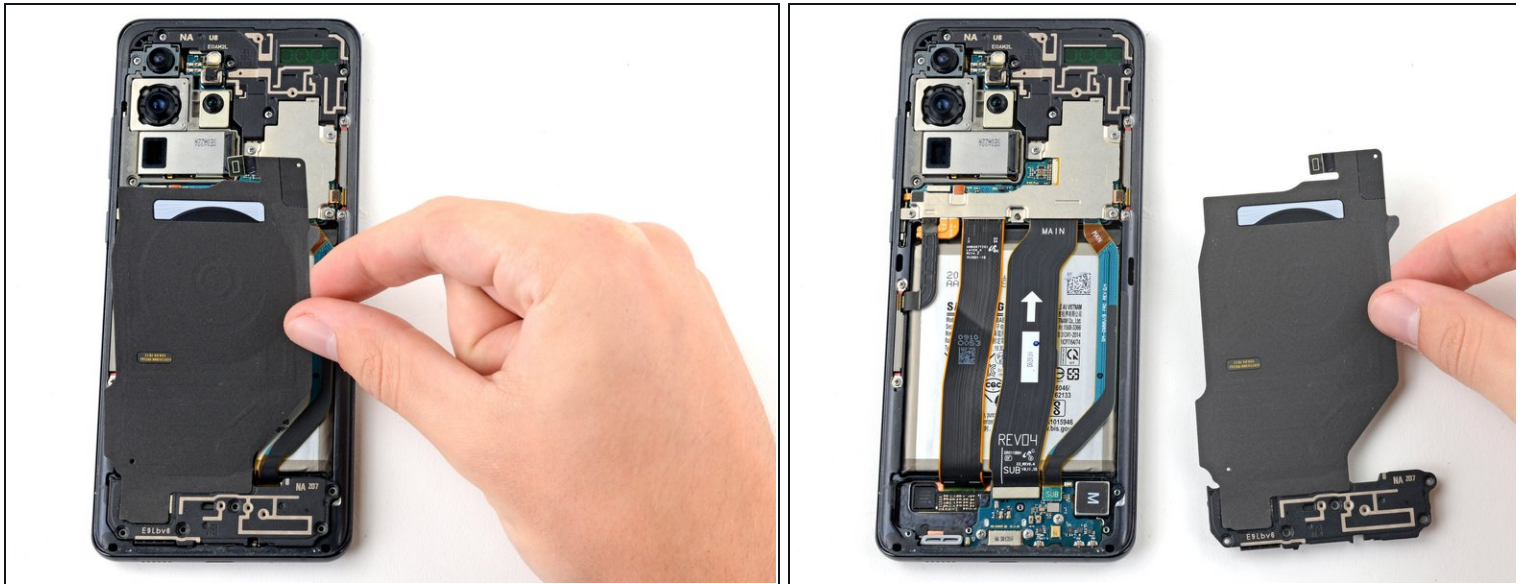
- Use a Phillips #00 screwdriver to remove the five 3.9 mm-long screws securing the loudspeaker and lower midframe.
- ⓘ Throughout this repair, [keep track of each screw](#) and make sure it goes back exactly where it came from.
- ✦ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3373**.

## Step 20 — Disconnect the loudspeaker



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

## Step 21 — Remove the wireless charging coil



- Use tweezers, or your fingers, to gently peel the wireless charging coil away from the device.
- Remove the wireless charging coil.
- ☑ Set the charging coil aside. You'll reuse it during reassembly.

## Step 22 — Unfasten the motherboard bracket



- Use a Phillips #00 screwdriver to remove the five 3.9 mm-long screws securing the motherboard bracket.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3373**.



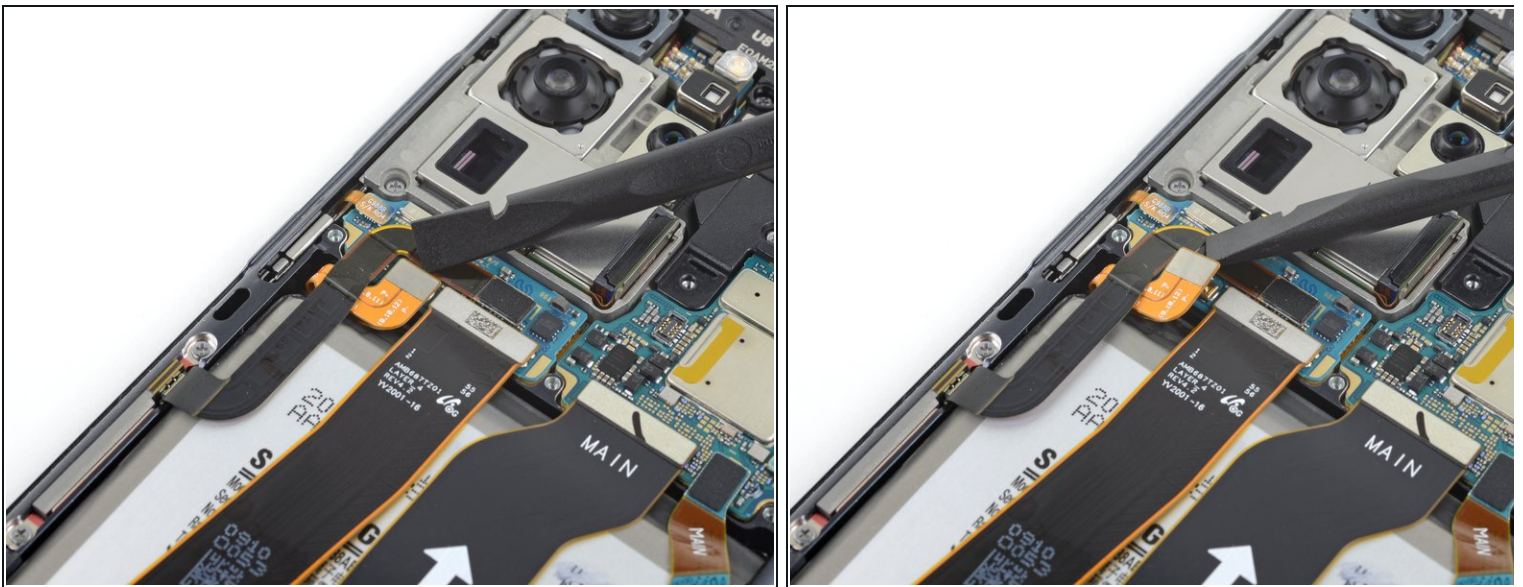
## Step 23 — Remove the motherboard bracket



- Use a pair of blunt-nose tweezers to unclip and remove the motherboard bracket.

