Samsung Galaxy S21 Rear Camera Replacement

Use this guide to remove or replace the rear...

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INTRODUCTION

Use this guide to remove or replace the rear camera in your Samsung Galaxy S21.

The rear camera is made up of two modular components: the ultrawide camera and the wide-telephoto camera. You can replace either component or both with this guide.

For your safety, discharge the battery below 25% before disassembling your phone. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair. If your battery is swollen, take appropriate precautions.

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

TOOLS:

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

PARTS:

- Precut Adhesive Card (1)

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Step 1 — 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.

ⓘ 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.

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Step 2 — 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 3 — 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.

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Step 4 — Heat the left edge



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

Step 5 — 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.

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Step 6





- 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 7 — Heat the right edge



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

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Step 8 — 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 9





- 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.

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Step 10 — Separate the corner adhesive



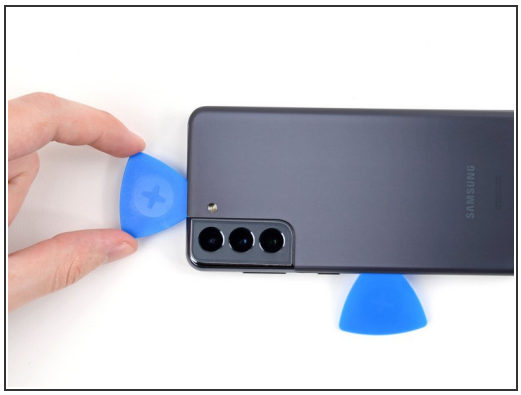


- Rotate the right-edge opening pick around the top-right corner of the phone.

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

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

Step 11 — Reposition the opening picks


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

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Step 12 — Heat the camera shell



- Heat an iOpener and apply it to the camera shell for two minutes.

Step 13 — 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.

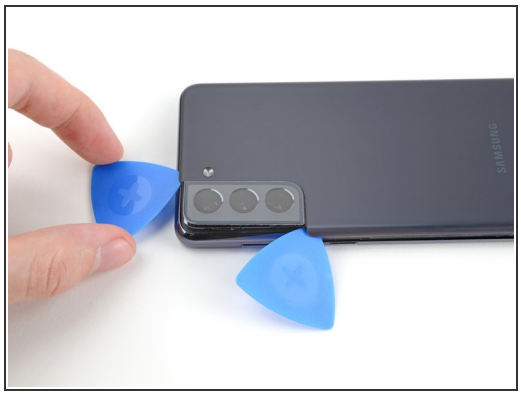
- Insert an opening pick in the gap.

ⓘ If this method doesn't work, move to the next step for an alternative method; otherwise, skip the next step.

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Step 14 — Separate the camera shell adhesive (alternate method)





- Gently slide the two picks toward the camera shell so they are under the corners of the back cover adjacent to the camera shell.
- Move the picks back and forth along the bridge between the back cover and the camera shell until you create a gap between the camera shell and the frame.

⚠ Be careful with this method, as you risk cracking the plastic back cover.

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.

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Step 16





- 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.

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Step 17





- 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.

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Step 18 — Remove the back cover





- Remove the back cover.

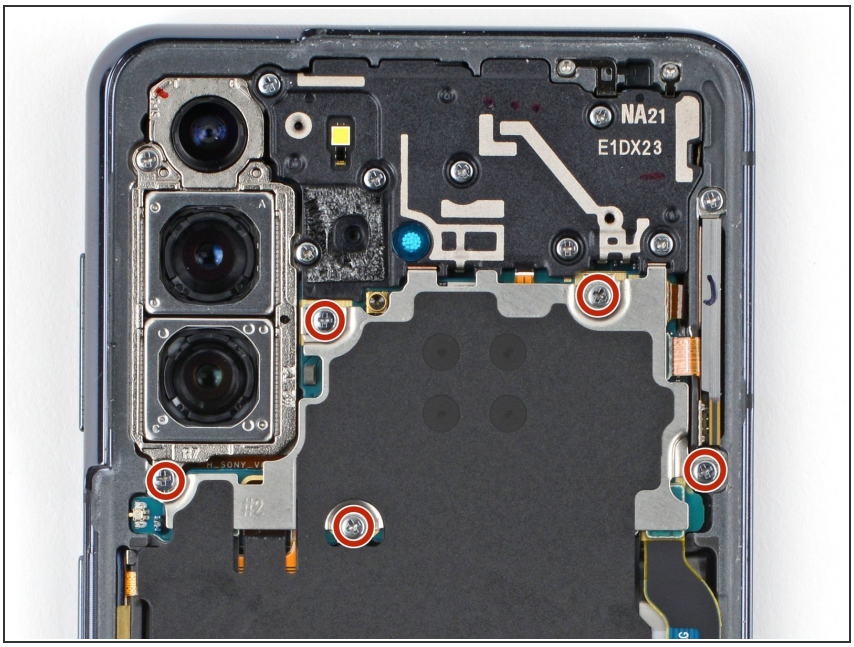
If your back cover is still sticking to the frame, slide the pick around the edges of the phone until the back cover completely separates.

