

# Samsung Galaxy S21 Ultra Screen Replacement

Use this guide to replace a cracked or broken...

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# INTRODUCTION

Use this guide to replace a cracked or broken screen on your Samsung Galaxy S21 Ultra.

This guide was performed on the **SM-G998B/DS** (international) model. Other models have an additional antenna cable sitting in the edge of the midframe.

If the frame is deformed, it's important to replace it to make sure the new screen will mount correctly and won't suffer damage from uneven pressure.

If your battery is swollen, [take appropriate precautions](#). Before disassembling your device, **discharge the battery below 25%**. This reduces the risk of a dangerous thermal event if the battery is accidentally damaged during the repair.

**Note:** This guide instructs you to replace only the screen while leaving the original frame and motherboard in place. However, some replacement screens for this phone come pre-installed in a new frame (a.k.a. chassis), which requires a very different procedure. Make sure you have the correct part before starting this guide.

Although it's not necessary to remove the interconnect cables to replace the screen we advise doing so. It makes the required motherboard removal and the reassembly way easier.

If you do not replace the adhesive seals when reassembling, your device will function normally, but will most likely lose its water protection.

Before you begin this procedure, be sure to have a set of replacement adhesives for both the rear glass and the screen.

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## TOOLS:

- [iOpener](#) (1)
- [Suction Handle](#) (1)
- [iFixit Opening Picks \(Set of 6\)](#) (1)
- [Heat Gun](#) (1)
- [Isopropyl Alcohol \(90% or Greater\)](#) (1)
- [Microfiber Cleaning Cloths](#) (1)
- [ESD Safe Blunt Nose Tweezers](#) (1)
- [Spudger](#) (1)
- [Phillips #00 Screwdriver](#) (1)

## PARTS:

- [Galaxy S21 Ultra Screen](#) (1)
- [Galaxy S21 Ultra Display Adhesive](#) (1)
- [iFixit Adhesive Remover](#) (1)
- [Tesa 61395 Tape](#) (1)
- [Samsung Galaxy S21 Ultra \(USA\) Screen and Battery - Genuine](#) (1)

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## Step 1 — Heat the back cover



- ⓘ Unplug and power off your phone before you begin.
- [Prepare an iOpener](#) and apply it to the back cover for at least three minutes to loosen the adhesive underneath.
- ⓘ 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 — Insert an opening pick



- Secure a suction handle to the bottom edge of the back cover, as close to the 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.
- Lift the back cover with the suction handle to create a small gap between the back cover and the frame.
  - ① If you have trouble creating a gap, apply more heat to further soften the adhesive. Follow the [iOpener](#) instructions to avoid overheating.
- Insert an opening pick into the gap you created.
- Slide the opening pick to the bottom left corner to slice the adhesive.
- Leave the opening pick in place to prevent the adhesive from resealing.

### Step 3 — Slice the adhesive



- Insert a second opening pick at the bottom edge of your phone.
- Slide the opening pick to the bottom right corner to slice the adhesive.
- Leave the opening picks in place to prevent the adhesive from resealing.

### Step 4



- ⓘ If the adhesive becomes hard to cut, it has most likely cooled down. [Use your iOpener](#) for two to three minutes to reheat it.
- Insert a third opening pick at the bottom right corner of your phone.
- Slide the opening pick along the right edge of your phone to slice the adhesive.
- Leave the opening pick in the top right corner to prevent the adhesive from resealing.

## Step 5



**⚠** When you slice near the camera assembly, insert only the tip of the opening pick (~ 4-5 mm) to avoid damaging or smearing the camera.

- Insert a fourth opening pick underneath the top right corner of your phone.
- Slide the opening pick along the top edge to slice the adhesive.
- Leave the opening pick in the top left corner to prevent the adhesive from resealing.

## Step 6



- Insert a fifth opening pick underneath the top left corner.
- Slide the opening pick along the left edge of the back cover to slice the remaining adhesive.

**⚠** When you slice near the power button, insert only the tip of the opening pick (~ 3-4 mm) to avoid damaging the power and volume button flex cable.

## Step 7 — Remove the back cover



- 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.
- 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](#).

## Step 8 — Slice the adhesive



- Insert an opening pick underneath the left bottom end of the NFC antenna and charging coil assembly.
- Carefully slide the opening pick along the bottom left edge of the assembly to separate it from the battery.