☑ Set the bracket aside. You'll reuse it during reassembly.

## Step 24 — Disconnect the battery



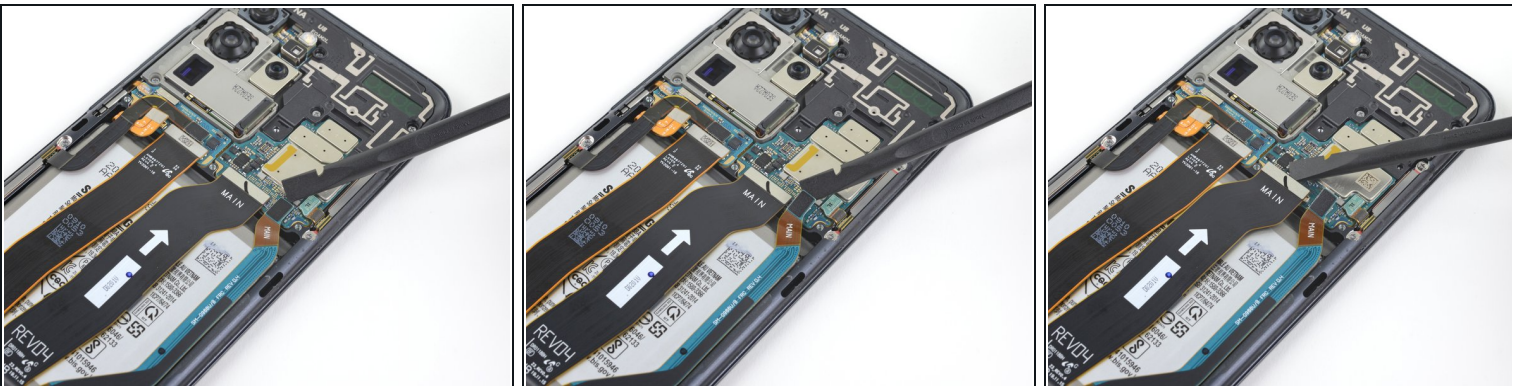
- Use a spudger to pry up and disconnect the battery connector.

## Step 25 — Disconnect the daughterboard



- Use a spudger to pry up and disconnect the primary and secondary interconnect cables from the daughterboard near the bottom of the device.
- ☑ 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.

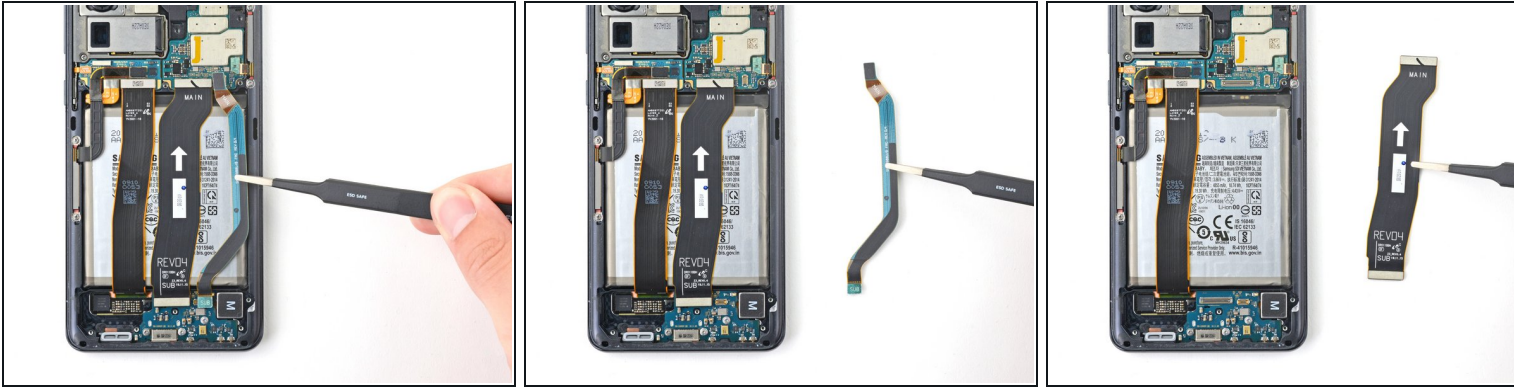
## Step 26 — Disconnect the flex cables



- Use a spudger to pry up and disconnect the primary and secondary interconnect cables from the motherboard.