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. Use some high concentration (over 90%) isopropyl alcohol to wipe away any adhesive residue.
- If you're using Samsung custom-cut adhesives, follow this guide.
- If you're using double-sided tape, follow this guide.

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Step 19 — Unfasten the motherboard bracket



- Use a Phillips screwdriver to remove the five 4 mm-long screws securing the motherboard bracket to the frame.

Throughout this repair, keep track of each screw, and make sure it goes back exactly where it came from.

Step 20 — Unclip the motherboard bracket



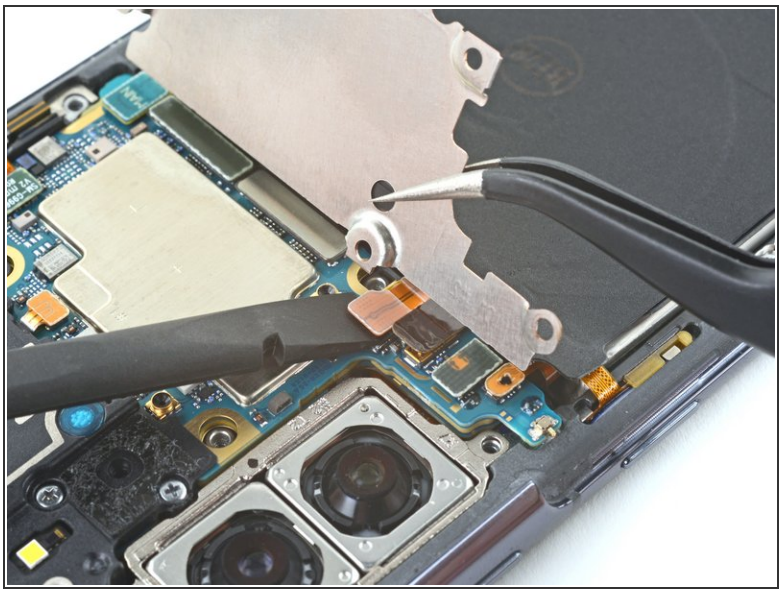


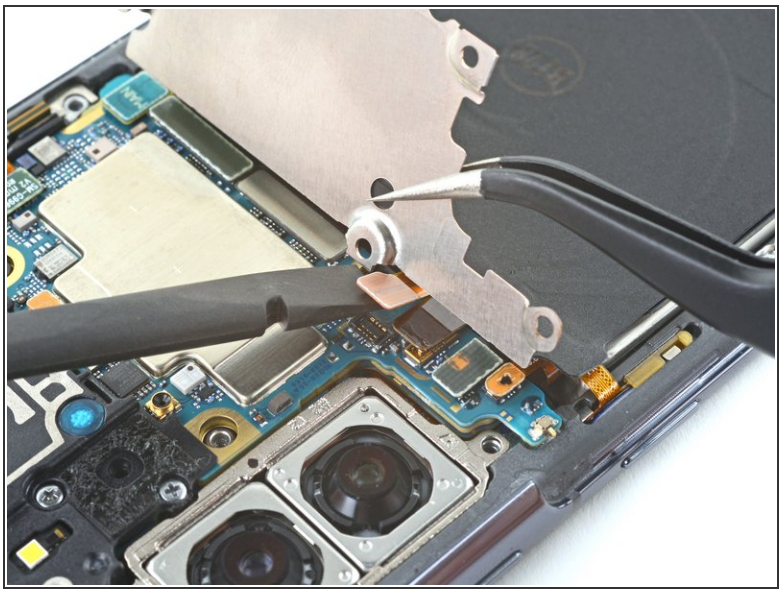
- Use a pair of tweezers to gently pull up and unclip the motherboard bracket from the frame.

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

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Step 21 — Disconnect the battery