## Step 9



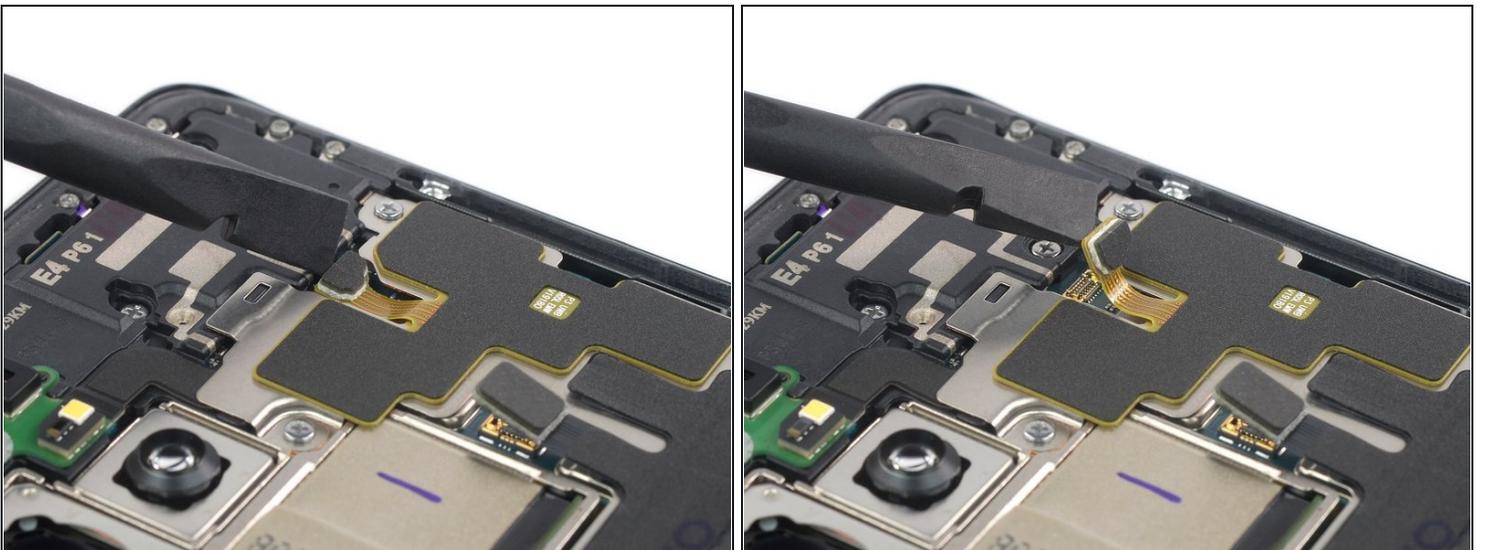
- Insert an opening pick underneath the bottom end of the NFC antenna and charging coil assembly.
- Carefully slide the opening pick along the bottom of the assembly to separate it from the loudspeaker.

## Step 10 — Disconnect the charging coil



- Use a spudger to disconnect the charging coil by prying the connector straight up from its socket.

## Step 11 — Disconnect the NFC antenna



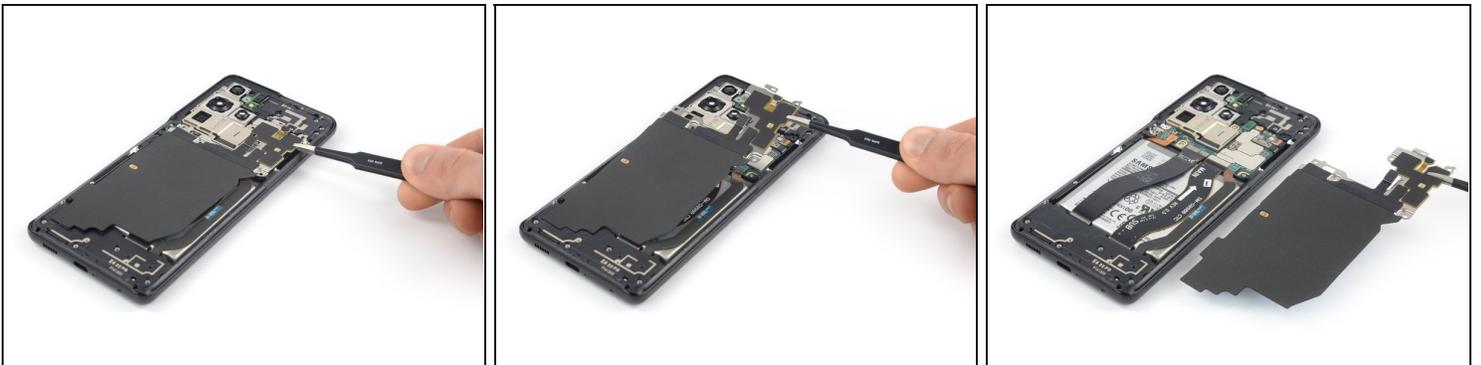
- Use a spudger to disconnect the NFC antenna by prying the connector straight up from its socket.

