Samsung Galaxy S20 Plus Screen Replacement

Follow this guide to replace the screen...

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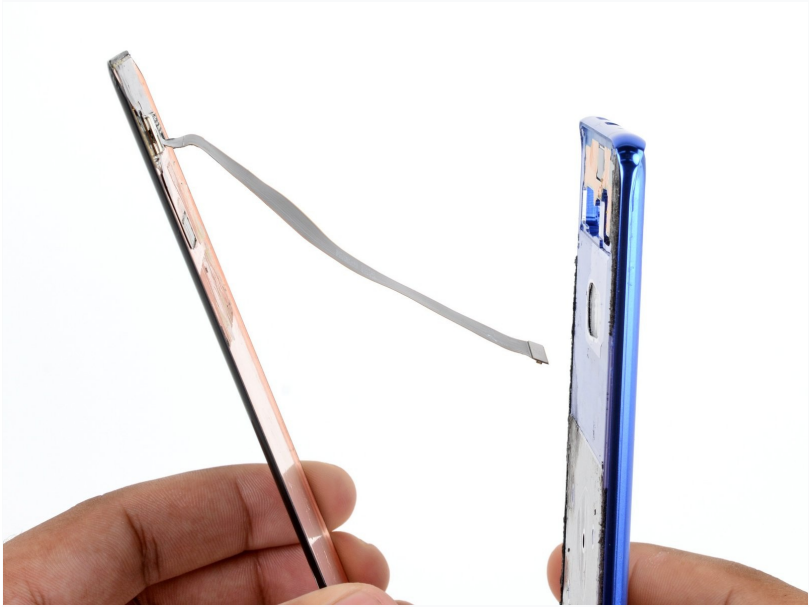


INTRODUCTION

Follow this guide to replace the screen assembly for the Samsung Galaxy S20 Plus. The display glass, OLED panel, and digitizer comprise the screen assembly and will need to be replaced together.

Note: Some replacement screens for this phone come pre-installed in a new frame (a.k.a. chassis), which requires you to transplant all of your phone's internals and install a new battery. Make sure you have the correct part before starting this guide.

There is a significant chance that you may break the unreinforced and fragile display panel during this procedure. If you plan on reusing the screen assembly, be sure to apply plenty of heat and be extremely careful during the prying stage.

You'll need replacement adhesive in order to complete this repair.

TOOLS:

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

PARTS:

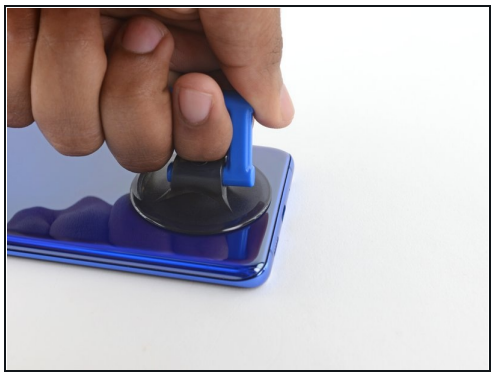
- Samsung Galaxy S20+ Screen (1)
- Samsung Galaxy S20+ Display Adhesive (1)
- Tesa 61395 Double-Sided Tape (1)

Step 1 — 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 2 — 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 glass.
- 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 3

- 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 4 — Heat the left edge

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

Step 5 — 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 6

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

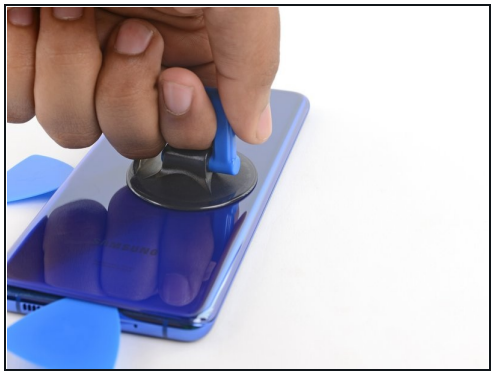
Step 7

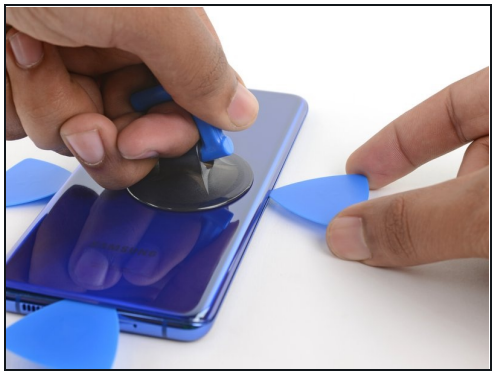
- Slide the pick all along the left edge of the phone to separate the back cover's adhesive.
  - ⚠ Take care when sliding across the ridge in the frame surrounding the volume and power buttons—the cutout in the glass may make it more prone to cracking.
- Leave your pick under the left edge of the glass to prevent the adhesive from resealing.