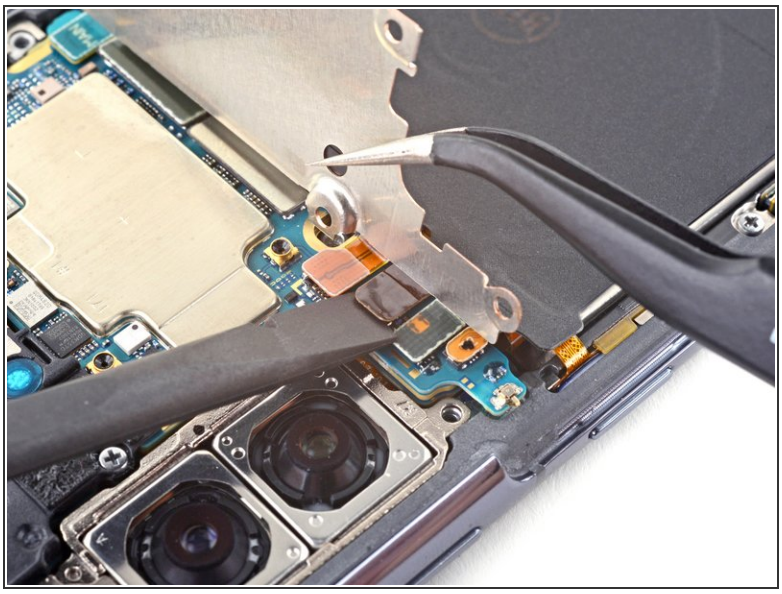
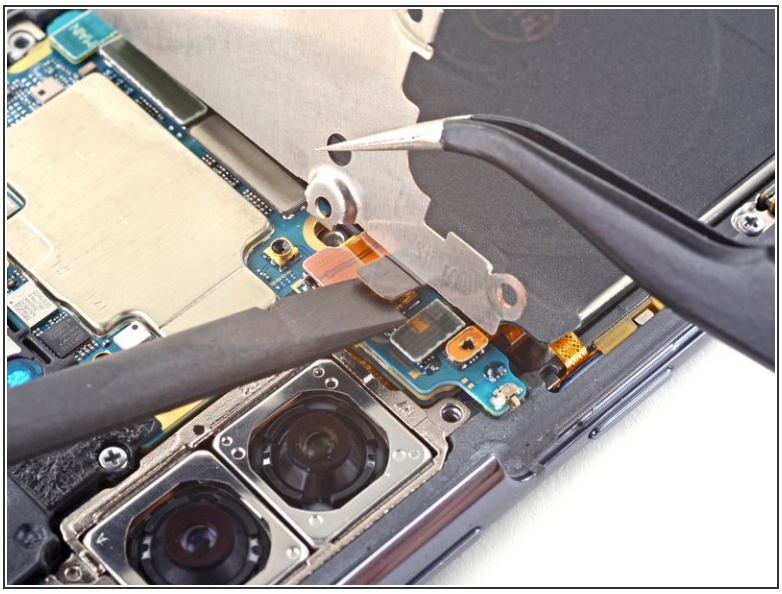
- While using tweezers, or your fingers, to hold the motherboard bracket out of the way, use a spudger to pry up the battery press connector.

⚠ 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.

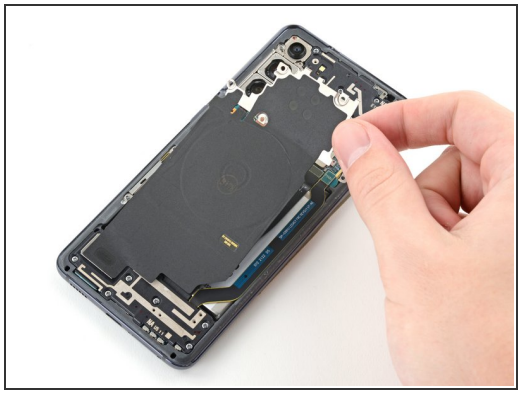
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Step 22 — Disconnect the wireless charging coil

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

Step 23 — Remove the wireless charging coil

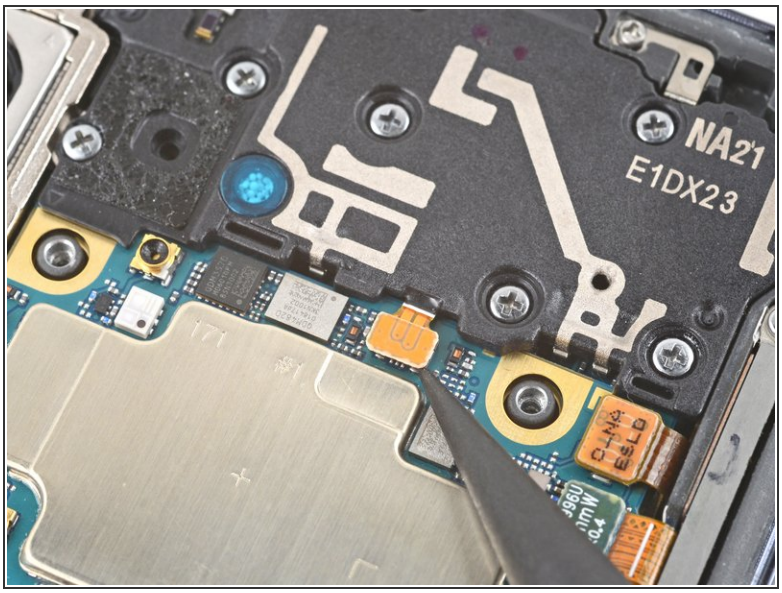

The wireless charging coil is secured to the phone with light adhesive.

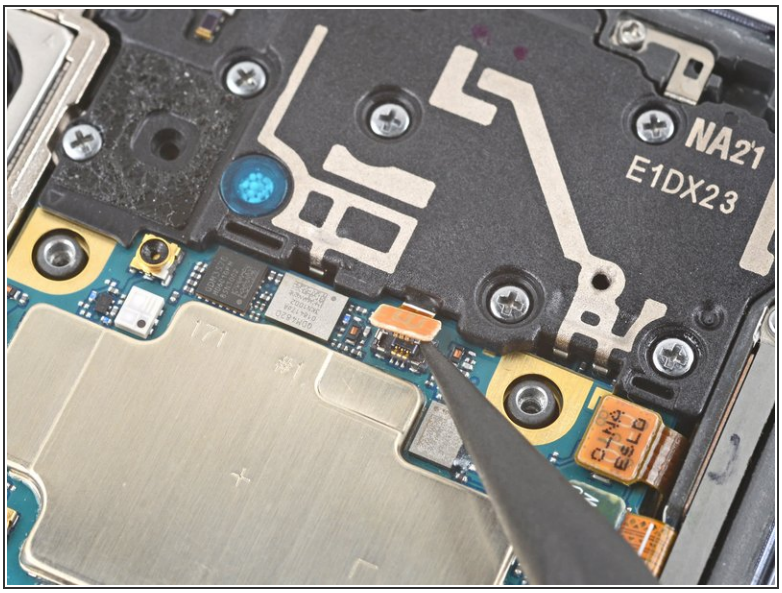
- Use your fingers to gently peel the wireless charging coil away from the phone.

