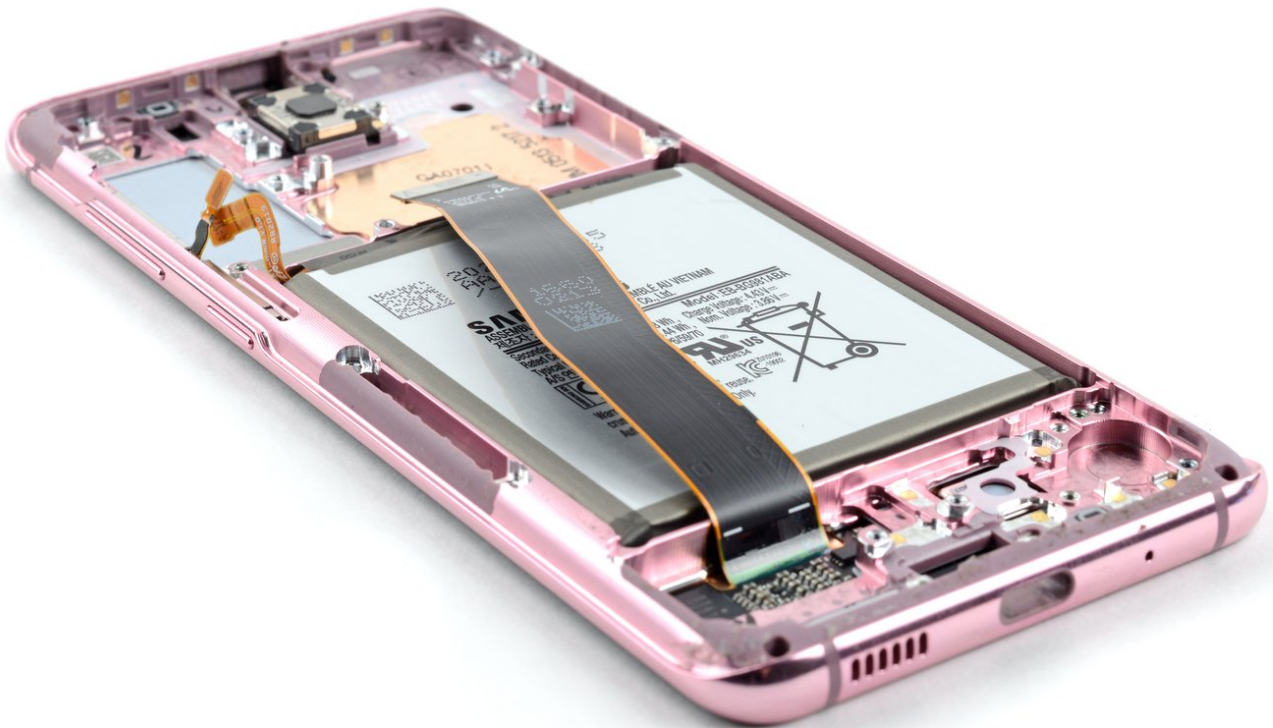




# Galaxy S20 Screen and Battery Assembly Replacement

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 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.

This guide is written with the Verizon UW model, which contains two mmWave antennas. If you don't have the UW model, skip the mmWave antenna steps.

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.



## TOOLS:

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



## PARTS:

- [Samsung Galaxy S20 5G \(USA\) Screen and Battery - Genuine](#) (1)
- [Samsung Galaxy S20 5G \(USA Verizon\) 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.
- ⓘ 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.

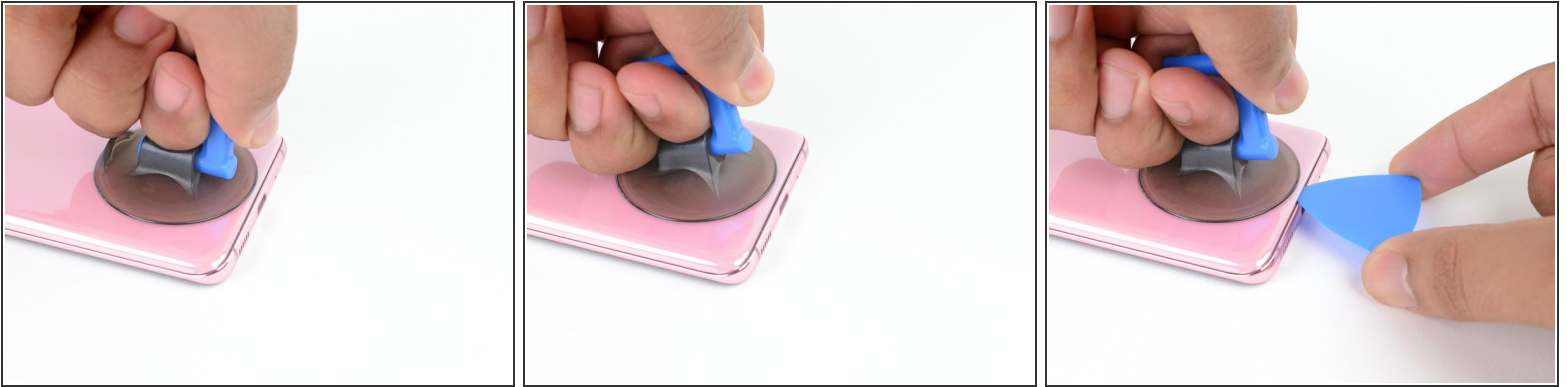
## Step 3 — Heat the bottom edge



**⚠** 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.
    - ❗ If your display 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 screen.
  - 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.
    - ❗ 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.
    - ❗ 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



- 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.

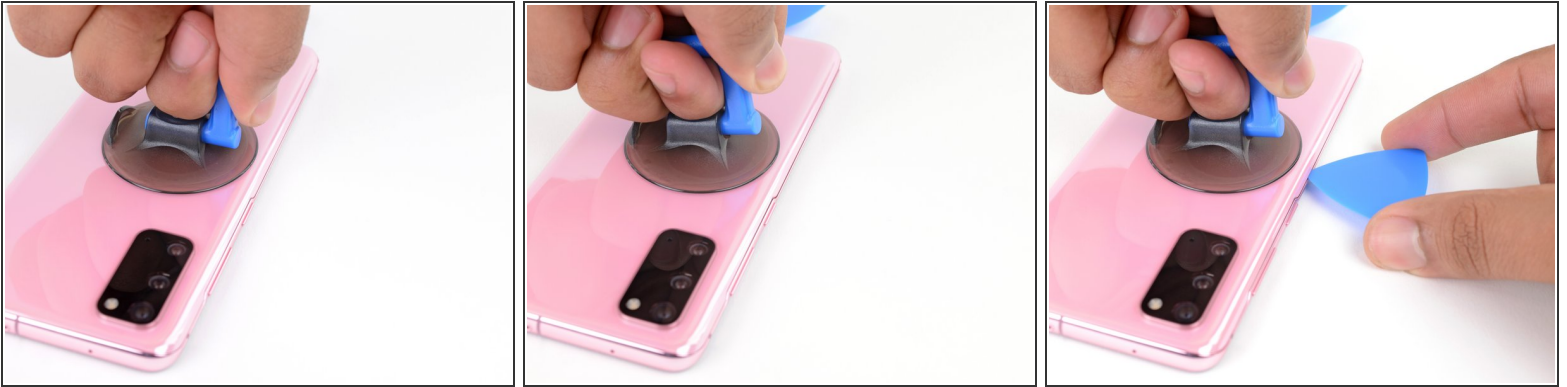
## Step 6 — Heat the left edge



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



## Step 7 — Separate the left edge adhesive

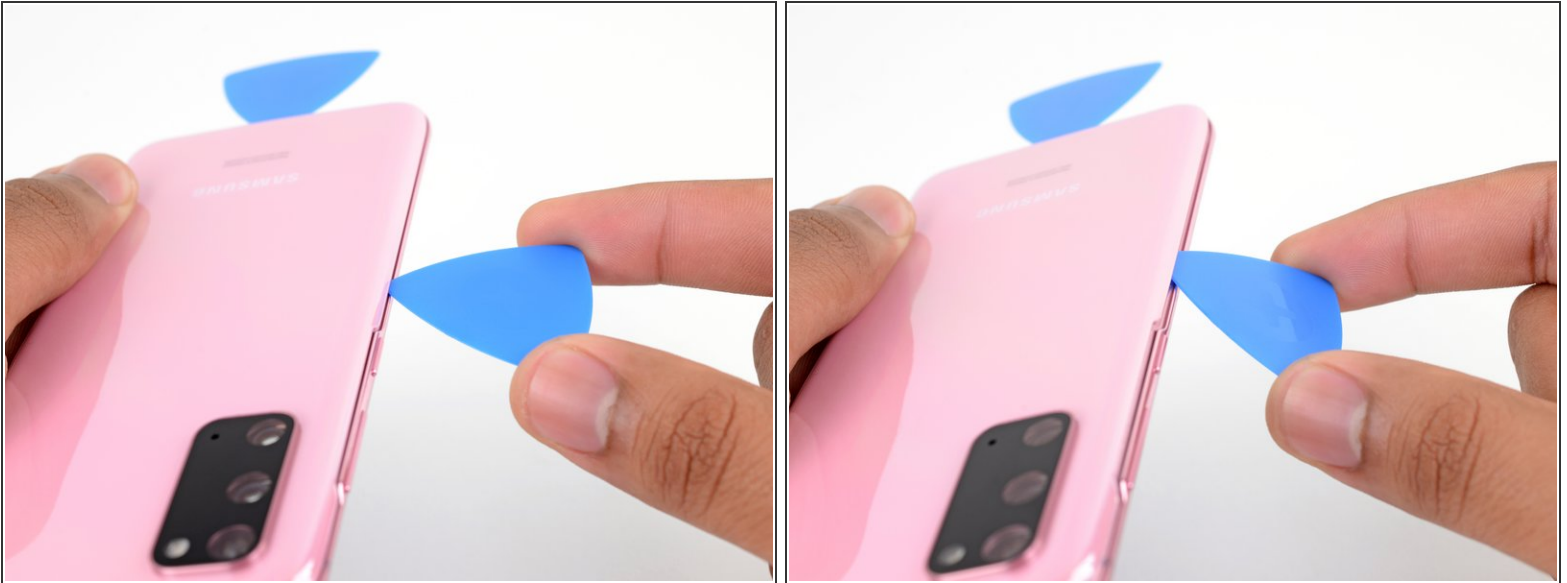


- Apply a suction cup to the back of the phone, as close to the center of the left edge as possible.
- Pull on the suction cup with strong, steady force to create a gap between the back cover and the frame.
- Insert the point of an opening pick into the gap.
  - ⓘ As the glass on this edge is curved, 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.
  - ⓘ Due to tight tolerances, this may take multiple attempts.
  - ⓘ 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 all along the left edge of the phone 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 left corner to prevent the adhesive from resealing.