Step 8 — 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 9 — 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 10

- 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 11 — Heat the top edge

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

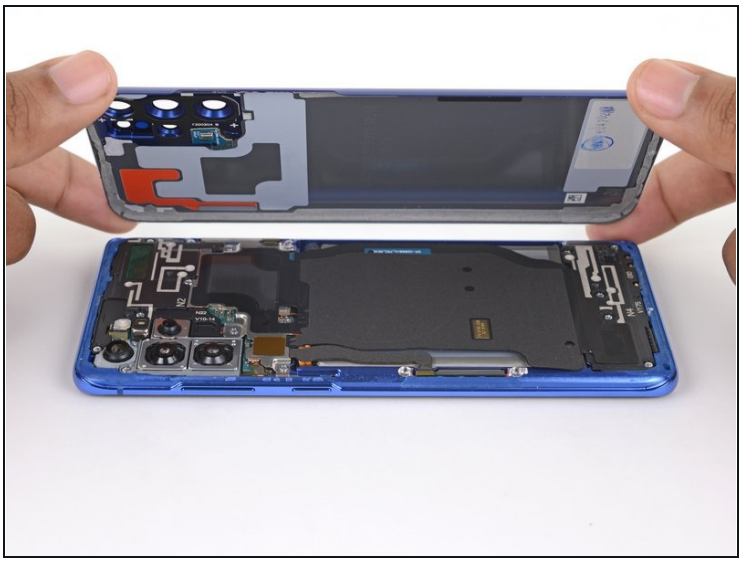
Step 12 — Separate the top edge adhesive

⚠ 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 around to the left edge to fully separate the back cover adhesive.

ⓘ If the slicing becomes difficult at any point, stop and reapply heat before continuing.

Step 13 — Remove the back cover

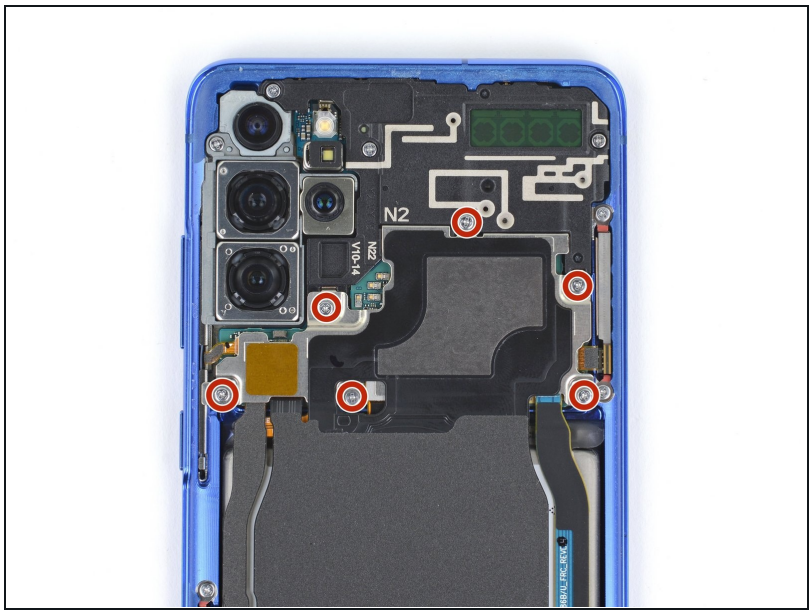


- Lift the back cover slowly. Use opening picks to slice any remaining adhesive.
- Remove the back cover.

During reassembly:

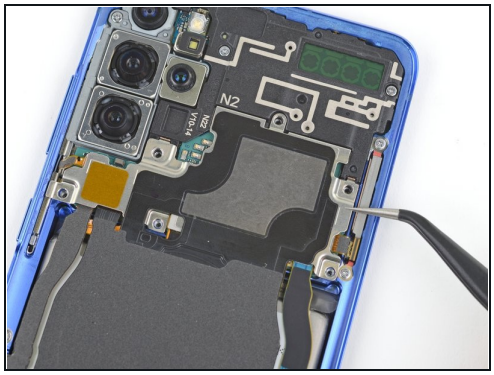
- This is a good point to power on your phone and test all functions before sealing it up. Be sure to power your phone back down completely before you continue working.
- Remove any adhesive chunks with a pair of tweezers or your fingers. Apply heat if you're having trouble separating the adhesive.
- If you're using custom-cut adhesives, follow this guide.
- If you're using double-sided tape, follow this guide.

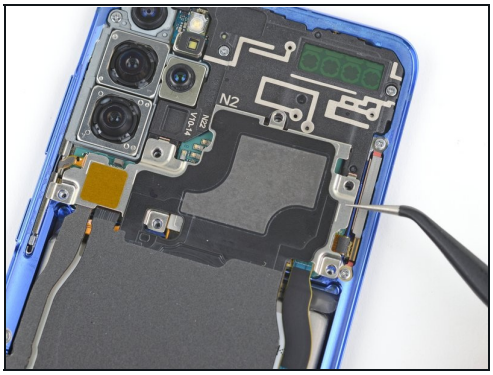
Step 14 — Unfasten the motherboard bracket

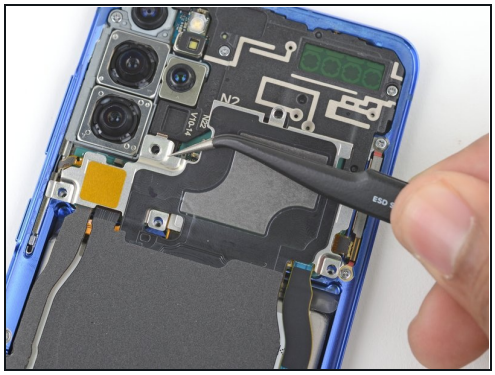


- Use a Phillips #00 screwdriver to remove the six 4 mm-long screws securing the motherboard bracket.
  - ⓘ Throughout this repair, keep track of each screw and make sure it goes back exactly where it came from.