## Step 12 — Unfasten the NFC antenna & charging coil assembly screws



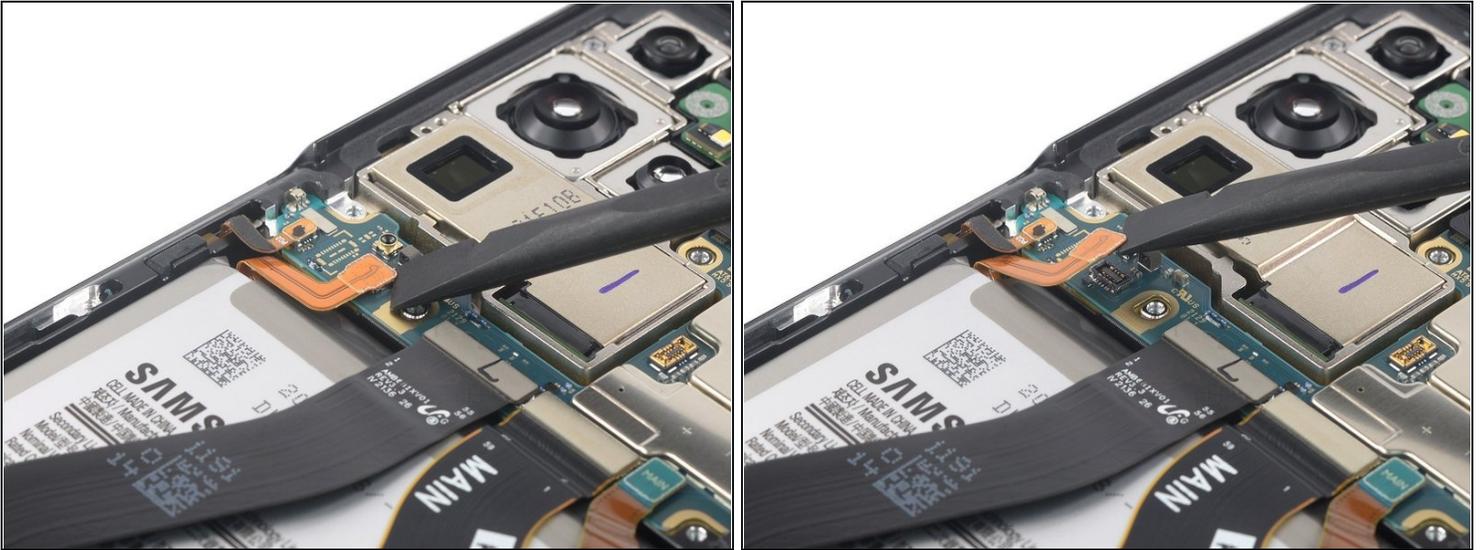
- Use a Phillips screwdriver to remove the five 3.9 mm-long screws securing the NFC antenna and charging coil assembly.

## Step 13 — Remove the NFC antenna & charging coil assembly



- Use a pair of tweezers or your fingers to carefully remove the NFC antenna and charging coil assembly.

## Step 14 — Disconnect the battery cable



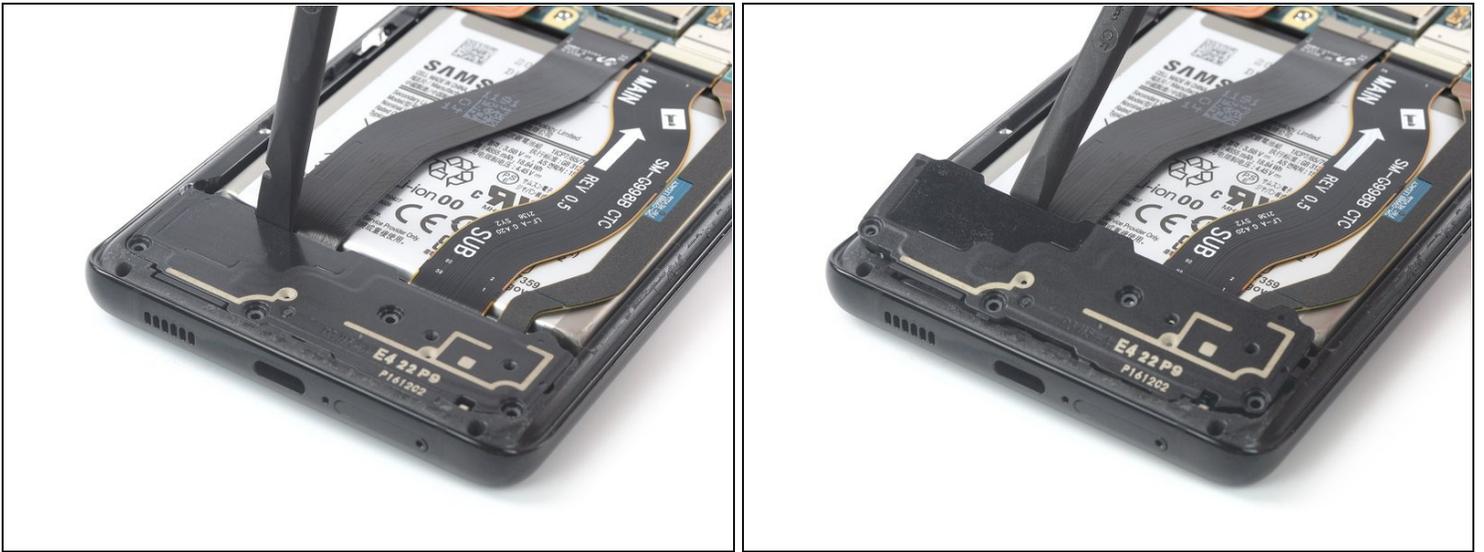
- Use a spudger to disconnect the battery cable by prying the connector straight up from its socket.

## Step 15 — Unfasten the loudspeaker assembly screws



- Use a Phillips screwdriver to remove the four 3.9 mm-long screws securing the loudspeaker assembly.