## Step 10 — 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 11 — 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 12



- Slide the pick all along the right edge of the phone to separate the back cover's adhesive.
- Leave your pick under the right edge of the glass near the top of the device to prevent the adhesive from resealing.
- ❗ As you do this, the back cover may release one or both of the other picks and allow them to fall free. If this occurs, set the pick(s) aside as the bottom edge shouldn't reseal from this point onward.

## Step 13 — Heat the top edge



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

## Step 14 — 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 all the way to the top left corner to fully separate the back cover adhesive.
- i** If the slicing becomes difficult at any point, stop and reapply heat before continuing.

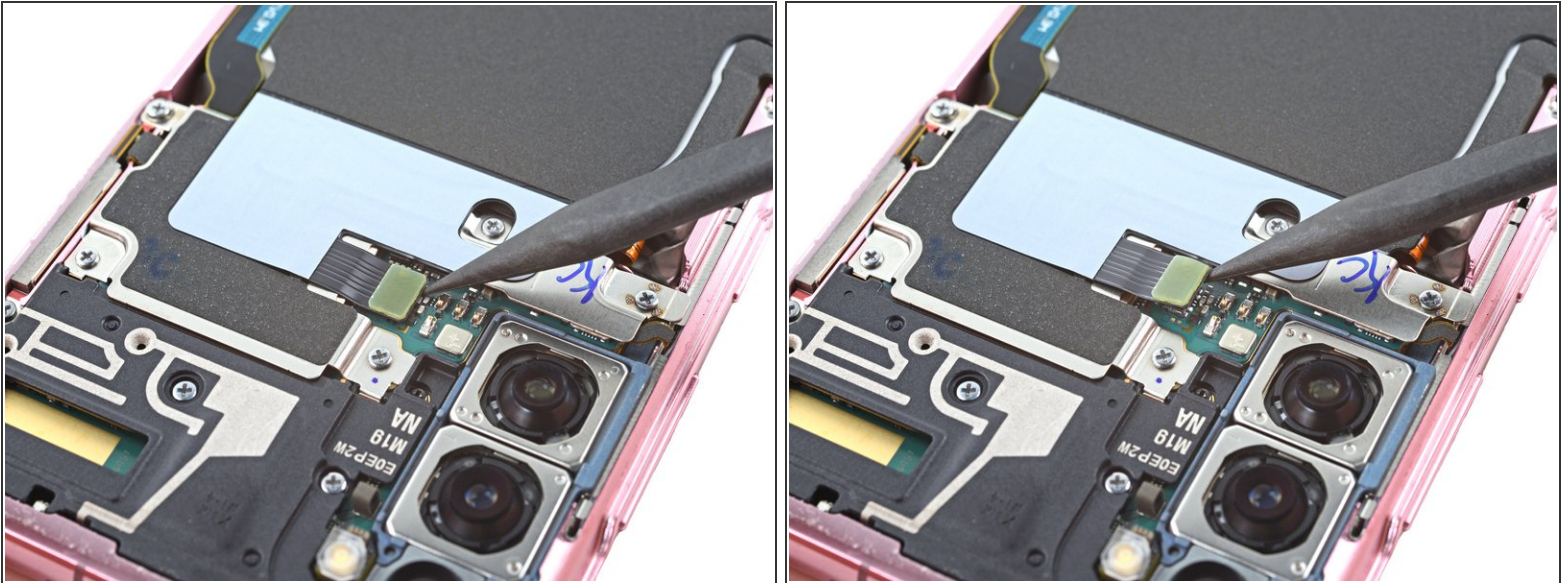
## Step 15 — Remove the back cover



- 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. 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](#).

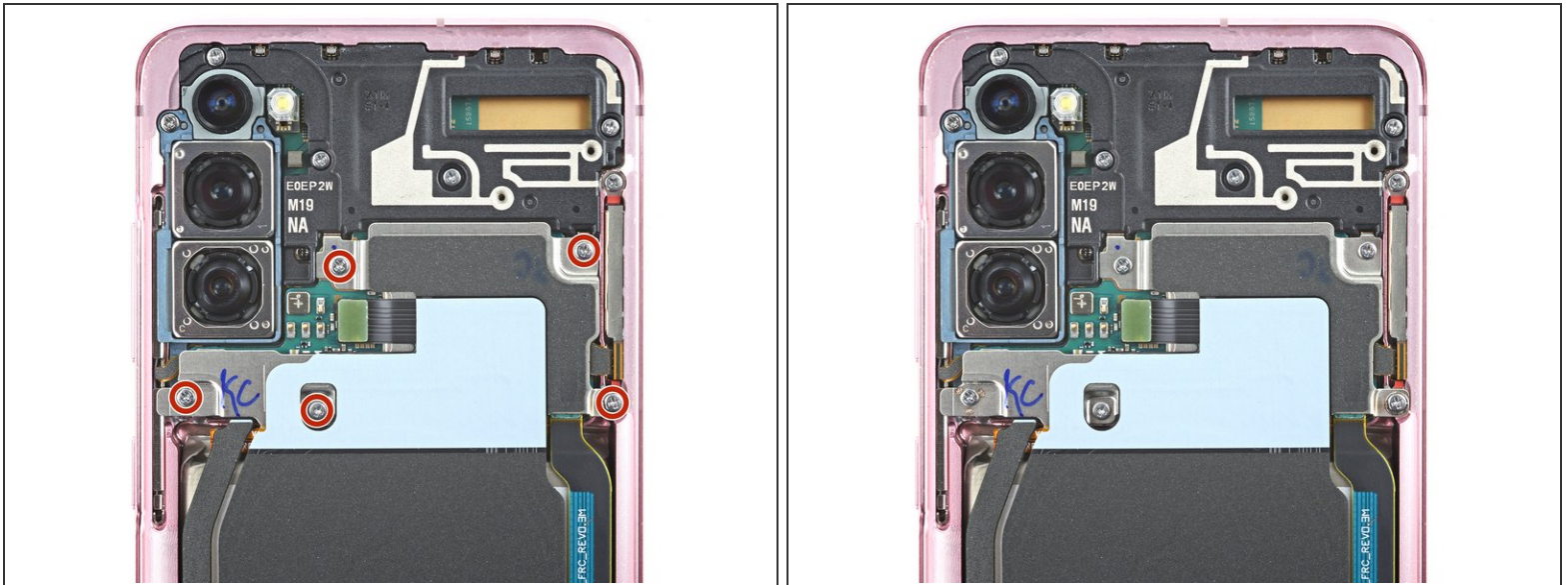


## Step 16 — Disconnect the wireless charging coil



- Use a spudger to pry up and disconnect the wireless charging coil's press connector on the motherboard.

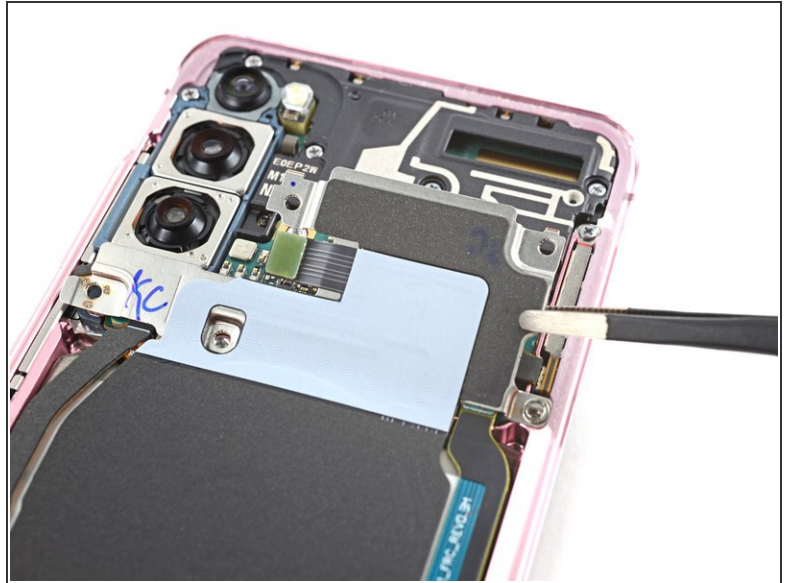
## Step 17 — Unfasten the motherboard bracket



- Use a Phillips #00 screwdriver to remove the five 4 mm-long screws securing the motherboard bracket.
- ⓘ 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**.