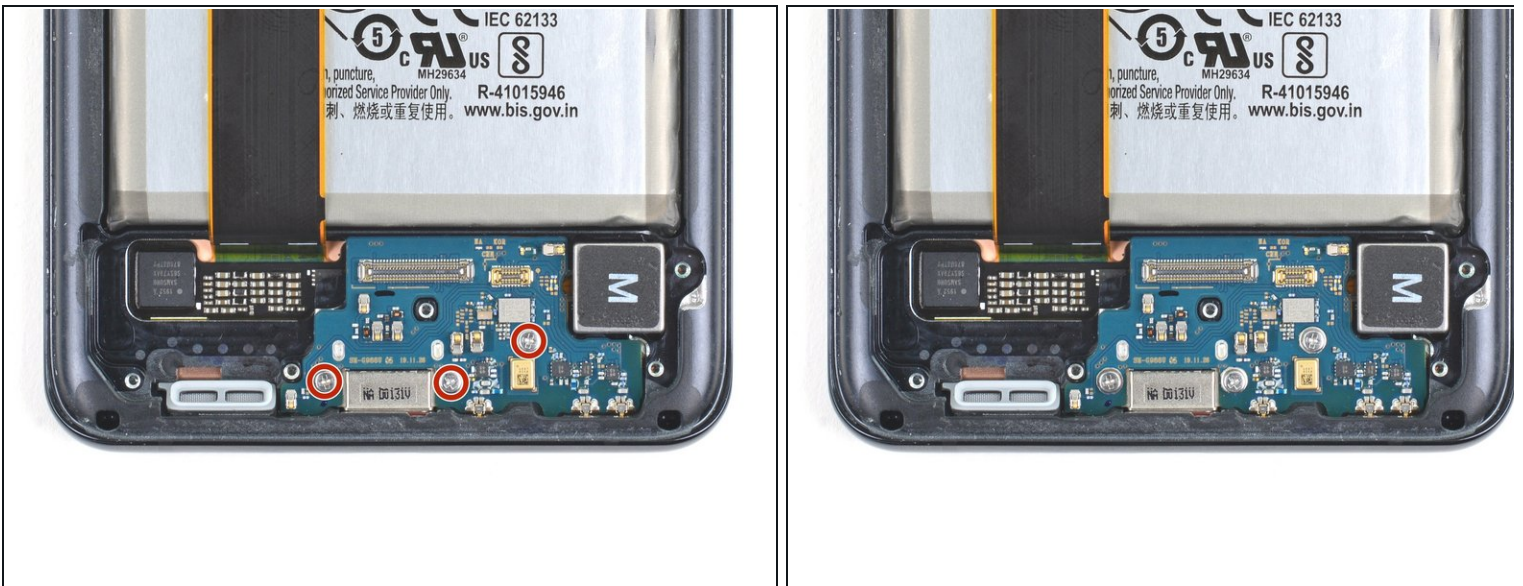
## Step 27 — Remove the flex cables



- Gently peel up and remove the primary and secondary interconnect cables.

☑ Set both cables aside. You'll reuse them during reassembly.

## Step 28 — Unfasten the daughterboard



- Use a Phillips #00 screwdriver to remove the three 3.7 mm-long screws securing the USB-C port and daughterboard.

☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3396**.

## Step 29 — Remove the daughterboard



- Insert the pointed end of a spudger under the left edge of the daughterboard and pry up to release it from its recess.
- Use tweezers, or your fingers, to pull the daughterboard up and away from the bottom of the device and remove it.

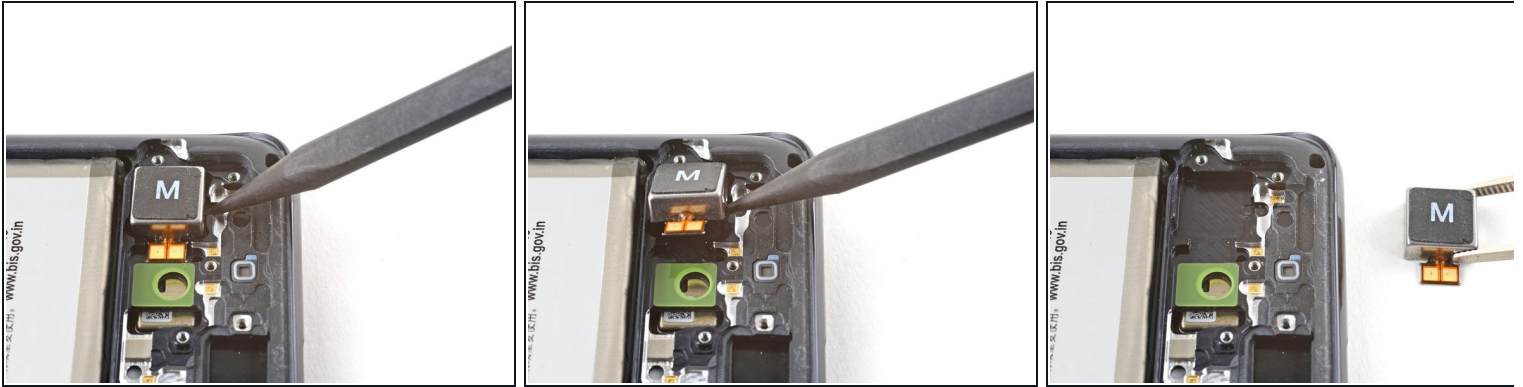
## Step 30 — Heat the vibrator



- Apply a heated iOpener to the bottom-right of the device for 90 seconds.

