



Samsung Galaxy S6 Motherboard Replacement

Follow this guide to replace the motherboard on...

Written By: Evan Noronha



INTRODUCTION

Follow this guide to replace the motherboard on your Samsung Galaxy S6.

This guide involves removing the rear glass. Removing the rear glass destroys the adhesive holding it in place. Follow [this guide](#) to reinstall the rear glass.

TOOLS:

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

PARTS:

[Galaxy S6 \(Verizon\) Motherboard](#) (1)
[Galaxy S6 Motherboard \(Sprint\)](#) (1)
[Galaxy S6 Motherboard \(AT&T\)](#) (1)
[Galaxy S6 Motherboard \(T-Mobile\)](#) (1)
[Galaxy S6 Antenna Cables](#) (1)

Step 1 — SIM Card



- Insert a paper clip or SIM eject tool into the hole in the SIM card slot on the power button side of the phone.
- Press to eject the SIM card tray.

 Don't press too hard or you may damage the SIM card tray.

Step 2



- Remove the SIM card tray from the phone.

Step 3 — iOpener Heating



- ① We recommend that you clean your microwave before proceeding, as any nasty gunk on the bottom may end up stuck to the iOpener.
- Place the iOpener in the center of the microwave.
 - ⚠ For carousel microwaves: Make sure the plate spins freely. If your iOpener gets stuck, it may overheat and burn.

Step 4



- Heat the iOpener for **thirty seconds**.
- Throughout the repair procedure, as the iOpener cools, reheat it in the microwave for an additional thirty seconds at a time.

⚠ Be careful not to overheat the iOpener during the repair. Overheating may cause the iOpener to burst. Do not attempt to heat over 100°C (212°F).

⚠ Never touch the iOpener if it appears swollen.

⚠ If the iOpener is still too hot in the middle to touch, continue using it while waiting for it to cool down some more before reheating. A properly heated iOpener should stay warm for up to 10 minutes.

Step 5



- Remove the iOpener from the microwave, holding it by one of the two flat ends to avoid the hot center.

⚠ The iOpener will be very hot, so be careful when handling it. Use an oven mitt if necessary.

Step 6 — Alternate iOpener heating method



ⓘ If you don't have a microwave, follow this step to heat your iOpener in boiling water.

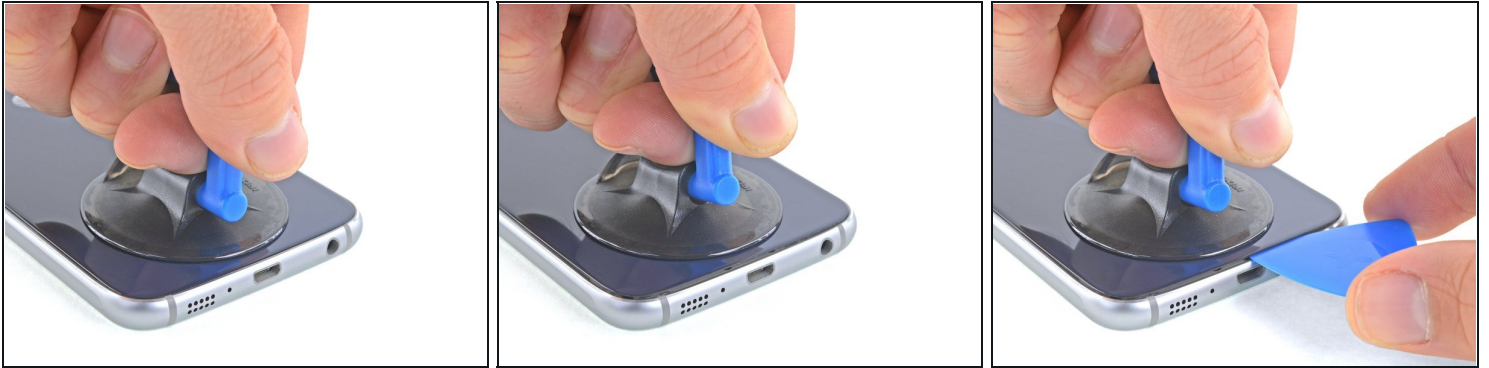
- Fill a pot or pan with enough water to fully submerge an iOpener.
 - Heat the water to a boil. **Turn off the heat.**
 - Place an iOpener into the hot water for 2-3 minutes. Make sure the iOpener is fully submerged in the water.
 - Use tongs to extract the heated iOpener from the hot water.
 - Thoroughly dry the iOpener with a towel.
- ⚠ The iOpener will be very hot, so be careful to hold it only by the end tabs.
- Your iOpener is ready for use! If you need to reheat the iOpener, heat the water to a boil, turn off the heat, and place the iOpener in the water for 2-3 minutes.

