Nothing Phone (3a) Pro Self-Fix Repair Guide

7/25/2025

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1.Introduction

The repair guide is intended for individuals with knowledge and experience in repairing electronic devices. If you are familiar with repairing complex electronic devices, we can provide you with Nothing's original parts, tools, and repair guide to facilitate your own out-of-warranty repairs. Please follow the steps below to perform various out-of-warranty repairs on Nothing devices.

1)Instructional Icons

Failure to follow alerts could result in fire, injury, data loss, or damage to the device, parts, or other property.

Warning

situations that could cause injury to yourself or others.

Caution

Situations that could cause damage to your device or other equipment. Instructions for reducing the risk of data loss or device hardware damage.

Notice

supplemental information for successfully completing procedures, includes notes, usage tips, or additional information, not a Warning or a Caution.

2)Warranty information

Damage caused by repairs performed outside of Nothing's authorized service provider network is not covered under Nothing's product warranty. Such damage may result in out-of-warranty fees for future repairs or render the device ineligible for repairs by Nothing's authorized service providers in the future.

2.Important statements

Precautions for Repair
It is recommended to contact after-sales service for fault diagnosis. After confirming a hardware fault, proceed with the repair. Before repairing the phone, please ensure that the device's software is up to date and that a backup of the device has been made.
Ensure that screen protectors, cases, etc., do not cause interference. Disconnect all cables and power off the phone.

Please read the entire guide thoroughly before starting any repairs. If you are not confident in your ability to follow the instructions as outlined, do not proceed.

This guide contains technical instructions for repairing the Nothing Phone and is intended for experienced technicians with the necessary knowledge, skills, and tools to repair electronic devices.

Warning
Failure to adhere to the repair instructions or to use genuine Nothing parts and appropriate tools may result in fire or other safety hazards, potentially leading to personal injury or death.

Caution
Ignoring the repair instructions or failing to use authentic Nothing spare parts and proper tools could damage the Nothing Phone, related components, or other property, and may also compromise the device’s functionality.

Notice
Any damage that occurs due to repairs performed outside of Nothing or its Authorized Service Provider network is not covered by Nothing’s product warranty or Nothing Care plans. Such damages may lead to additional out-of-warranty repair costs or make the device ineligible for future repairs by Nothing or its Authorized Service Providers.

2.Important statements

ESD (Electrostatic Discharge) Precautions

ESD occurs when a sudden flow of electricity happens between two electrically charged objects due to contact, an electrical short, or dielectric breakdown. This can negatively affect mobile devices, particularly their electrical components.

- To prevent ESD damage, it is advisable to use ESD safety equipment such as an anti-static wrist strap, gloves, and an ESD-safe mat when repairing devices.
- Enhancing airflow in the work area can reduce the likelihood of accidental static electricity discharges, especially since low-humidity environments like air-conditioned rooms can increase the potential for such discharges.

3.Battery Safety

Warning
A Nothing device contains a built-in lithium-ion rechargeable battery. Battery safety is the number one concern when repairing such devices.

Only technicians with the proper knowledge, experience, and tools required for electronic device repair should replace a battery. It’s essential to install new batteries. Previously removed batteries should not be reused, as used battery cells can be damaged during the removal process.

Improper battery replacement, mishandling of parts, or failure to adhere to the provided instructions could lead to battery overheating, swelling, venting, leaking, or a thermal event. These incidents could result in fire, injury, death, data loss, or damage to the device, parts, or other property.

To avoid these potentially harmful events, follow battery safety guidelines and work in a safety-focused workspace with the appropriate tools. It is important to be prepared for all possible outcomes.

3.Battery Safety

Precautions for Battery Handling During Repairs

- Before beginning any repairs, ensure the battery is fully discharged to 0% and the device is powered off. A fully discharged battery is less likely to cause thermal events.
- If you can’t determine the battery level, don’t repair the device.
- Do not reuse batteries that have been removed, always replace them with new ones.
- Avoid exposing the battery to excessive heat, direct sunlight, or temperatures outside the battery's operating range.
- Maintain a clean workspace, free of foreign objects and sharp materials.
- To prevent the release of toxic fumes or battery overheating, do not puncture, strike, or compress lithium-ion batteries or devices containing them.
- Exercise caution when using sharp tools near the battery.
- Ensure that loose screws, extra screws, or small components are not left inside the device.
- Do not place devices with batteries inside a microwave to heat them.
- Do not throw or drop the battery.
- Dispose of used batteries in accordance with local laws and regulations.

How to Set Up a Battery Safety Work Area

Tools needed:

- Clean, dry, untreated sand
- A sand container/A Fire extinguisher for lithium batteries
- Protective gloves
- Safety goggles
- Long - handled clip

Confirm that the surrounding environment is safe and there are no flammable or combustible items.

3.Battery Safety

How to Manage a Battery Thermal Event

Warning
A battery thermal event transpires when a fast chemical reaction occurs within the battery cells, causing the rapid release of stored energy, resulting in venting and fire. This phenomenon can be triggered by physical damage, improper replacement or repair, or extreme temperatures.

Immediately act if you notice any of the following battery thermal event indicators:
- Smoke, sparks, or soot coming from a lithium-ion battery or a device containing one.
- Sudden swelling of a battery pack.
- Hissing or popping noises from a lithium-ion battery or a device containing one.

Quickly cover the battery or device with a large quantity of clean, dry sand. Dump the sand all at once, as rapid intervention is crucial to control the reaction.
For additional help, promptly contact your local fire department.
After containing the reaction, evacuate the room for 60 minutes. Ensure the area is ventilated and do not return until the smoke has cleared.
Wait 60 minutes before handling the device. Wear protective gloves and safety goggles, then carefully remove the device from the sand.
Dispose of the damaged battery or device according to local environmental regulations and guidelines.

4.Broken Glass Safety

Warning
The display and some back covers of Nothing phones are made of glass. The glass may break if a Nothing phone is dropped on a hard surface, subjected to a significant impact, or crushed, bent, or deformed. Do not attempt to remove shattered or broken glass fragments without protection.

For all cases of broken glass:
1. Wear safety goggles and gloves.
2. Take a small piece of Acrylic Protective Tape.(Acrylic Protective Tape for Broken Back Cover&Screen)

3. To prevent injury and debris from broken glass, apply the Acrylic Protective Tape.
4. Press down firmly on the Acrylic Protective Tape to ensure it adheres securely to the glass. Wait for at least 5 minutes to allow the acrylic protective cover to bond tightly with the glass.

Warning
If your device's glass is cracked, be careful not to let the shards injure your hands or any other part of your body.

8.Disassembly

Before starting the repair, make sure to follow these steps

- Back up your personal data.
- Fully discharge the battery.
- Turn off the device.
- Clear and clean your repair workspace.
- Put on an ESD wrist strap and connect it to a properly grounded ESD mat

Warning

Loose screws, extra screws, or small parts inside the device can damage the battery and create safety issues. Please set aside all parts and screws removed during repairs and ensure you have accounted for them before finishing the work.

Parts Replacement Index

Disassembly

- Back cover > p.12 – p.18
- Sub-board (microphone/ USB-C port) > p.19 – p.28
- Speaker pack > p.29
- Rear Camera > p.30 – p.39 (remove back cover first)
- Front Camera > p.40 – p.49 (remove back cover first)
- Battery > p.50 – p.64 (remove back cover first)
- Side buttons > p.65 – p.72 (remove first: back cover, cameras, battery)
- Screen/ Display > p.76 – p.85
- (remove first: All previous parts)

Assembly

- Side buttons > p.73 – p.75 (continue with p.87 – p.122)
- Screen/ Display > p.87 – p.123 (all parts)
- Cameras > p.87 – p.95 (plus all following parts)
- Speaker pack > p.97 (plus all following parts)
- Sub-board (microphone/ USB-C port) > p.98 – 105 (plus all following parts)
- Battery > p.106 – p.114 (plus all following parts)
- Back cover > p.119 – p.123

8.Disassembly

Disassembly - Back cover

Warning

Read Broken Glass Safety and Battery Safety and follow workspace and battery handling guidelines before you begin.

Step 1: Heat the heating bag (70°C ~75°C) and stick it on the bottom edge of the back cover for 3 minutes, stick it on the left edge of the back cover for 3 minutes, stick it on the right edge of the back cover for 3 minutes

Warning

Do not heat the device in a microwave. Doing so could cause an explosion.

Heating bag

8.Disassembly

Disassembly - Back cover

The insulated heating bag that can be heated in a microwave and used to transfer heat to the adhesive around the edges of a mobile Phone.

How to Heat and Use the heating bag

- Before operation, we recommend you empty the microwave, as any unpleasant food residues at the bottom may eventually stick to the heating bag.
- Place the heating bag in the center of the microwave.
- For rotating microwaves: ensure the plate can rotate freely. If the turntable gets stuck, the heating bag might overheat and burn.

Warning
Do not heat the device in a microwave. Doing so could cause an explosion.

8.Disassembly

Disassembly - Back cover

- Heat the heating bag for thirty seconds.
- During the entire repair process, if the heating bag cools down, reheat it in the microwave for an additional thirty seconds each time.

Warning

Be careful not to overheat the heating bag during the repair process, as overheating may cause the heating bag to explode. Do not attempt to heat it above 100 degrees Celsius.

Warning

If the heating bag becomes excessively inflated from overheating, do not touch the heating bag.

Warning

If the middle part of the heating bag is still too hot to touch, wait for it to cool down before using it again. A properly heated heating bag should retain heat for ten minutes.

8.Disassembly

Disassembly - Back cover

- Remove the heating bag from the microwave, holding one of the flat edges on either side to avoid touching the hot center portion.

Warning

The heating bag will be very hot, so be extremely careful when handling it. Use oven mitts if necessary.

8.Disassembly

Disassembly - Back cover

If you don't have a microwave, please follow these steps to heat the heating bag in boiling water.

- 1. Fill a pot or pan with enough water to fully submerge the heating bag.
- 2. Heat the water until it boils. Turn off the heat.
- 3. Place the heating bag in the hot water for 2-3 minutes. Ensure that the heating bag is completely submerged.
- 4. Use tongs to extract the heated bag from the hot water.
- 5. Thoroughly dry the heating bag with a towel.
- 6. The heating bag will be very hot, so handle it carefully by its edges.
- 7. Your heating bag is ready to use! If you need to reheat the heating bag, heat the water to a boil, turn off the heat, and place the heating bag in the water for 2-3 minutes.

8.Disassembly

Disassembly - Back cover

Step 2: Place the suction cup in the middle position near the bottom edge of the back cover. Hold the phone firmly with your left hand and gently lift the suction cup upward with your right hand. Slowly pull until a small gap forms between the bottom of the back cover and the frame. Then lift up the back cover slowly and remove it gently

Warning

For separable handle suction cups, be careful not to injure yourself as the handle can be parted during use. If the glass breaks during the disassembly process, please read Broken Glass Safety. be careful not to let the shards injure your hands or any other part of your body.

Caution

As the back cover can be damaged by excessive force, be careful not to damage the back cover.

Notice

If you have trouble creating a gap, reheat the heating bag additionally, and apply it on the back cover to further soften the adhesive.

8.Disassembly

Disassembly - Back cover

Caution

Do not scratch the phone. Be careful not to put your fingertips or any foreign objects on the rear camera lens or back cover lens

8.Disassembly

Disassembly - Microphone & USB C port

Remove the following part before you begin:

- **Back cover**

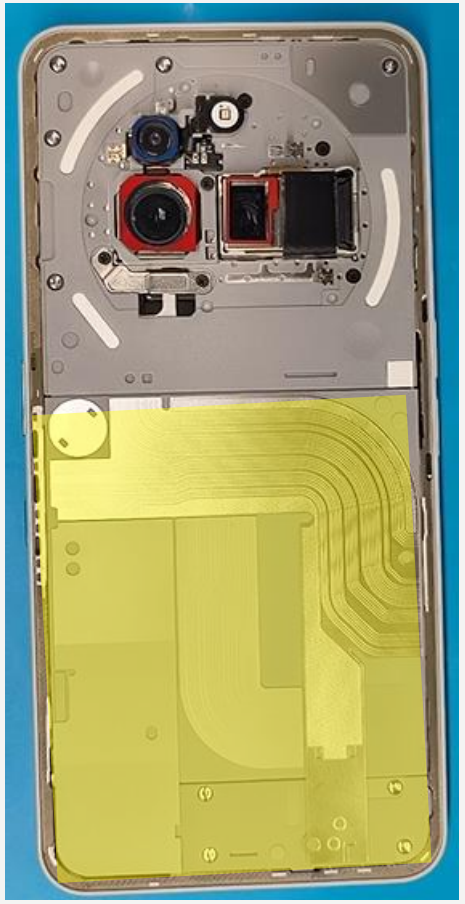
Step 1: Using ESD plastic tweezers, carefully insert them about 1mm into the gap on either side of the battery cover. Make sure not to insert too deep to avoid damaging the battery or other internal components. Gently pry the tabs to release the cover. Then, carefully grasp the trim with your fingers. Apply steady, gentle force to pull it outward, making sure to support it evenly to avoid bending or breaking it. Gradually go around and slowly pull the trim out until it is completely separated.

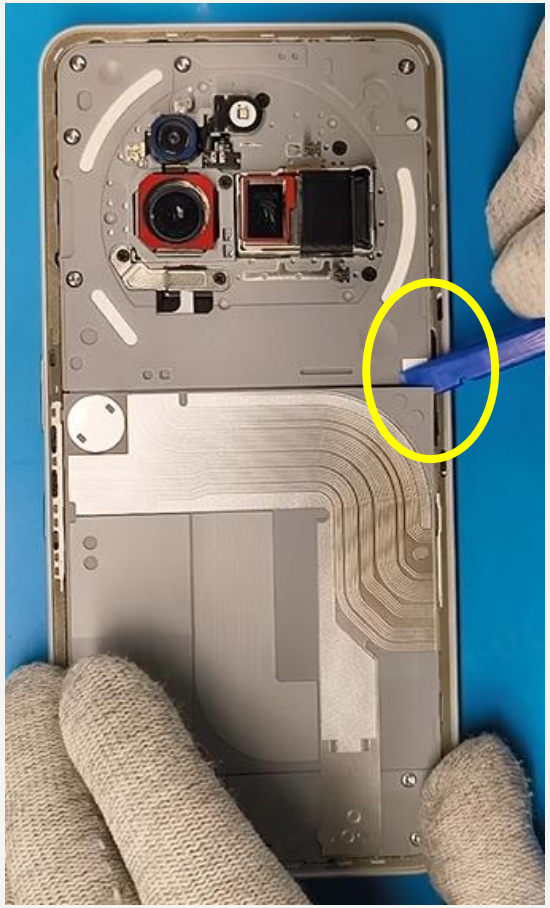
Warning

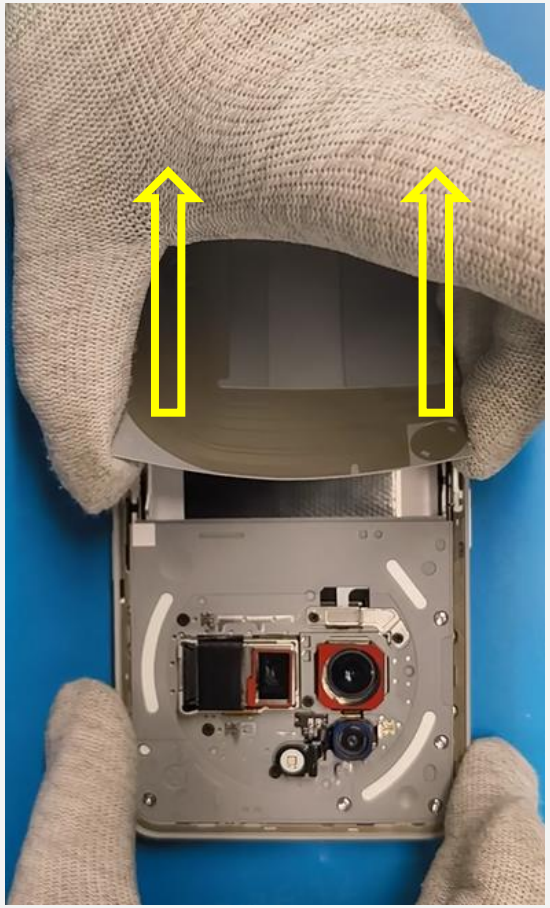
Make sure not to insert too deep to avoid damaging the battery

8.Disassembly

Disassembly - Microphone & USB C port







8.Disassembly

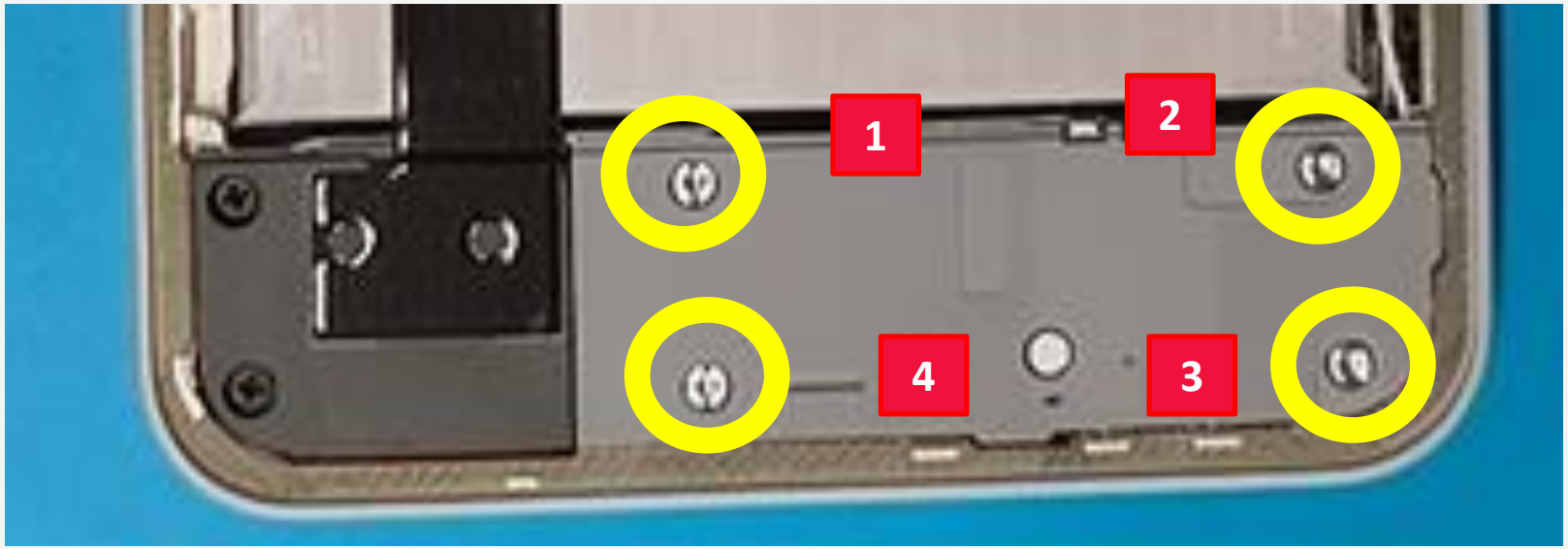
Disassembly - Microphone & USB C port

Step 2: Using a PH00 screwdriver, methodically remove the 3 Phillips-head screws, as illustrated in the diagram. Each screw is a cylindrical head type with dimensions of M1.4×3.8×0.4mm. Carefully collect and store all the screws you have removed to avoid them falling into the battery compartment, as this could potentially damage the battery or cause other issues.