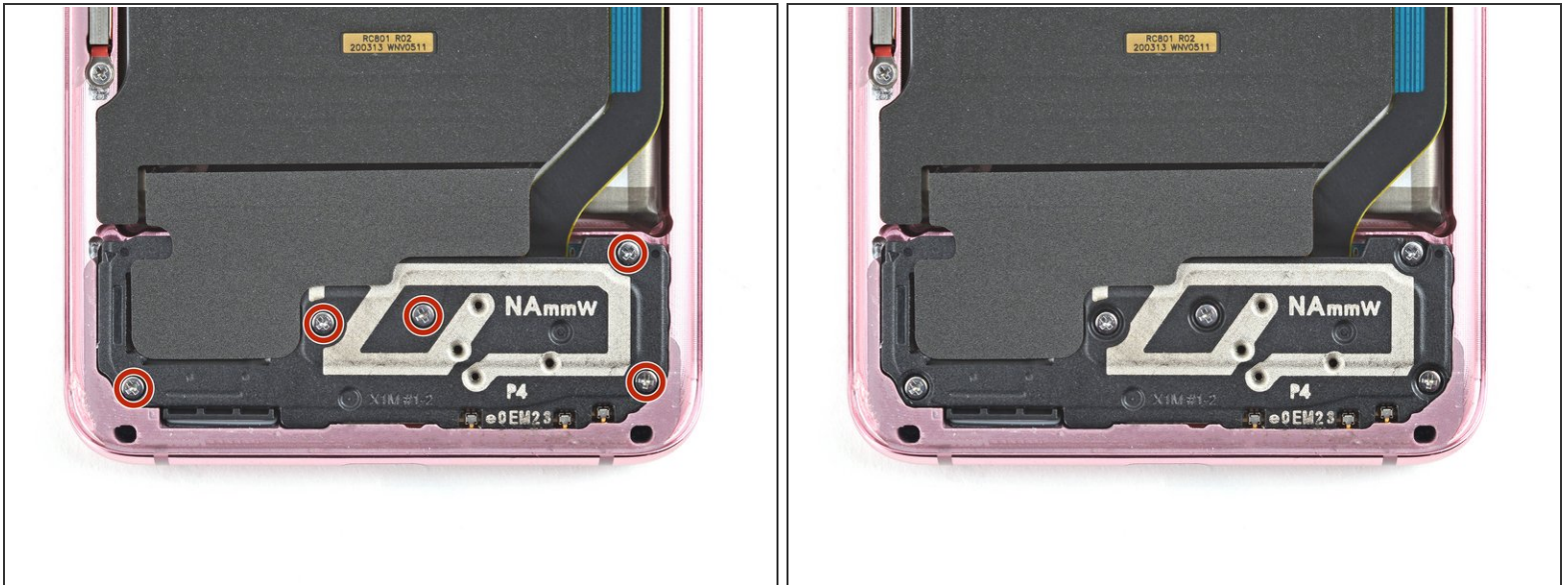
## Step 18 — Unclip the motherboard bracket



- Use a pair of blunt-nose tweezers to gently pull up and unclip the motherboard bracket from the plastic midframe.

**⚠ Do not completely remove the bracket yet, as its still attached to the wireless charging coil.**

## Step 19 — Unfasten the loudspeaker



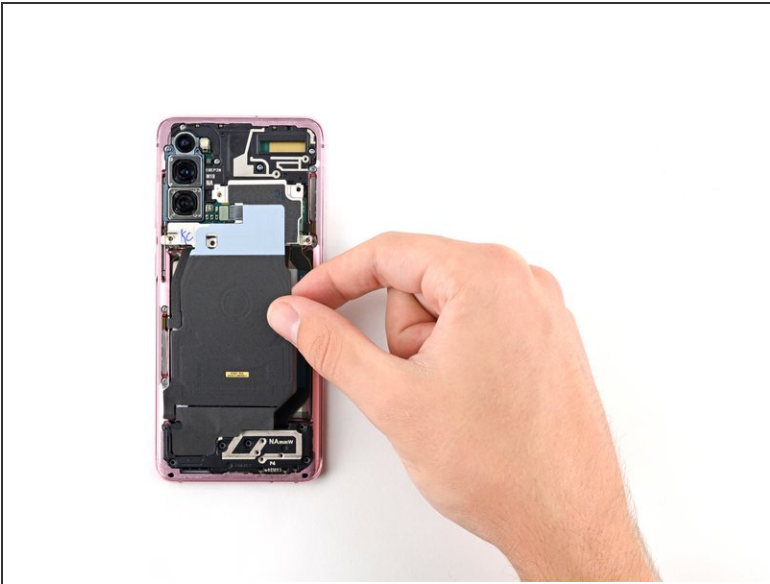
- Use a Phillips #00 screwdriver to remove the five 4 mm-long screws securing the loudspeaker and lower midframe.
- ☑ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3373**.

## Step 20 — Disconnect the loudspeaker



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

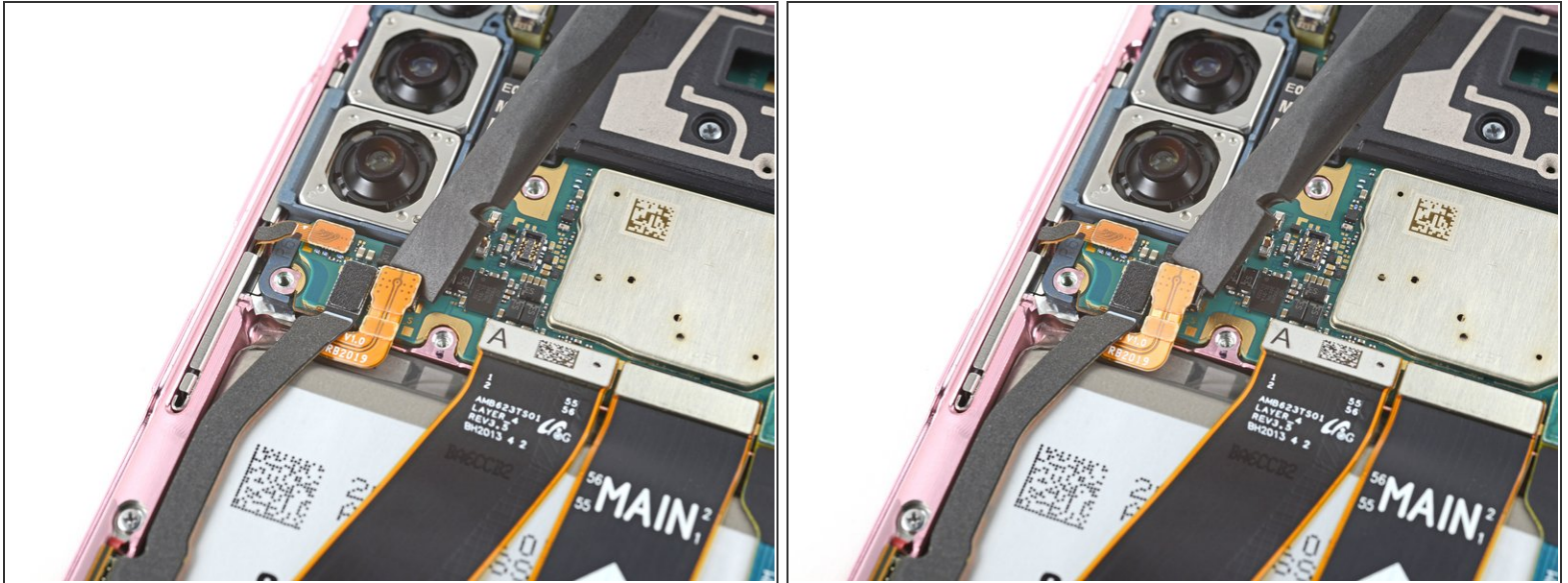
## Step 21 — Remove the wireless charging coil



- Insert the point of a spudger into the notch in the top left corner of the midframe and pry up to release the clips holding it in place.
- Remove the wireless charging coil.

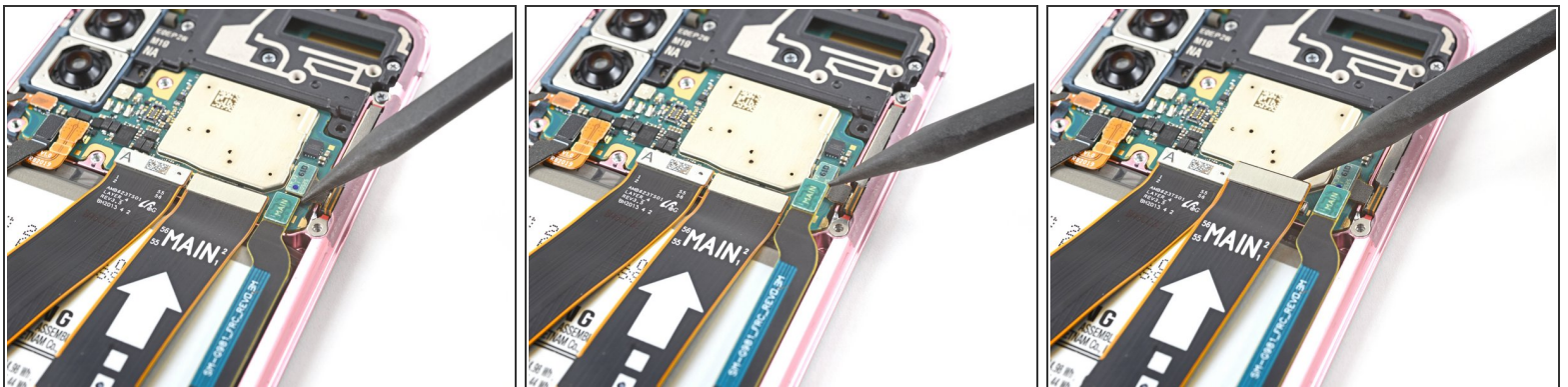


## Step 22 — Disconnect the battery



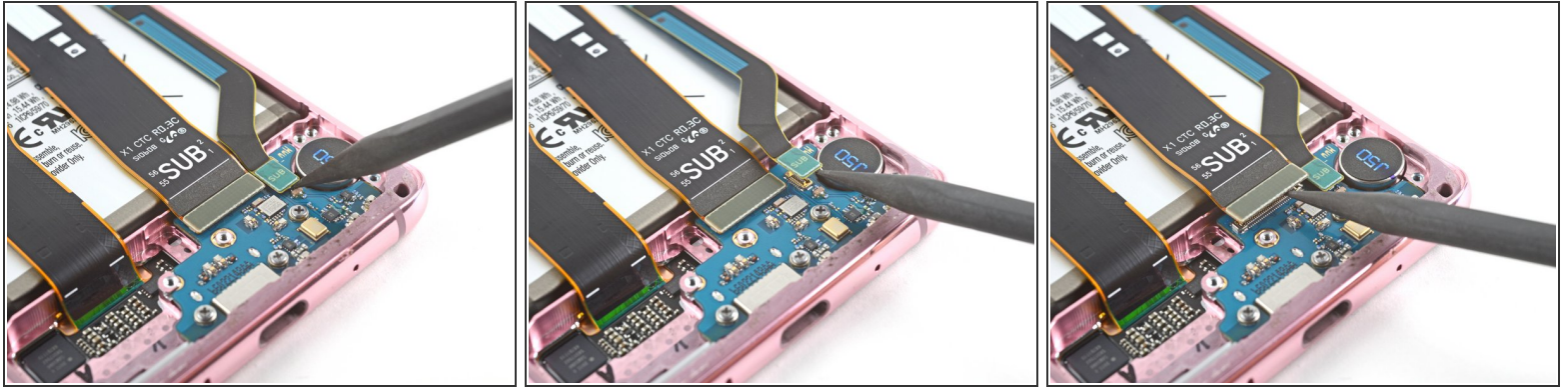
- Use a spudger to pry up and disconnect the battery's press connector on the motherboard.