Step 7 — Rear Glass



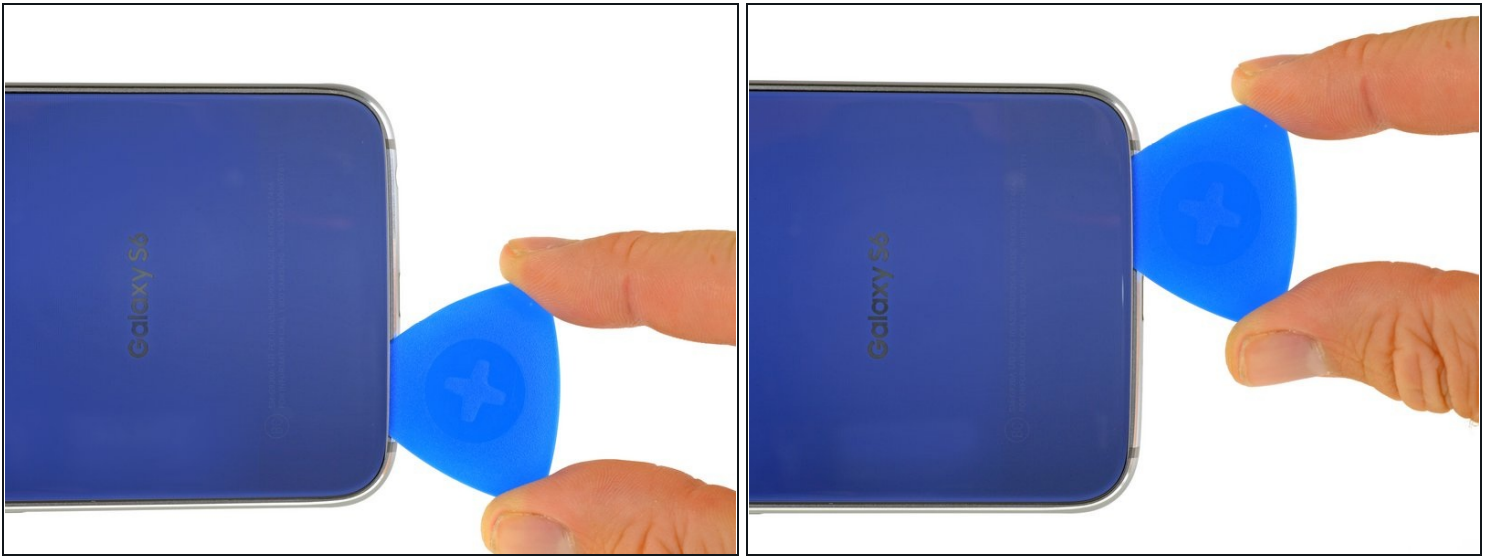
- ⓘ Opening your phone will compromise its waterproof seals. Have replacement adhesive ready before you proceed, or take care to avoid liquid exposure if you reassemble your phone without replacing the adhesive.
 - ⓘ If your glass is shattered, put packing tape over the entire panel to hold it together during the removal process.
 - Lay the heated iOpener over the rear panel for about two minutes to loosen the adhesive around the edge of the glass.
 - ⓘ You may need to reheat and reapply the iOpener several times to get the phone warm enough. Follow the iOpener instructions to avoid overheating.
 - Shift the iOpener to heat the remaining section of the panel for another two minutes.
- ⚠ A hair dryer, heat gun, or hot plate may also be used, but be careful not to overheat the phone—the OLED display and internal battery are both susceptible to heat damage.