8.Disassembly

Disassembly - Microphone & USB C port

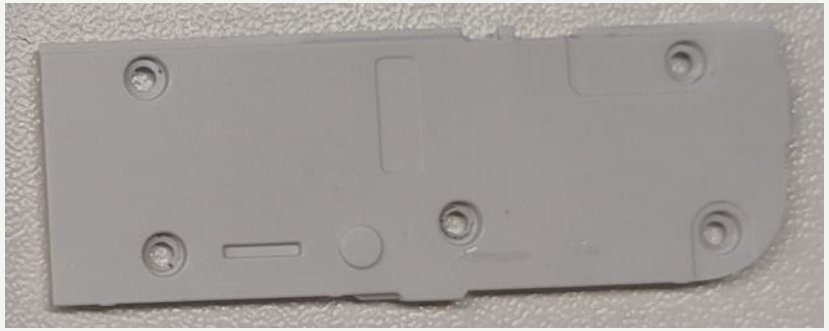
Step 3: Using a T5 screwdriver, systematically remove the 4 hexagon socket flat head screws shown in the diagram (each measuring M1.4×3.9×0.3mm). Carefully collect and store all removed screws to prevent them from falling into the battery compartment, as this could damage the battery or cause other issues.



8.Disassembly

Disassembly - Microphone & USB C port

Step 4: Gently press the bracket with your fingers, gently push outward, and slowly remove the sub board bracket.

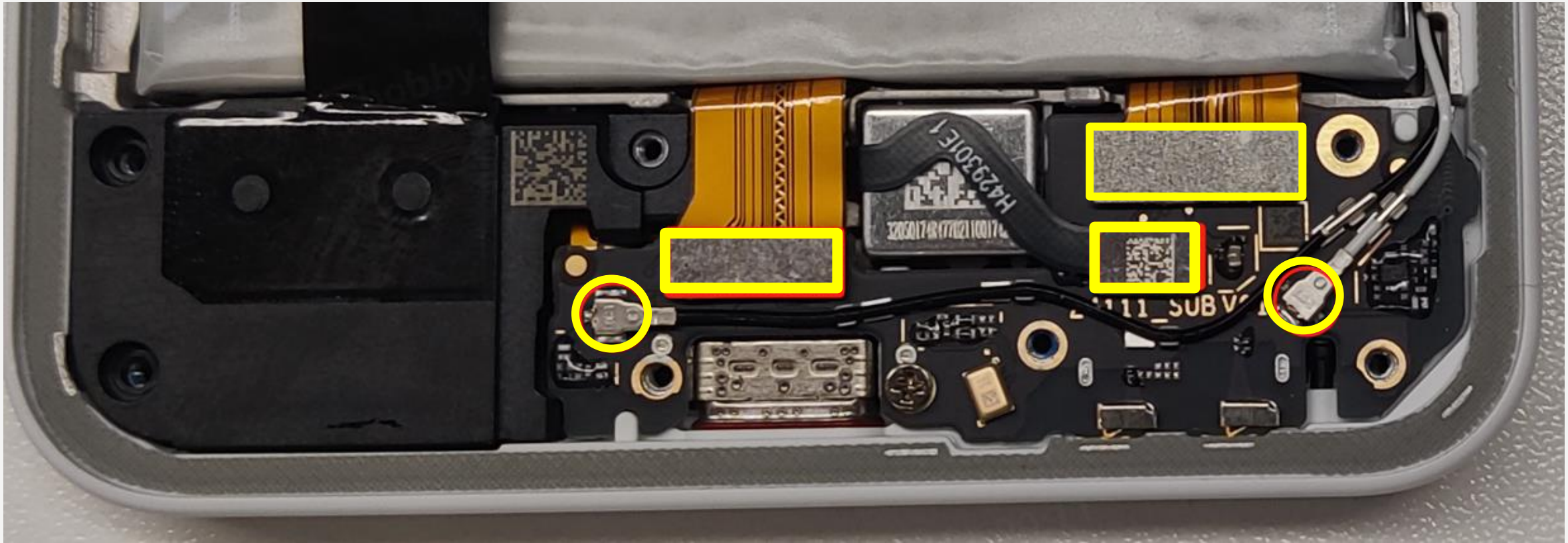


Sub board bracket

8.Disassembly

Disassembly - Microphone & USB C port

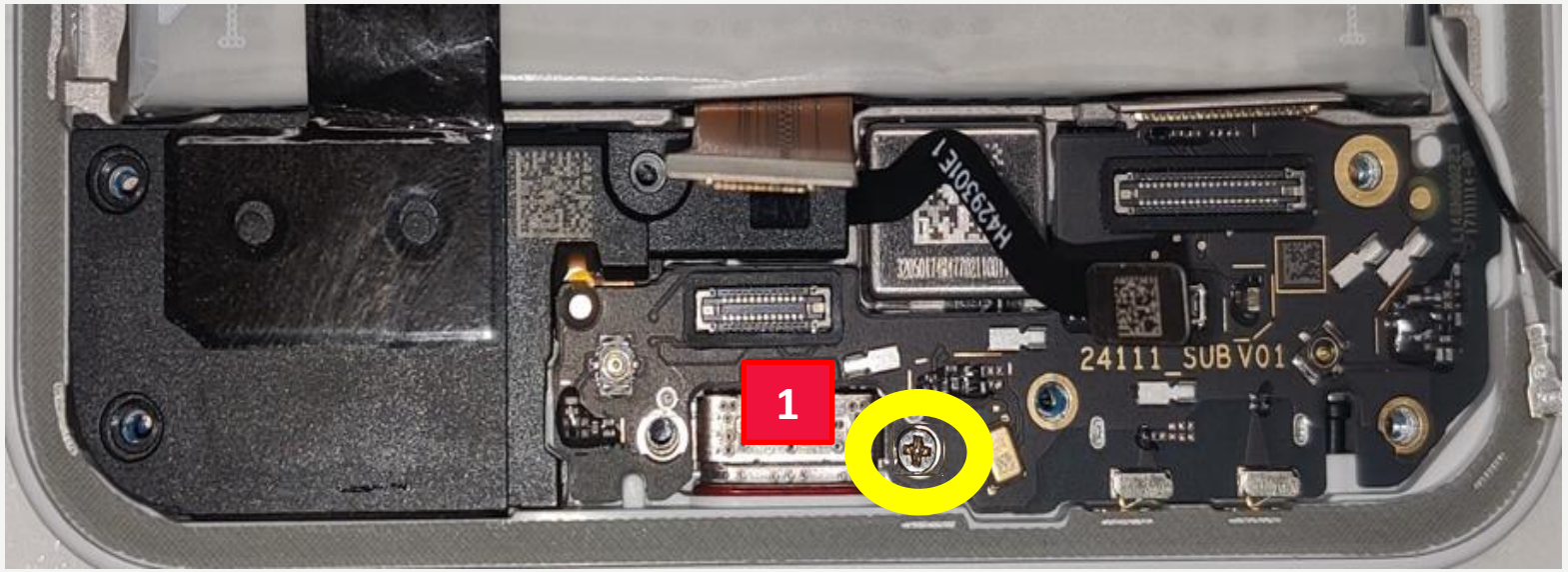
Step 5: Carefully use a pair of tweezers to detach the BTB connectors and RF connection clips at the sub board end. Ensure that you handle these components gently to avoid damaging the surrounding components.



8.Disassembly

Disassembly - Microphone & USB C port

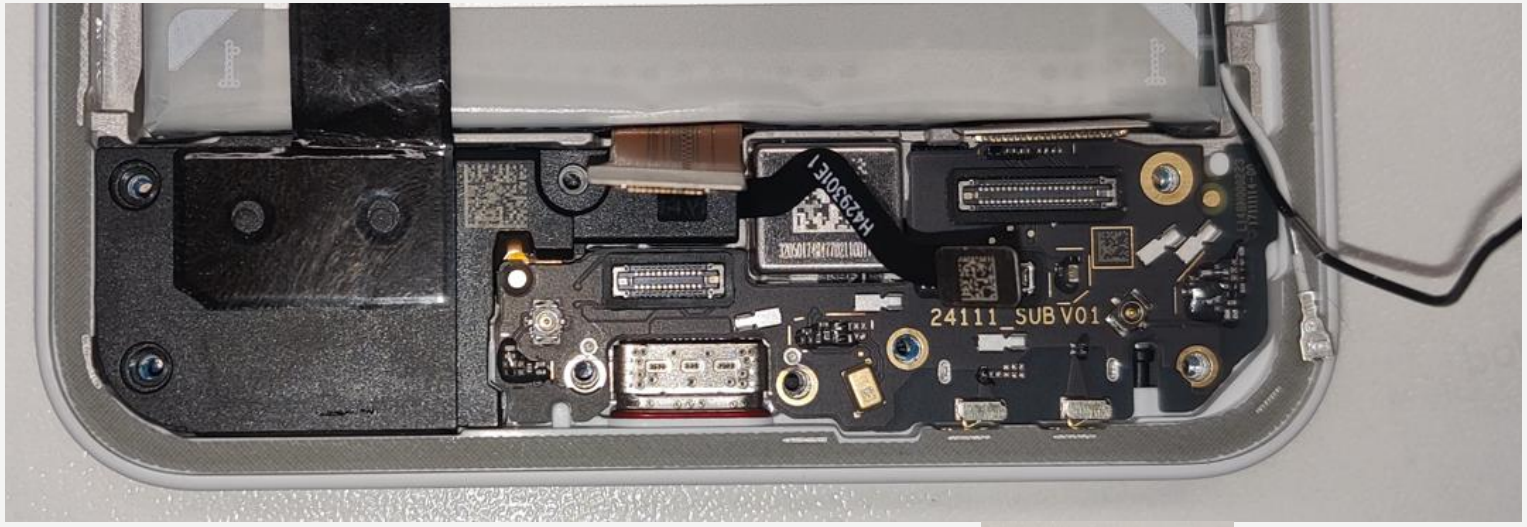
Step 6: Using a PH00 screwdriver, remove 1 screw (M1.4×2.8) from the sub board.



8.Disassembly

Disassembly - Microphone & USB C port

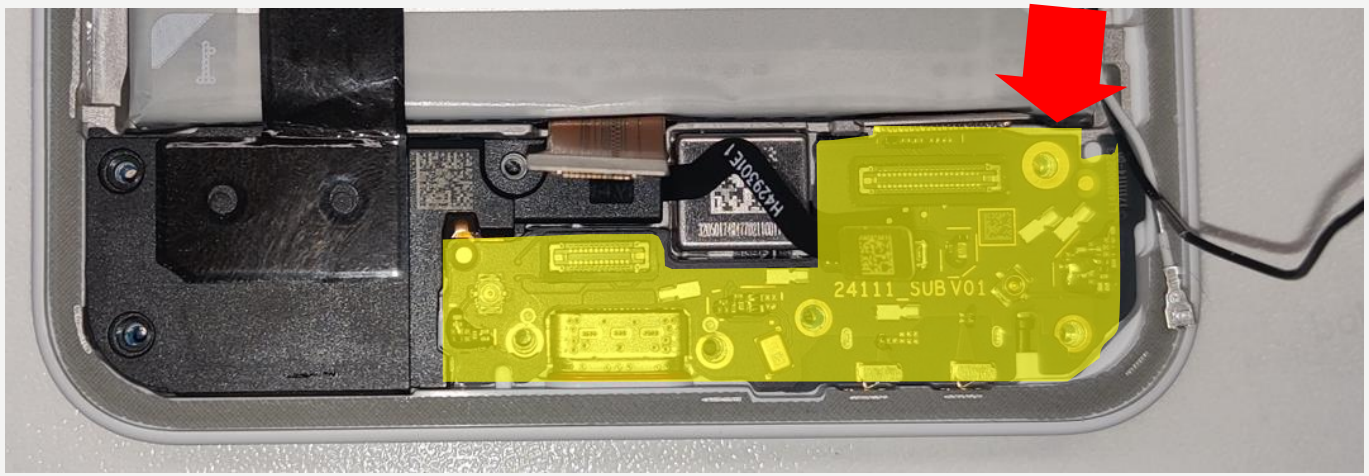
Step 7: Insert the SIM ejection pin into the hole of the SIM card tray to loosen the tray and pull out the tray gently from the tray slot.

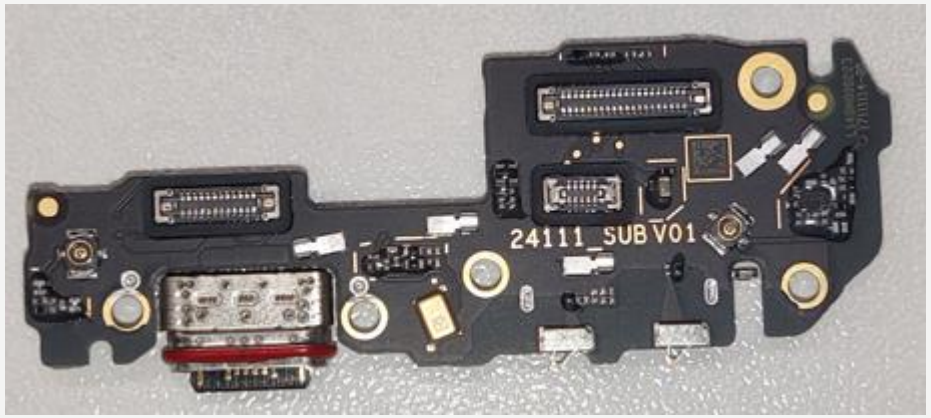


8.Disassembly

Disassembly - Microphone & USB C port

Step 8: Using tweezers, carefully insert them into the gap between the sub board and the mid-frame. Apply gentle, even pressure to slowly and carefully remove the sub board. Take special care to avoid damaging any of the electronic components on the sub board.





Sub board

8.Disassembly

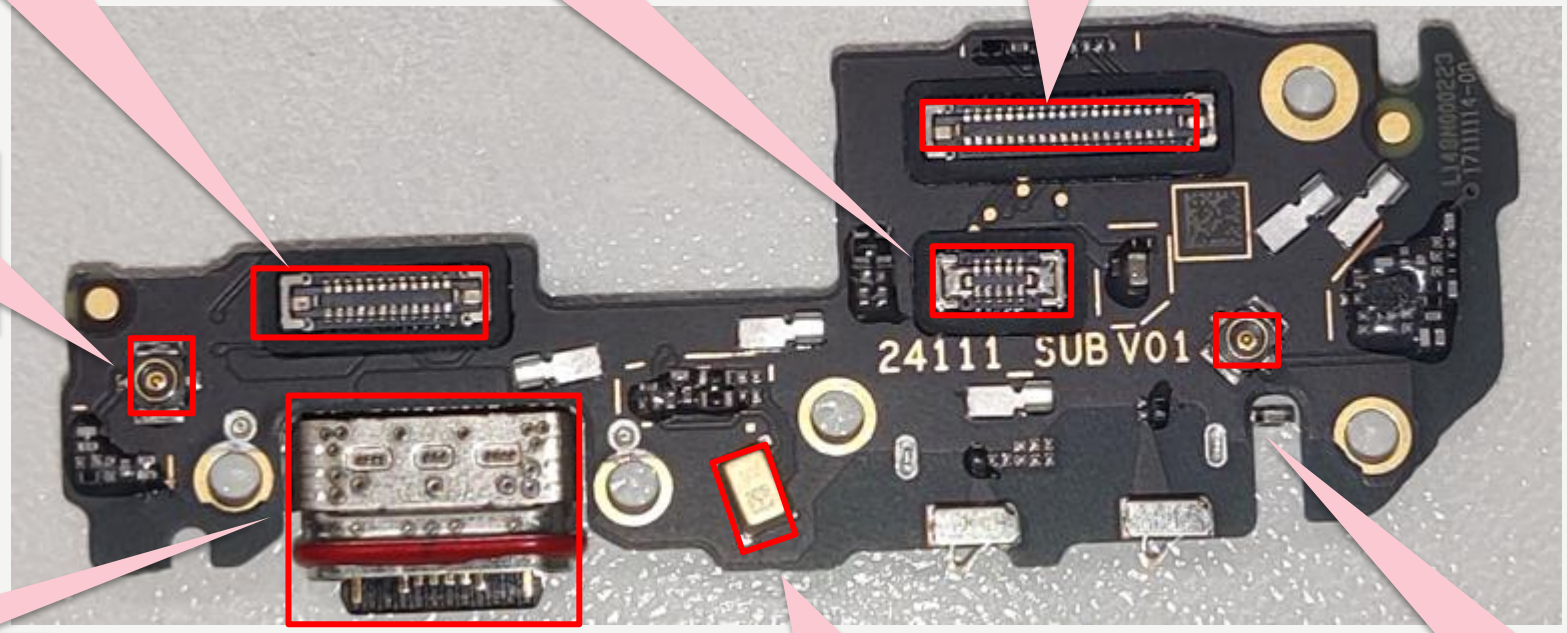
Disassembly - Microphone & USB C port

Main FPC BTB connector: If damaged, vibrator or speaker or MIC function may work abnormal.

Fingerprint BTB connector: If damaged, fingerprint function may work abnormal.

Main FPC BTB connector: If damaged, vibrator or speaker or MIC function may work abnormal.

RF connector: If damaged, antenna function may work abnormal.



USB charging connector: If damaged,
may cause phone failed to charging

Main MIC: If damaged, the others maybe fail to hear your voice or low volume or noise.

RF connector: If damaged, antenna function may work abnormal.

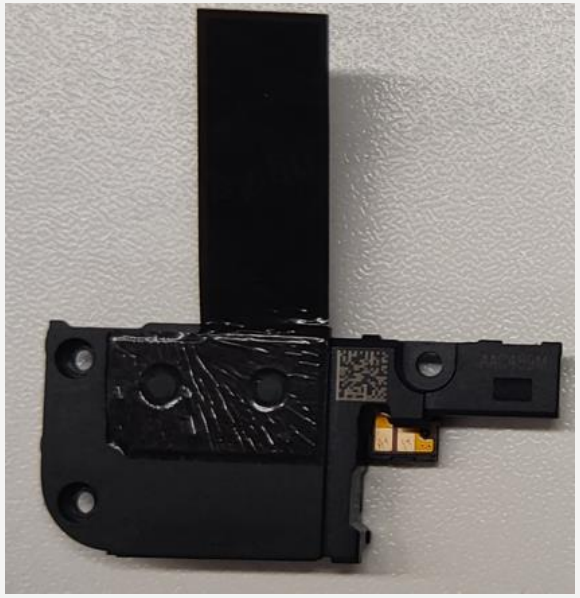
8.Disassembly

Disassembly - Speaker

Remove the following part before you begin:

- **Back cover**
- **Microphone & USB C port**

Step 1: Gently lift the speaker assembly with your fingers. Make sure to handle it with care to avoid damaging any surrounding components.



Speaker

8.Disassembly

Disassembly - Rear Camera

Remove the following part before you begin:

- **Back cover**

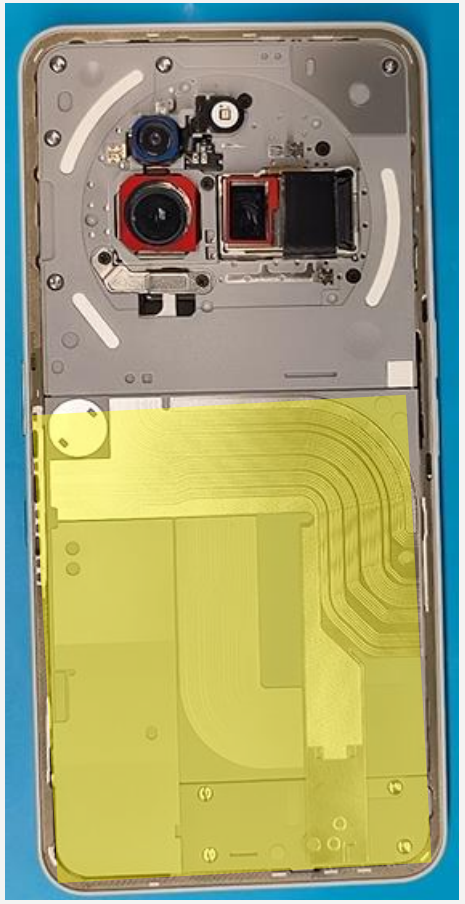
Step 1: Using ESD plastic tweezers, carefully insert them about 1mm into the gap on either side of the battery cover. Make sure not to insert too deep to avoid damaging the battery or other internal components. Gently pry the tabs to release the cover. Then, carefully grasp the trim with your fingers. Apply steady, gentle force to pull it outward, making sure to support it evenly to avoid bending or breaking it. Gradually go around and slowly pull the trim out until it is completely separated.