## Step 23 — Disconnect the flex cables



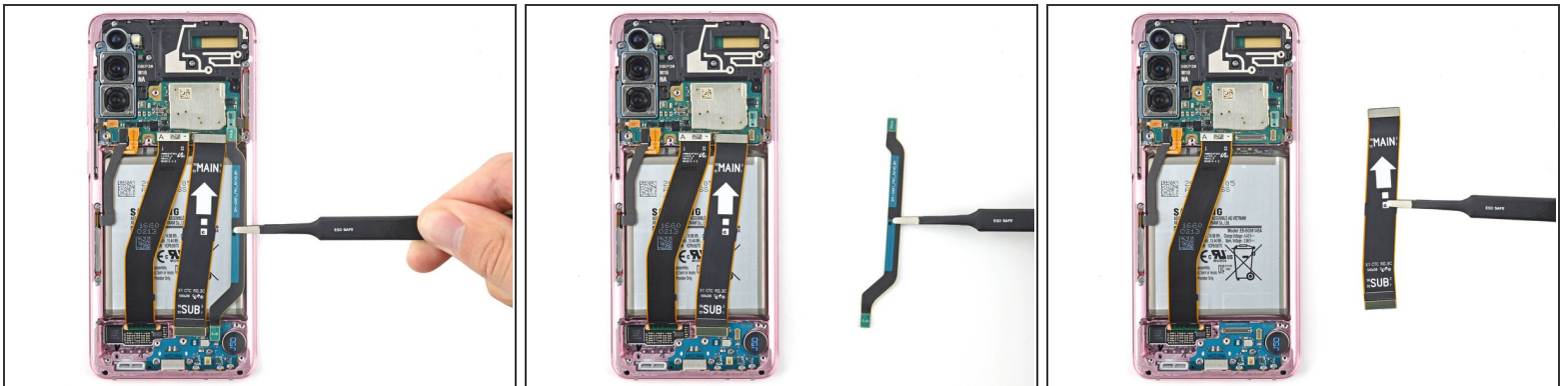
- Use a spudger to pry up and disconnect the primary and secondary flex cables from the motherboard.

## Step 24



- Use a spudger to pry up and disconnect the primary and secondary flex 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.

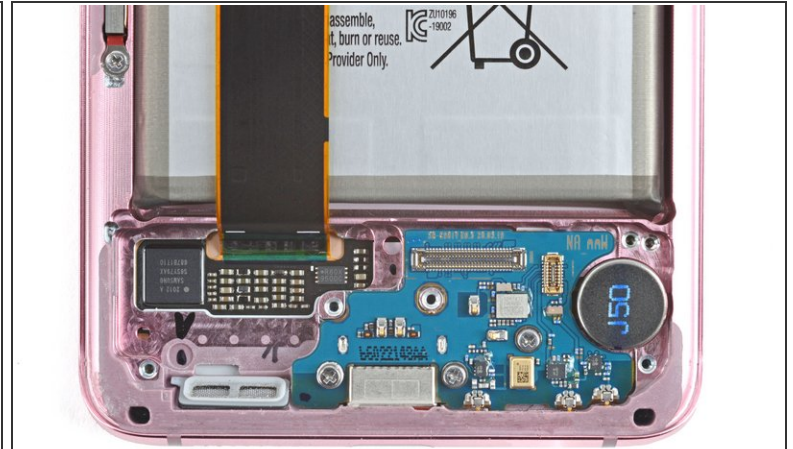
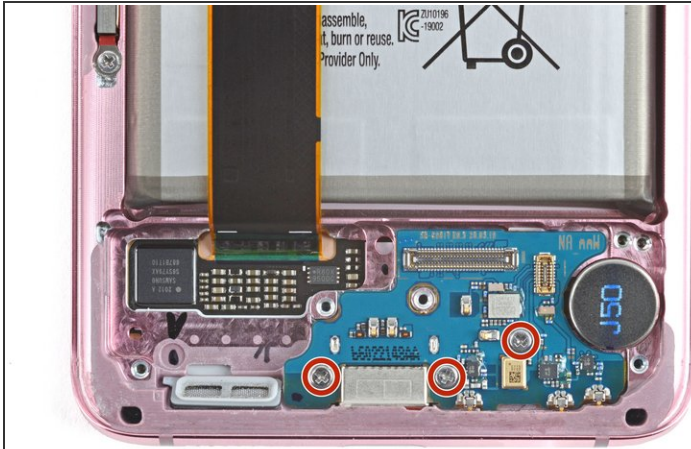
## Step 25 — Remove the flex cables



- Remove the primary and secondary flex cables.
- ☛ Set the cables aside. You'll reuse them during reassembly.



## Step 26 — Unfasten the daughterboard



- Use a Phillips #00 screwdriver to remove the three 3.4 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 27 — Remove the daughterboard



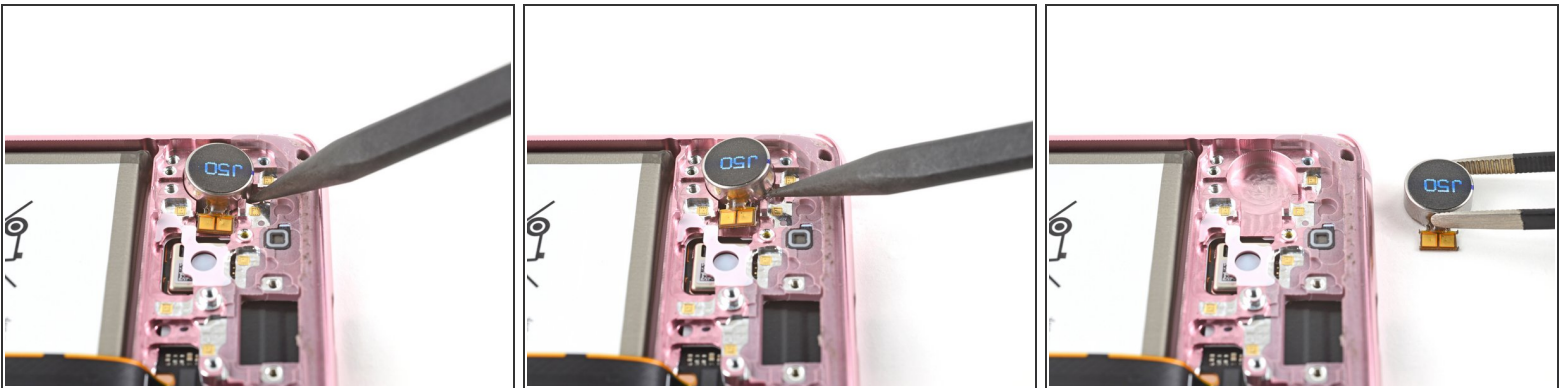
- Insert the pointed end of a spudger under the left edge of the daughterboard and pry up to release it from its recess.
- Use a pair of tweezers to pull the daughterboard up and away from the bottom of the device and remove it.

## Step 28 — Heat the vibrator



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

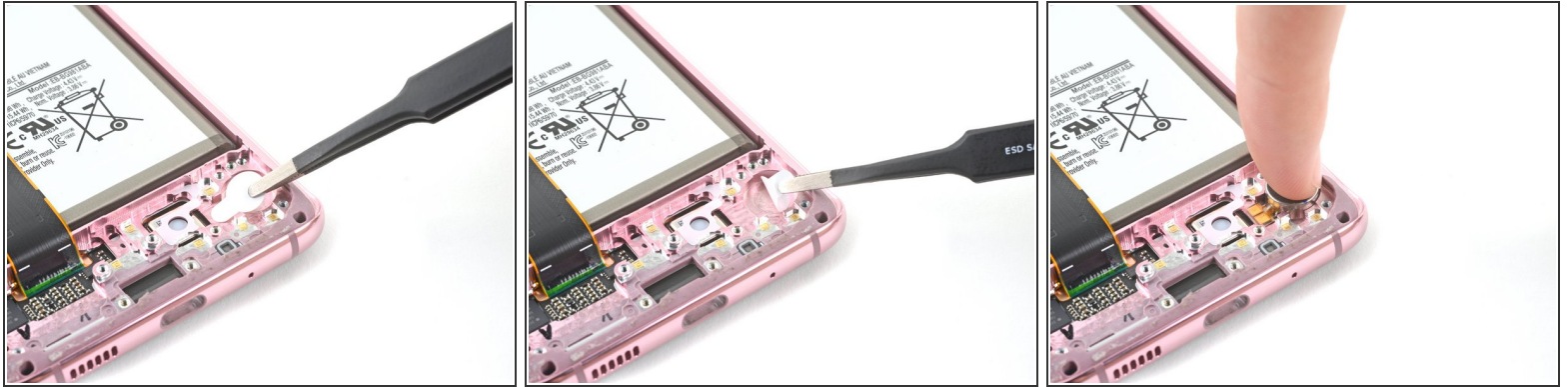
## Step 29 — Remove the vibrator



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



## Step 30 — 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 frame.
- Use tweezers, or your fingers, to pull on the tab and expose the top layer of adhesive.
- Insert the vibrator and apply pressure to adhere it to the frame.