## Step 16 — Pry up the loudspeaker assembly



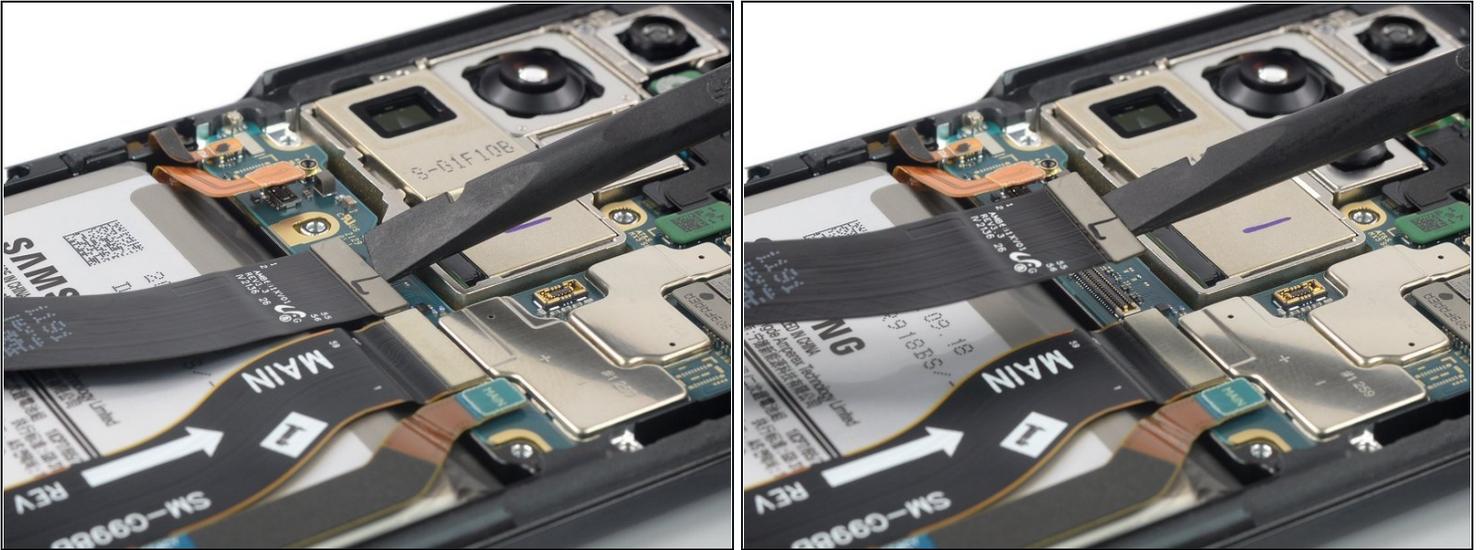
- Insert a spudger into the gap between the top edge of the loudspeaker assembly and the midframe.
- Use your spudger to pry up the loudspeaker assembly by tilting it downwards.

## Step 17 — Remove the loudspeaker assembly



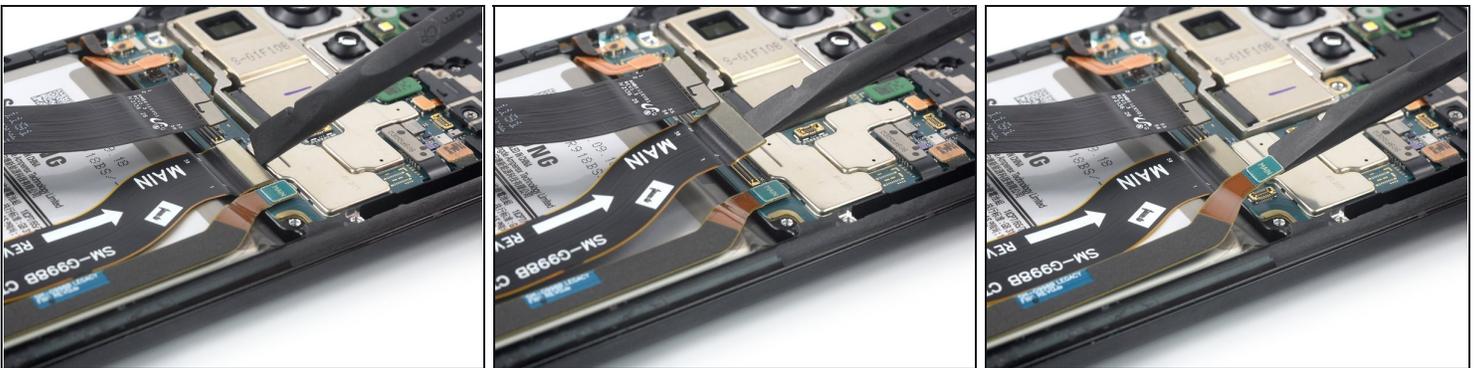
- Remove the loudspeaker assembly.
- ☑ During reassembly apply new adhesive where it's necessary after cleaning the relevant areas with isopropyl alcohol (>90%).

## Step 18 — Disconnect the display flex cable



- ① If you're not planning to remove the motherboard or to replace the battery, you can skip this step and continue with the next one.
- Use a spudger to disconnect the display flex cable by prying the connector straight up from its socket.

## Step 19 — Disconnect the main & interconnect flex cables



- Use a spudger to disconnect the main and interconnect flex cables from the motherboard by prying their upper connectors straight up from their sockets.