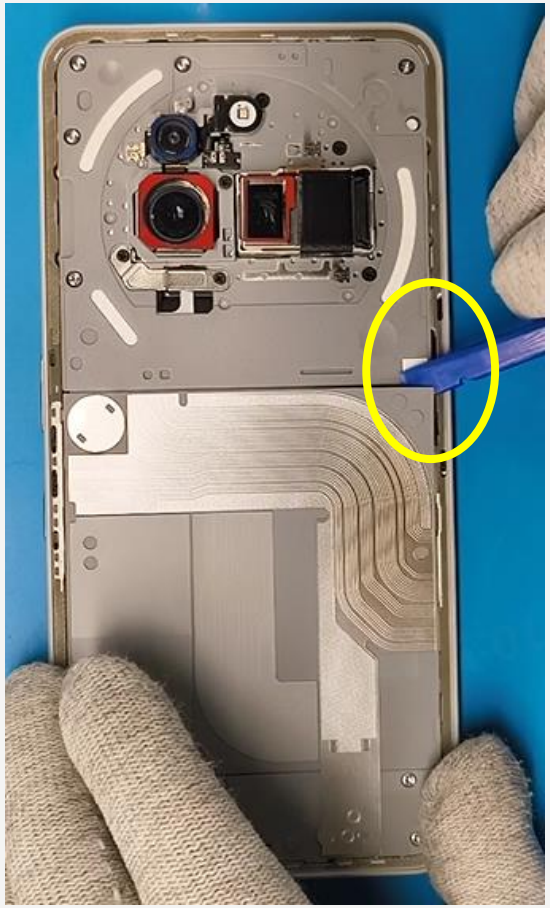
Warning

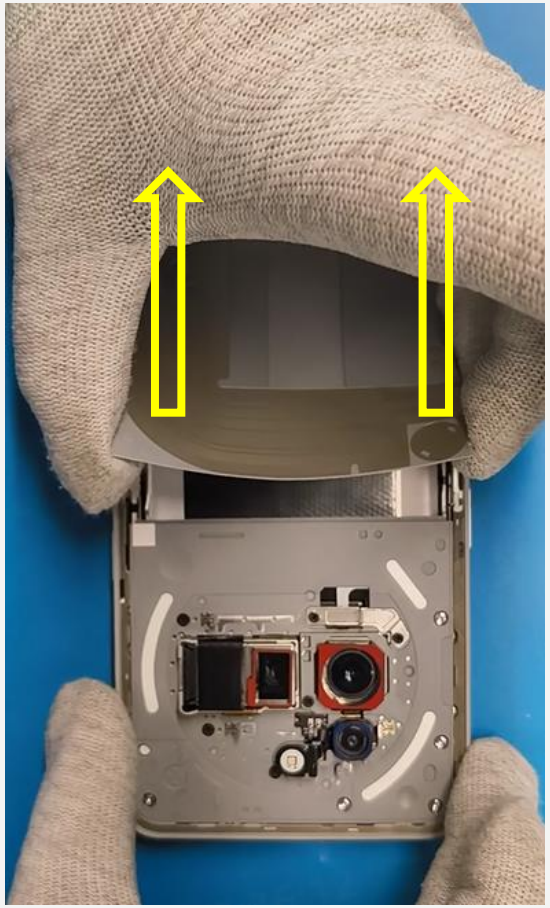
Make sure not to insert too deep to avoid damaging the battery

8.Disassembly

Disassembly - Rear Camera







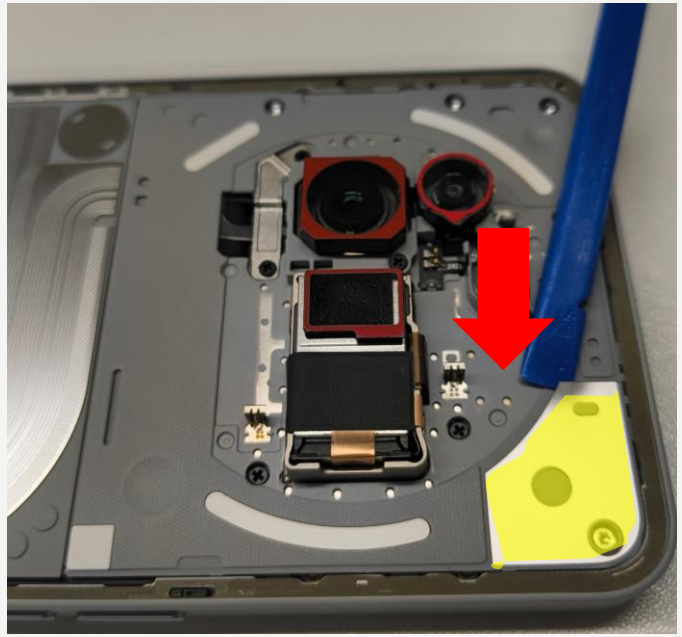
8.Disassembly

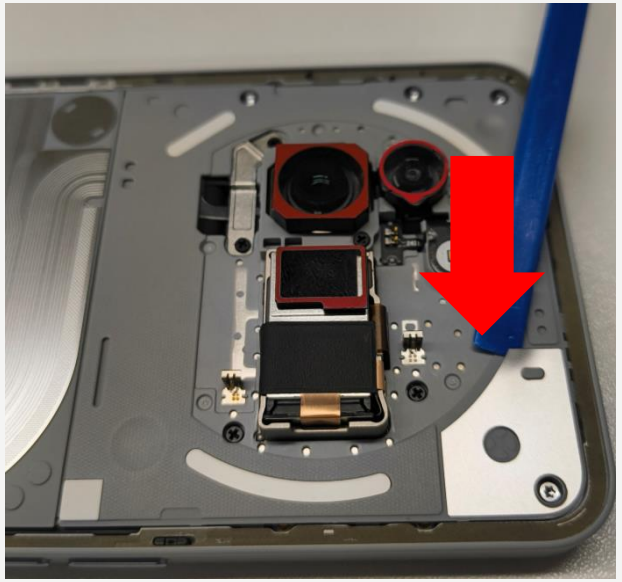
Disassembly - Rear Camera

Step 2: Using a slim, sharp pry plastic tool, carefully insert it into the gap at the edge of the decorative panel. Slowly and gently slide the pry tool back and forth to gradually create a small separation space. Once you have a sufficient gap, grasp the point where the pry tool and the decorative panel meet with your fingers. Apply a bit of pressure and pull outward carefully to completely detach the decorative panel.

Notice

It is recommended not to reuse the material after disassembly.

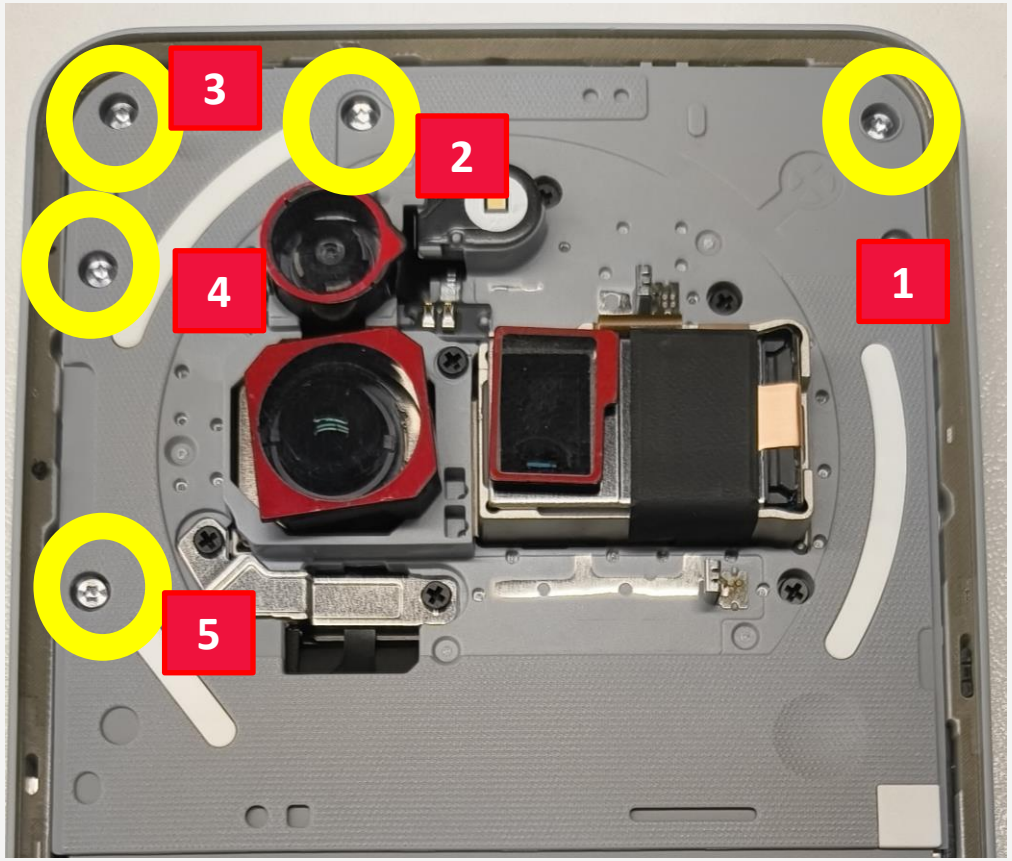




8.Disassembly

Disassembly - Rear Camera

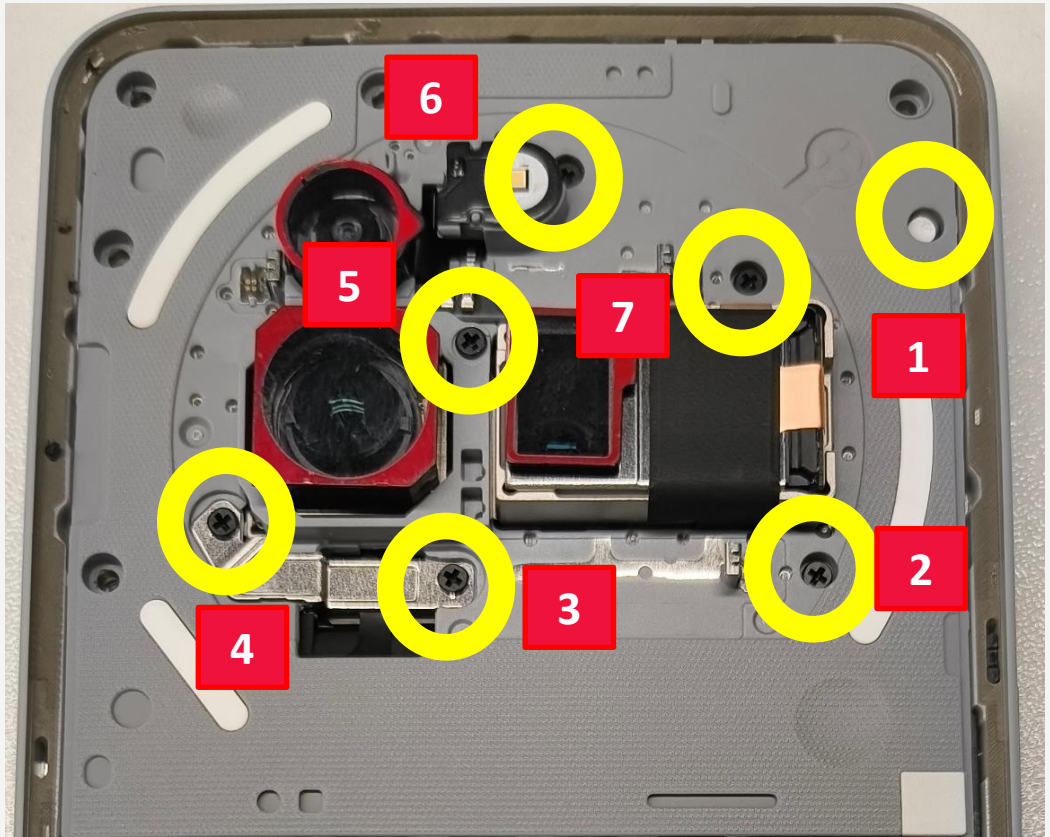
Step 3: Using a T5 screwdriver, systematically remove the 5 hexagon socket flat head screws shown in the diagram (each measuring M1.4×3.9×0.3mm). Carefully collect and store all removed screws to prevent them from falling into the battery compartment, as this could damage the battery or cause other issues.



8.Disassembly

Disassembly - Rear Camera

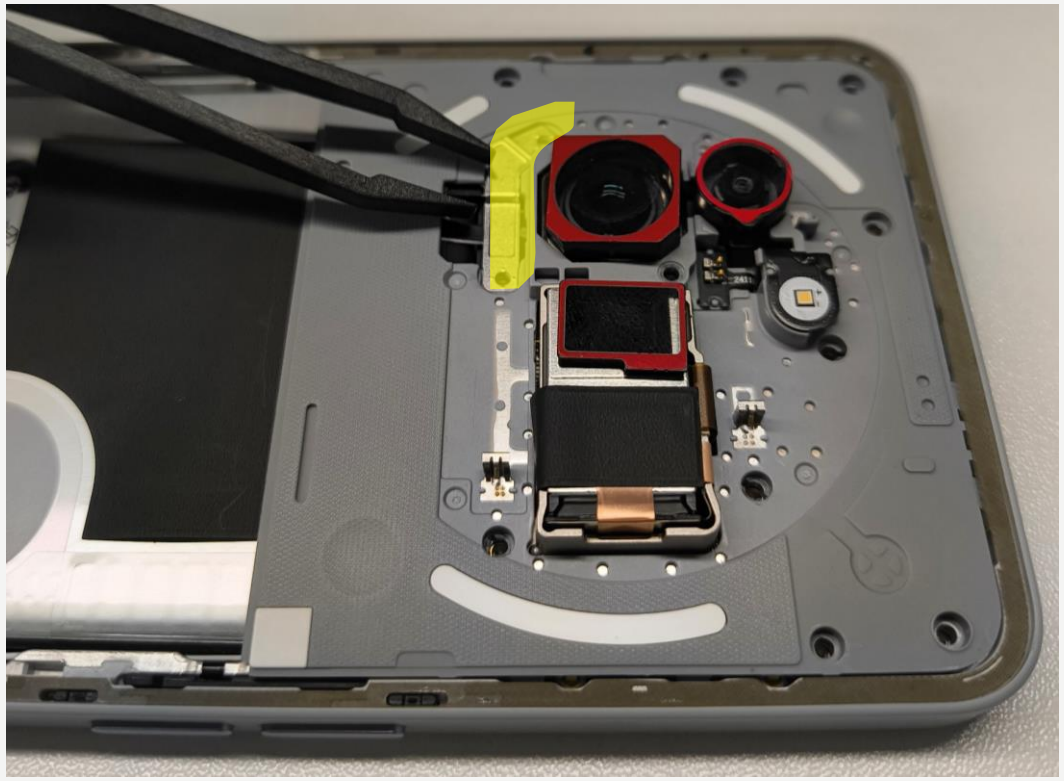
Step 4: Using a PH00 screwdriver, methodically remove the 7 Phillips-head screws, as illustrated in the diagram. Each screw is a cylindrical head type with dimensions of M1.4×3.8×0.4mm. Carefully collect and store all the screws you have removed to avoid them falling into the battery compartment, as this could potentially damage the battery or cause other issues.



8.Disassembly

Disassembly - Rear Camera

Step 5: Using a pair of tweezers, gently grip and remove the Glyph connector bracket

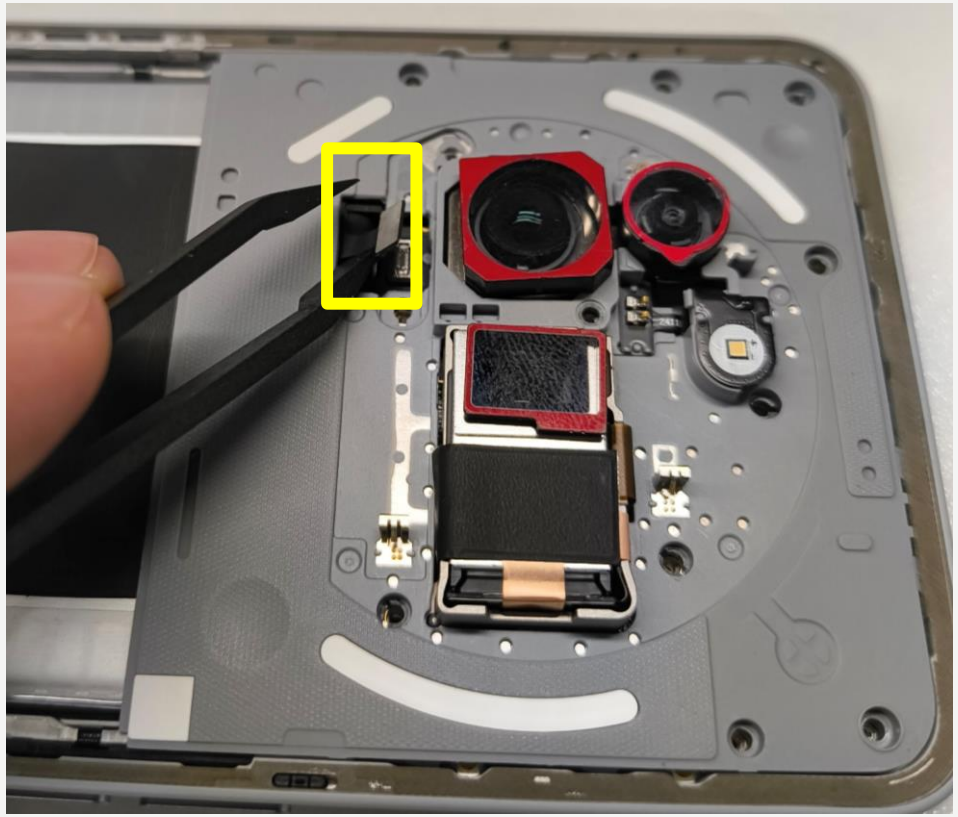


Glyph connector bracket

8.Disassembly

Disassembly - Rear Camera

Step 6: Using ESD plastic tweezers, carefully lift the BTB connector.