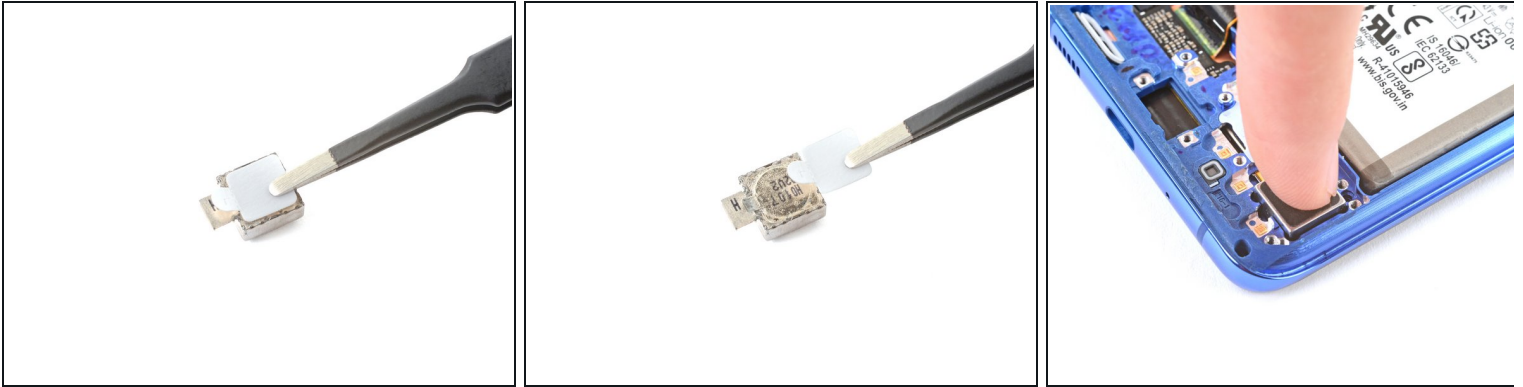




## Step 31 — Remove the vibrator



- Insert the tip of a spudger between the frame and the [notch in the vibrator's edge](#), close to the bottom edge of the device.
- Pry up with the spudger to separate the vibrator from the frame.
- Remove the vibrator.

## Step 32 — Vibrator reassembly instructions



-  During reassembly, follow these instructions to reinstall your vibrator:
- Peel off the vibrator adhesive from its liner and apply the sticky end to the bottom of the vibrator.
  - Use tweezers, or your fingers, to pull up on the white liner to expose the top layer of adhesive.
  - Insert the vibrator and apply pressure to adhere it to the frame.
-  The adhesive is very thin and hard to distinguish from the liner. Use your fingers to check if the adhesive transferred correctly.

### Step 33 — Disconnect the left 5G mmWave antenna



- Pry up and disconnect the left 5G mmWave antenna connector from the motherboard.

### Step 34 — Disconnect the display cable



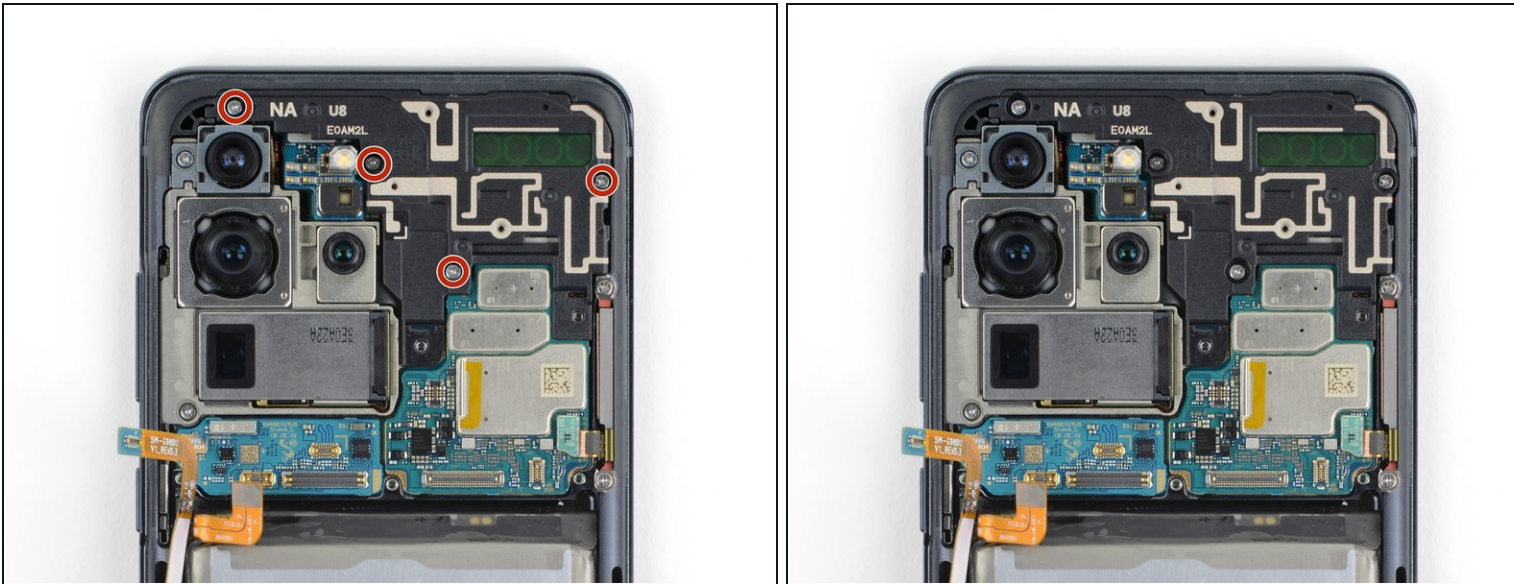
- Pry up and disconnect the display flex cable from the motherboard.

## Step 35 — Reposition the display and 5G mmWave cables



- Gently peel up and bend the display and left 5G mmWave antenna flex cables out of the way of the motherboard and battery.