Step 15 — Unclip the motherboard bracket

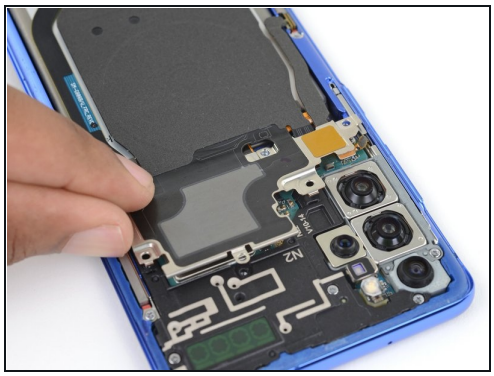
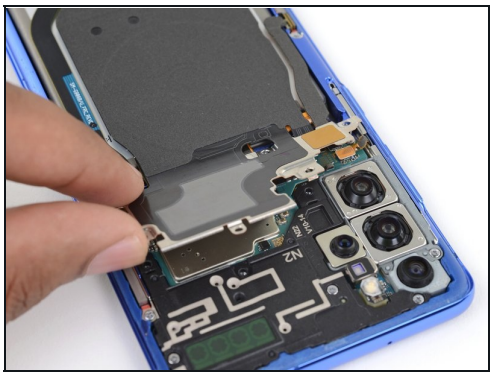
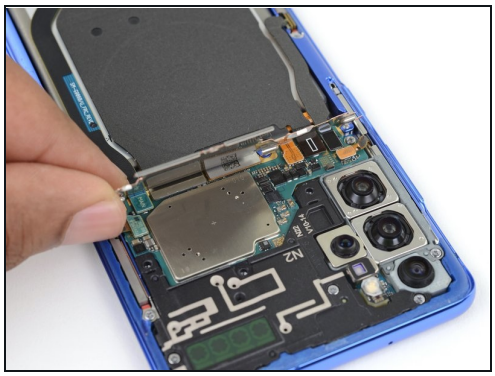






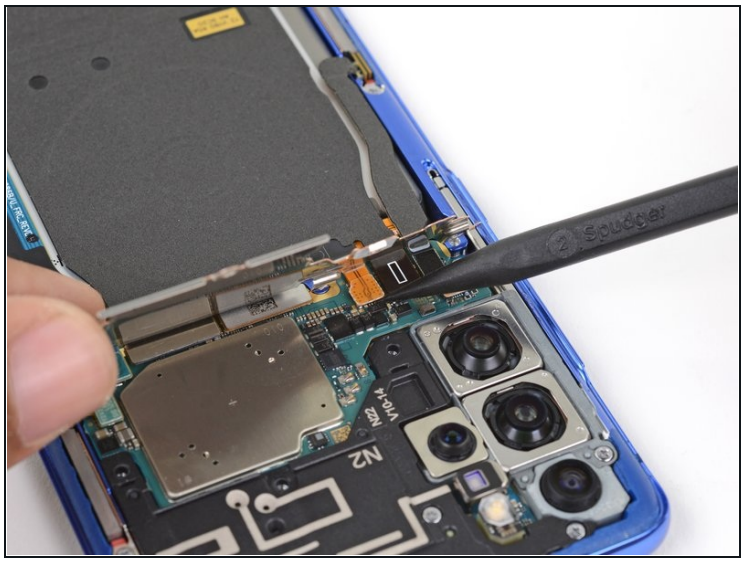
- Use a pair of tweezers to gently pull up and unclip the motherboard bracket from the plastic midframe.
  - ⚠ Do not completely remove the bracket yet, as its still attached to the wireless charging coil.

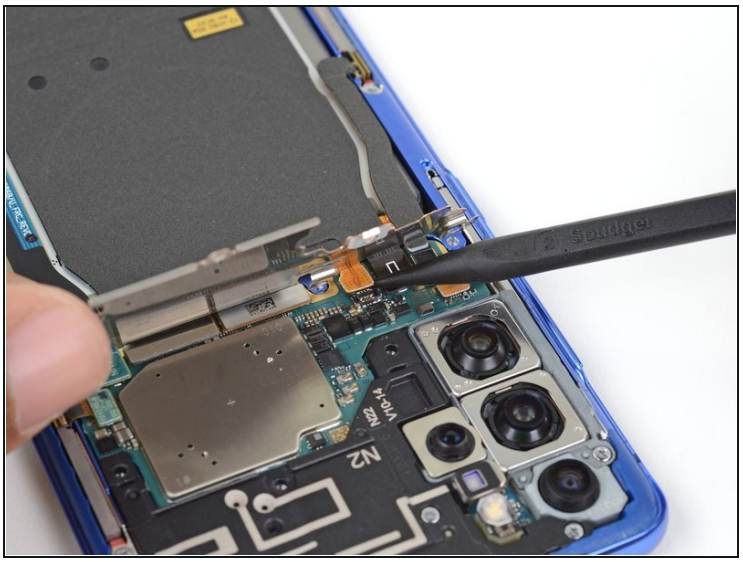
Step 16

- Gently tilt up the motherboard bracket so the orange battery connector is accessible.