8.Disassembly

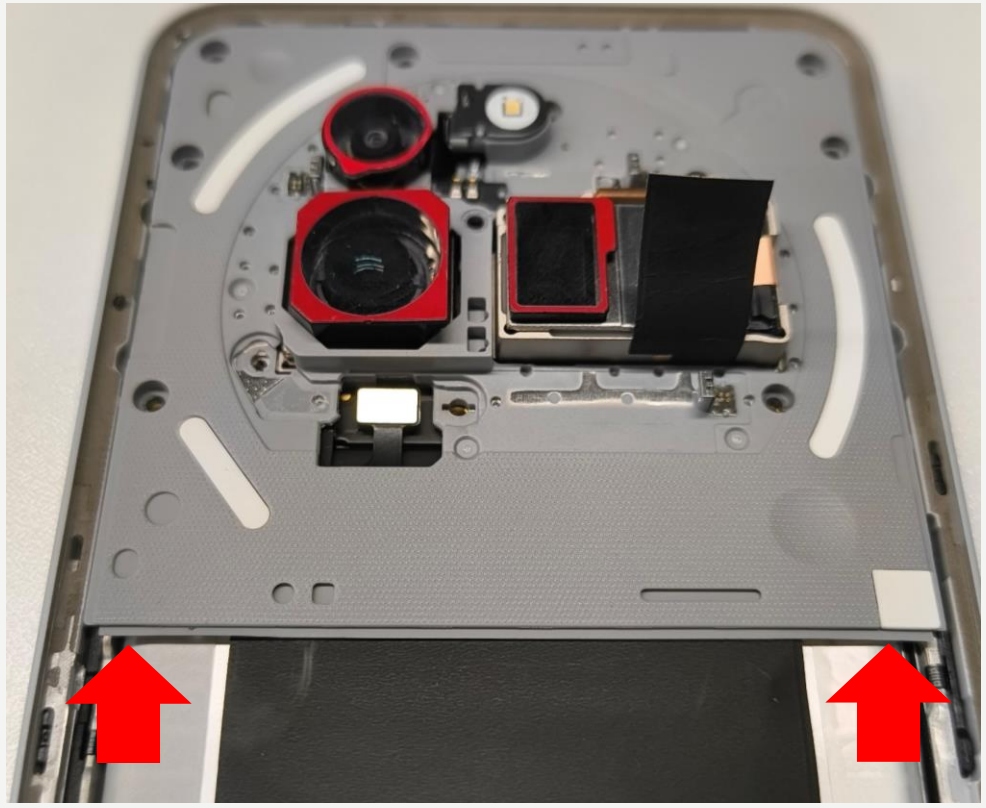
Disassembly - Rear Camera

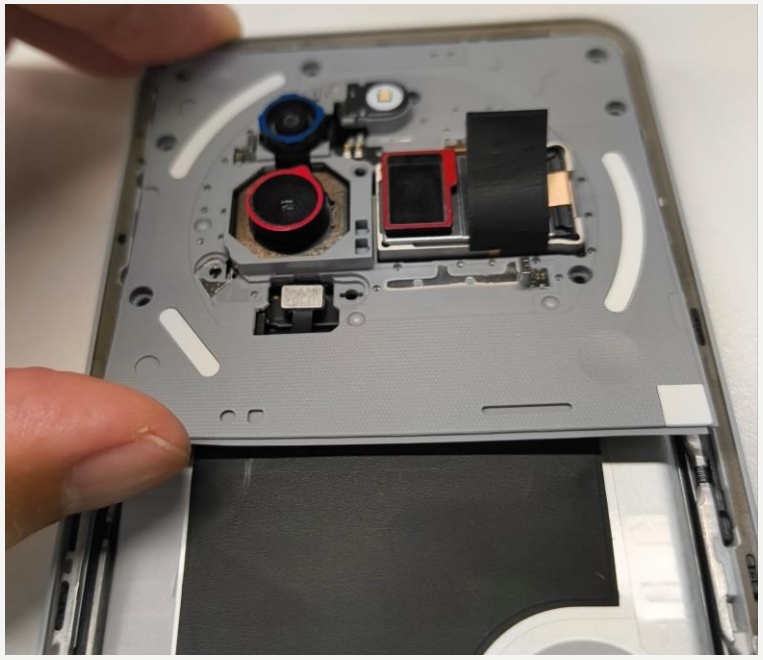
Step 7: Use tweezers to tear off the PET sheet on the Periscope camera

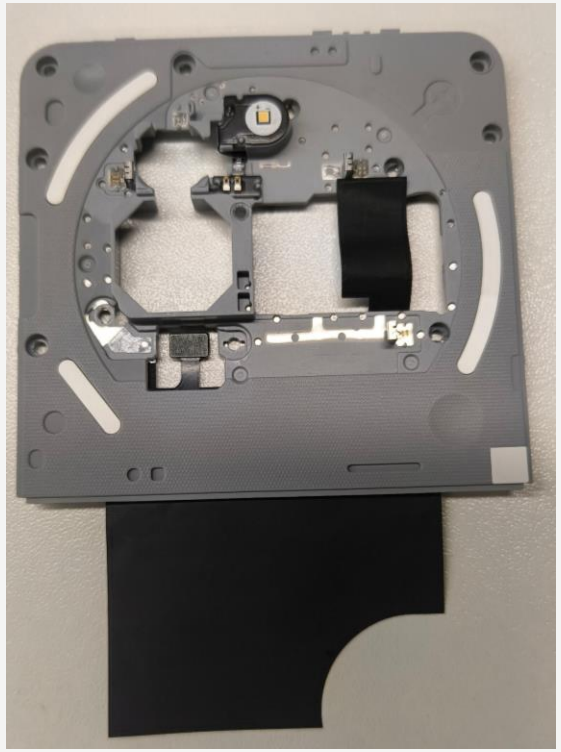
8.Disassembly

Disassembly - Rear Camera

Step 8: From the gap at the bottom of the mainboard bracket, gently begin to pull upwards. This action should gradually release the clips securing the mainboard bracket. Continue to lift slowly and carefully to fully disengage and remove the motherboard bracket..





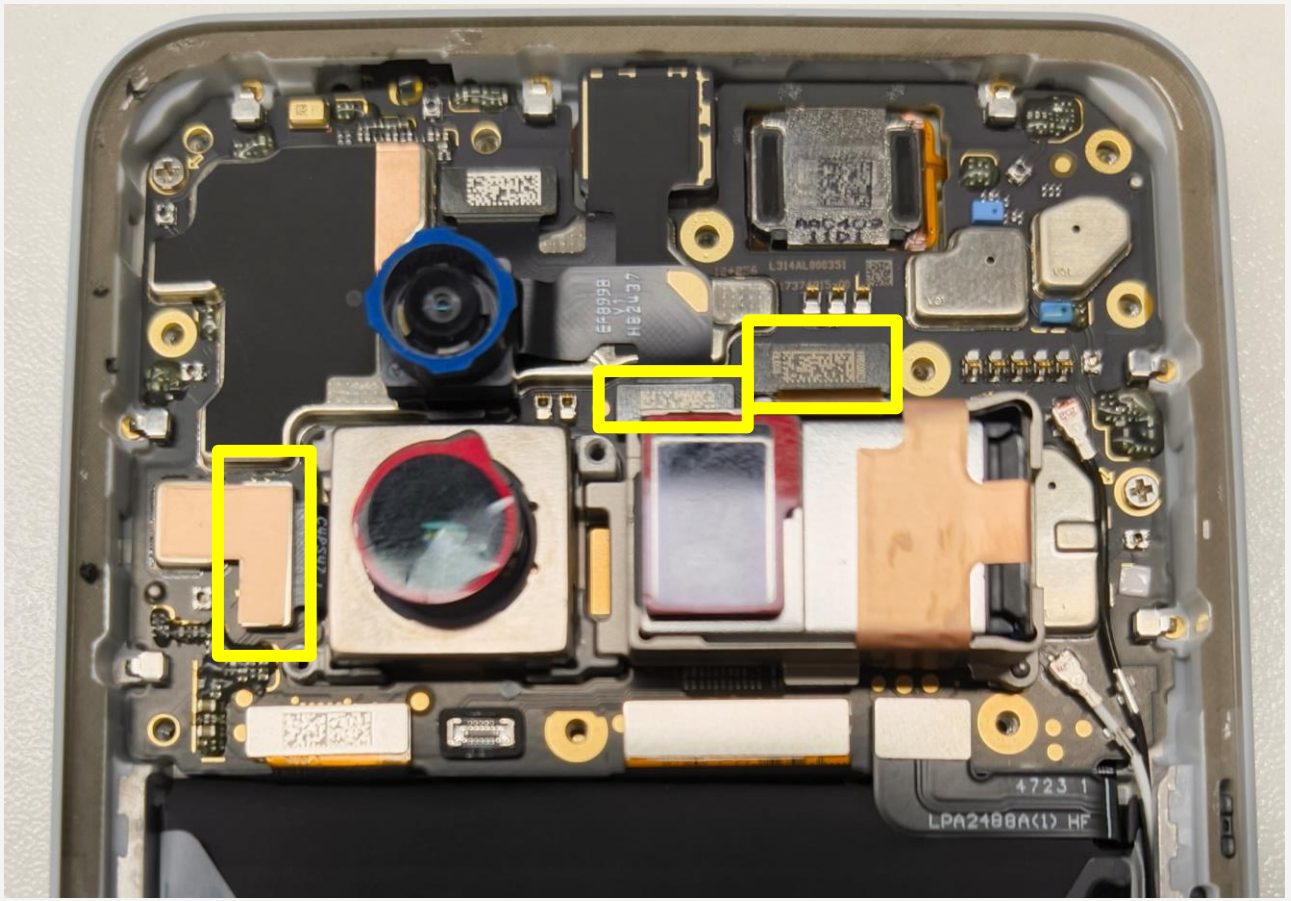


Mainboard bracket

8.Disassembly

Disassembly - Rear Camera

Step 9: Using tweezers, carefully remove the camera BTB connector from the mainboard. Take great care during this process to avoid damaging the surrounding electronic components.



main camera

wide-angle

Periscope

8.Disassembly

Disassembly - Front Camera

Remove the following part before you begin:

- **Back cover**

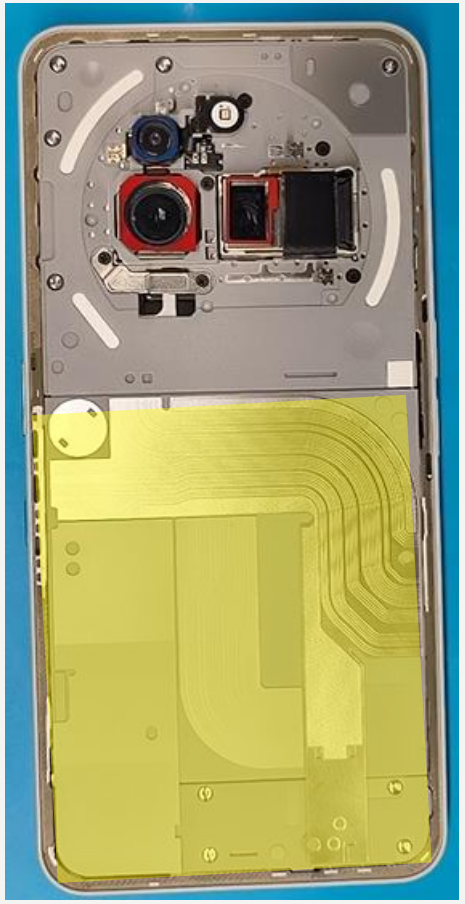
Step 1: Using ESD plastic tweezers, carefully insert them about 1mm into the gap on either side of the battery cover. Make sure not to insert too deep to avoid damaging the battery or other internal components. Gently pry the tabs to release the cover. Then, carefully grasp the trim with your fingers. Apply steady, gentle force to pull it outward, making sure to support it evenly to avoid bending or breaking it. Gradually go around and slowly pull the trim out until it is completely separated.

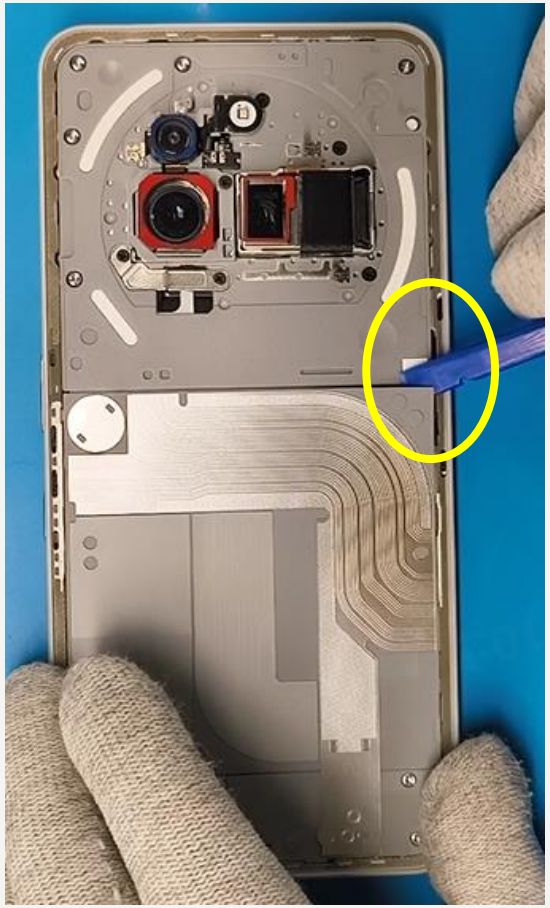
Warning

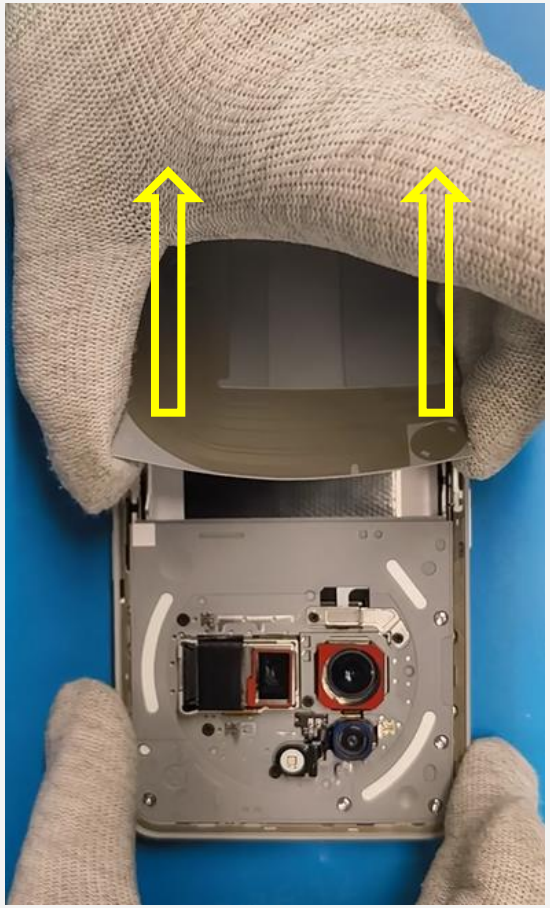
Make sure not to insert too deep to avoid damaging the battery.

8.Disassembly

Disassembly - Front Camera







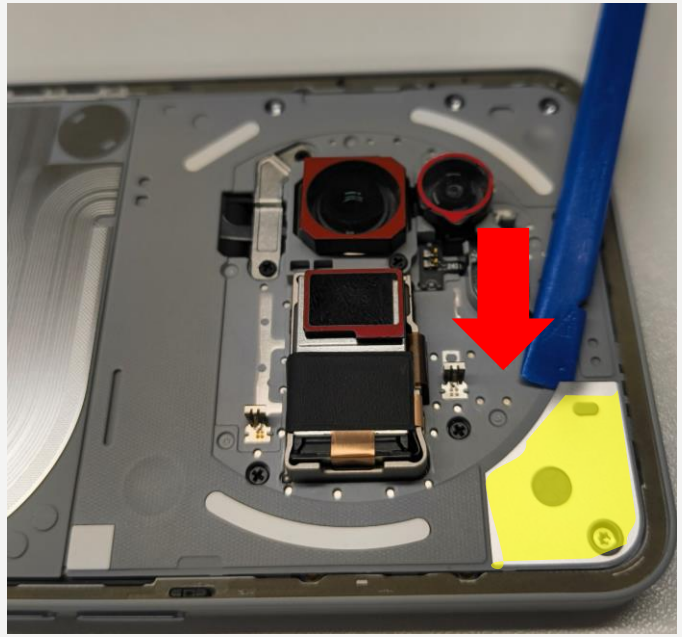
8.Disassembly

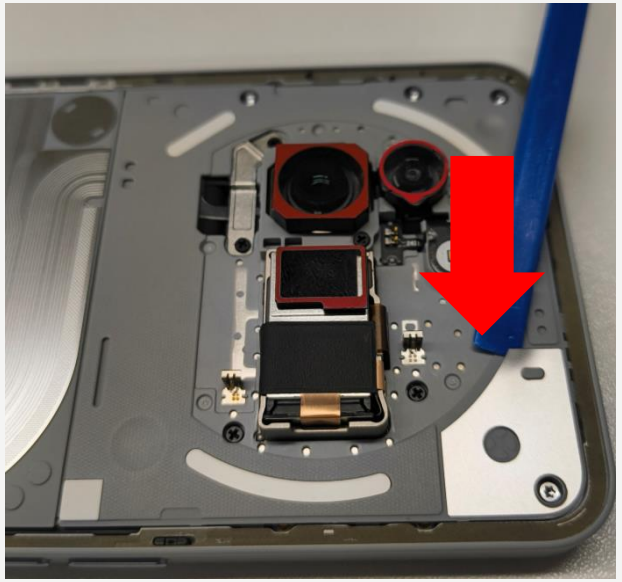
Disassembly - Front Camera

Step 2: Using a slim, sharp pry plastic tool, carefully insert it into the gap at the edge of the decorative panel. Slowly and gently slide the pry tool back and forth to gradually create a small separation space. Once you have a sufficient gap, grasp the point where the pry tool and the decorative panel meet with your fingers. Apply a bit of pressure and pull outward carefully to completely detach the decorative panel.

Notice

It is recommended not to reuse the material after disassembly.