Step 8



- Once the rear glass is hot to the touch, apply a suction cup near the bottom edge of the glass.
- Lift on the suction cup to create a small gap underneath the rear glass, and insert an opening pick into the gap.
- ① Optionally, once the pick is inserted, you can add a few drops of isopropyl alcohol into the gap to help weaken the adhesive in the following steps.

Step 9



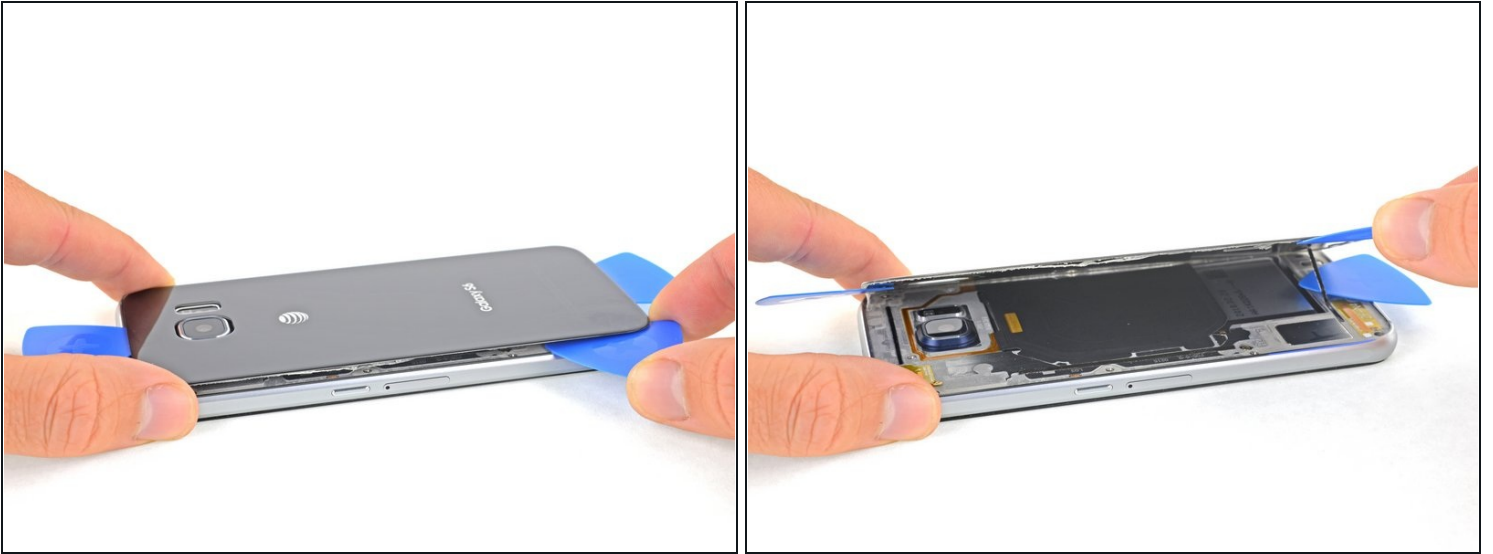
- Slide the pick along the bottom edge of the phone to slice through the adhesive securing the rear glass.
- ① Afterward, it may help to leave the pick in place and grab a second pick as you proceed to the next step. Leaving the pick inserted can help prevent the glue you just separated from re-adhering.
- ① Re-heat the rear glass as needed to prevent the glue from cooling and hardening.