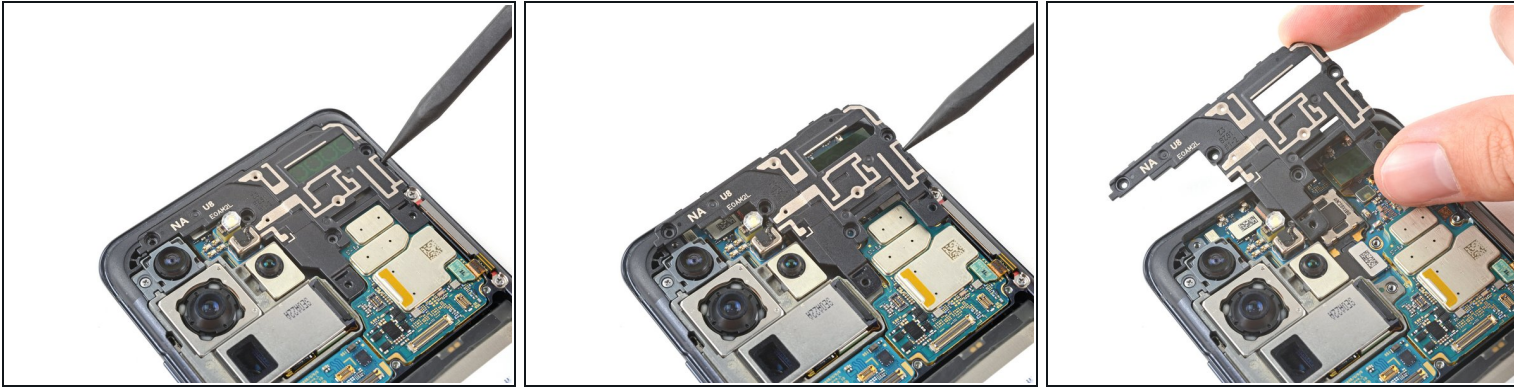
## Step 36 — Unfasten the upper midframe



- Use a Phillips #00 screwdriver to remove the four 3.9 mm-long screws securing the upper midframe.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3373**.

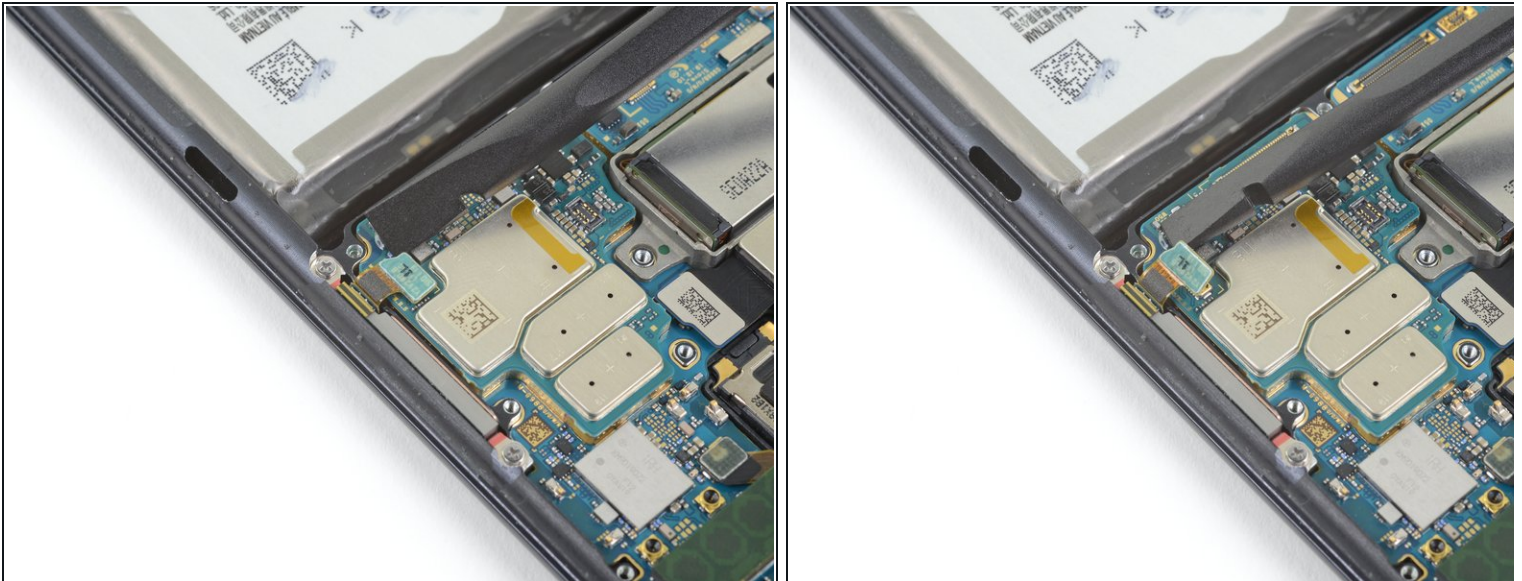


## Step 37 — Remove the upper midframe



- Insert the point of a spudger into the notch on the right side of the upper midframe and pry up to release the clips holding it into place.
- Remove the upper midframe.
- ☑ Set the upper midframe aside. You'll reuse it during reassembly.