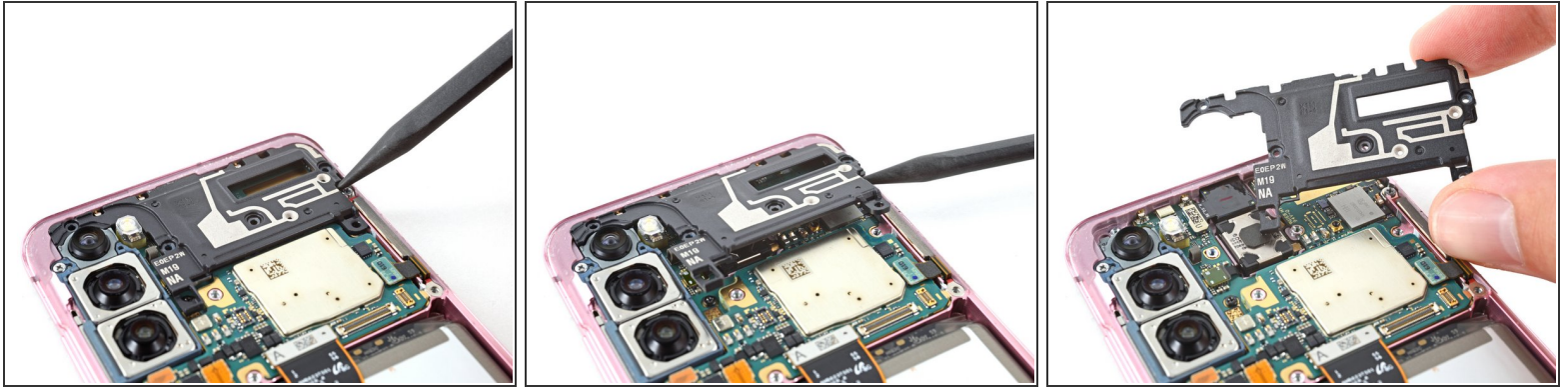
## Step 31 — Unfasten the upper midframe



- Use a Phillips #00 screwdriver to remove the four 4 mm-long screws securing the upper midframe.

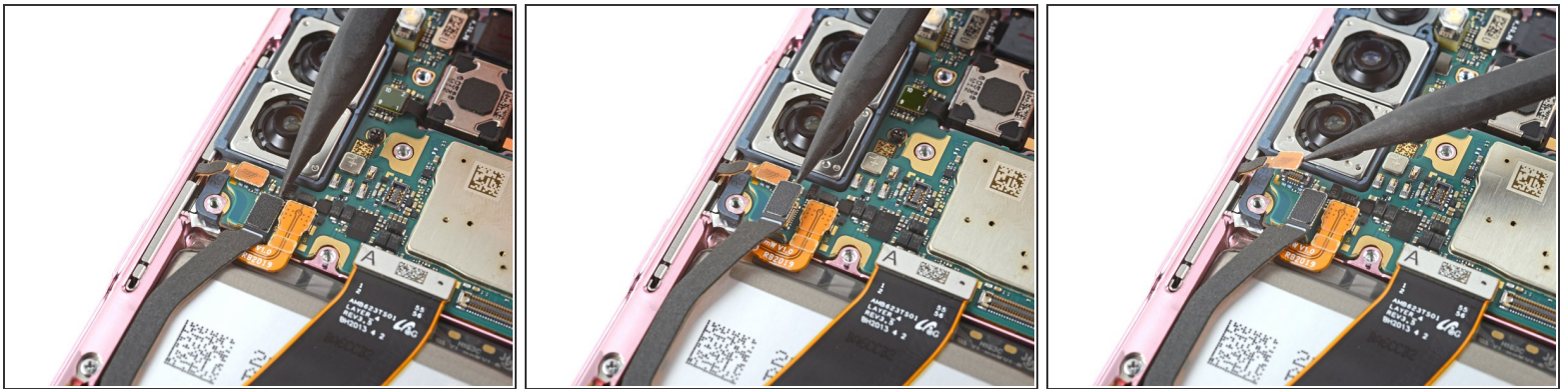
✦ If you're reassembling with the Samsung Self-Repair kit, be sure to replace the screws with new ones labeled **#3373**.

## Step 32 — 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.

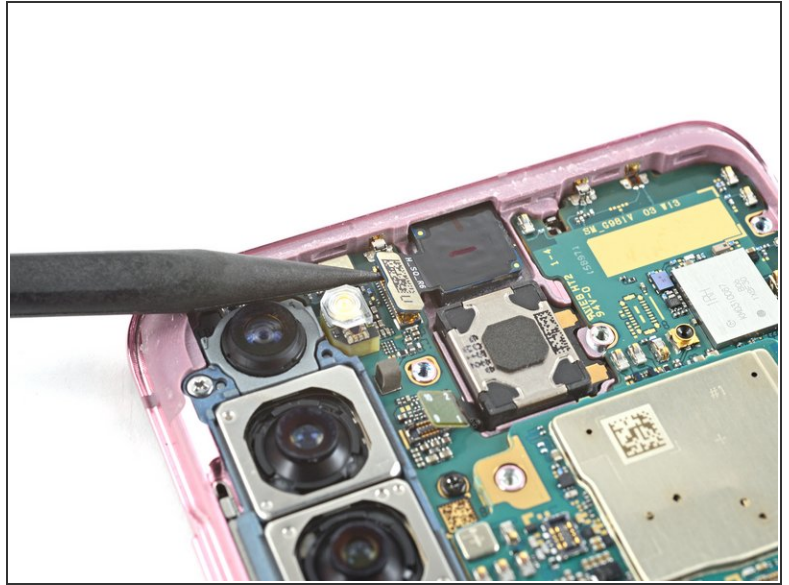
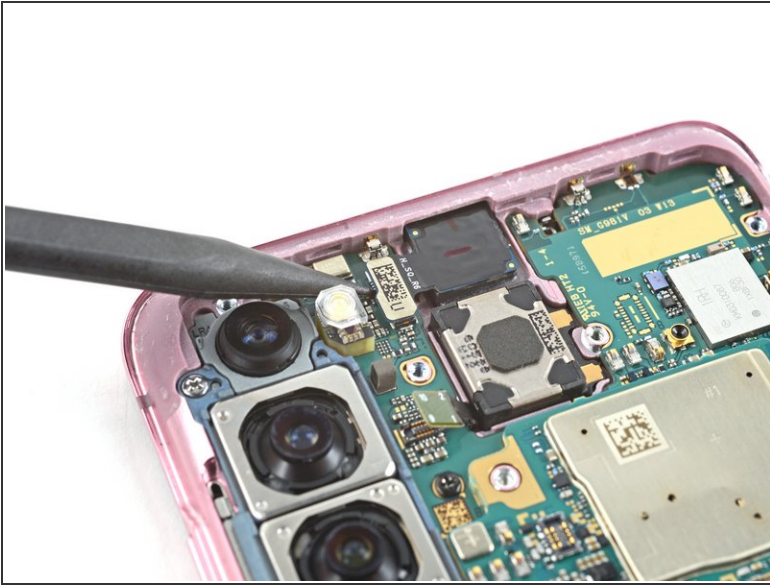
## Step 33 — Disconnect the left cables



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

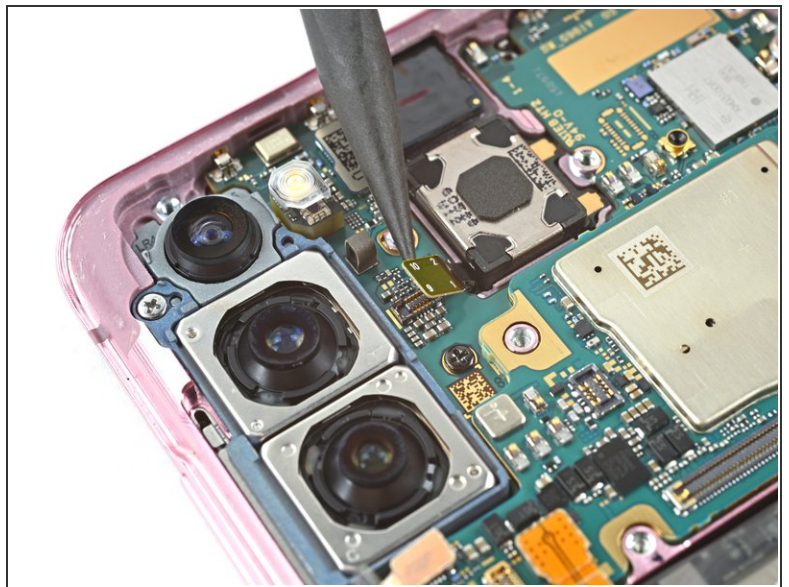
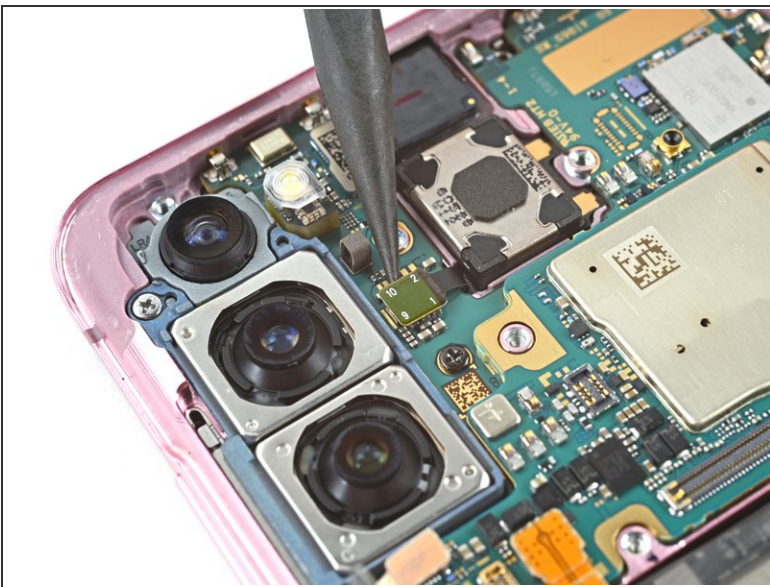