Step 10



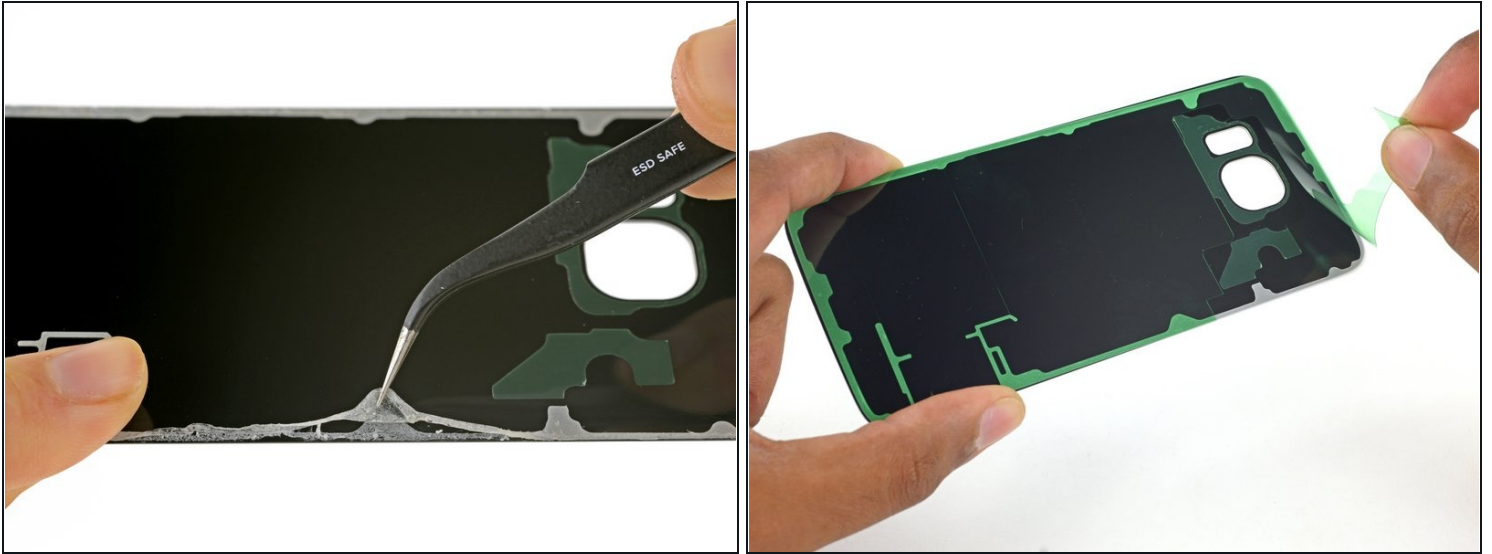
- Repeat the heating and cutting procedure for the remaining three sides of the phone.
- Leave an opening pick under each edge to prevent the adhesive from resealing.

Step 11



- Use an opening pick to slice through any remaining adhesive.
- Remove the rear glass.

Step 12

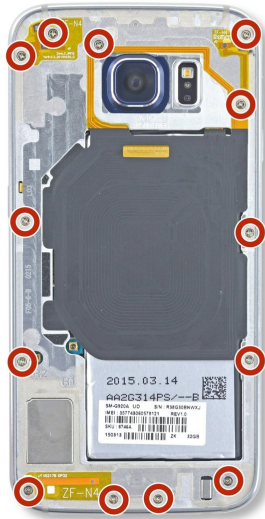


★ To install new rear glass:

- Use [tweezers](#) to peel away any remaining adhesive from the phone's chassis.
- Clean the adhesion areas with high concentration isopropyl alcohol (at least 90%) and a lint-free cloth. Swipe in one direction only, not back and forth. This will help prep the surface for the new adhesive.
- Peel the adhesive backing off of the new rear glass, carefully line up one edge of the glass against the phone chassis, and firmly press the glass onto the phone.

★ If you're reinstalling the old rear glass, or using rear glass without adhesive pre-installed, follow [this guide](#).

Step 13 — Midframe Assembly



- Remove the thirteen 3.5mm Phillips #00 screws securing the midframe to the phone.