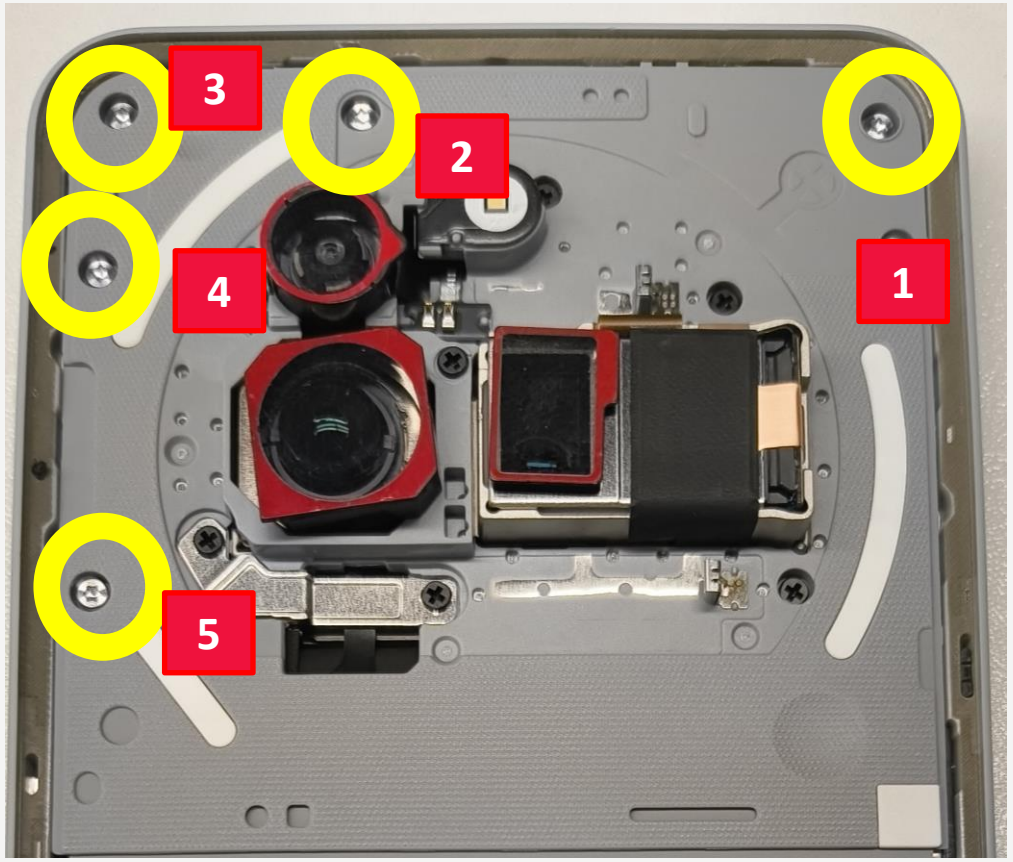




8.Disassembly

Disassembly - Front Camera

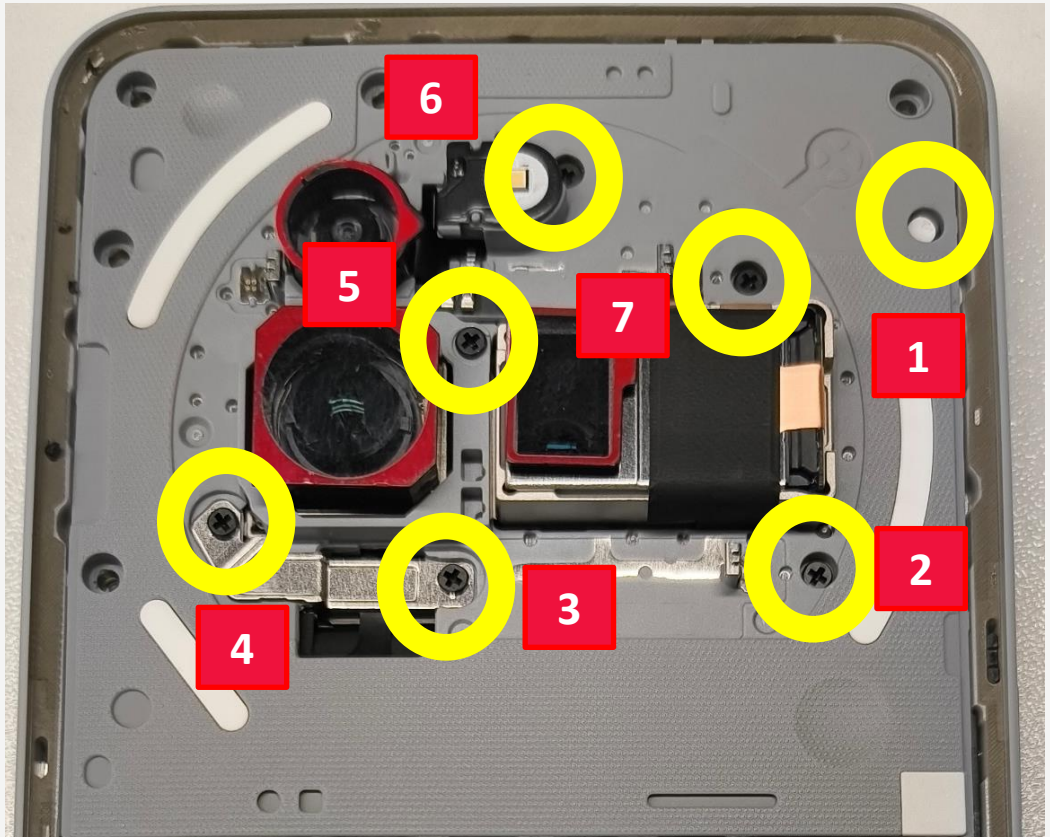
Step 3: Using a T5 screwdriver, systematically remove the 5 hexagon socket flat head screws shown in the diagram (each measuring M1.4×3.9×0.3mm). Carefully collect and store all removed screws to prevent them from falling into the battery compartment, as this could damage the battery or cause other issues.



8.Disassembly

Disassembly - Front Camera

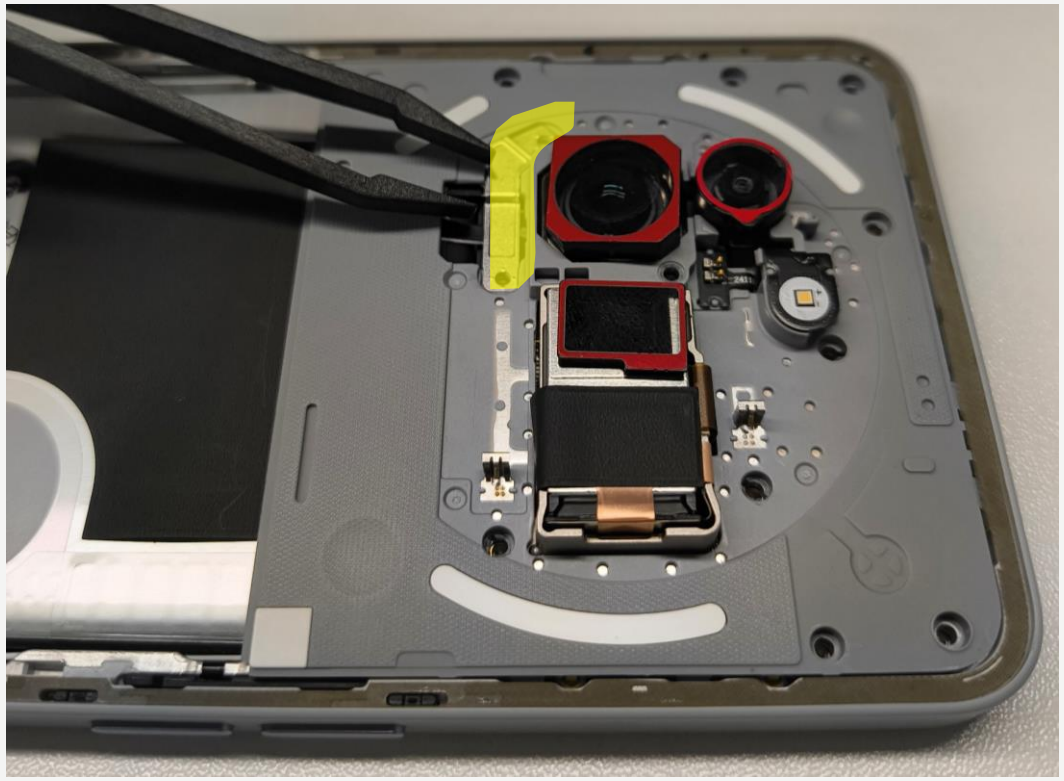
Step 4: Using a PH00 screwdriver, methodically remove the 7 Phillips-head screws, as illustrated in the diagram. Each screw is a cylindrical head type with dimensions of M1.4×3.8×0.4mm. Carefully collect and store all the screws you have removed to avoid them falling into the battery compartment, as this could potentially damage the battery or cause other issues.



8.Disassembly

Disassembly - Front Camera

Step 5: Using a pair of tweezers, gently grip and remove the Glyph connector bracket

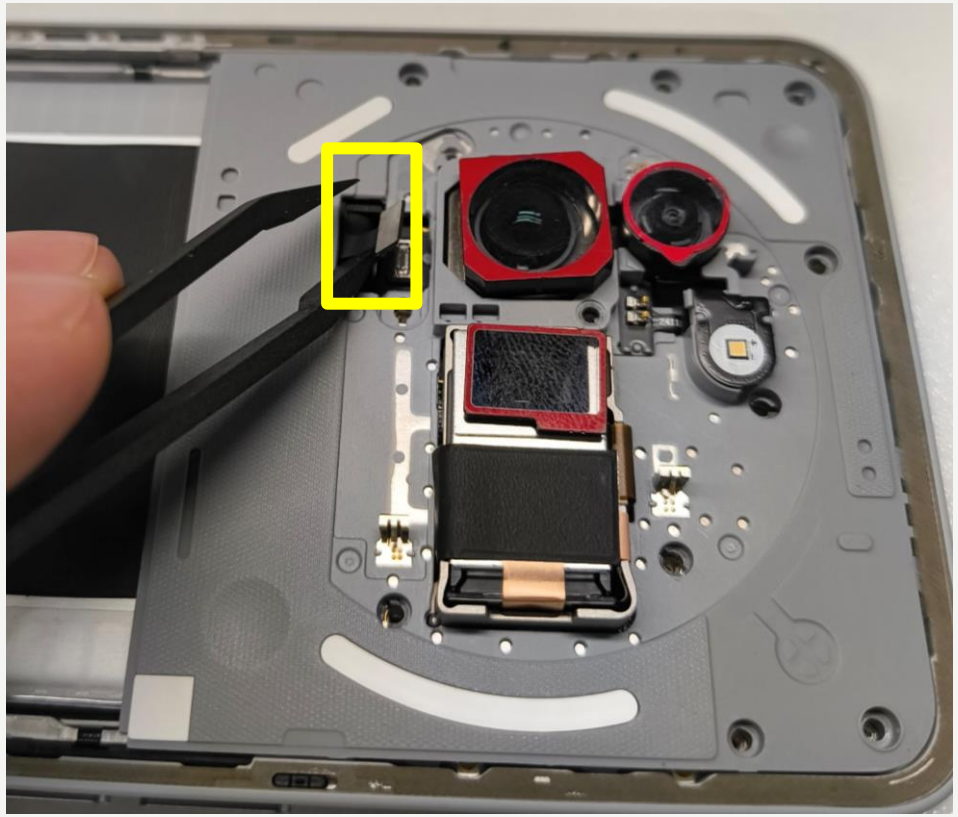


Glyph connector bracket

8.Disassembly

Disassembly - Front Camera

Step 6: Using ESD plastic tweezers, carefully lift the BTB connector.



8.Disassembly

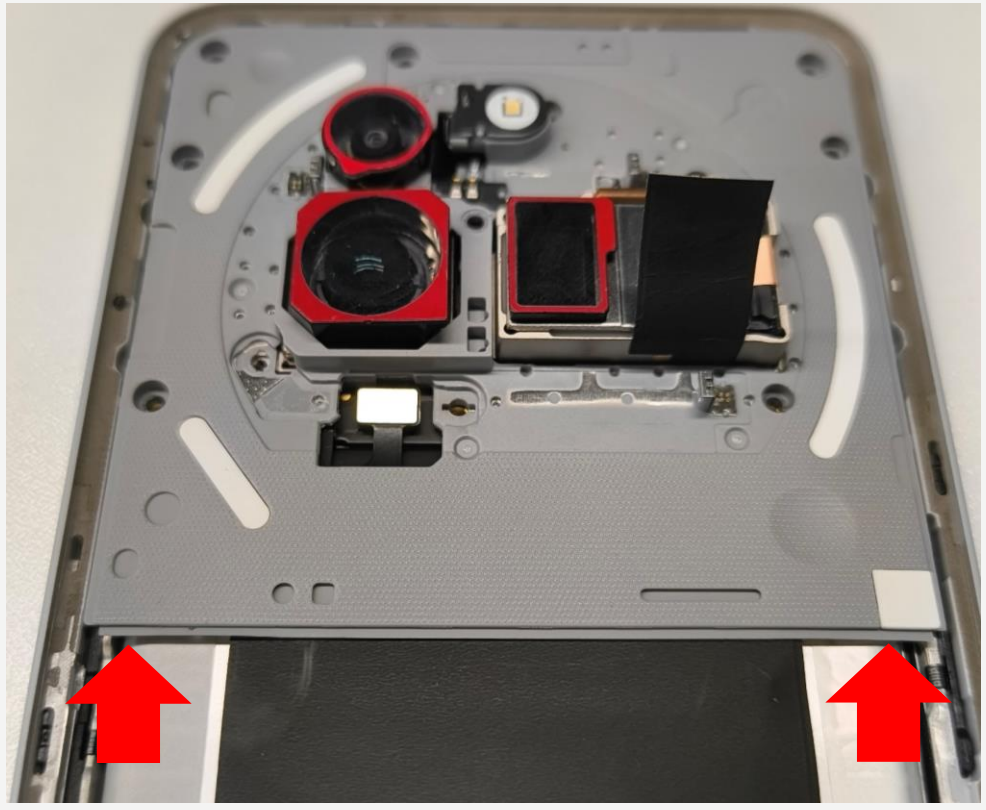
Disassembly - Front Camera

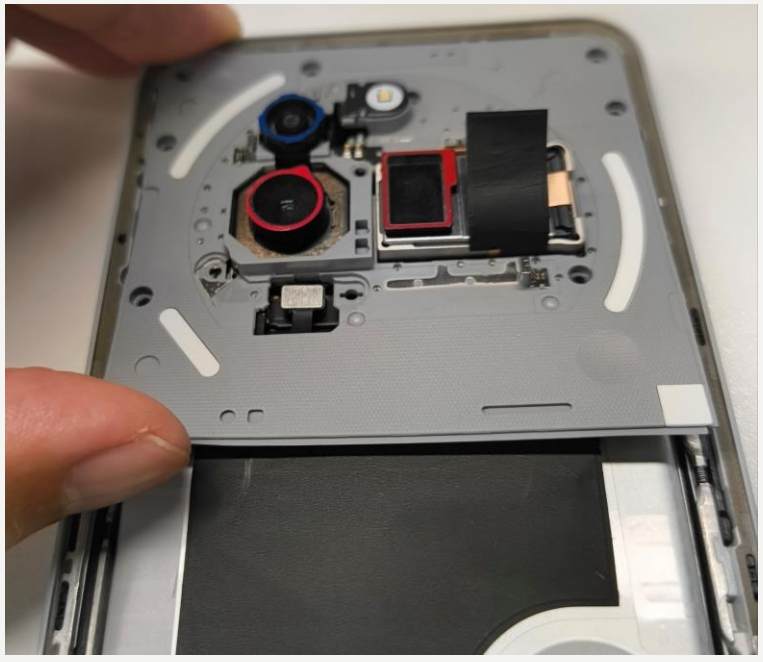
Step 7: Use tweezers to tear off the PET sheet on the Periscope camera

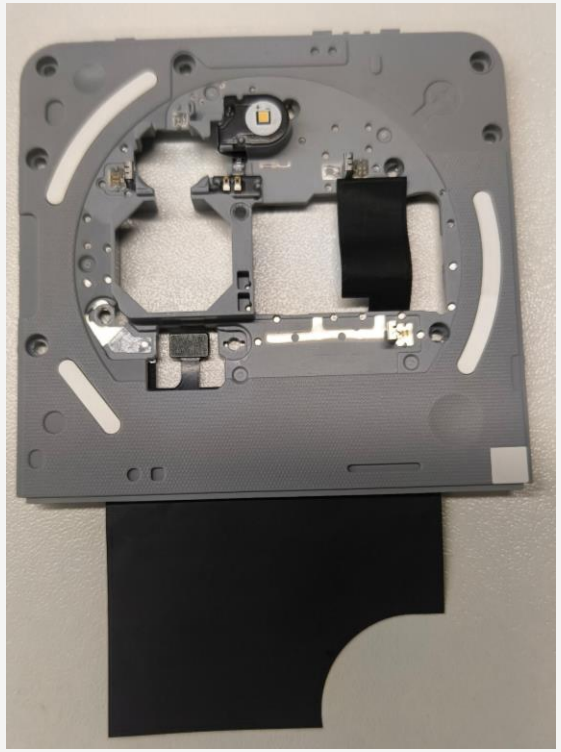
8.Disassembly

Disassembly - Front Camera

Step 8: From the gap at the bottom of the mainboard bracket, gently begin to pull upwards. This action should gradually release the clips securing the mainboard bracket. Continue to lift slowly and carefully to fully disengage and remove the motherboard bracket.





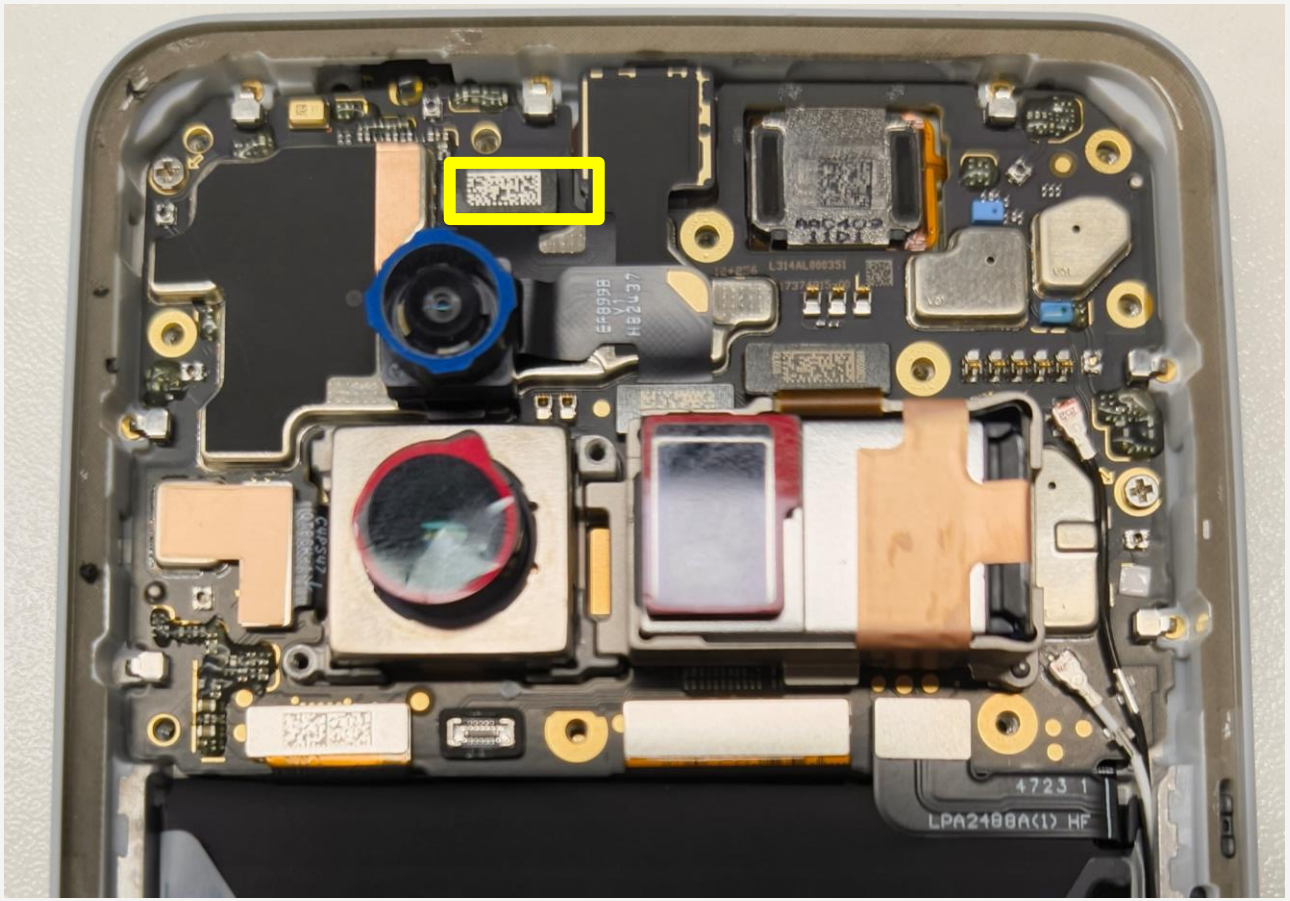


Mainboard bracket

8.Disassembly

Disassembly - Front Camera

Step 9: Using tweezers, carefully remove the front camera BTB connector from the mainboard. Take great care during this process to avoid damaging the surrounding electronic components.



front camera

8.Disassembly

Disassembly - Battery

Remove the following part before you begin:

- **Back cover**

Step 1: Using ESD plastic tweezers, carefully insert them about 1mm into the gap on either side of the battery cover. Make sure not to insert too deep to avoid damaging the battery or other internal components. Gently pry the tabs to release the cover. Then, carefully grasp the trim with your fingers. Apply steady, gentle force to pull it outward, making sure to support it evenly to avoid bending or breaking it. Gradually go around and slowly pull the trim out until it is completely separated.