## Step 20 — Remove the interconnect flex cable



- Use a spudger to disconnect the interconnect flex cable from the daughterboard by prying its bottom connector straight up from its socket.
- Use your fingers or a pair of tweezers to carefully remove the interconnect flex cable.

## Step 21 — Remove the main flex cable



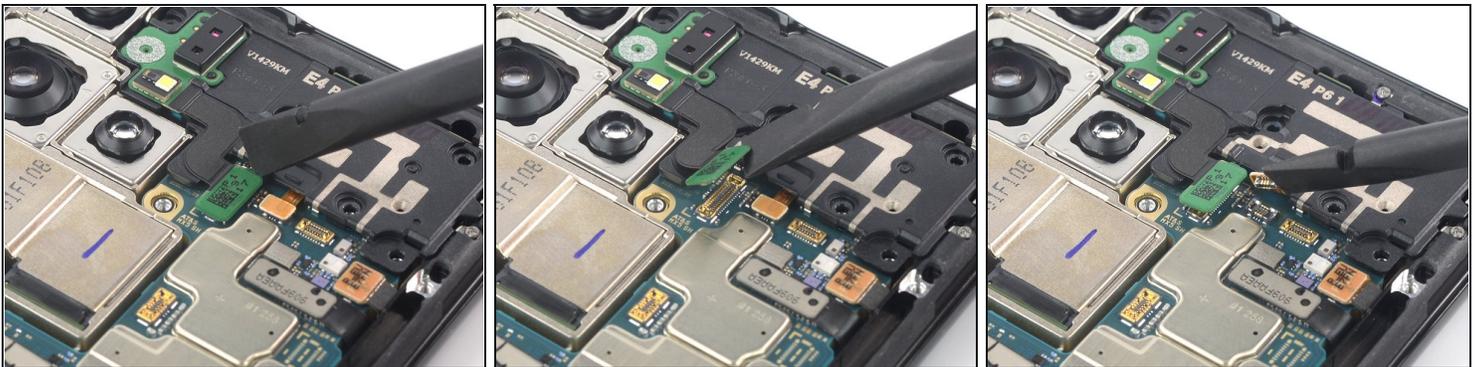
- Use a spudger to disconnect the main flex cable from the daughterboard by prying its bottom connector straight up from its socket.
- Use your fingers or a pair of tweezers to carefully remove the main flex cable.

## Step 22 — Unfasten the earpiece and laser AF module assembly screws



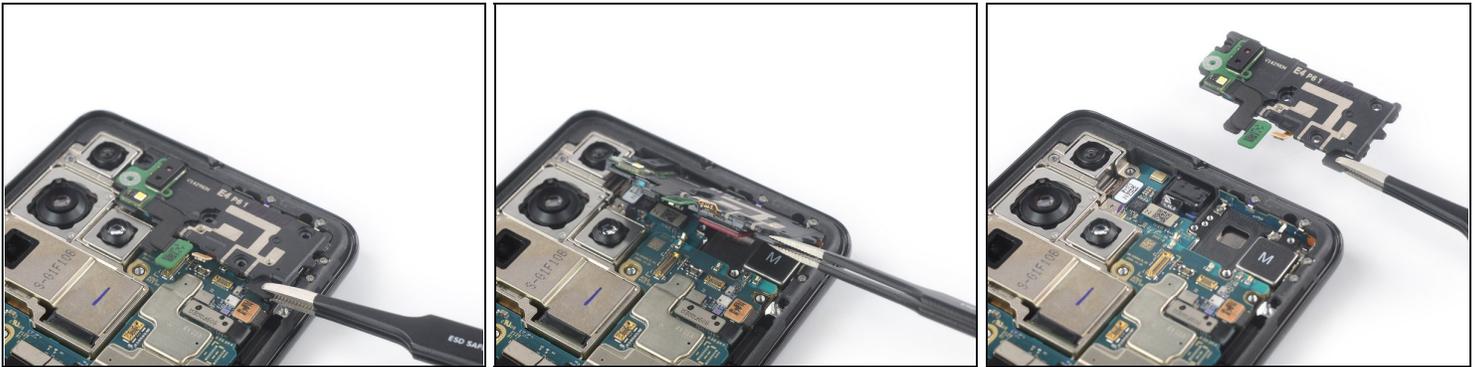
- Use a Phillips screwdriver to remove the four 3.9 mm-long screws securing the earpiece speaker and laser AF module assembly.