Step 14



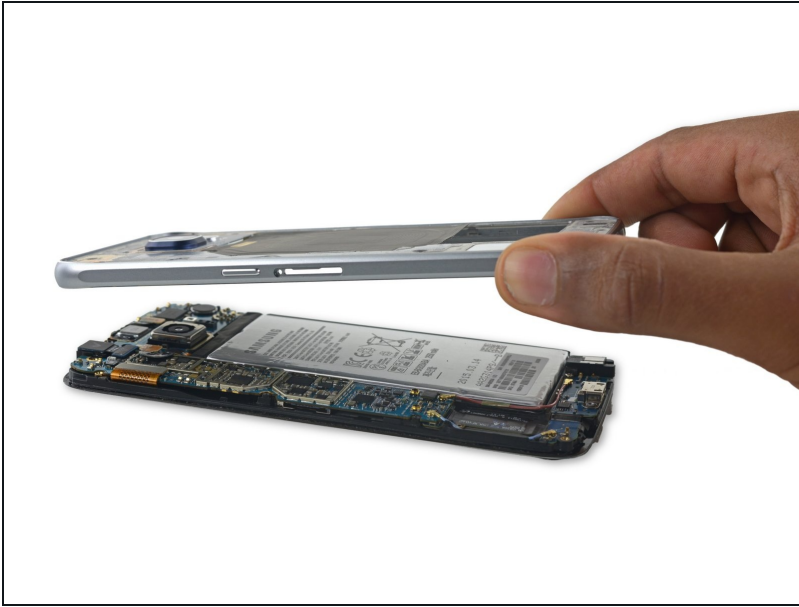
⚠ Before you perform this step, make sure you've ejected the SIM card tray.

- Firmly grasp the edge of the midframe assembly.
- Lift up on the midframe assembly while pushing down on the battery to separate the midframe assembly from the rest of the phone.
- While lifting the midframe, be careful to avoid snagging it on the audio jack or charging port.
- Once the midframe is partially separated, carefully run an opening pick around the edges of the rest of the phone to separate the top of the midframe.

⚠ Be careful not to accidentally insert the opening pick between the glass and display.

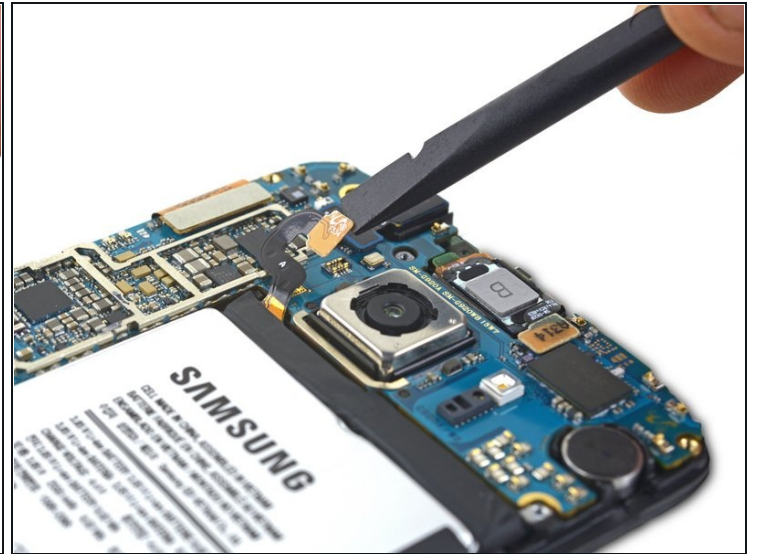
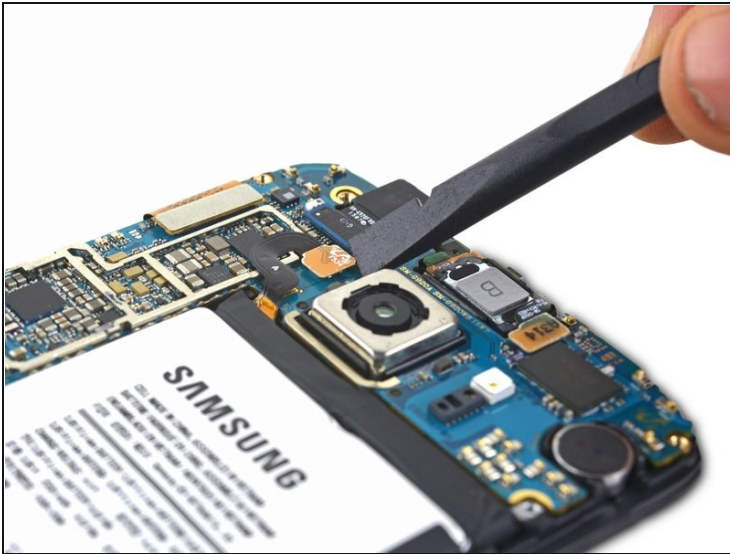
- To avoid damage to the headphone jack, remove the top of the midframe first, then push the midframe downwards to disengage it from the headphone jack.
- You may need to [heat](#) and apply an iOpener to the edges of the display to soften the display adhesive if midframe separation is difficult.