During reassembly, refasten the motherboard bracket screws first to properly align the charging coil into place, then firmly press the rest of the coil down to adhere it.

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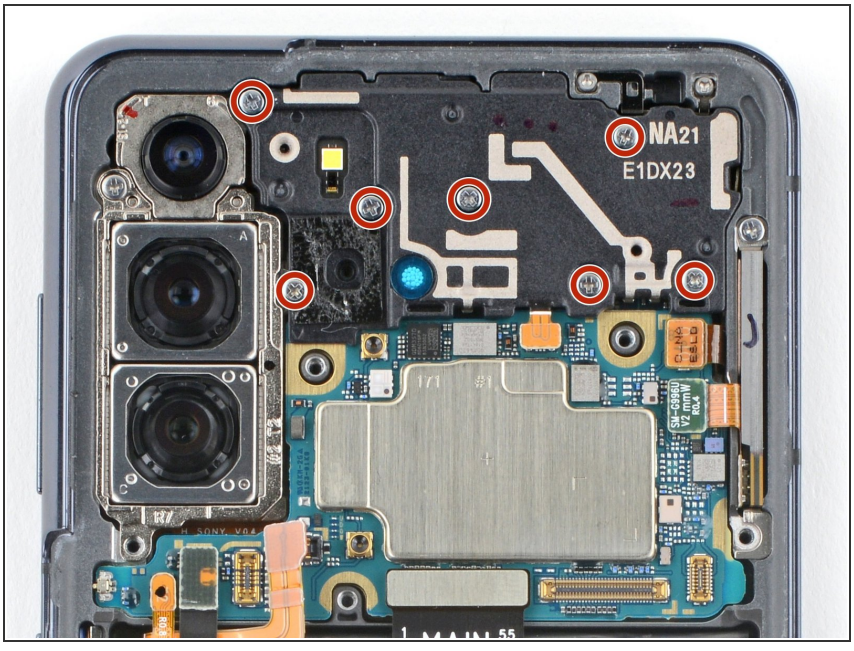
Step 24 — Disconnect the earpiece speaker cable





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

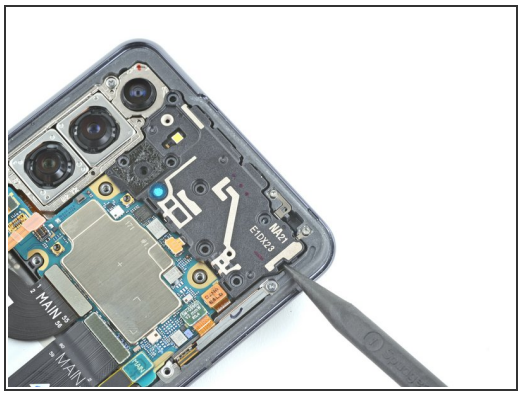
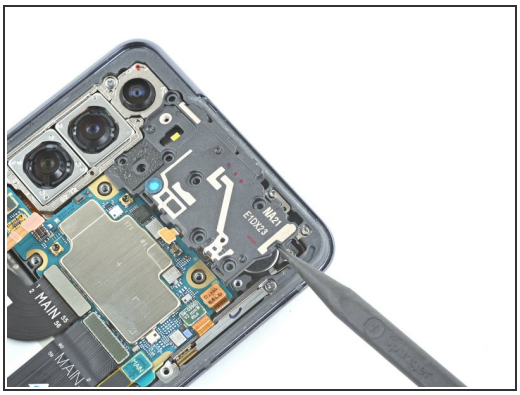
Step 25 — Unfasten the earpiece speaker



- Use a Phillips screwdriver to remove the seven 4 mm screws securing the earpiece speaker to the motherboard.

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Step 26 — 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.