Warning

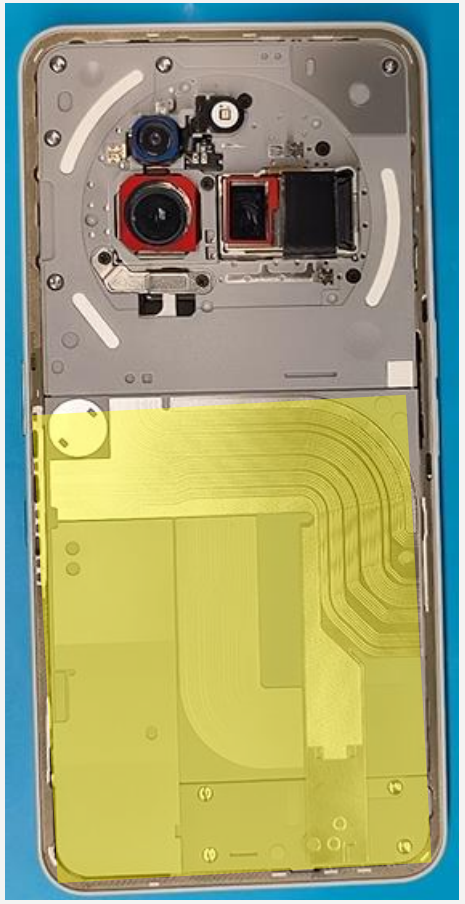
Make sure not to insert too deep to avoid damaging the battery

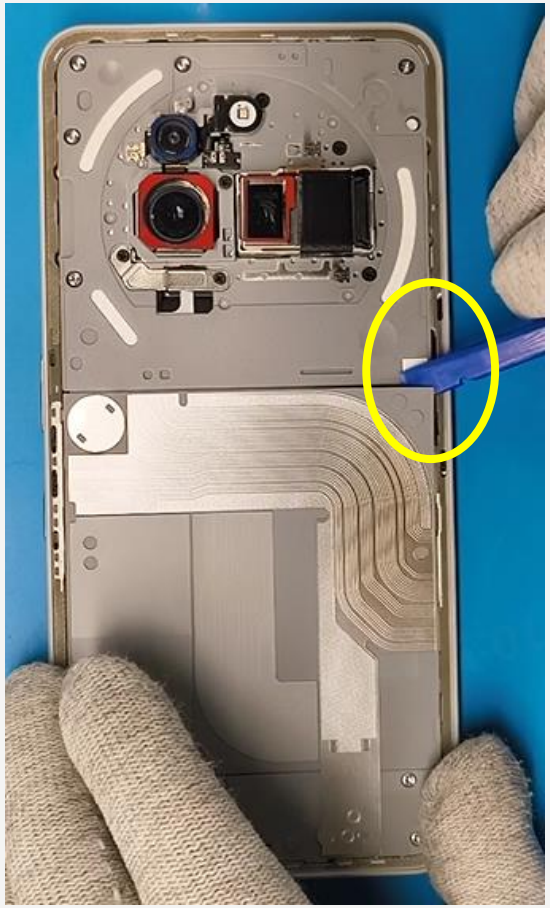
Warning

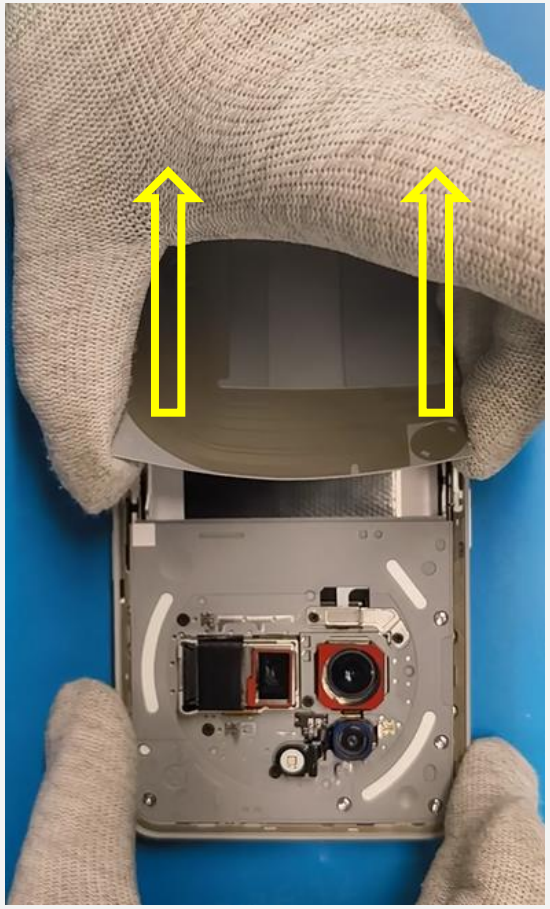
The battery should only be replaced by a technician with knowledge and experience in repairing electronic devices. Improper battery replacement, improper parts handling, or failure to follow the instructions provided may result in fire, personal injury, loss of data, or damage to the device, parts, or other property.

8.Disassembly

Disassembly - Battery







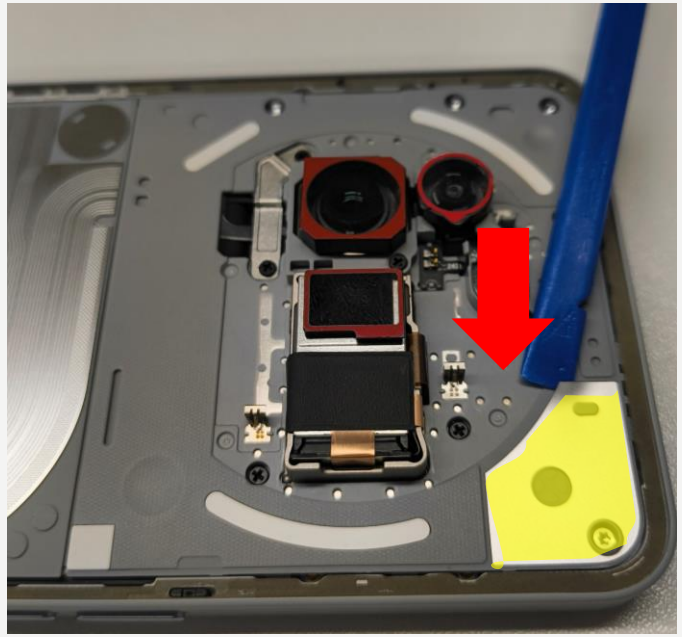
8.Disassembly

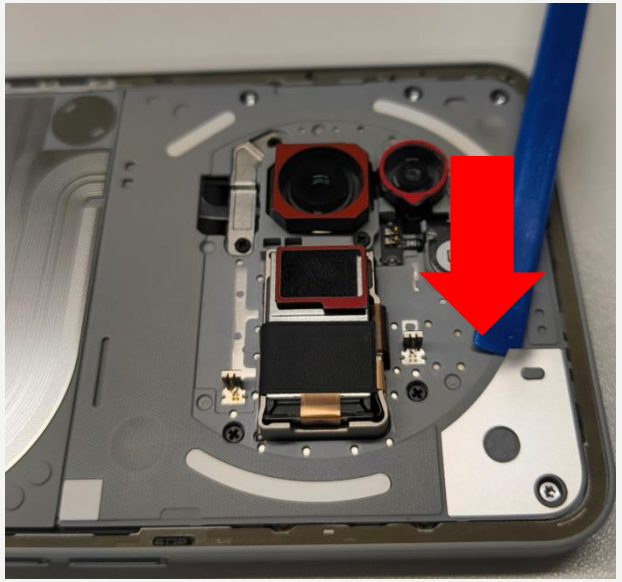
Disassembly - Battery

Step 2: Using a slim, sharp pry plastic tool, carefully insert it into the gap at the edge of the decorative panel. Slowly and gently slide the pry tool back and forth to gradually create a small separation space. Once you have a sufficient gap, grasp the point where the pry tool and the decorative panel meet with your fingers. Apply a bit of pressure and pull outward carefully to completely detach the decorative panel.

Notice

It is recommended not to reuse the material after disassembly.

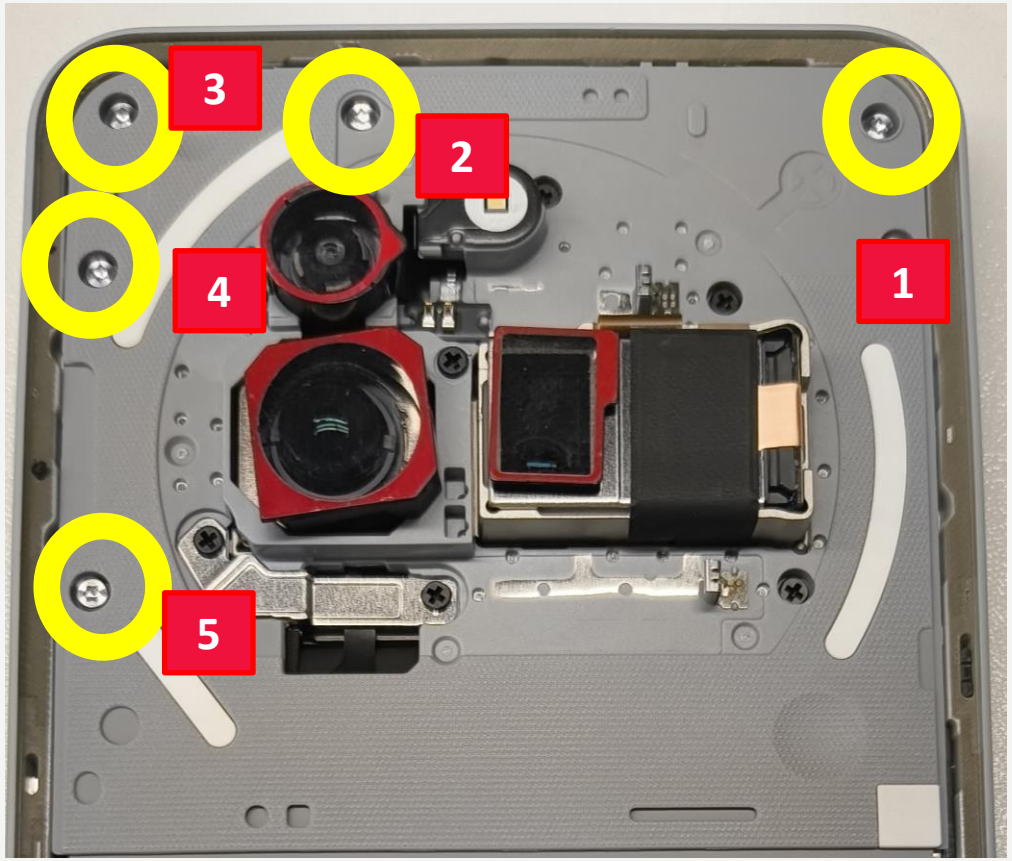




8.Disassembly

Disassembly - Battery

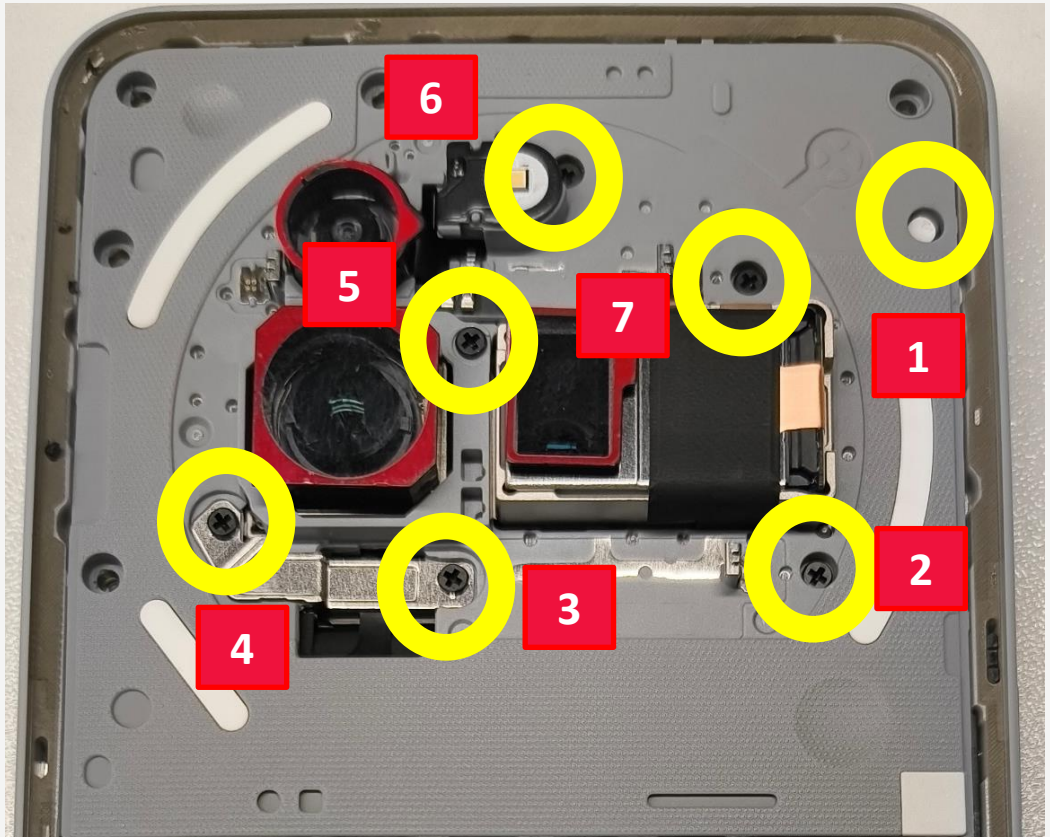
Step 3: Using a T5 screwdriver, systematically remove the 5 hexagon socket flat head screws shown in the diagram (each measuring M1.4×3.9×0.3mm). Carefully collect and store all removed screws to prevent them from falling into the battery compartment, as this could damage the battery or cause other issues.



8.Disassembly

Disassembly - Battery

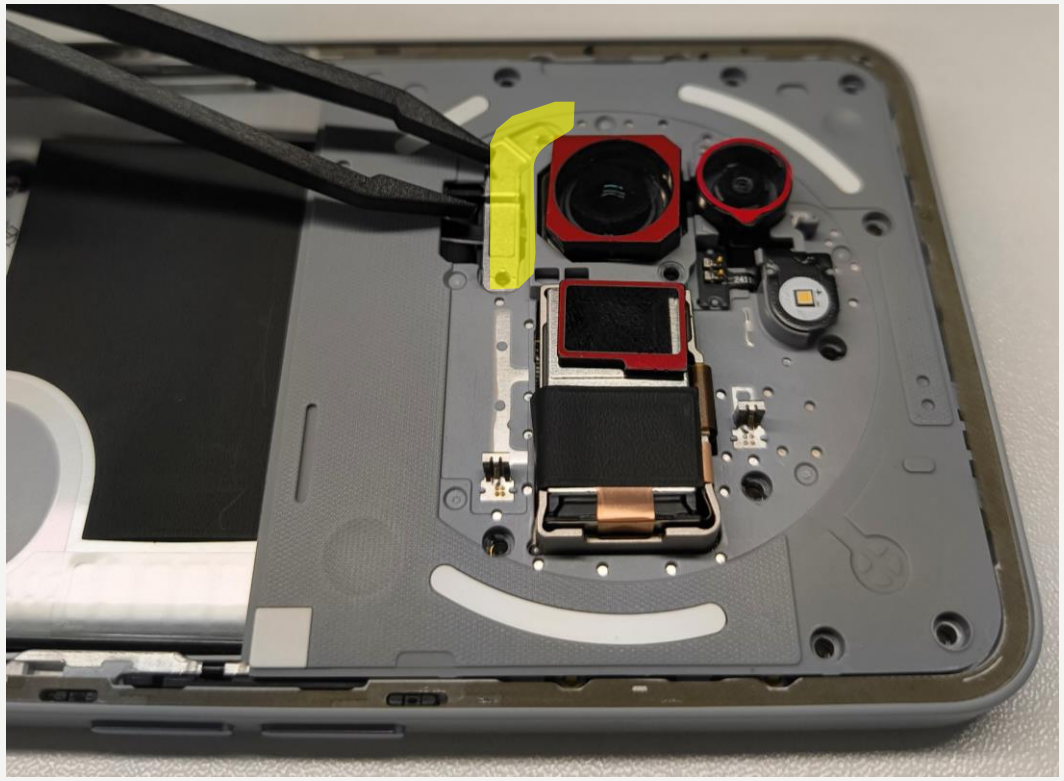
Step 4: Using a PH00 screwdriver, methodically remove the 7 Phillips-head screws, as illustrated in the diagram. Each screw is a cylindrical head type with dimensions of M1.4×3.8×0.4mm. Carefully collect and store all the screws you have removed to avoid them falling into the battery compartment, as this could potentially damage the battery or cause other issues.



8.Disassembly

Disassembly - Battery

Step 5: Using a pair of tweezers, gently grip and remove the Glyph connector bracket

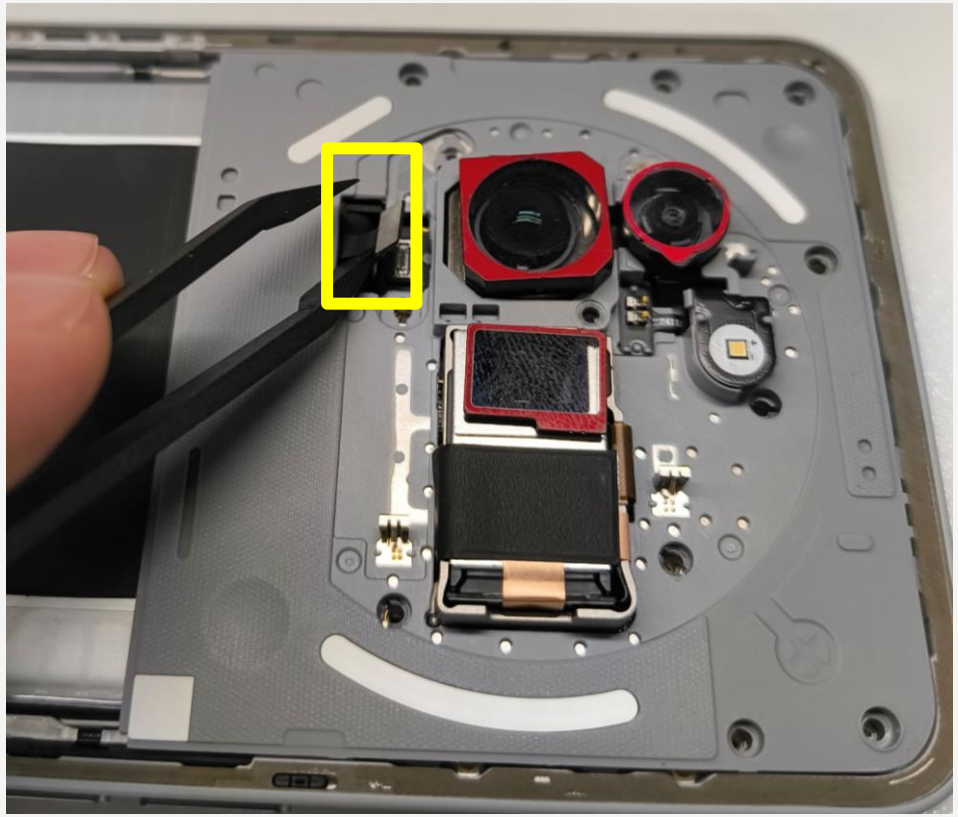


Glyph connector bracket

8.Disassembly

Disassembly - Battery

Step 6: Using ESD plastic tweezers, carefully lift the BTB connector.