Step 15



- Lift the midframe assembly up to separate it from the rest of the phone.

Step 16 — Disassembling Samsung Galaxy S6 Battery Connector



- Use the flat end of the spudger to disconnect the battery connector from its socket on the motherboard.

Step 17 — Motherboard Assembly



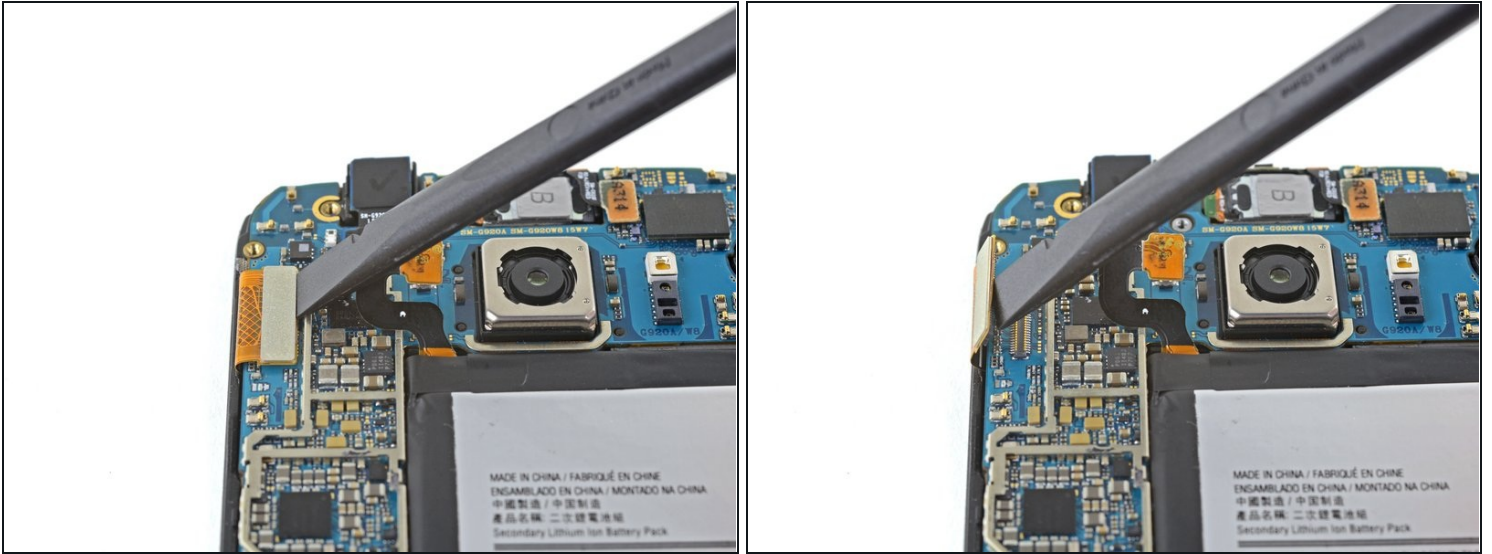
- Use the pointed edge of a spudger to disconnect the Bluetooth and Wi-Fi antenna cable connectors from their sockets on the motherboard.