## Step 34 — Disconnect the front camera



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

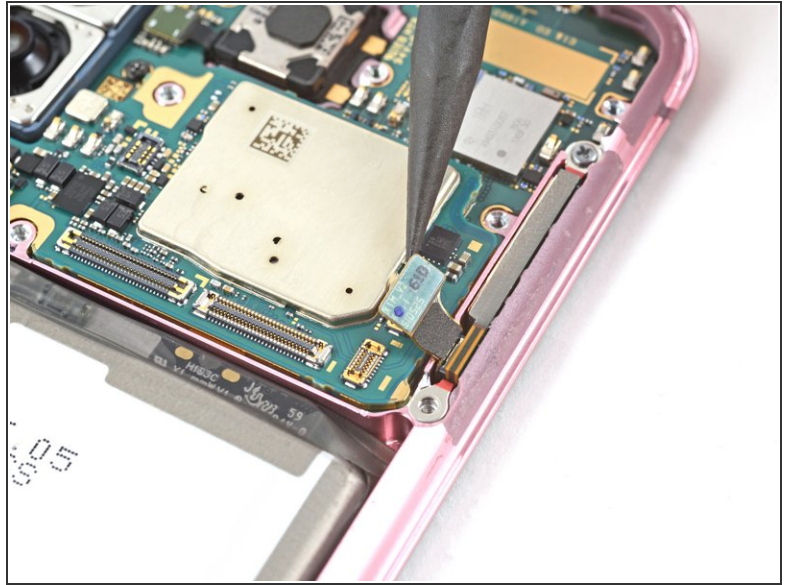
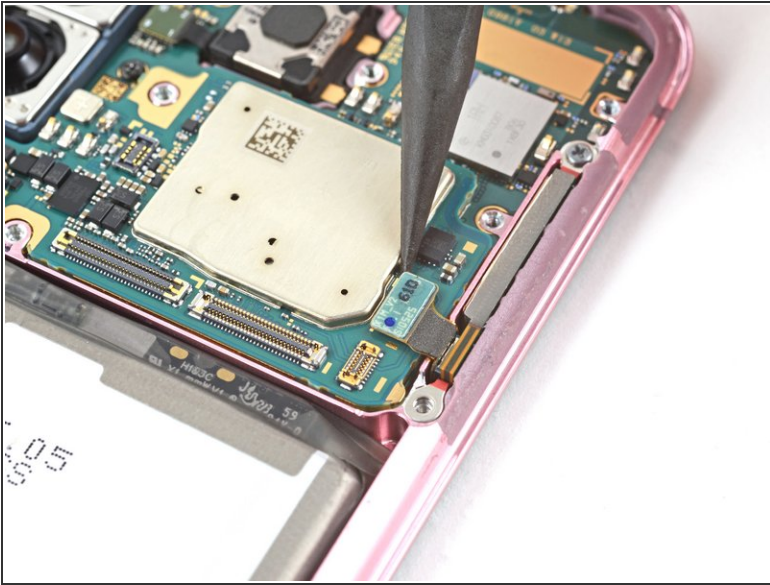
## Step 35 — Disconnect the proximity sensor



- Pry up and disconnect the proximity sensor cable from the motherboard.
- Bend the cable out of the way of the motherboard.

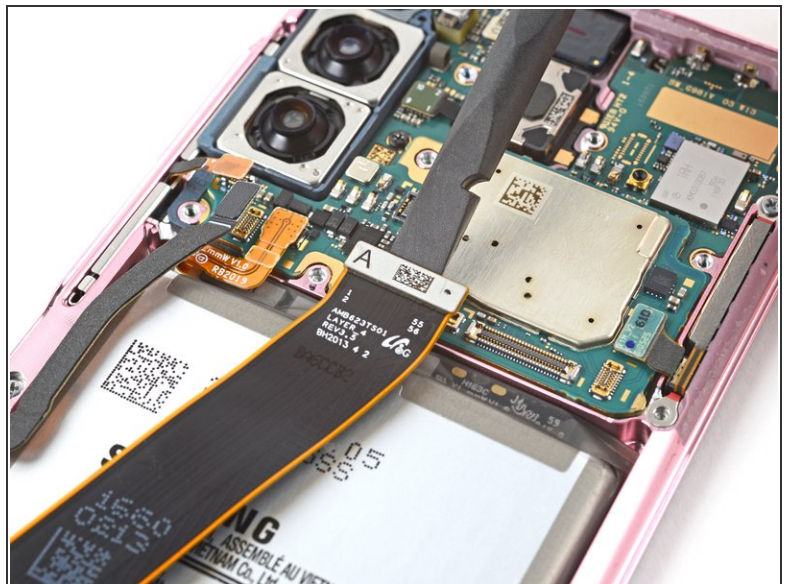
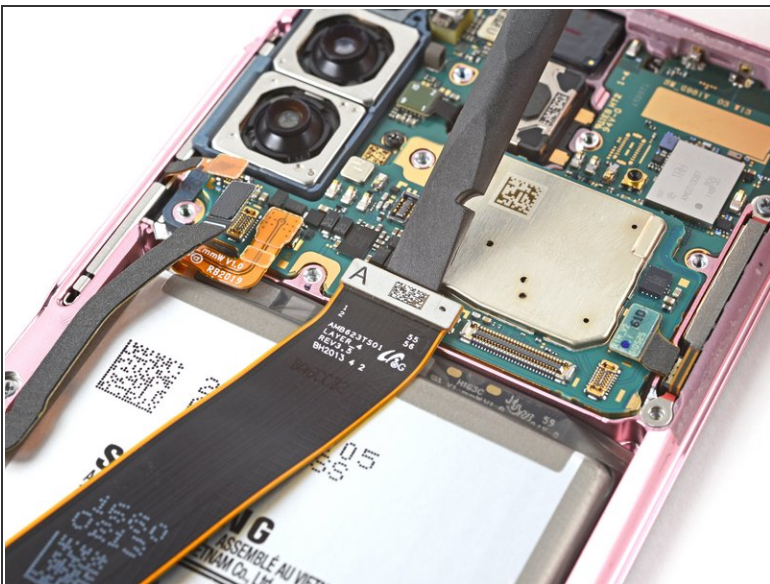


## Step 36 — Disconnect the right 5G mmWave antenna



- Use a spudger to pry up and disconnect the right 5G mmWave antenna's press connector.

## Step 37 — Disconnect the main display cable



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



## Step 38 — Reposition the display cable



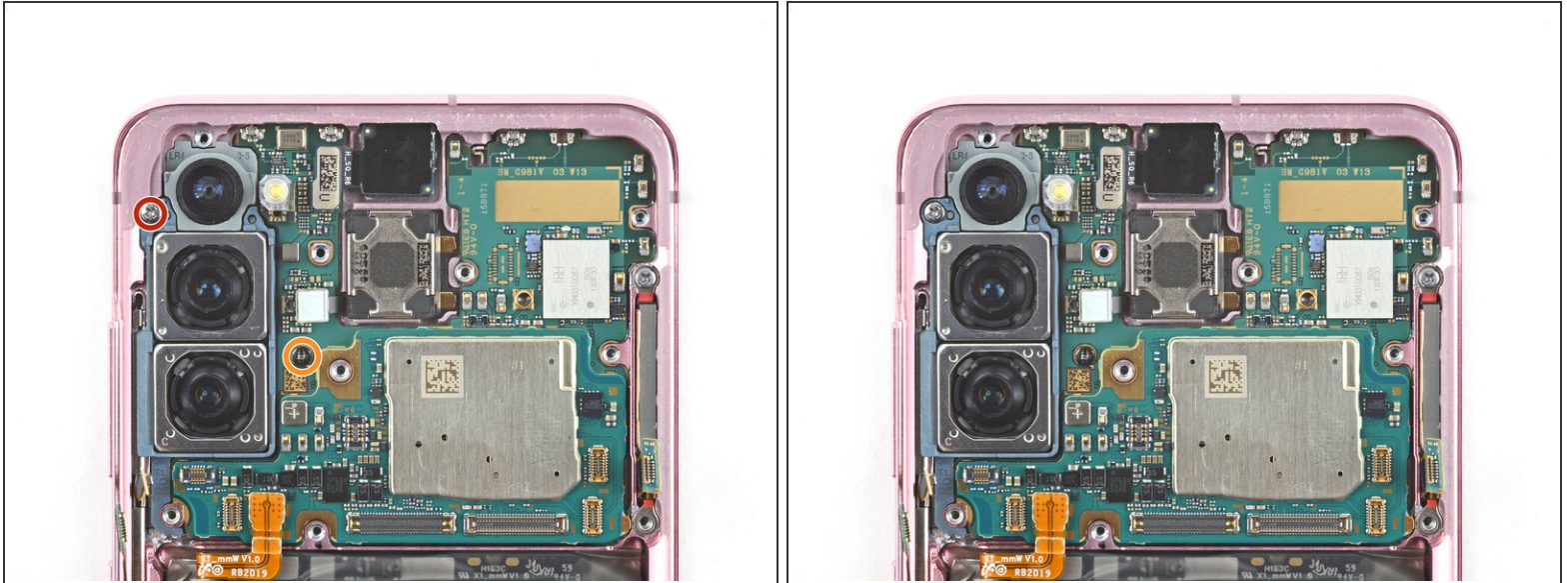
- Gently peel up and bend the display flex cable out of the way of the motherboard and battery.