## Step 23 — Disconnect the laser AF module and earpiece speaker flex cable



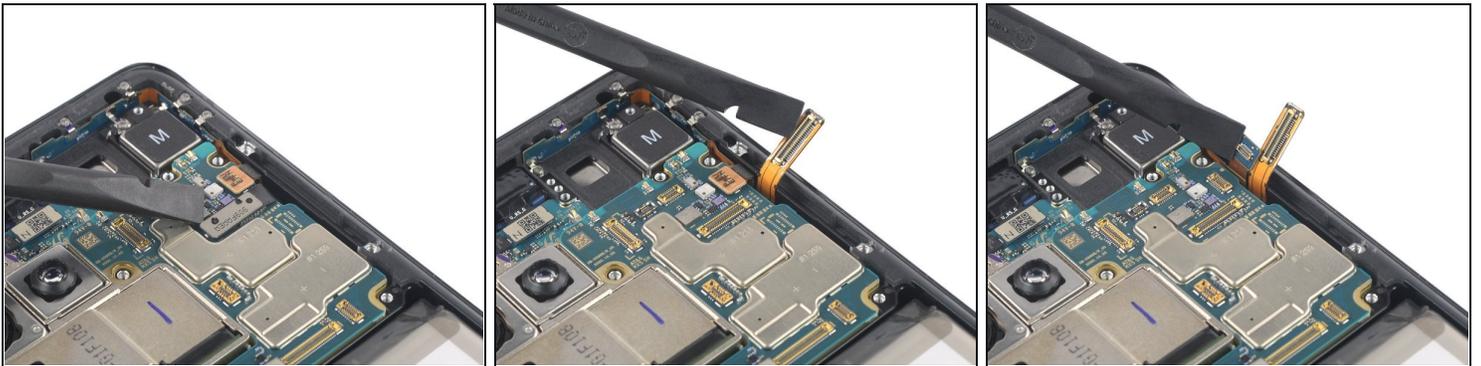
- Use a spudger to disconnect the laser AF module and earpiece speaker flex cables by prying the connectors straight up from their socket.

## Step 24 — Remove the earpiece speaker and laser AF module assembly



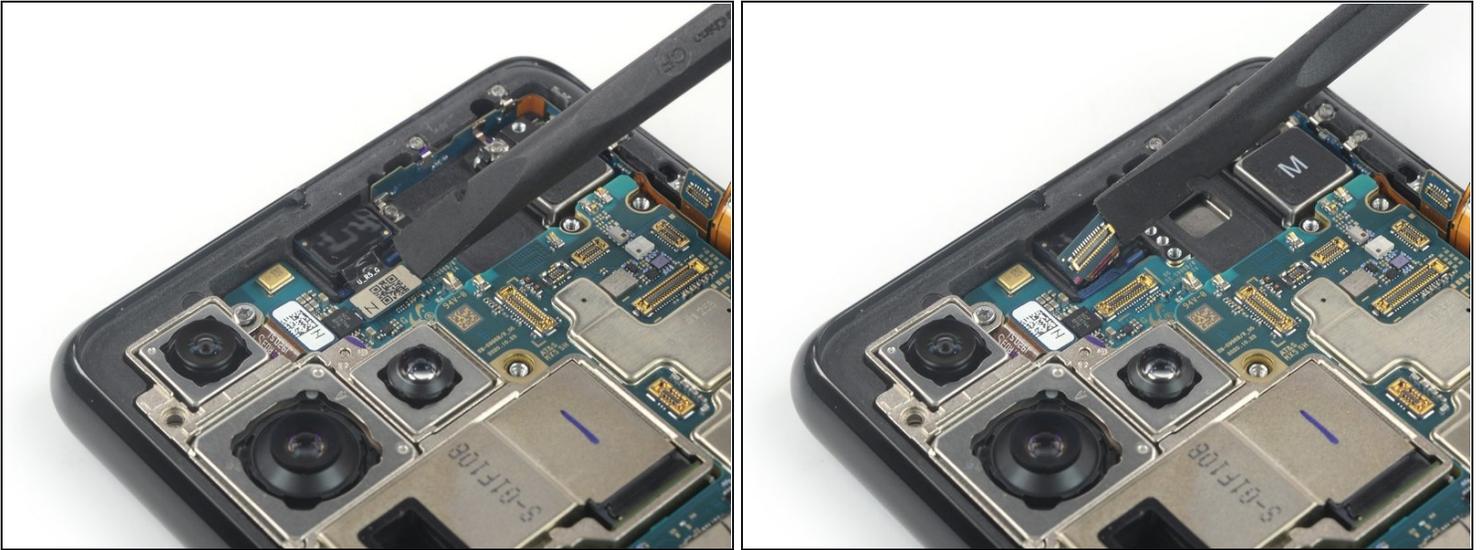
- Grab the bottom right corner of the earpiece speaker and laser AF module assembly with a pair of blunt nose tweezers and carefully lift it upwards.
- Remove the earpiece speaker and laser AF module assembly.

## Step 25 — Disconnect the in-display fingerprint and antenna flex cables



- Use a spudger to disconnect the in-display fingerprint and antenna flex cables by prying the connectors straight up from their socket.
- Carefully bend both connectors to the side to free the motherboard.  
**⚠ Do not fold the cables sharply and only bend them to avoid cable damage.**

## Step 26 — Disconnect the front facing camera



- Use a spudger to disconnect the front facing camera cable by prying the connector straight up from its socket.

## Step 27 — Disconnect the power button flex cable



- Use a spudger to disconnect the power button flex cable by prying the connector straight up from its socket.
- Carefully bend the connector to the side to free the motherboard.

## Step 28 — Unfasten the camera module screw



- Use a Phillips screwdriver to remove the 3.9 mm-long screw securing the camera module.