## Step 38 — Disconnect the right 5G mmWave antenna



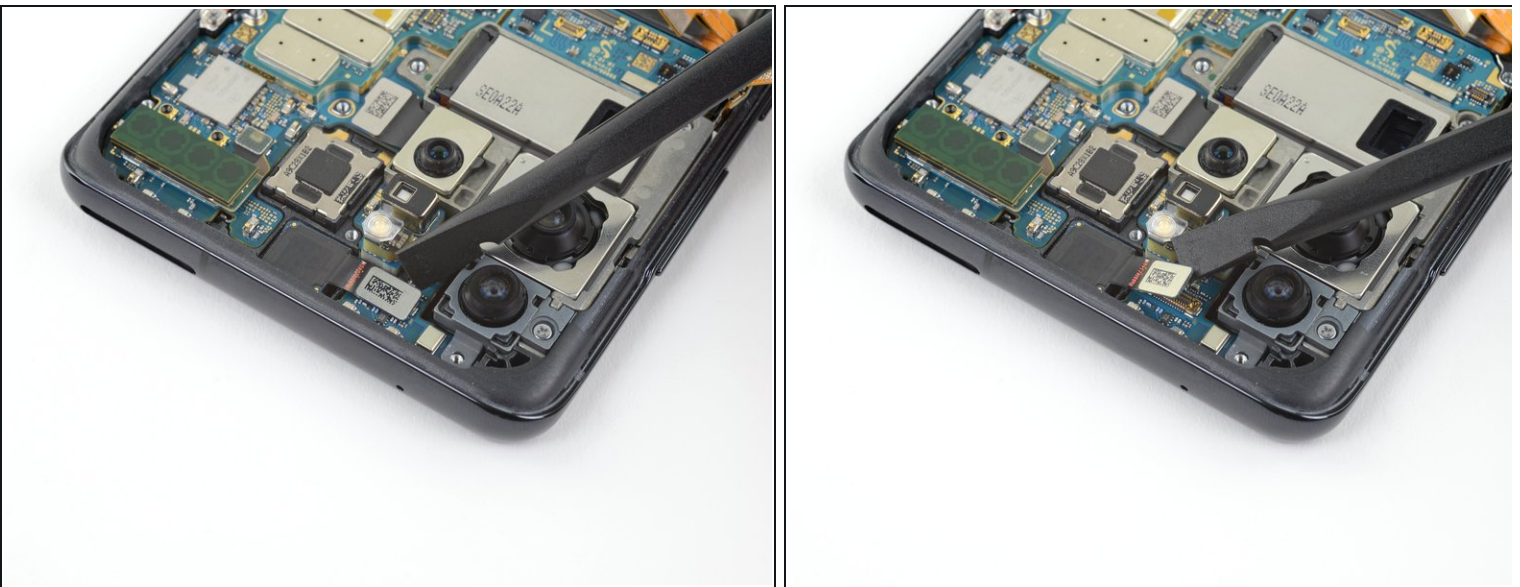
- Pry up and disconnect the right 5G mmWave antenna flex cable from the motherboard.
- Bend the cable out of the way of the motherboard.

### Step 39 — Disconnect the side button cable



- Pry up and disconnect the side button flex cable from the motherboard.
- Bend the cable out of the way of the motherboard.

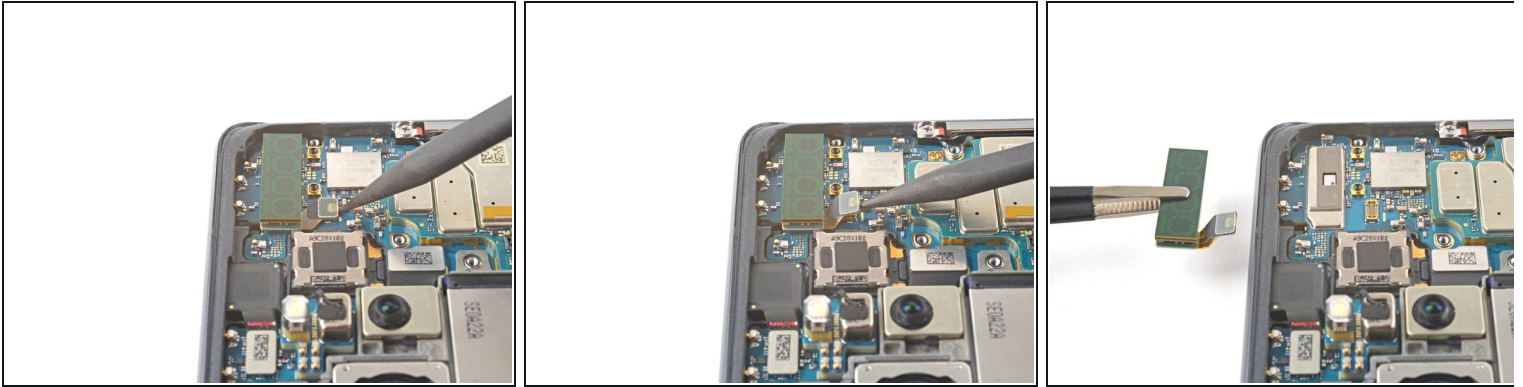
### Step 40 — Disconnect the front camera






- Pry up and disconnect the front camera flex cable from the motherboard.
- Bend the cable out of the way of the motherboard.