8.Disassembly

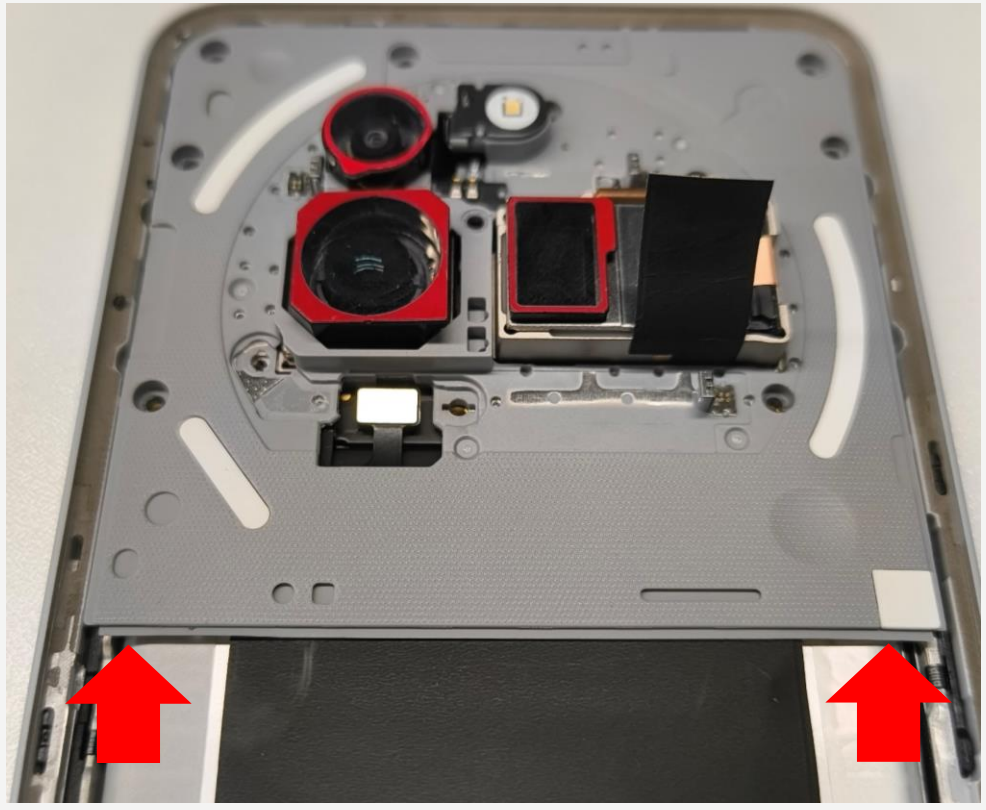
Disassembly - Battery

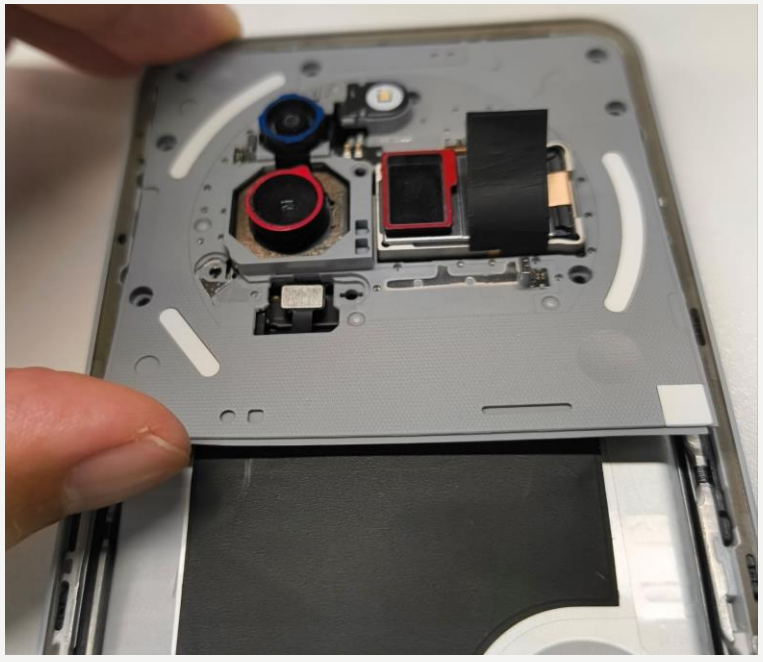
Step 7: Use tweezers to tear off the PET sheet on the Periscope camera

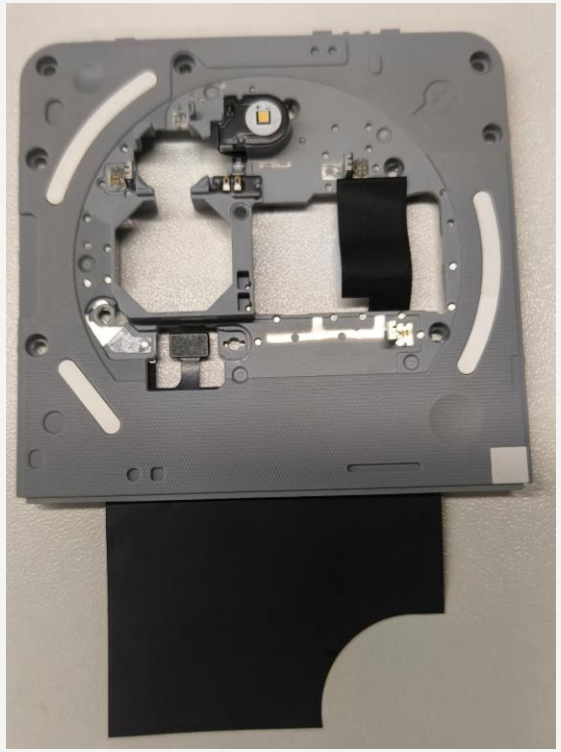
8.Disassembly

Disassembly - Battery

Step 8: From the gap at the bottom of the mainboard bracket, gently begin to pull upwards. This action should gradually release the clips securing the mainboard bracket. Continue to lift slowly and carefully to fully disengage and remove the motherboard bracket.







Mainboard bracket

8.Disassembly

Disassembly - Battery

Step 9: Using tweezers, carefully remove the battery BTB connector from the mainboard. Take great care during this process to avoid damaging the surrounding electronic components.

8.Disassembly

Disassembly - Battery

Step 10: After the heating bag is preheated, place the heating bag on the screen opposite the battery and heat it for 1 minute to heat the battery adhesive for easy disassembly.

8.Disassembly

Disassembly - Battery

Step 11: Use tweezers to tear off the battery tear paper

a). Gently tear off the easy-tear paper on the surface of the battery, refer to position 1

b). Gently tear off the easy-tear paper on the surface of the battery, refer to position 2

8.Disassembly

Disassembly - Battery

Step 11: Use tweezers to tear off the battery tear paper

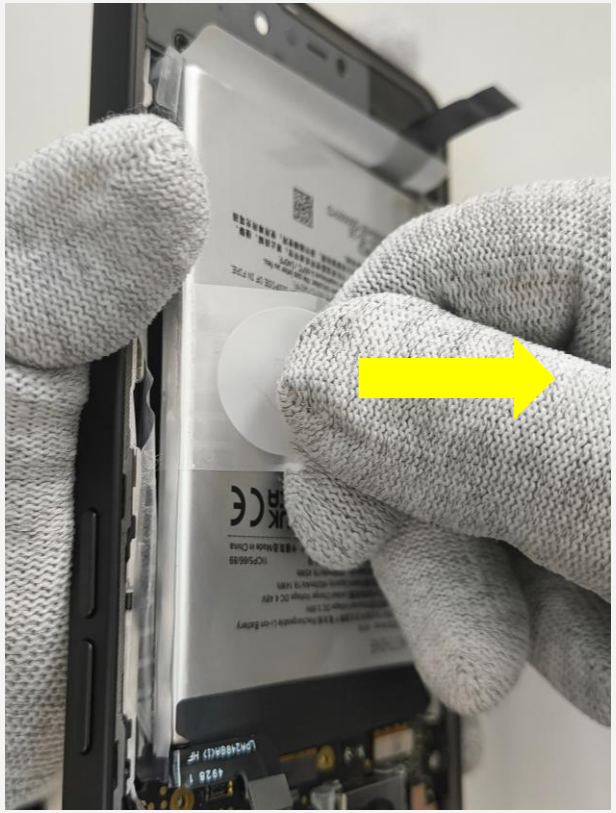
c). Gently tear off the easy-tear paper on the surface of the battery, refer to position 3

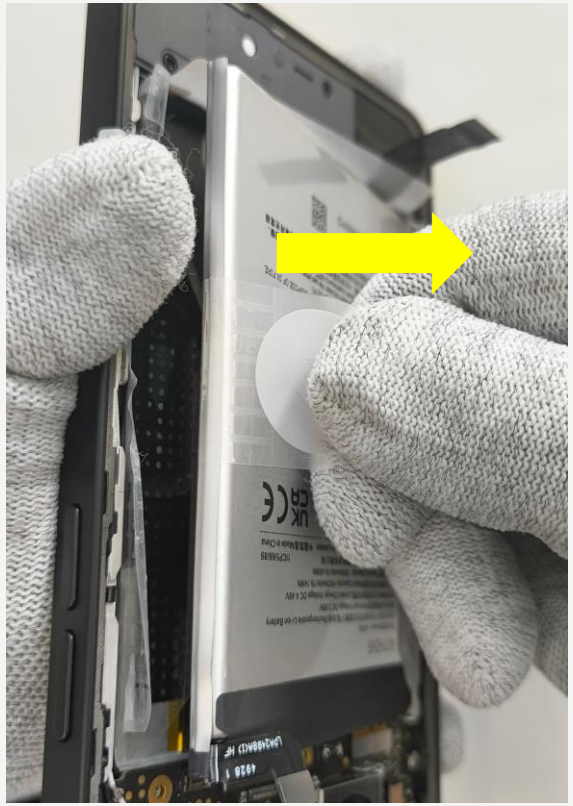
d). Gently tear off the easy-tear paper on the surface of the battery, refer to position 4

8.Disassembly

Disassembly - Battery

Step 11: Use tweezers to tear off the battery tear paper





Hold the phone's mid-frame securely with one hand and carefully grasp the battery tear-off sticker with the other. Slowly and steadily pull the sticker outward, applying consistent force to gradually extract the battery from its compartment, paying close attention to avoid damaging any internal components.

8.Disassembly

Disassembly - Battery

Warning

Only technicians with the proper knowledge, experience, and tools required for electronic device repair should replace a battery.

Warning

It’s essential to install new batteries. Removed batteries should not be reused, as used battery cells can be damaged during the removal process.

Warning

Do not throw or drop the battery. Dispose of used batteries in accordance with local laws and regulations.

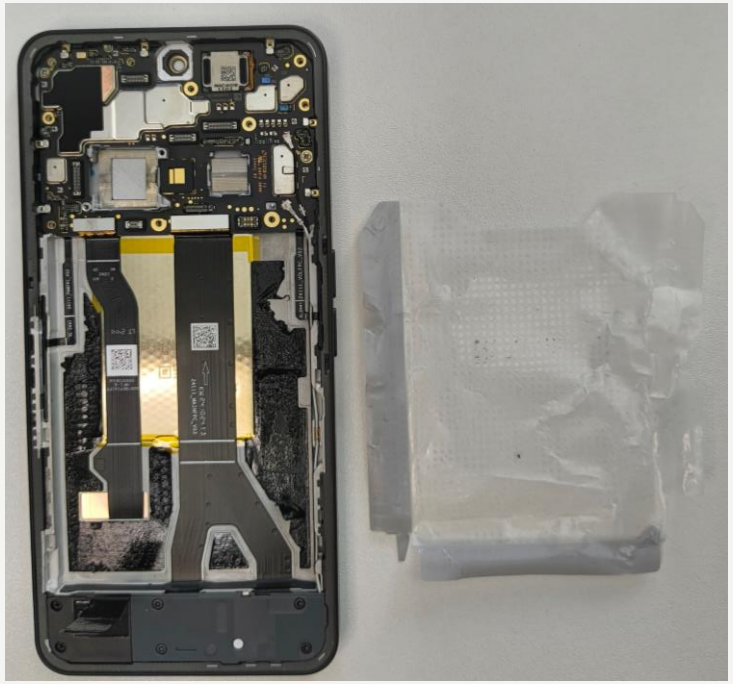
8.Disassembly

Disassembly - Side buttons

Remove the following part before you begin:

- **Battery**
- **Front camera**
- **Rear camera**

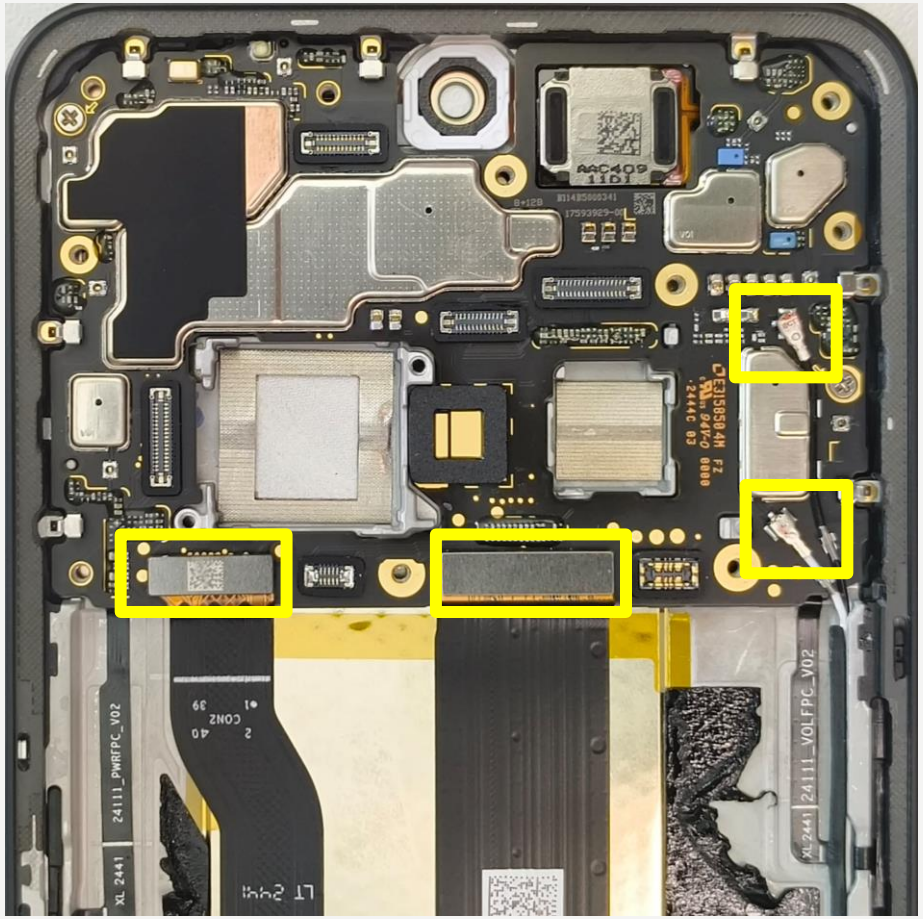
Step 1: Gently pull out and remove the battery easy-tear paper from the middle frame, making sure to take your time and carefully clean any remnants.



8.Disassembly

Disassembly - Side buttons

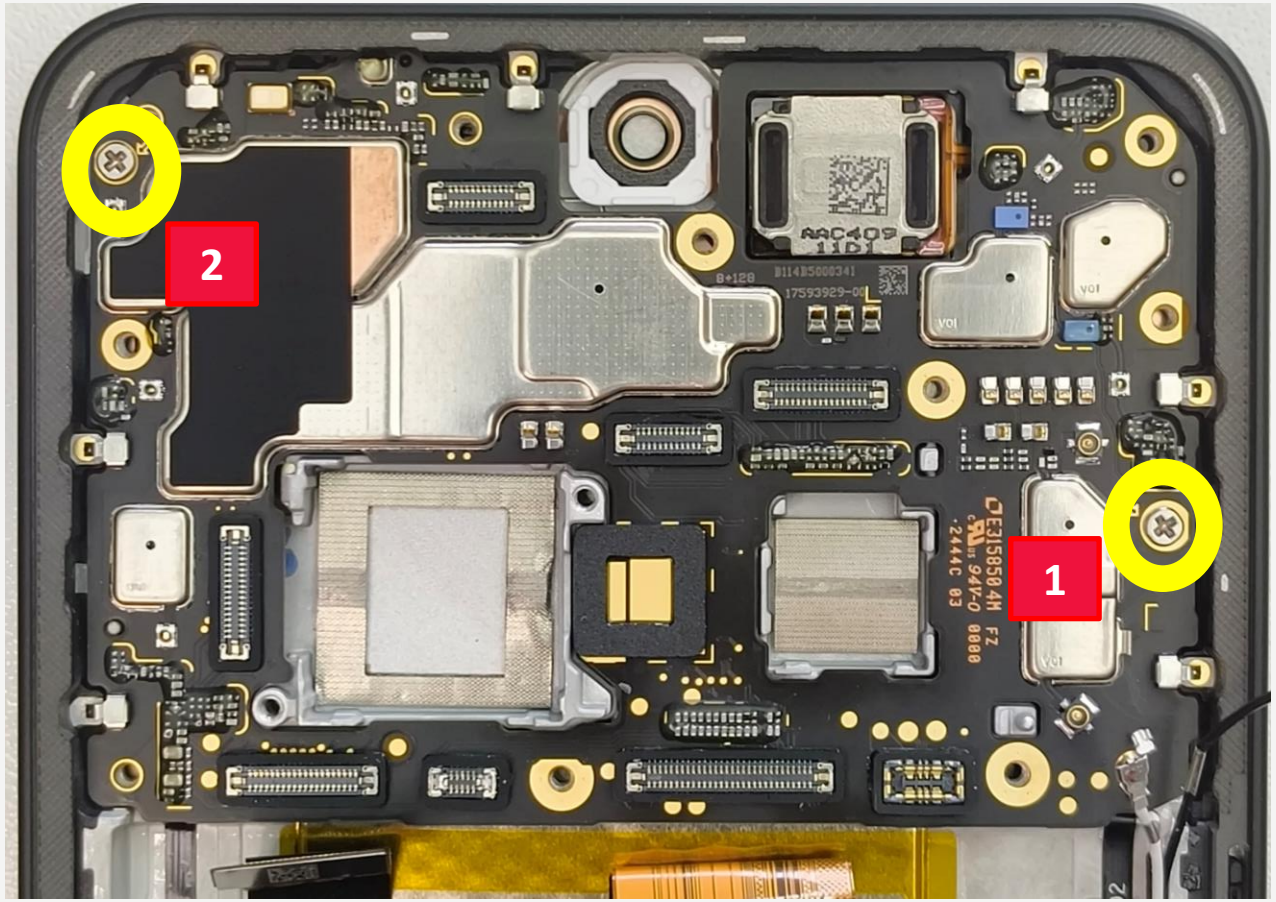
Step 2: Carefully use a pair of tweezers to detach the BTB connectors and RF connection clips at the mainboard end. Ensure that you handle these components gently to avoid damaging the surrounding components.