Step 18



- Use the flat end of the spudger to disconnect the home button connector.

Step 19



- Use the flat end of a spudger to disconnect the display assembly cable from the motherboard.

Step 20



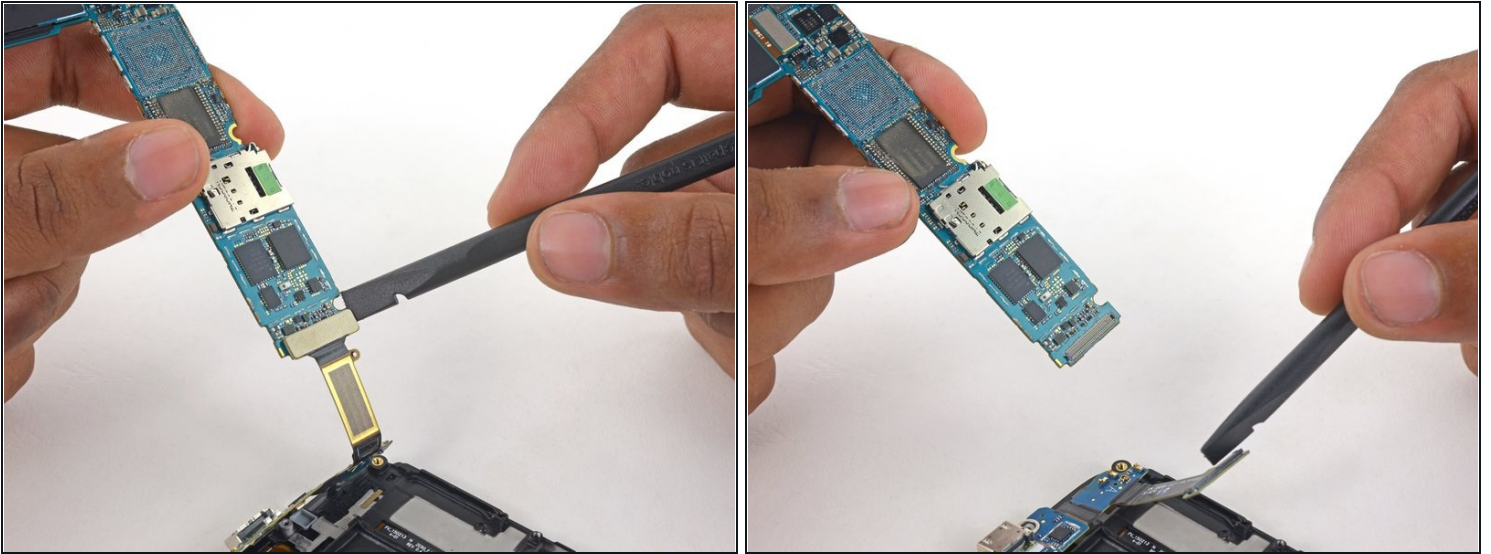
- Disconnect the earpiece speaker assembly cable connector from the motherboard.