Step 17 — Disconnect the battery

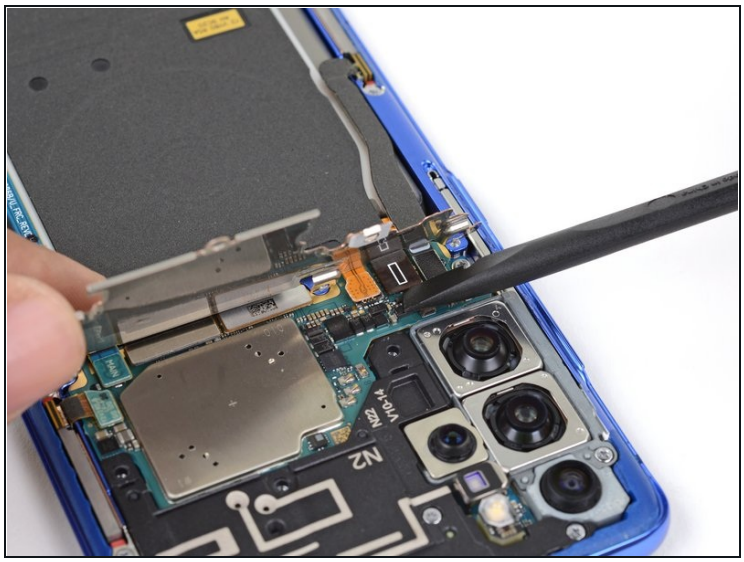
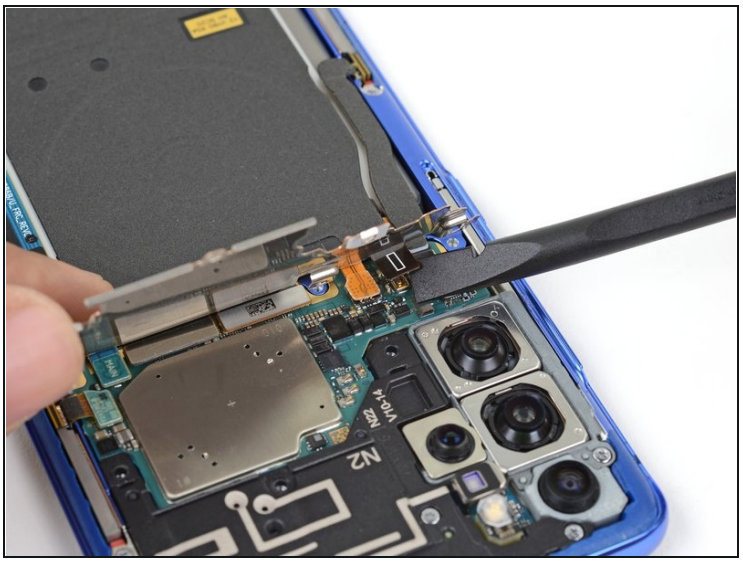




- Use a spudger to pry up and disconnect the battery connector.

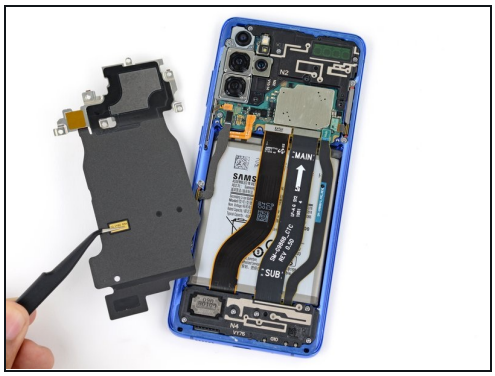
⚠ When you disconnect connectors like these, be careful not to dislodge the small surface-mounted components surrounding the socket.

Step 18 — Disconnect the wireless charging coil

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

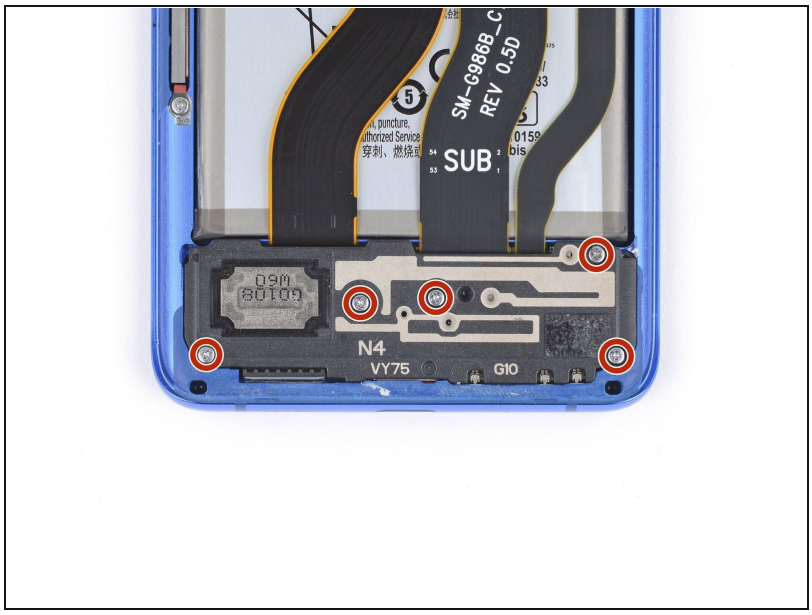
Step 19 — Remove the wireless charging coil



- Use a pair of tweezers to gently peel the wireless charging coil away from the device.
- Remove the wireless charging coil.

During reassembly, first reconnect the charging coil and battery connectors and refasten the motherboard bracket screws to properly align everything into place, then firmly press the coil pad down to adhere it.