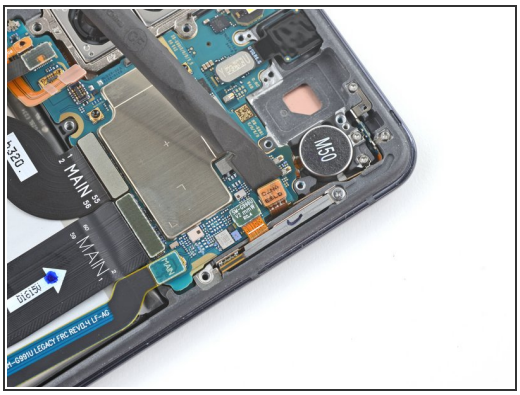
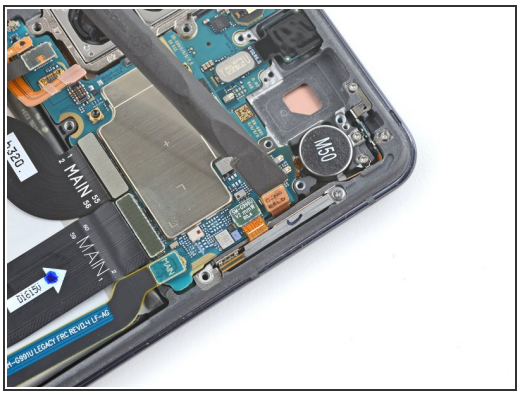
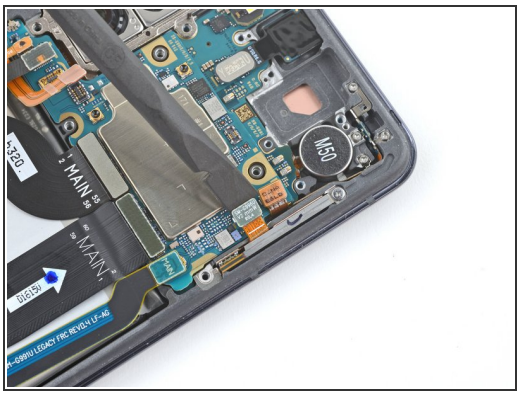
Step 27 — Disconnect the front camera




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

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Step 28 — Disconnect the right-edge cables

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

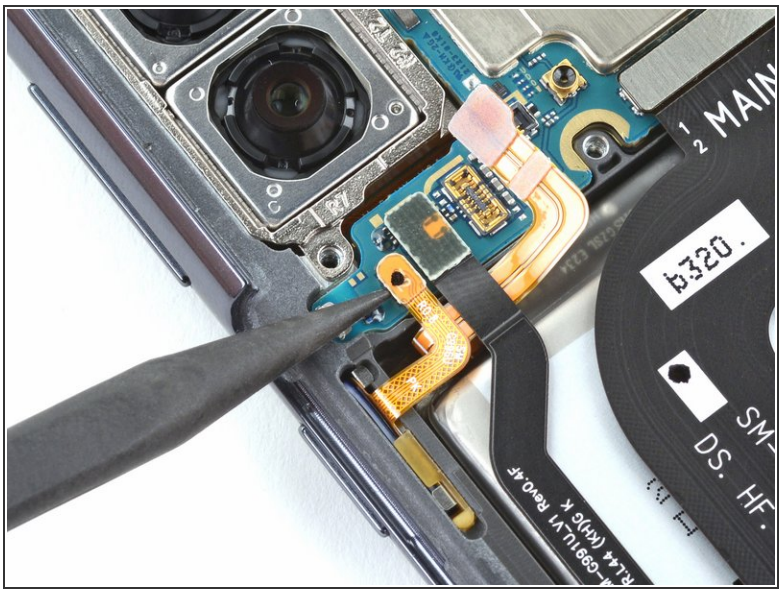
Step 29 — Disconnect the left-edge 5G antenna

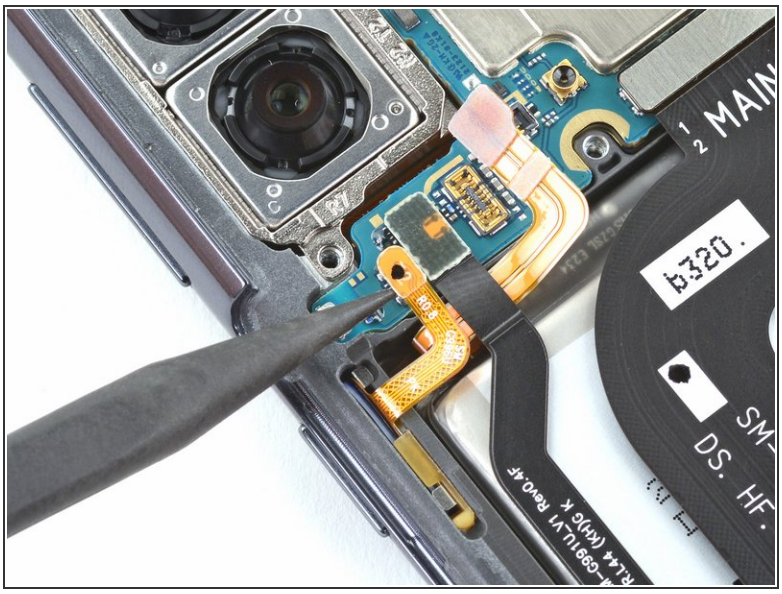



- Use a spudger to pry up and disconnect the 5G antenna cable's press connector.