Step 21



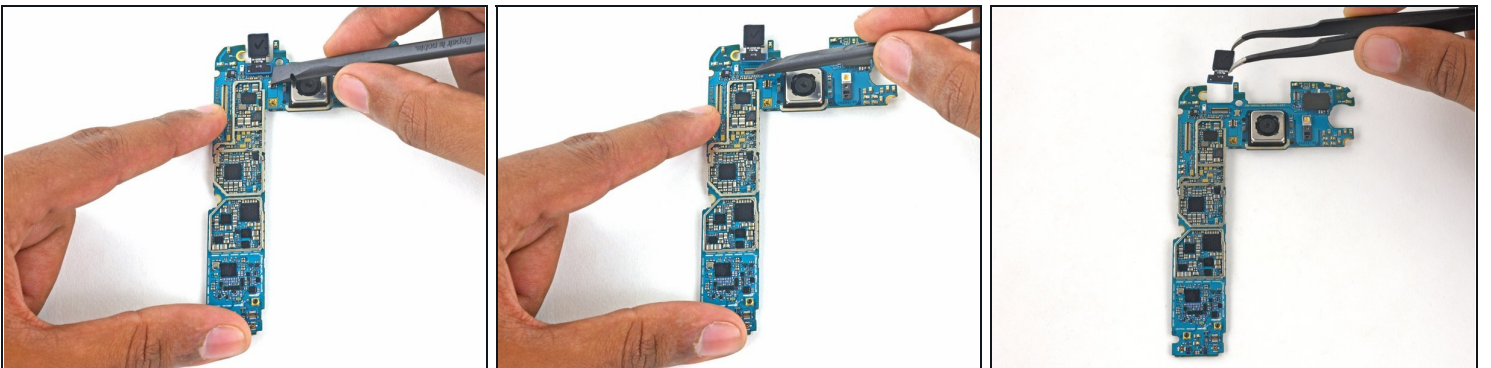
- Lift the camera-side end of the motherboard to separate it from the display frame.
 - ① You may need to move some of the ribbon cables out of the way while you lift the motherboard. If the board is hard to lift, check that it is fully disconnected and not caught on any ribbon cables.
- ⚠ Do **not** fully remove the motherboard yet—it is still attached to the daughterboard via a ribbon cable on the underside of the motherboard.

Step 22



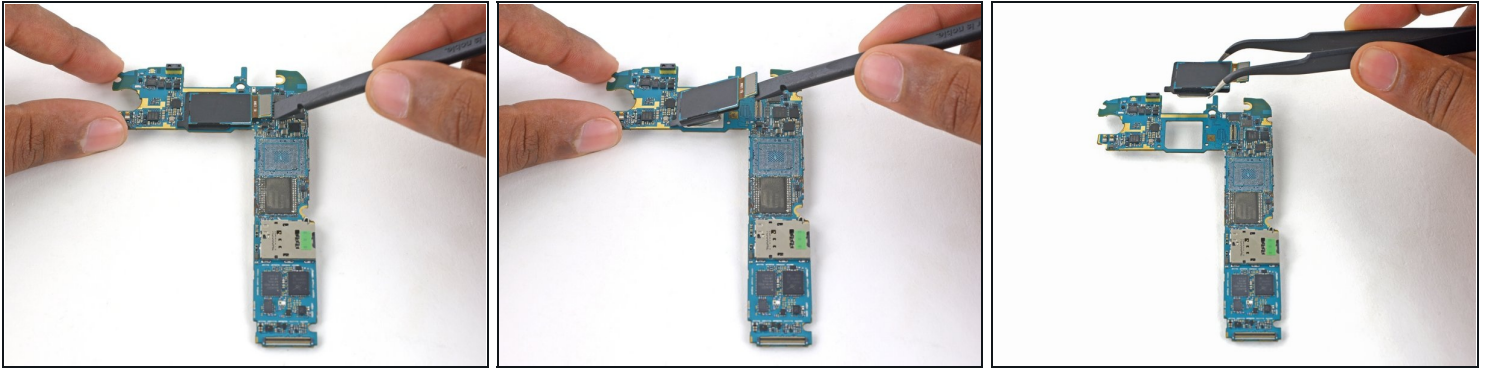
- Use the flat end of a spudger to disconnect the daughterboard ribbon cable connector from its socket on the underside of the motherboard.

Step 23 — Motherboard



- Use the flat end of a spudger to disconnect the front-facing camera from its connector on the motherboard.
- Remove the camera.

Step 24



- Use the flat end of the spudger to disconnect the rear-facing camera from its socket on the motherboard.
- Remove the camera.

To reassemble your device, follow these instructions in reverse order. When reinstalling the rear glass, refer to the [rear glass adhesive replacement guide](#).