Step 20 — Unfasten the lower midframe

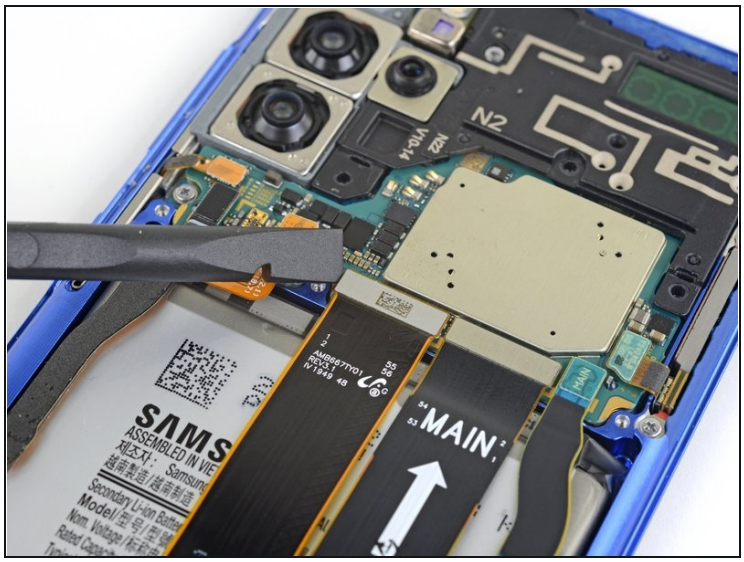


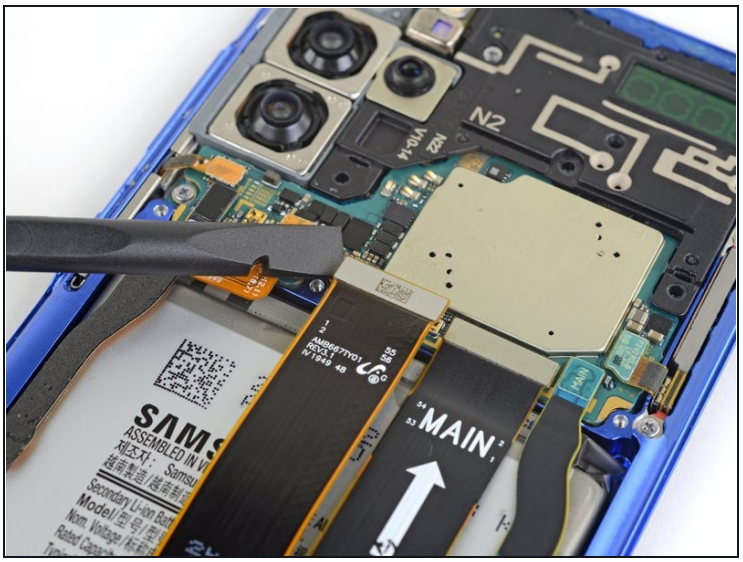
- Use a Phillips #00 screwdriver to remove the five 4 mm-long screws securing the loudspeaker and lower midframe.

Step 21 — Remove the loudspeaker

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

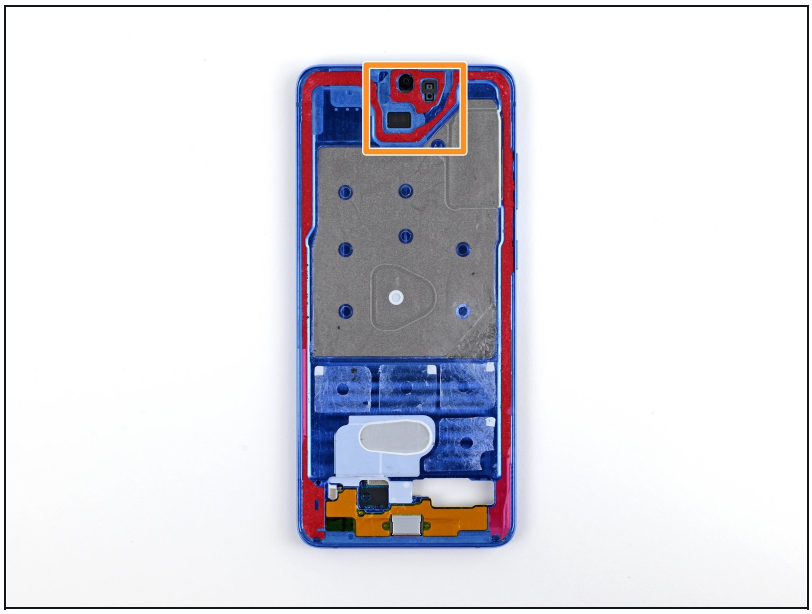
Step 22 — Disconnect the display cable





- Use a spudger to pry up and disconnect the display cable.

Step 23 — Adhesive tip



ⓘ In the next several steps, you will heat and separate the black adhesive around the perimeter of the device.

- The adhesive surrounding the long edges of the device is thin and will only require you to insert the pick 5 mm to separate.
- Note that along the top edge of the phone, the adhesive runs significantly farther from the device's edge. You will need to insert your pick deeper here to fully seperate the adhesive.