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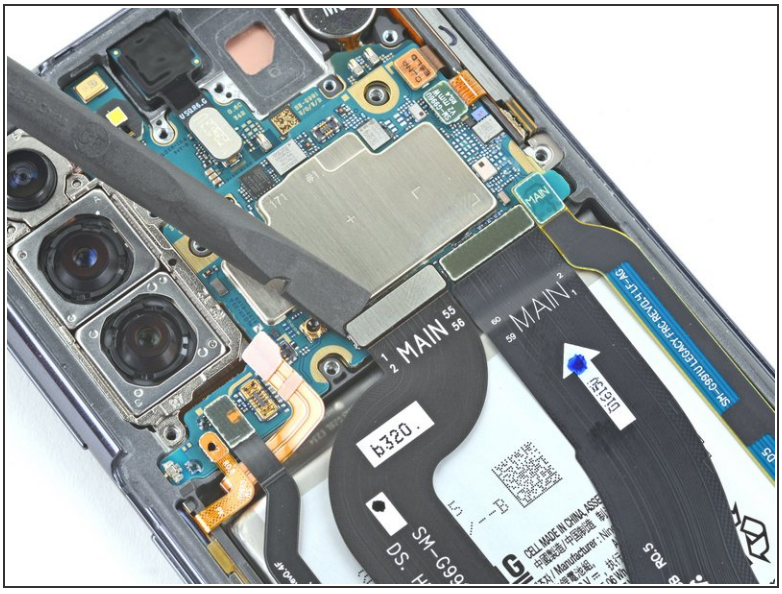
Step 30 — Disconnect the power button cable





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

Step 31 — Disconnect the display cable

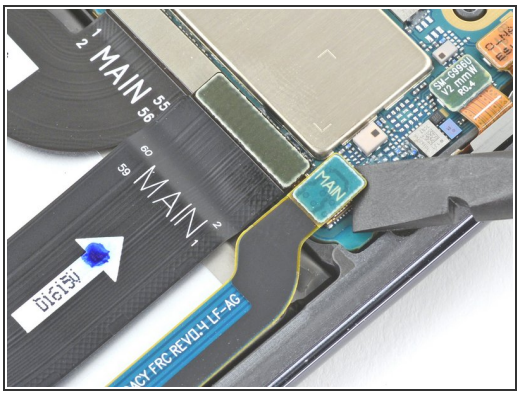


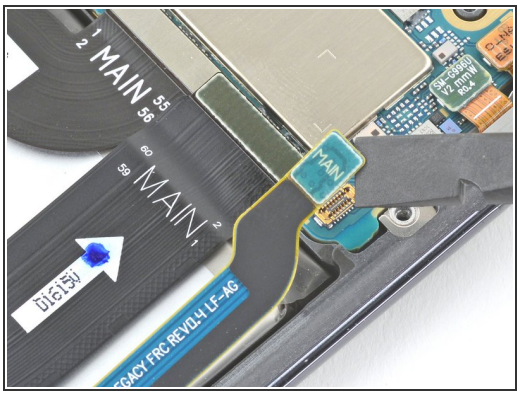


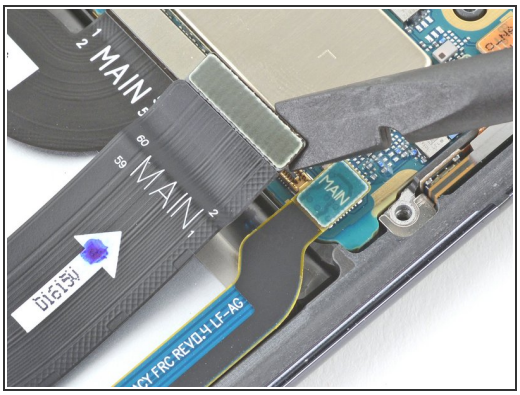
- Use the flat end of a spudger to pry up and disconnect the display cable's press connector.

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Step 32 — Disconnect the interconnect cables

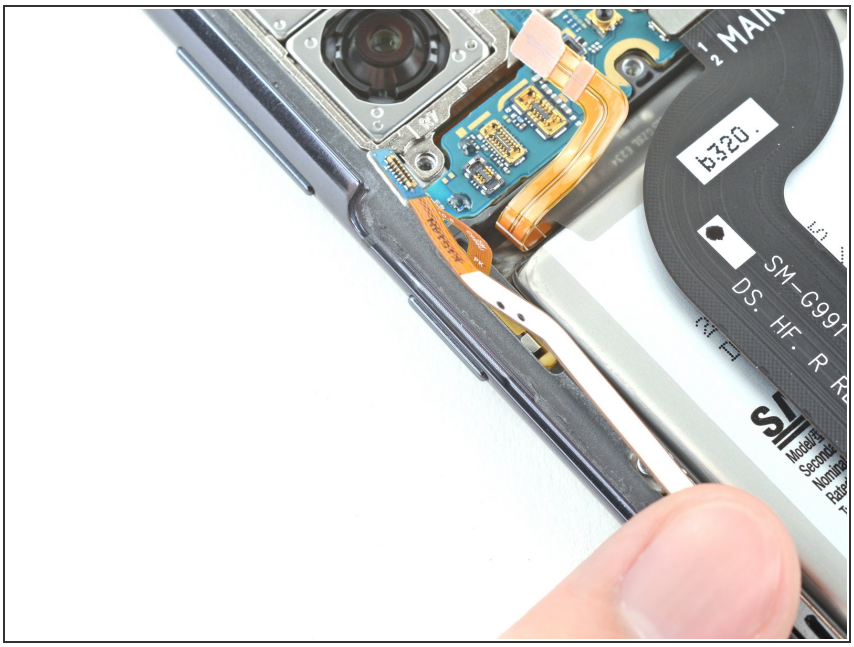






- Use a spudger to pry up and disconnect the secondary interconnect cable's press connector.
- Repeat for the main interconnect cable's press connector.