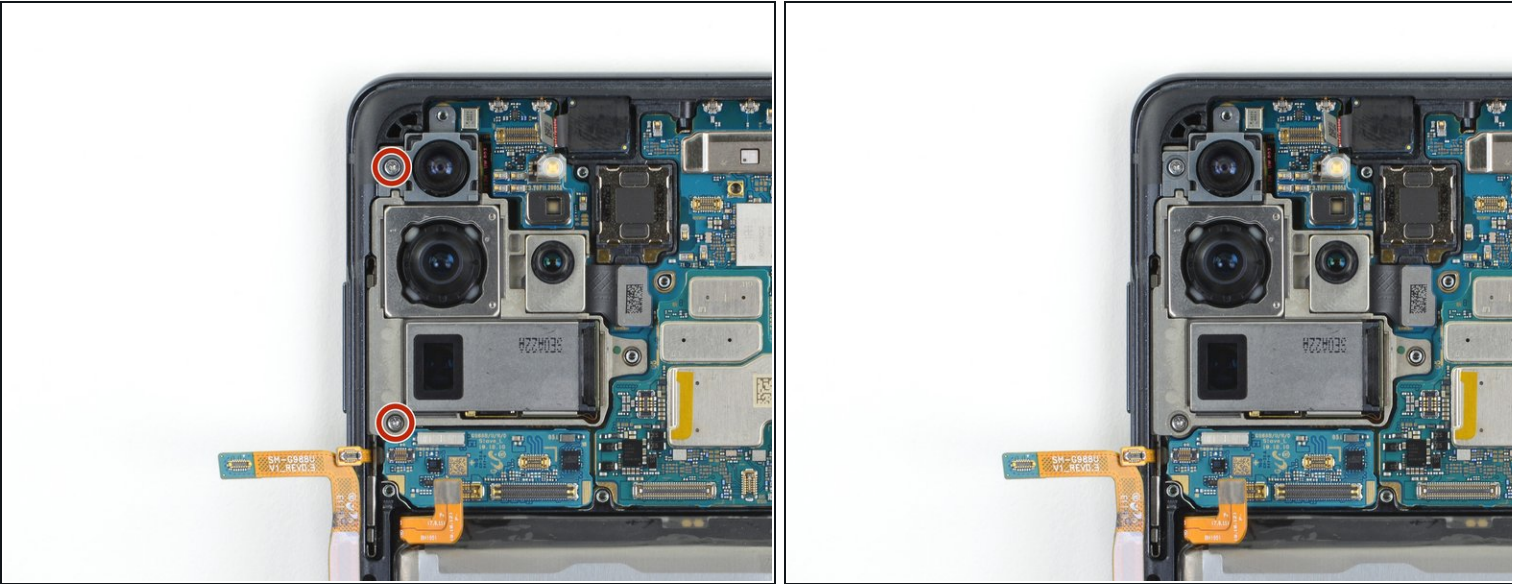


## Step 41 — Remove the upper 5G mmWave antenna



-  The upper 5G mmWave antenna is lightly adhered to the motherboard.
- Pry up and disconnect the upper 5G mmWave antenna cable from the motherboard.
  - Use tweezers, or your fingers, to remove the upper 5G antenna.
-  Set the antenna aside. You'll reuse it during reassembly.
-  During reassembly, reconnect the antenna connector first to properly align it into place, then firmly press the rest of the antenna module down to adhere it.

## Step 42 — Unfasten the motherboard assembly



- Use a Phillips #00 screwdriver to remove the two 3.9 mm-long screws securing the motherboard and camera assembly.
- If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3373**.

## Step 43 — Remove the motherboard assembly



- Insert the point of a spudger into the bottom left corner of the motherboard assembly and pry up to release it from the phone body.
- Remove the motherboard assembly.

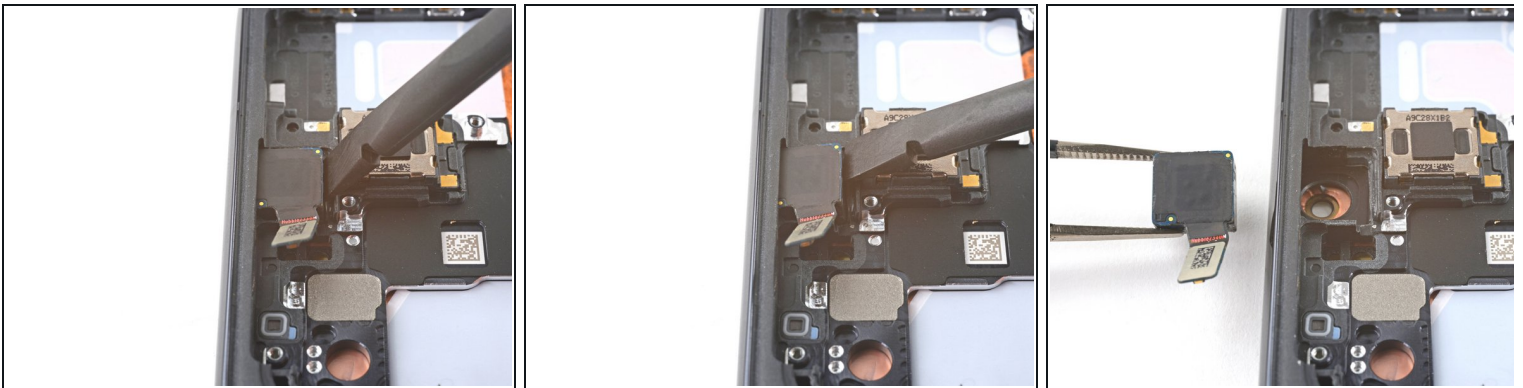


## Step 44 — Heat the front camera



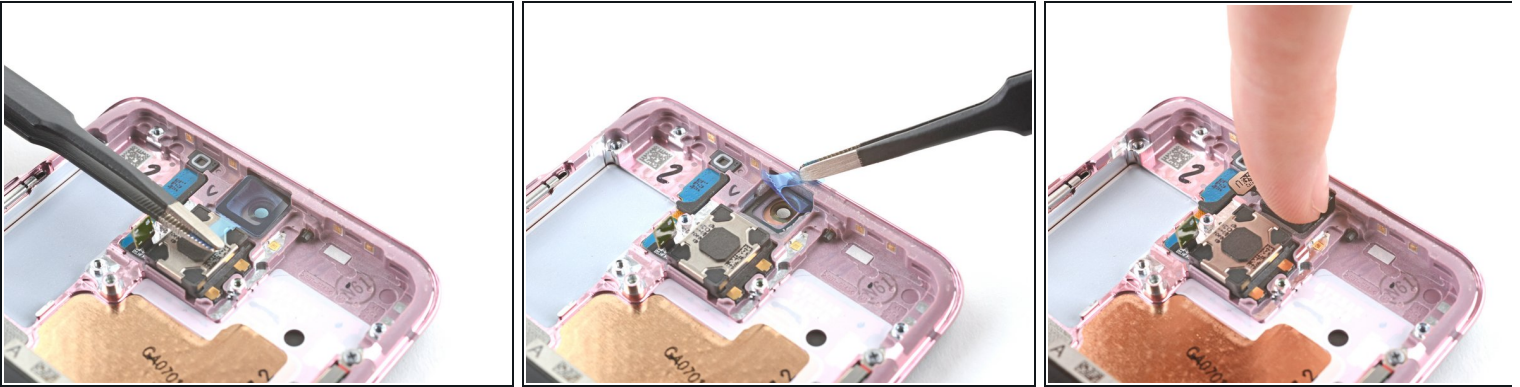
- Apply a heated iOpener to the front camera for 90 seconds.