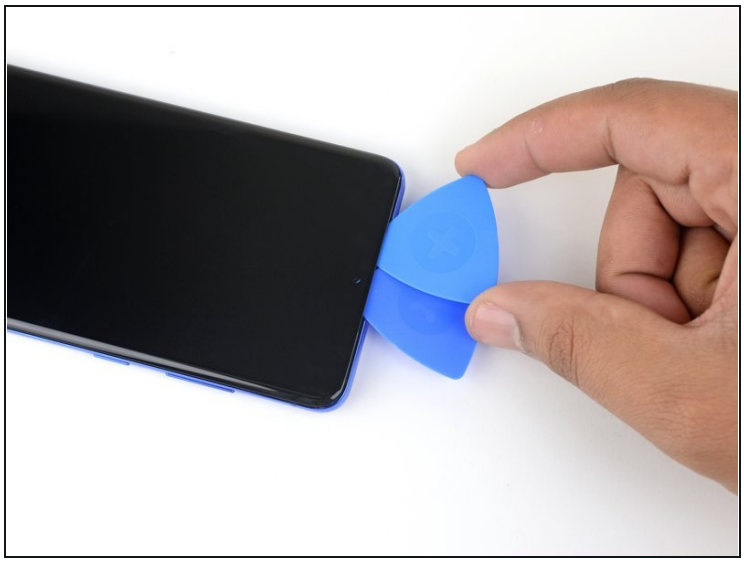
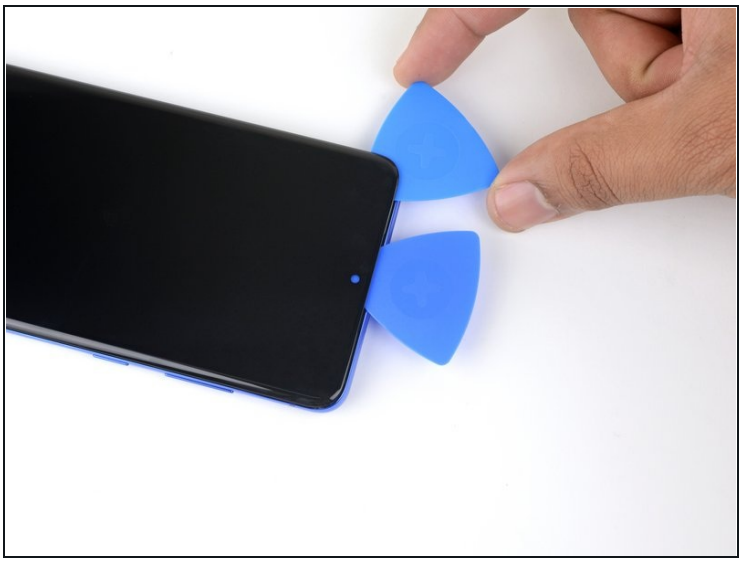
Step 24 — Separate the perimeter adhesive

- Heat an iOpener and apply it to the **top** edge of the display 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 25

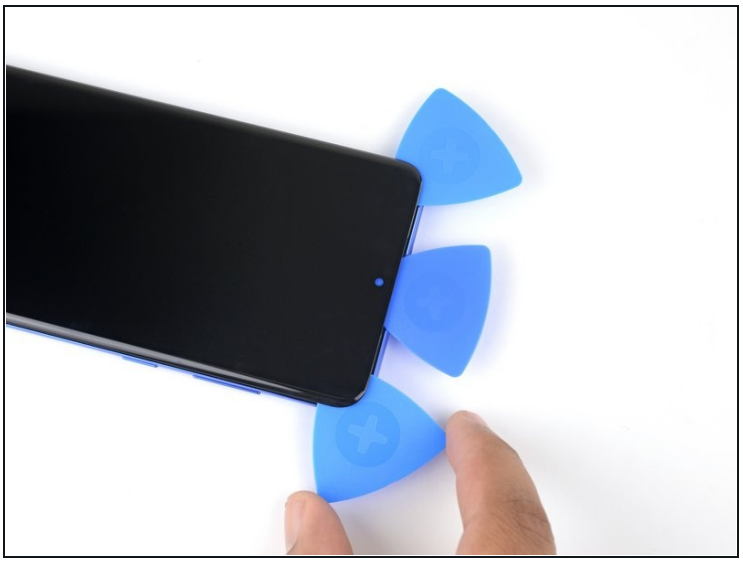
- Apply a suction cup to the display glass, as close to the center of the top edge as possible.
  - ⓘ If your display is badly cracked, covering it with a layer of clear packing tape may allow the suction cup to adhere. Alternatively, very strong tape may be used instead of the suction cup. If all else 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 display glass and the frame.
- Insert the point of an opening pick into the gap in the center of the earpiece speaker notch, working it downwards underneath the display.
  - ⚠ Ensure the pick slides **over** the front-facing camera and is not pushing against it.
  - ⓘ Due to the stubborn adhesive, 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.
- Leave your pick in the seam to prevent the adhesive from reasealing.

Step 26

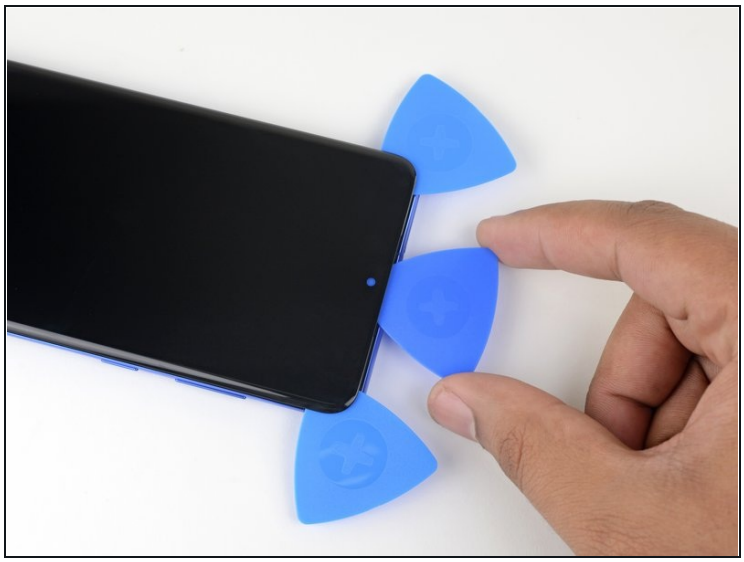
- Insert a second pick into the same gap and slide it to the top left corner of the display to slice the adhesive.
- Leave your opening pick in the seam to prevent the adhesive from resealing.