Step 33 — Reposition the left-edge cables

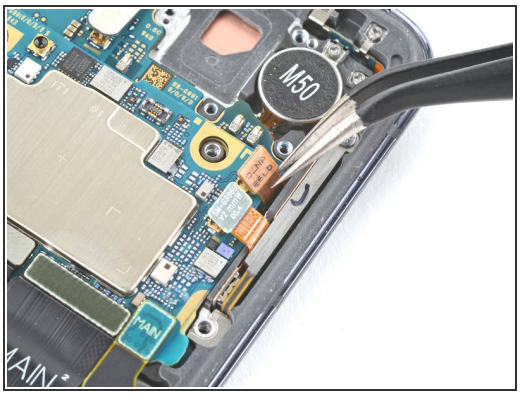
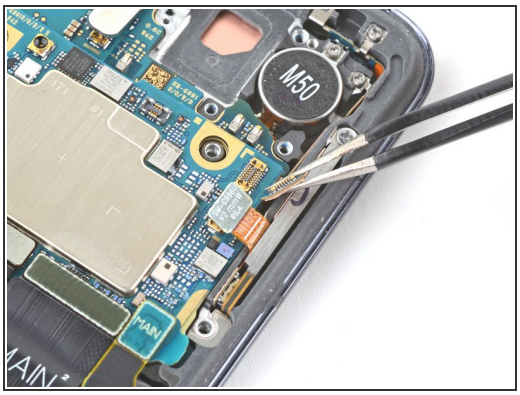
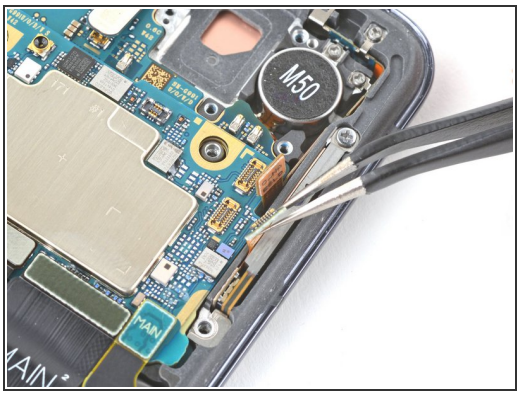


- Use a spudger, or your fingers, to bend the power button cable away from the phone.
- Repeat for the left-edge 5G antenna cable.

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

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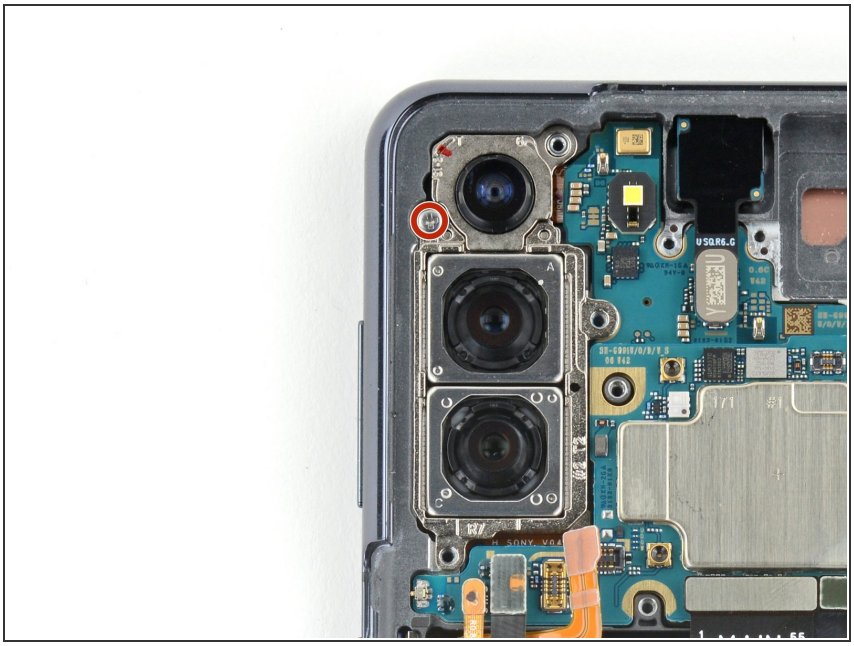
Step 34 — Reposition the right-edge cables

- Use tweezers, or your fingers, to bend the orange 5G antenna cable away from the phone.
- Repeat for the green 5G antenna cable.

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

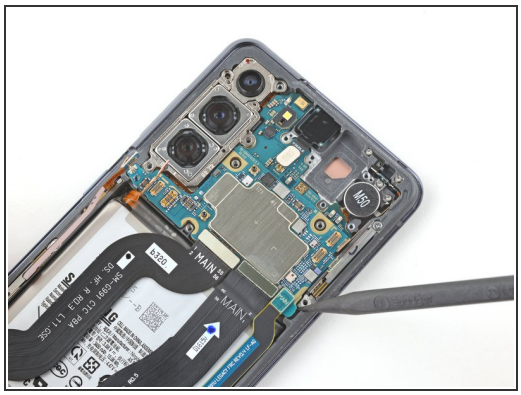
Step 35 — Unfasten the motherboard/camera bracket



- Use a Phillips screwdriver to remove the 4 mm screw securing the camera bracket and the motherboard to the frame.