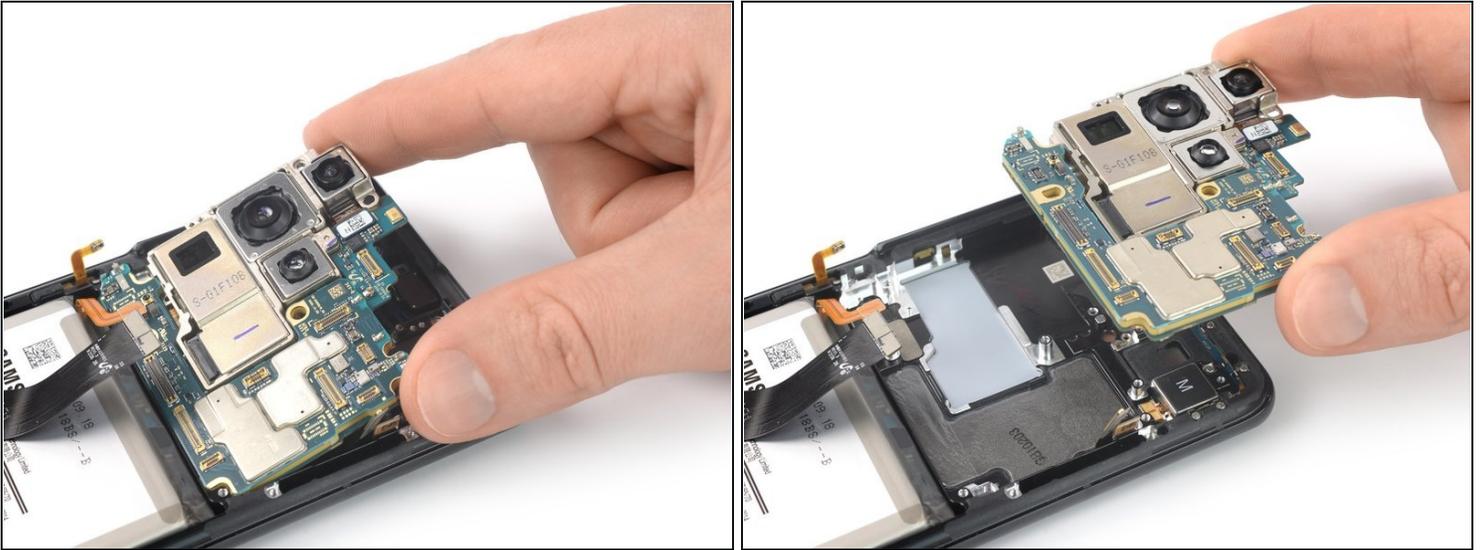
## Step 29 — Pry up the motherboard



**⚠ Avoid damaging the flex cables surrounding the motherboard during the following procedure.**

- Insert an spudger underneath the top edge of the motherboard next to the vibration motor.
- Use your spudger to pry up the motherboard by tilting it downwards and twisting it to the side at the same time.

## Step 30 — Remove the motherboard



- Carefully remove the motherboard.

⚠️ Avoid any abrupt movements during the removal and make sure none of the flex cables are entangled in the motherboard to avoid tearing them.

## Step 31 — Loosen the display adhesive



- Apply a [heated iOpener](#) to the screen to loosen the adhesive underneath. Apply the iOpener for at least 5 minutes.
- ⓘ The display adhesive of the Galaxy S21 Ultra is extremely strong, and it's likely you need to reheat and reapply the iOpener several times before starting the display removal and during the removal procedure.
- ⓘ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the device.

## Step 32 — Insert an opening pick



- Once the screen is warm to touch, apply a suction handle to the left edge of the screen and as close to the edge as possible.
  - ⓘ If your screen 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 handle. If all else fails, you can superglue the suction cup to the screen.
- Lift the screen with the suction handle to create a small gap between the screen and the frame.
- Insert an opening pick into the gap between the midframe and the screen.
- Slide the opening pick to the top left corner of the screen to slice its adhesive.
  - ⚠ Only use the tip of the opening pick (~4-5 mm) during this procedure to avoid tangling with the in-display fingerprint cable or accidentally tearing it.
- Leave the opening pick in place to prevent the adhesive from resealing.

### Step 33 — Slice the adhesive



- Insert a second opening pick at the top left corner and slide it to the bottom left corner of the screen to slice the adhesive.
- Leave the opening pick in place to prevent the adhesive from resealing.

### Step 34



**⚠** When you slice near the front facing camera, insert only the tip of the opening pick (~2-3 mm) to avoid damaging or smearing the camera.