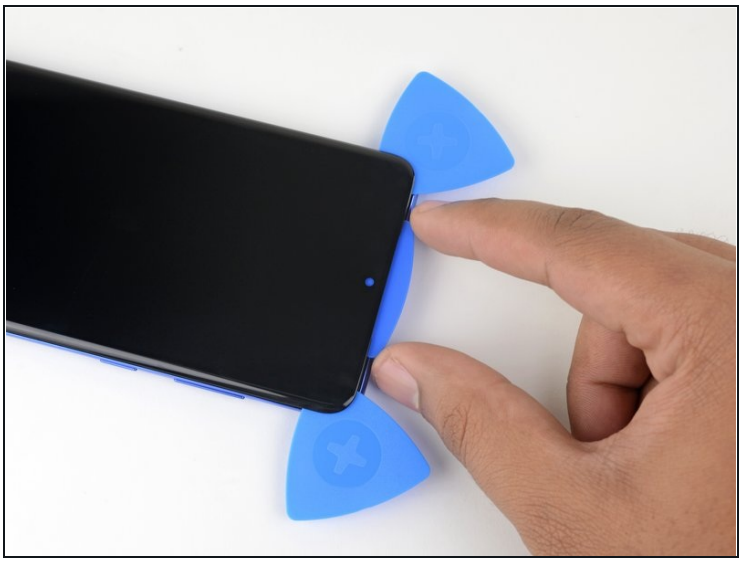
Step 27



- Insert a third pick into the center gap and slide it to the top right corner of the display to slice the adhesive.
- Leave your pick in the seam to prevent the adhesive from resealing.

Step 28





- Slide the center pick further into the device's top edge to slice the adhesive surrounding the earpiece and front-facing camera.

ⓘ If the adhesive becomes difficult to separate, apply more heat and try again.

ⓘ Don't insert the pick too far or you may "lose" the pick under the screen assembly.

- Remove the center pick.

Step 29

- Apply a heated iOpener to the right edge of the display for two minutes.

Step 30

- Insert another pick into the gap at the top right corner of the display.
- Slide the pick down to the bottom right corner to slice the adhesive.
- Insert a pick underneath the center of the screen's right edge to prevent the adhesive from resealing.

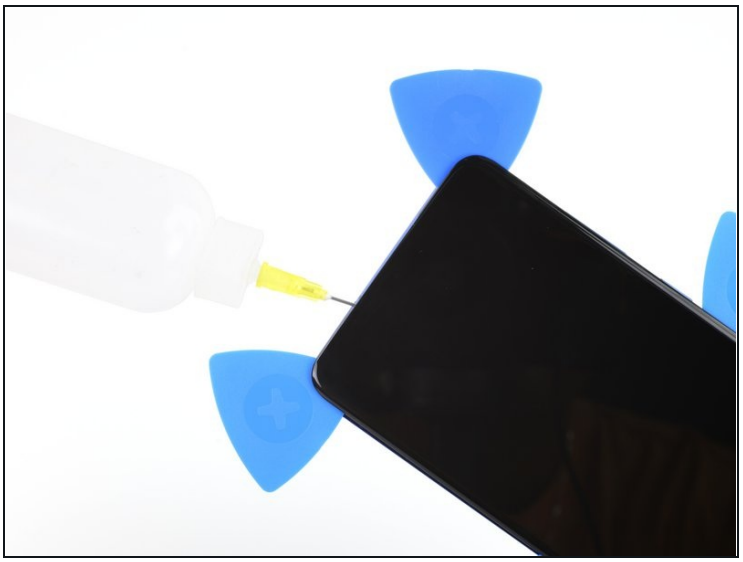
Step 31

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

Step 32

- Insert a pick into the gap at the top left corner of the display.
- Slide the pick down to the bottom left corner to slice the adhesive.
- Insert a pick underneath the center of the screen's left edge to prevent the adhesive from resealing.

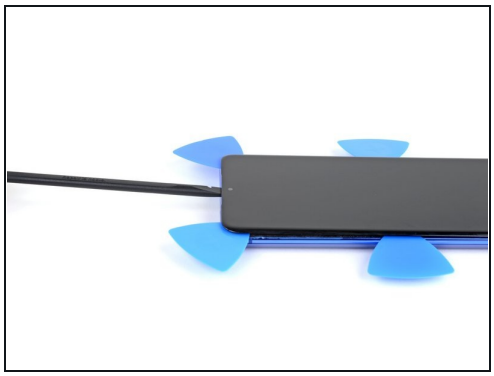
Step 33 — Separate the interior adhesive

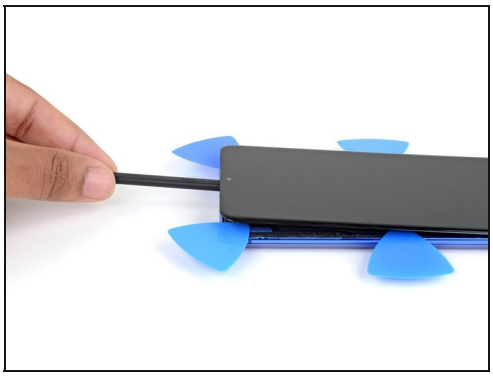


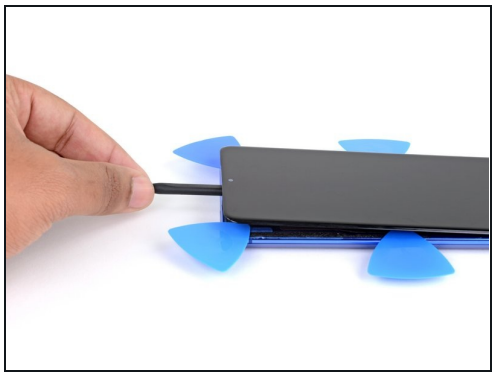
ⓘ In this step, you will apply isopropyl alcohol behind the screen to release the clear adhesive towards the bottom center of the device.