## Step 45 — Remove the front camera



- Insert a spudger into the gap between the frame and the front camera.
- Pry up with the spudger to separate the front camera from the frame.
  - ⓘ 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.
- ☑ Set the front camera aside. You'll reuse it during reassembly.

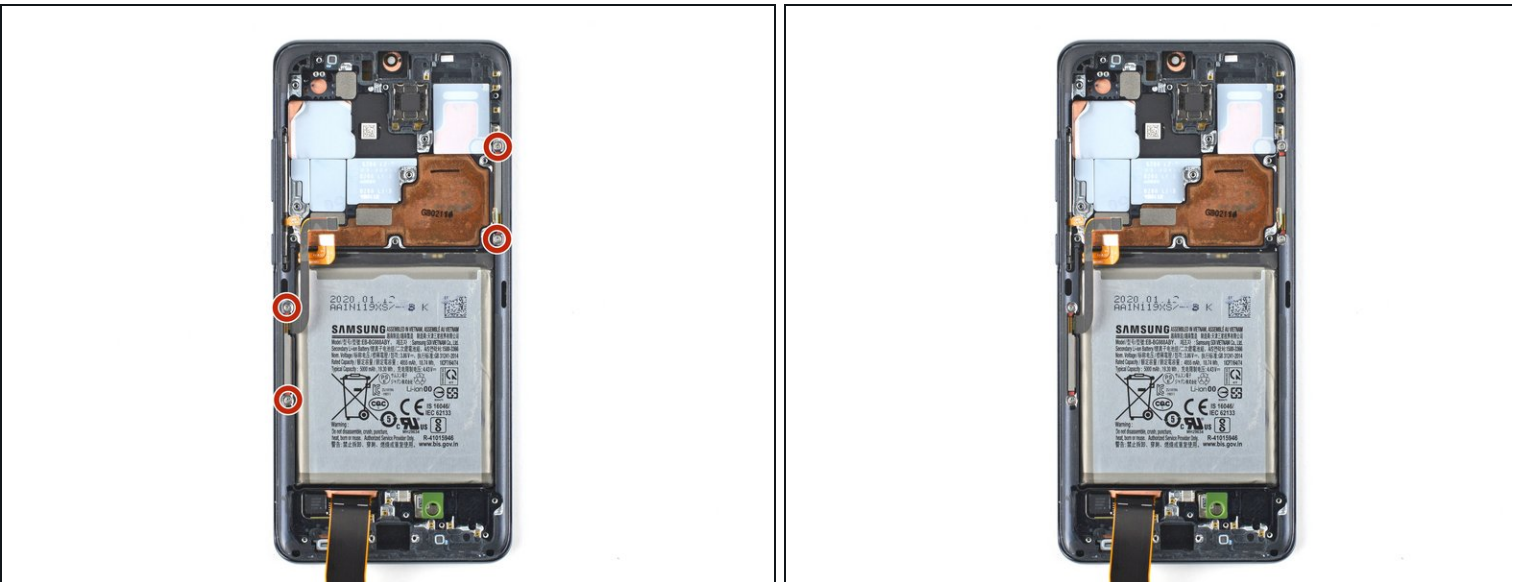
## Step 46 — Front camera reassembly instructions




 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 47 — Unfasten the 5G mmWave antennas



- Use a Phillips screwdriver to remove the four 3.4 mm-long screws securing the 5G mmWave antennas.

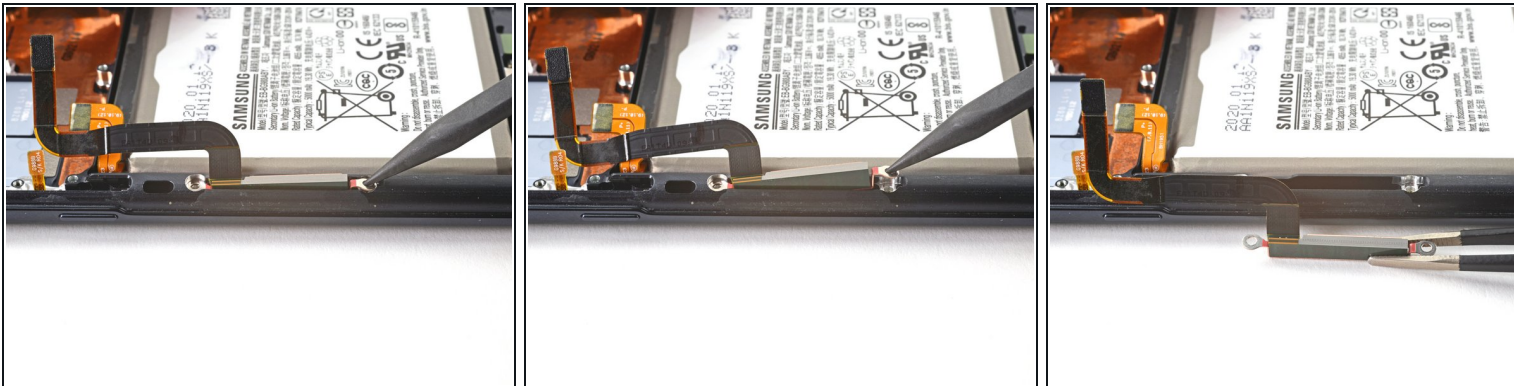
 If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3396**.

## Step 48 — Remove the right 5G mmWave antenna



- Use the point of a spudger to pry up on the 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 49 — Remove the left 5G mmWave antenna



- Use the point of a spudger to pry up on the 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 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 installing.

**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.

Take your e-waste to an [R2 or e-Stewards certified recycler](#).

After you've completed the repair, download the Samsung Members App from the Galaxy Store or the Play Store, and [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.

Repair didn't go as planned? Try some [basic troubleshooting](#), or ask our [Answers community](#) for help.