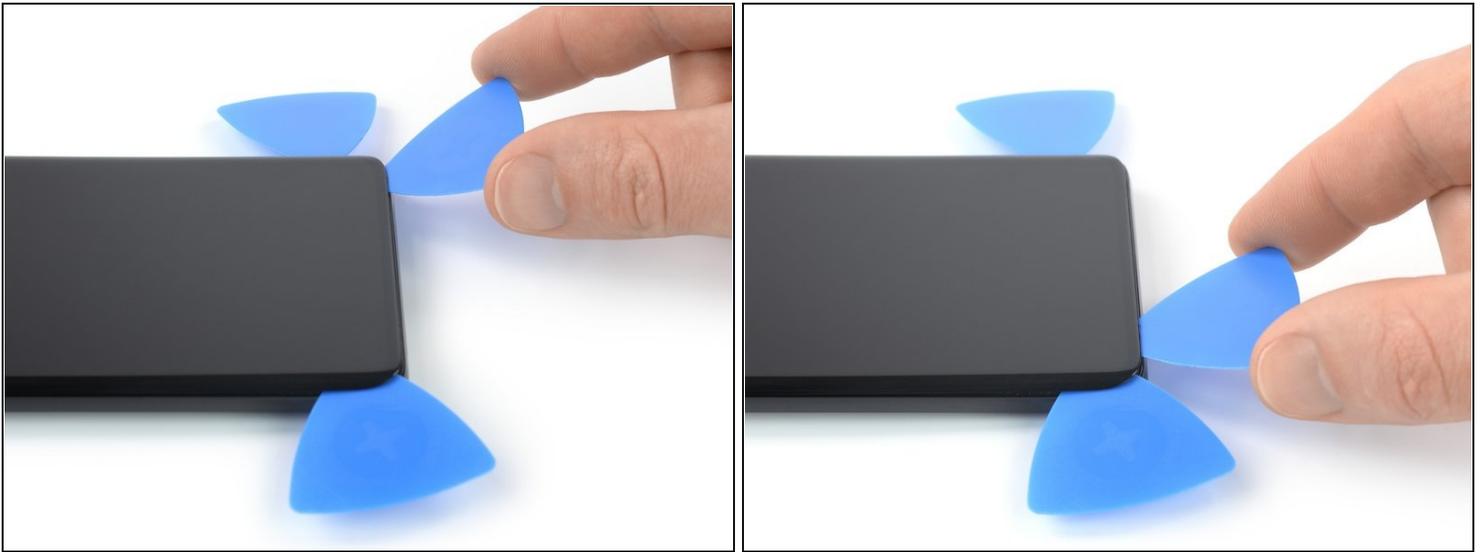
- Insert a third opening pick at the top left corner of the screen.
- Slide the opening pick along the top edge of the phone to slice the adhesive.
- Leave the opening pick in place to prevent the adhesive from resealing.

## Step 35



- ⓘ If the adhesive becomes hard to cut, it has most likely cooled down. [Use your iOpener](#) or heat gun for 1-2 minutes to reheat it.
- Insert a fourth opening pick underneath the top right corner of the screen.
  - Slide the opening pick along the right edge of the screen to slice the adhesive.
  - Leave the opening pick in place to prevent the adhesive from resealing.

## Step 36



- Insert a fifth opening pick at the bottom right corner of the screen.
- Slide the opening pick along the bottom edge to slice the remaining adhesive.

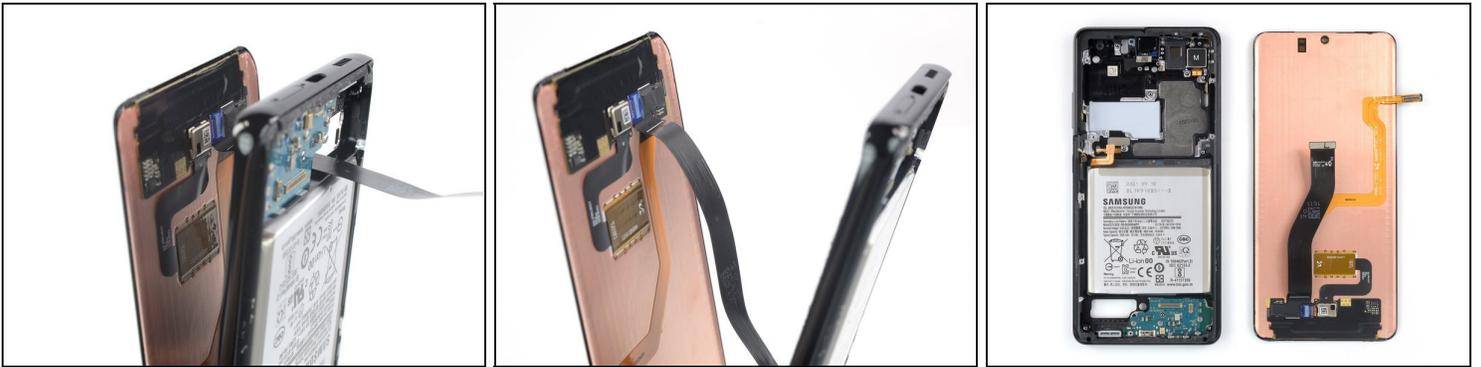
**⚠ Do not try to remove the display all the way yet. The display and fingerprint cable are still threaded through the frame.**

## Step 37 — Free the fingerprint cable



- Carefully thread the fingerprint flex cable through the gap in the midframe.

## Step 38 — Remove the screen



- Thread the display flex cable through the gap in the midframe and remove the screen.
- ☑ Compare your new replacement part to the original part—you may need to transfer remaining components from your old screen to your replacement part.
- ☑ Apply new adhesive where it's necessary after cleaning the relevant areas with isopropyl alcohol (>90%).
  - ☑ During reassembly, [follow this guide](#) in case you're using a pre-cut adhesive card.

If possible, turn on your device and test your repair before installing new adhesive and resealing.

**To reassemble your device, follow these instructions in reverse order.**

After you've completed the repair, [follow this guide](#) to test your repair.

The best way to secure the new screen is to apply a sheet of custom-cut double-sided tape to the back of the screen.

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

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