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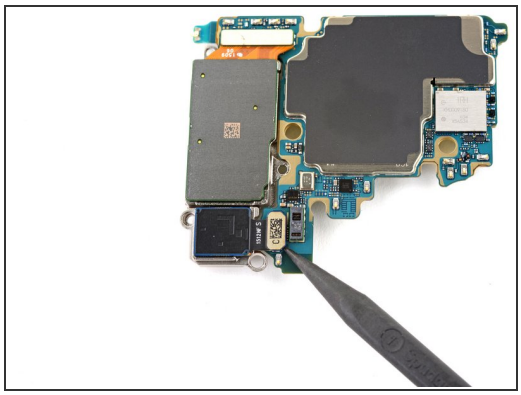
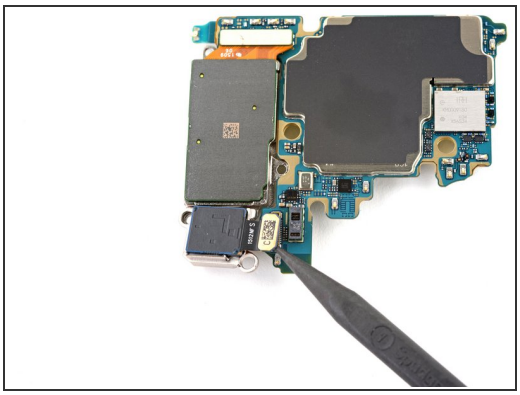
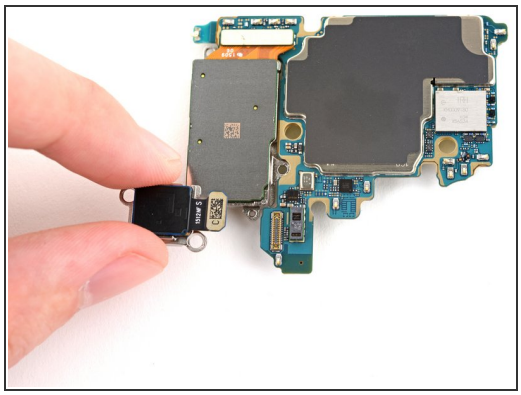
Step 36 — Remove the motherboard assembly





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

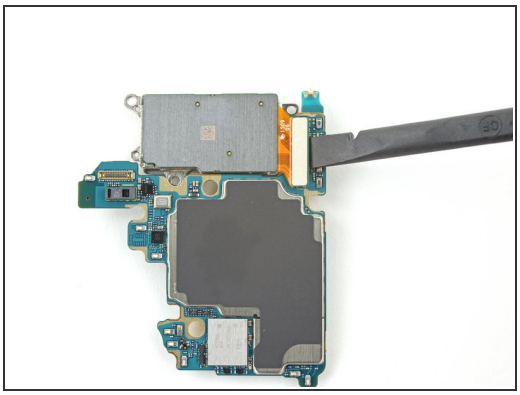
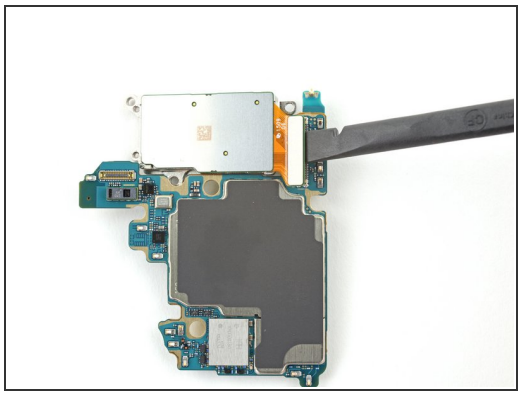
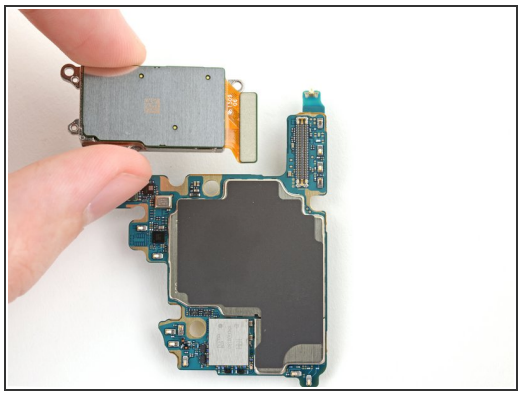
Step 37 — Remove the ultra wide camera

- Use the point of spudger to pry up and disconnect the ultra wide camera's press connector from the motherboard.
- Use tweezers, or your fingers, to remove the ultra wide camera.

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Step 38 — Remove the wide and telephoto camera

- Use the flat end of a spudger to pry up and disconnect the wide and telephoto camera's press connector from the motherboard.
- Use tweezers, or your fingers, to remove the wide and telephoto camera.

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.

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