## Step 39 — Reposition the left 5G cable



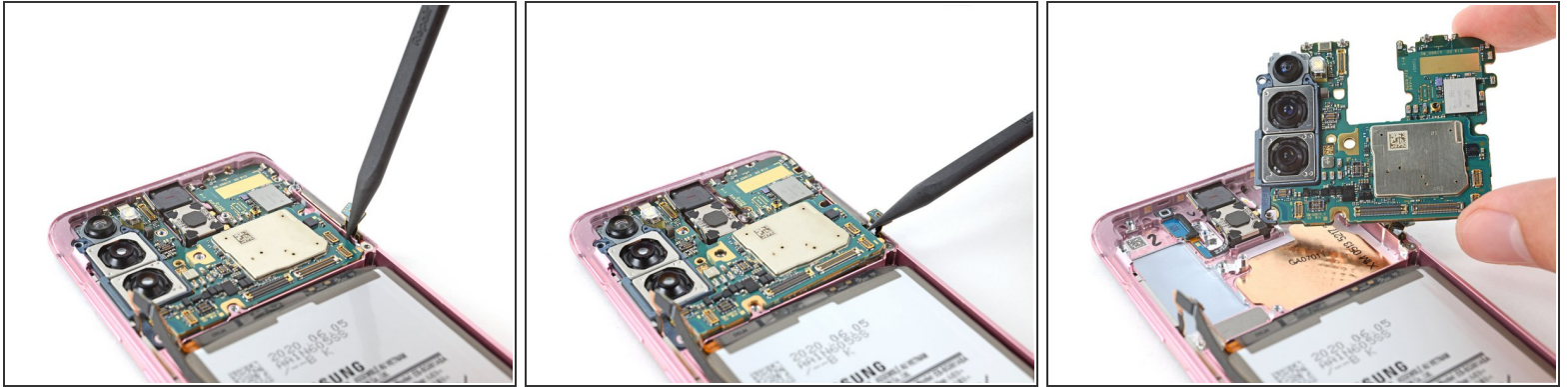
- Use tweezers, or your fingers, to gently peel the left 5G cable away from the device.

## Step 40 — Unfasten the motherboard assembly



- Use a Phillips #00 screwdriver to remove the two screws securing the motherboard and camera assembly:
  - One 4 mm-long screw
  - One 3 mm-long screw
- ☑ If you're reassembling with the official Samsung kit, be sure to replace the screw with new ones:
  - Screw **#3373**
  - Screw **#1530**

## Step 41 — Remove the motherboard assembly



- Insert the flat end 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.

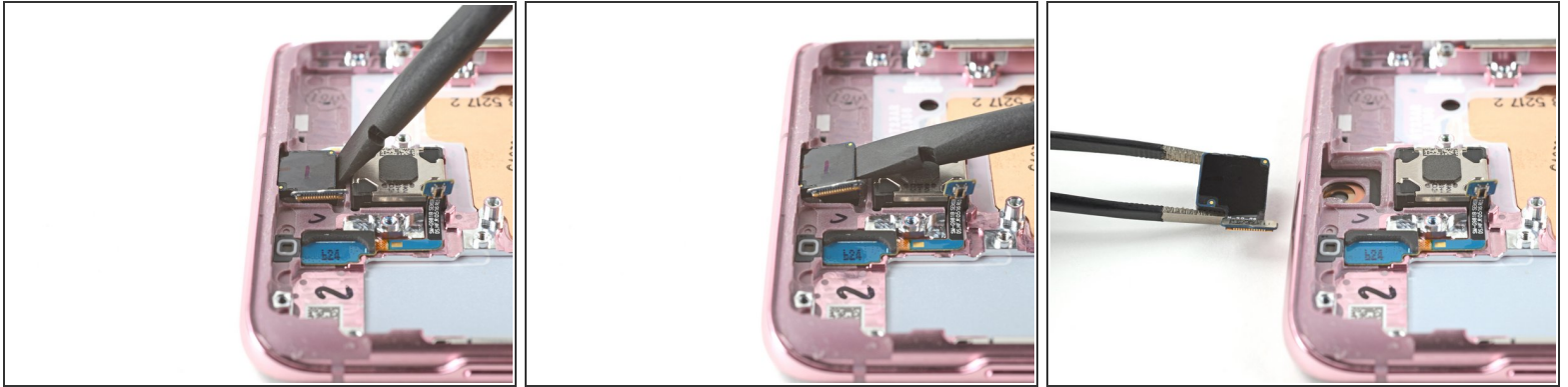
## Step 42 — Heat the front camera



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

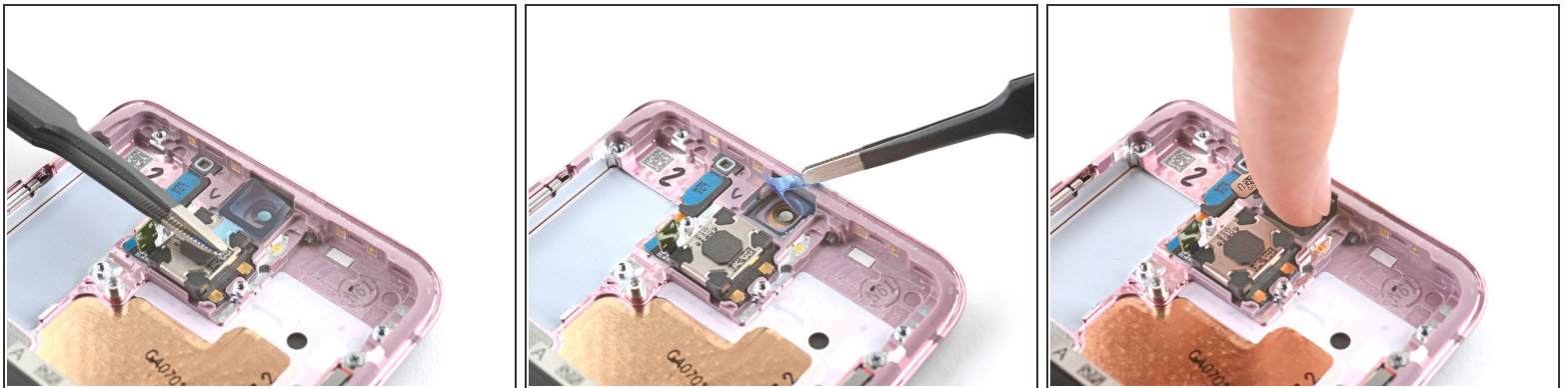


## Step 43 — Remove the front camera



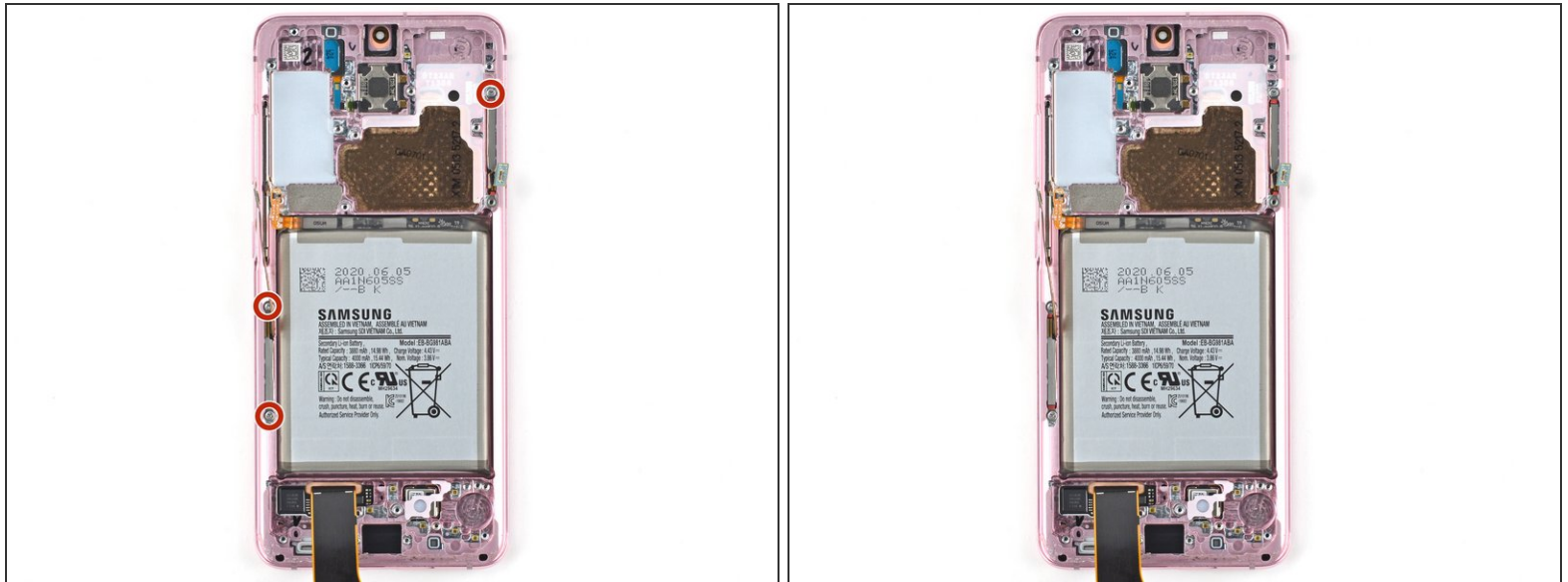
- Insert a spudger into the gap between the frame and the front camera.
  - Pry up with the spudger to separate the front camera from the frame.
    - ❗ If you're having trouble separating the front camera from the frame, apply more heat.
  - Use tweezers, or your fingers, to remove the front camera.
- ☑ Set the camera aside. You'll reuse it during reassembly.