- Apply high concentration (over 90%) isopropyl alcohol behind the display as close to the clear adhesive (marked red) as possible.
- Tilt the device as you apply the alcohol to help it penetrate the adhesive underneath the lower portion of the display.
- After you apply the alcohol, continue tilting the bottom of the phone down for two to three minutes to help the alcohol penetrate further.

Step 34

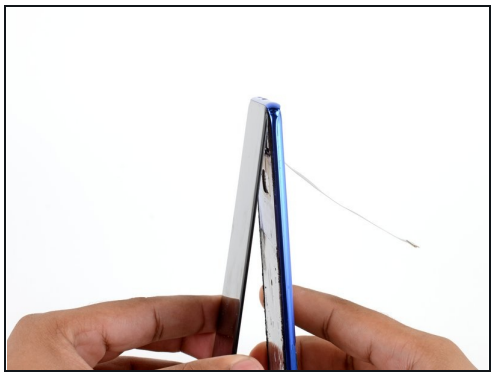
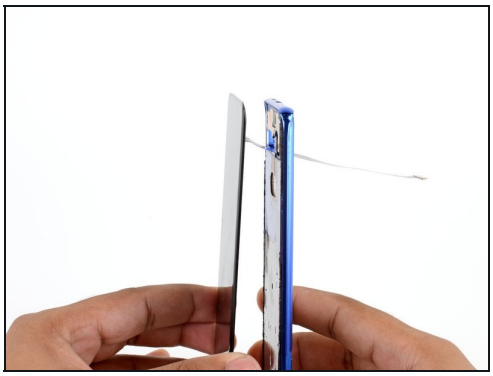
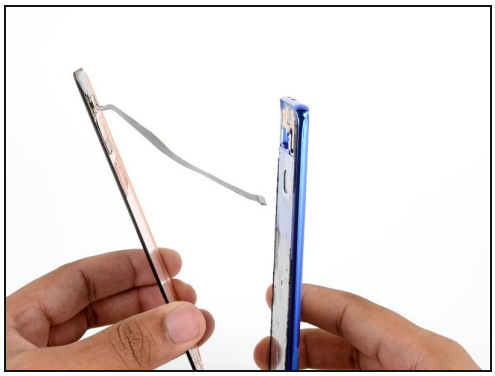






- Slowly insert a spudger under the top edge of the screen to separate the clear adhesive.
  ⓘ Insert the spudger until the clear adhesive is completely separated.

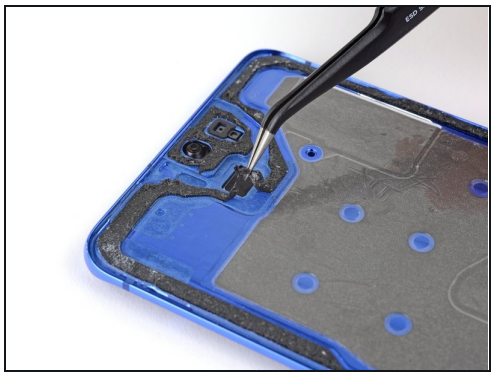
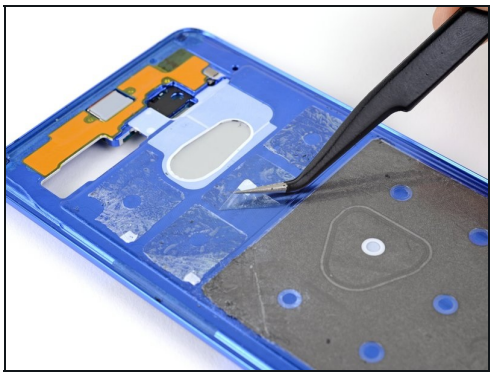
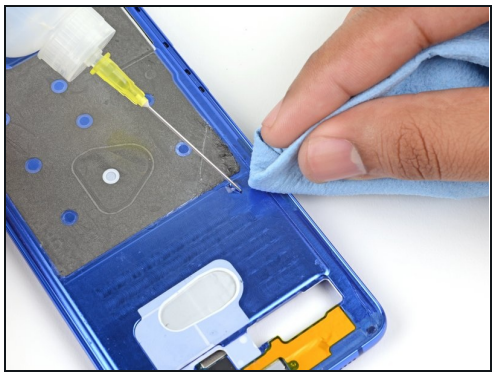
Step 35 — Remove the screen

- Remove the display from the frame.
  - There still may be a small strip of adhesive at the bottom edge of the phone, but it should release easily.
  - Take care to thread the display cable through the frame.

During reassembly, you will need to insert the display cable through the hole in the frame before pressing the display into place. Do not insert the display cable before the new screen adhesive is applied.

Step 36 — Remove the old adhesive

- Use tweezers to remove any remaining adhesive from the frame.
- Use isopropyl alcohol and a lint-free cloth to thoroughly clean the frame's surface and prepare it for new adhesive. Wipe in one direction to avoid smearing.

During reassembly, follow this guide to install custom-cut adhesives for your device.

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 above steps in reverse order.

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

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.