## Step 44 — Front camera reassembly instructions



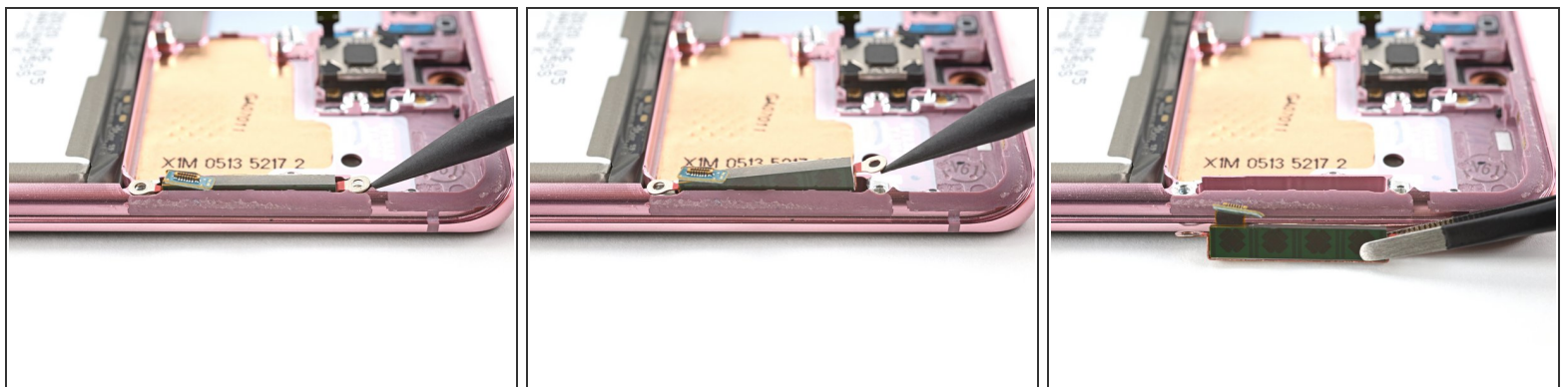
- ☑ During reassembly, follow these instructions to reinstall your front camera:
- Peel off the front camera adhesive from its liner and apply the sticky end to the frame.
  - Use tweezers, or your fingers, to pull on the tab and expose the top layer of adhesive.
  - Insert the front camera and apply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

## Step 45 — Unfasten the 5G mmWave antennas



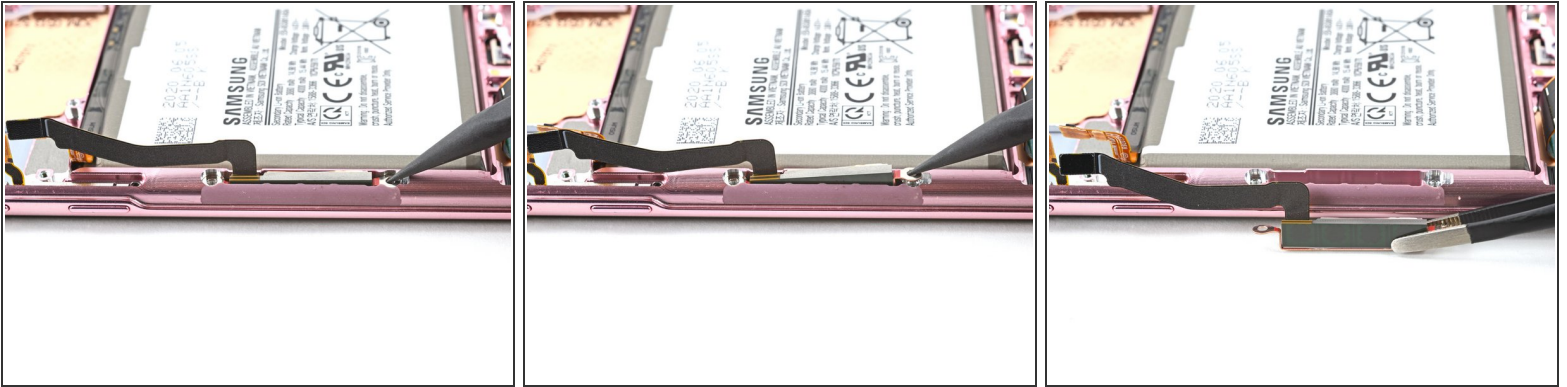
- Use a Phillips screwdriver to remove the three 3.4 mm-long screws securing the 5G mmWave antennas.

## Step 46 — 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 47 — 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.

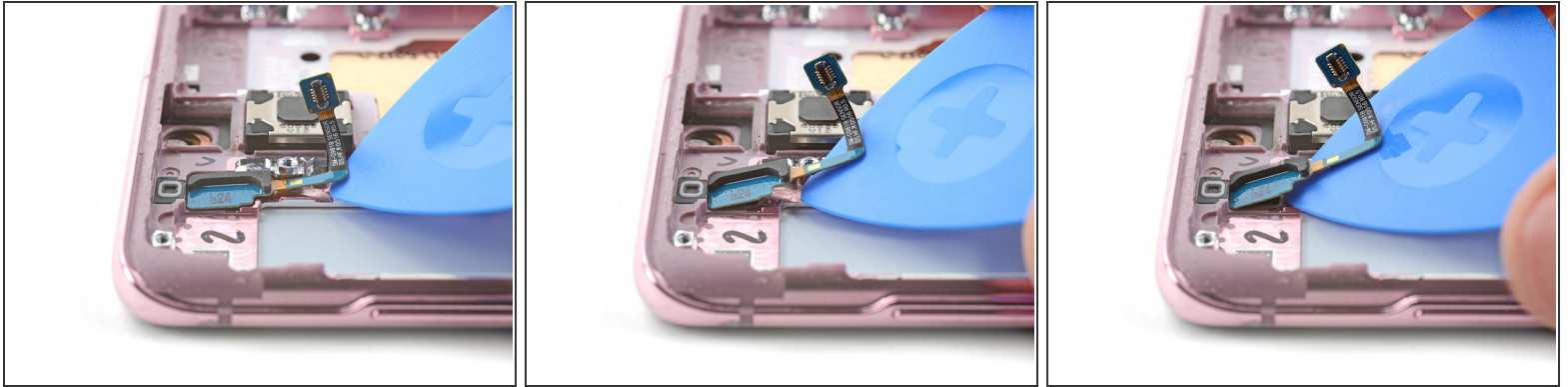
## Step 48 — Heat the proximity sensor



- [Heat an iOpener](#) and apply it to the proximity sensor for two minutes.

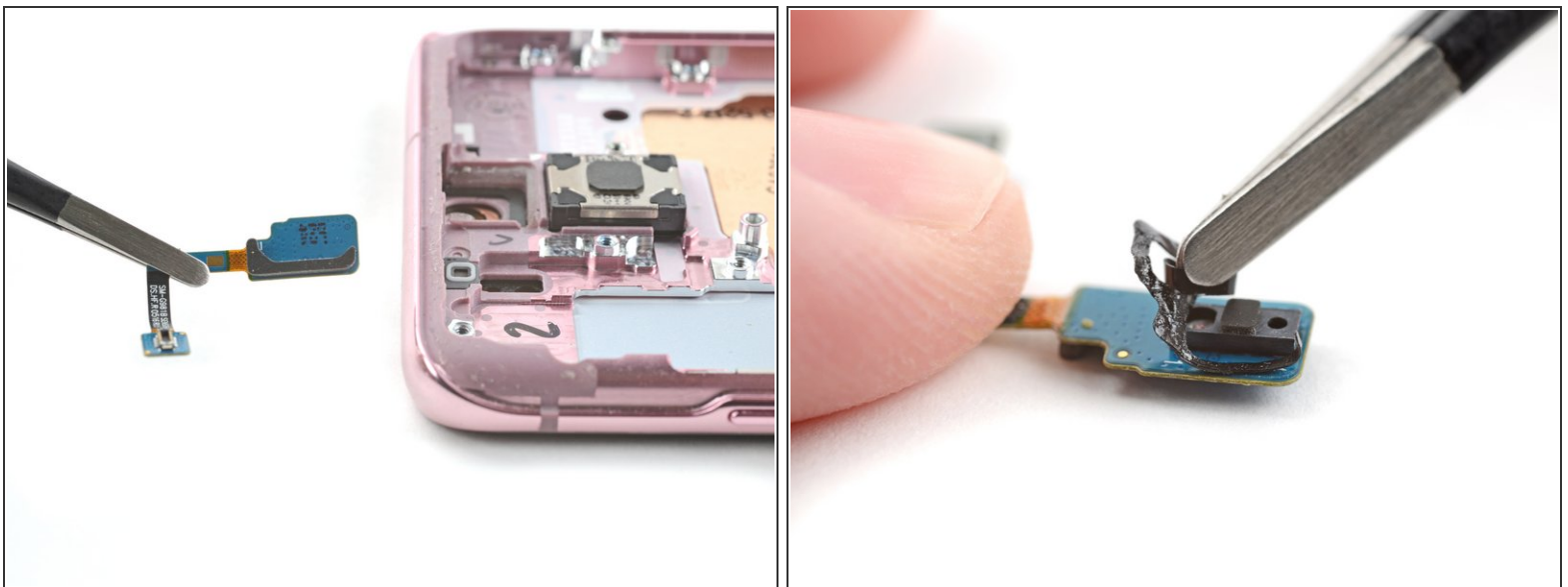


## Step 49 — Remove the proximity sensor



- Insert an opening pick between the bottom of the proximity sensor and the frame.
- Slide the pick towards the top of the phone to separate the proximity sensor adhesive.

## Step 50



- Remove the proximity sensor.
- ★ Set the sensor aside. You'll reuse it during reassembly.
- ★ If the original adhesive is deformed, remove it and apply new precut adhesive—otherwise your proximity sensor won't sit properly in its recess.

## Step 51 — 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 [Samsung Self-Repair document](#) (beginning page 10) to make sure your device is fully functional.

Download the [Self Repair Assistant](#) on your device and [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.