8.Disassembly

Disassembly - Side buttons

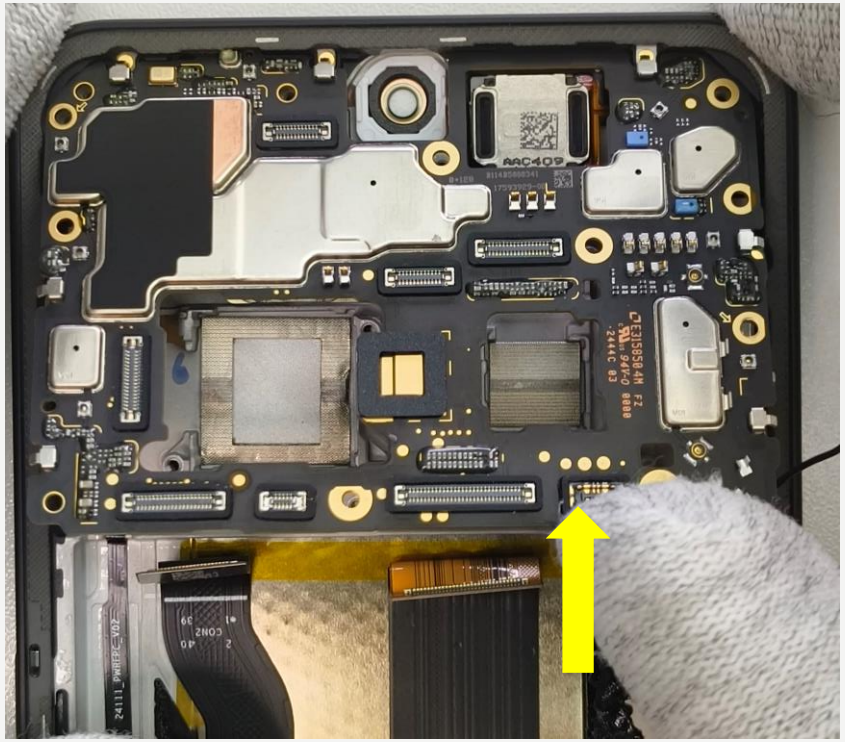
Step 3: Using a PH00 screwdriver, remove 2 screws (M1.4×2.8) from the mainboard.

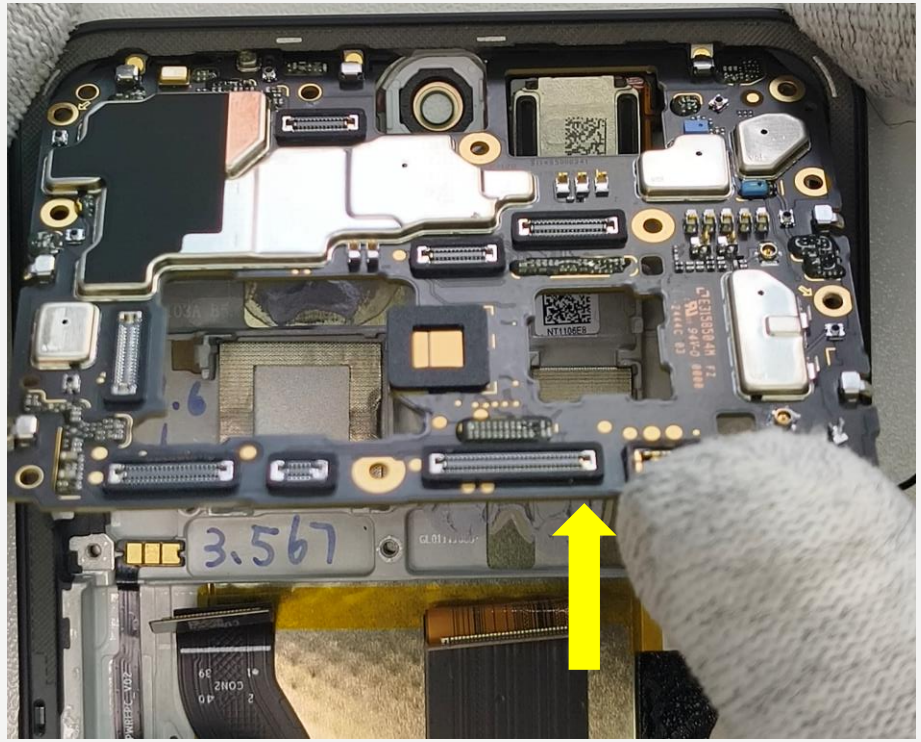


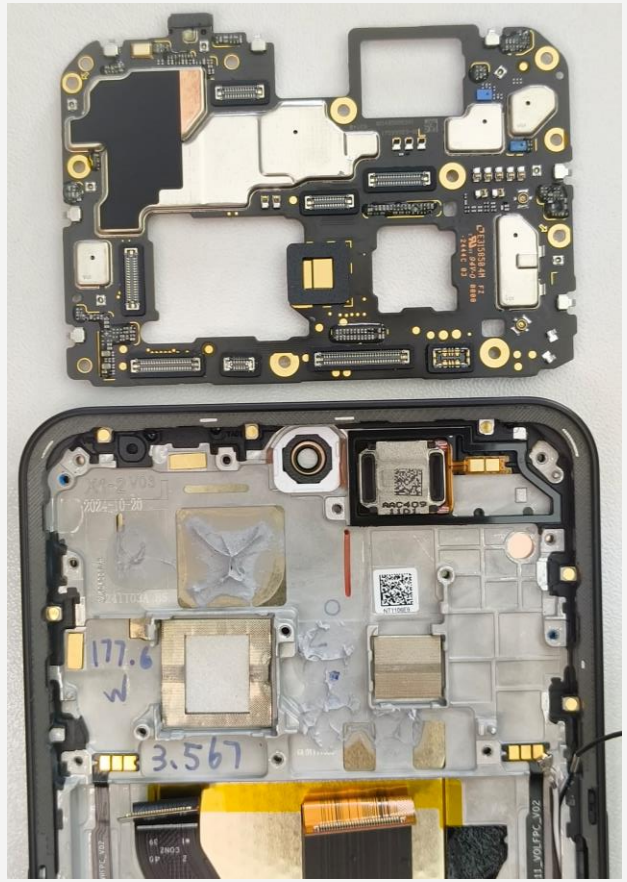
8.Disassembly

Disassembly - Side buttons

Step 4: Place your fingers under the bottom edge of the mainboard. Then gently apply steady and even pressure upward to lift the mainboard. Remove the mainboard slowly and carefully to avoid damaging any delicate surrounding components.







8.Disassembly

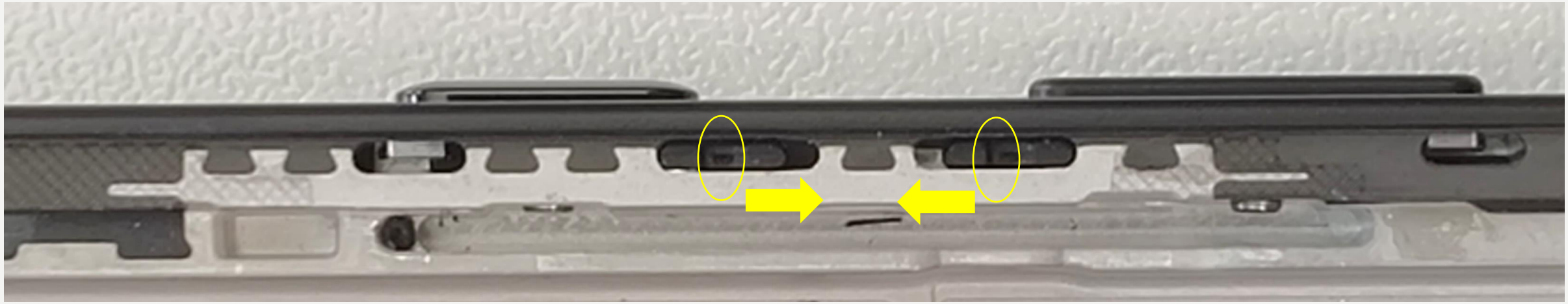
Disassembly - Side buttons

Step 5: Use metal tweezers to remove the power button FPC, then use the tip of a metal tweezer to pry out the power button FPC.

8.Disassembly

Disassembly - Side buttons

Step 6: Insert the pointed end of the metal tweezers into the groove of the pin and pull it toward the side with the gap to release the pin. After removing the plug, gently push the AI button and the Power button to remove it.



AI button

Power button

Plug A

Plug B

8.Disassembly

Disassembly - Side buttons

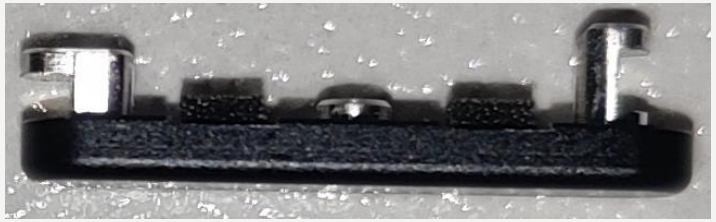
Step 7: Use plastic tweezers to tear off the foam near the volume button.

8.Disassembly

Disassembly - Side buttons

Step 8: Refer to steps 5 and 6 of this section to remove the volume up and down buttons.

Volume up button



Volume down button

Plug A

Plug B

8.Disassembly

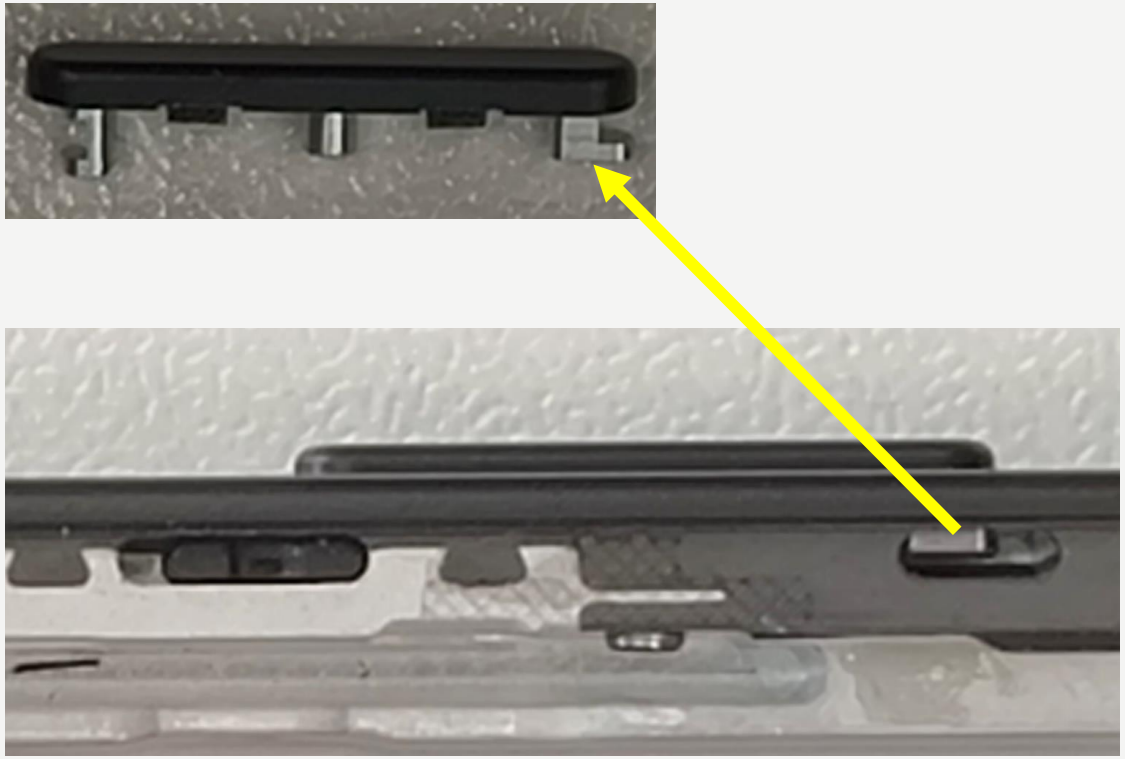
Assembly - Side buttons

Step 1: Install the button FPC into the corresponding groove

8.Disassembly

Assembly - Side buttons

Step 2: Take the button, press the long end of the button against the outside, and install the high foot against the plug.

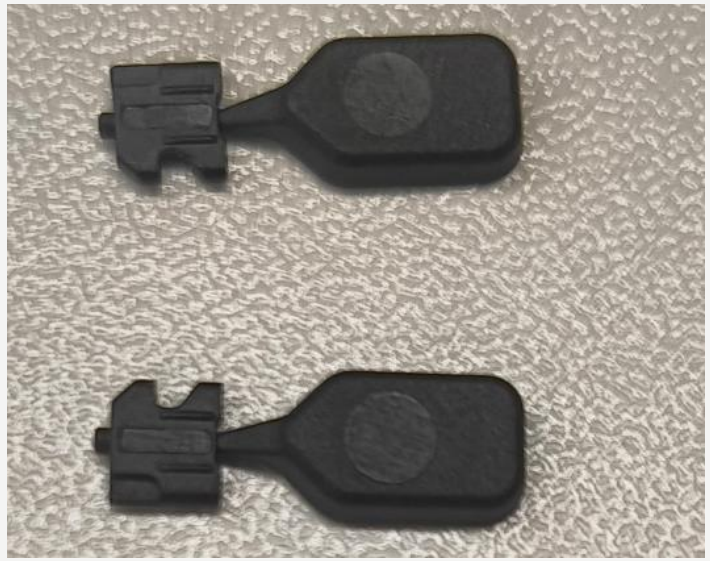


8.Disassembly

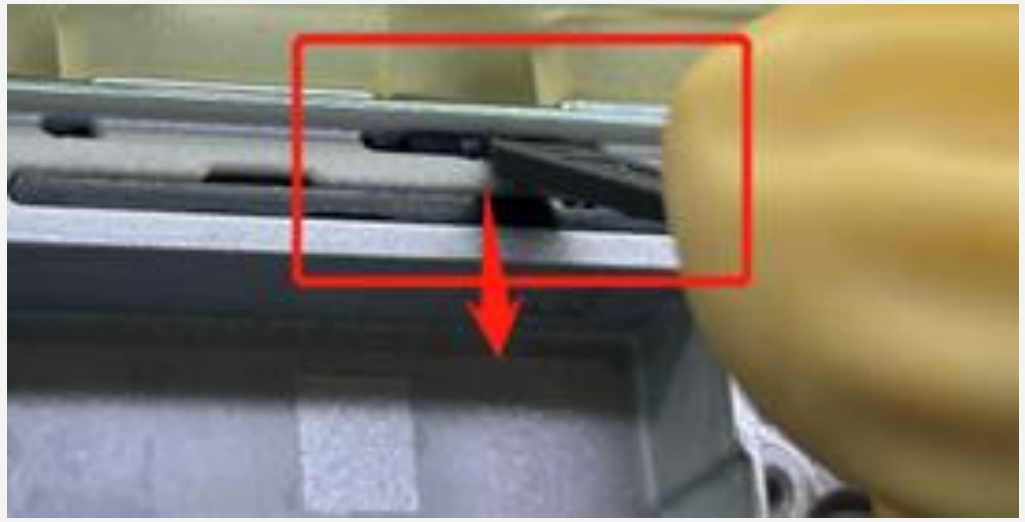
Assembly - Side buttons

Step 3: Take Plug A or Plug B (depending on the direction), insert it into the latch slot, make sure it is assembled to the bottom of the product, and gently bend the latch handle toward the battery compartment.

Plug A



Plug B



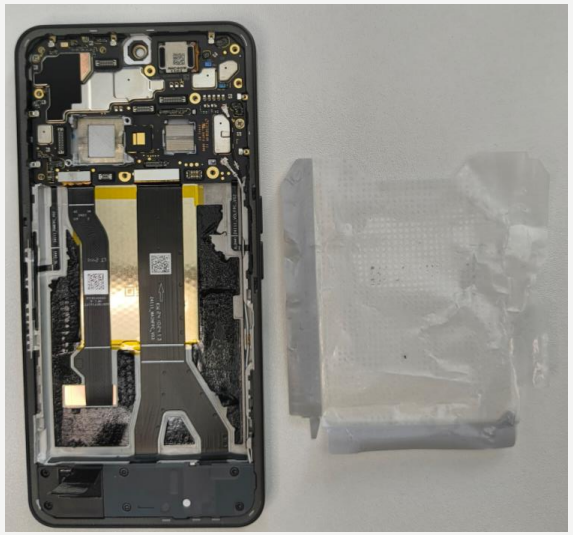
8.Disassembly

Disassembly - Display assembly

Remove the following part before you begin:

- **Back cover**
- **Microphone & USB C port**
- **Speaker**
- **Rear Camera**
- **Front Camera**
- **Battery**

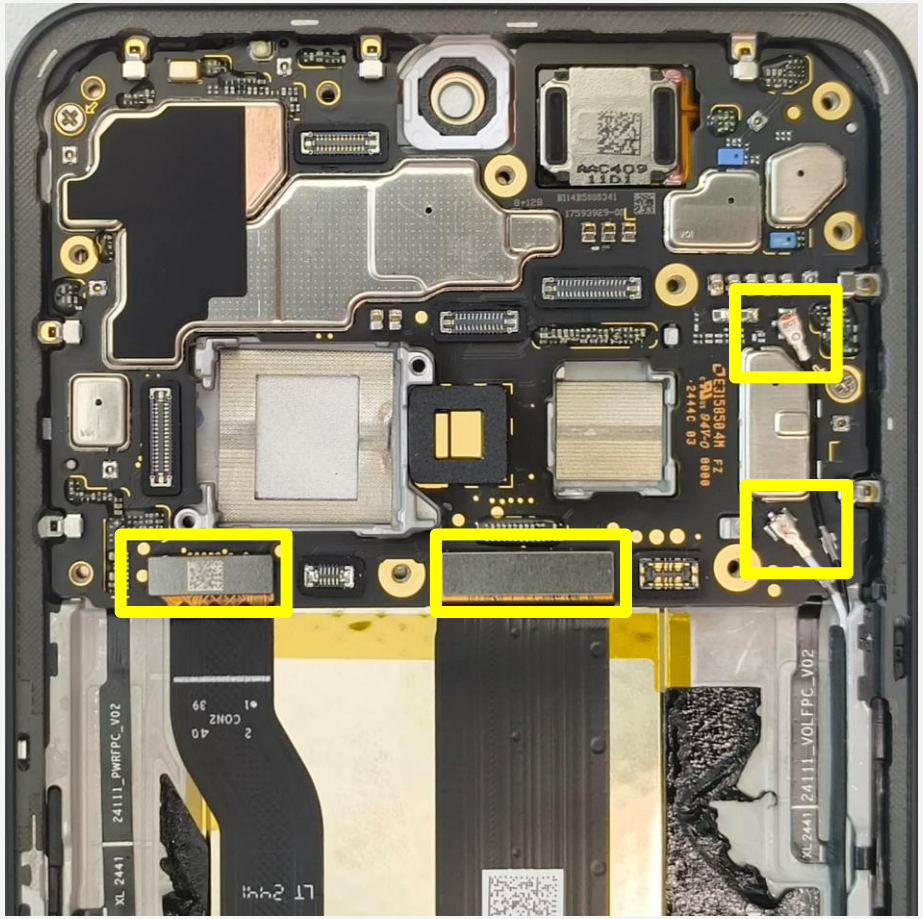
Step 1: Gently pull out and remove the battery easy-tear paper from the middle frame, making sure to take your time and carefully clean any remnants.



8.Disassembly

Disassembly - Display assembly

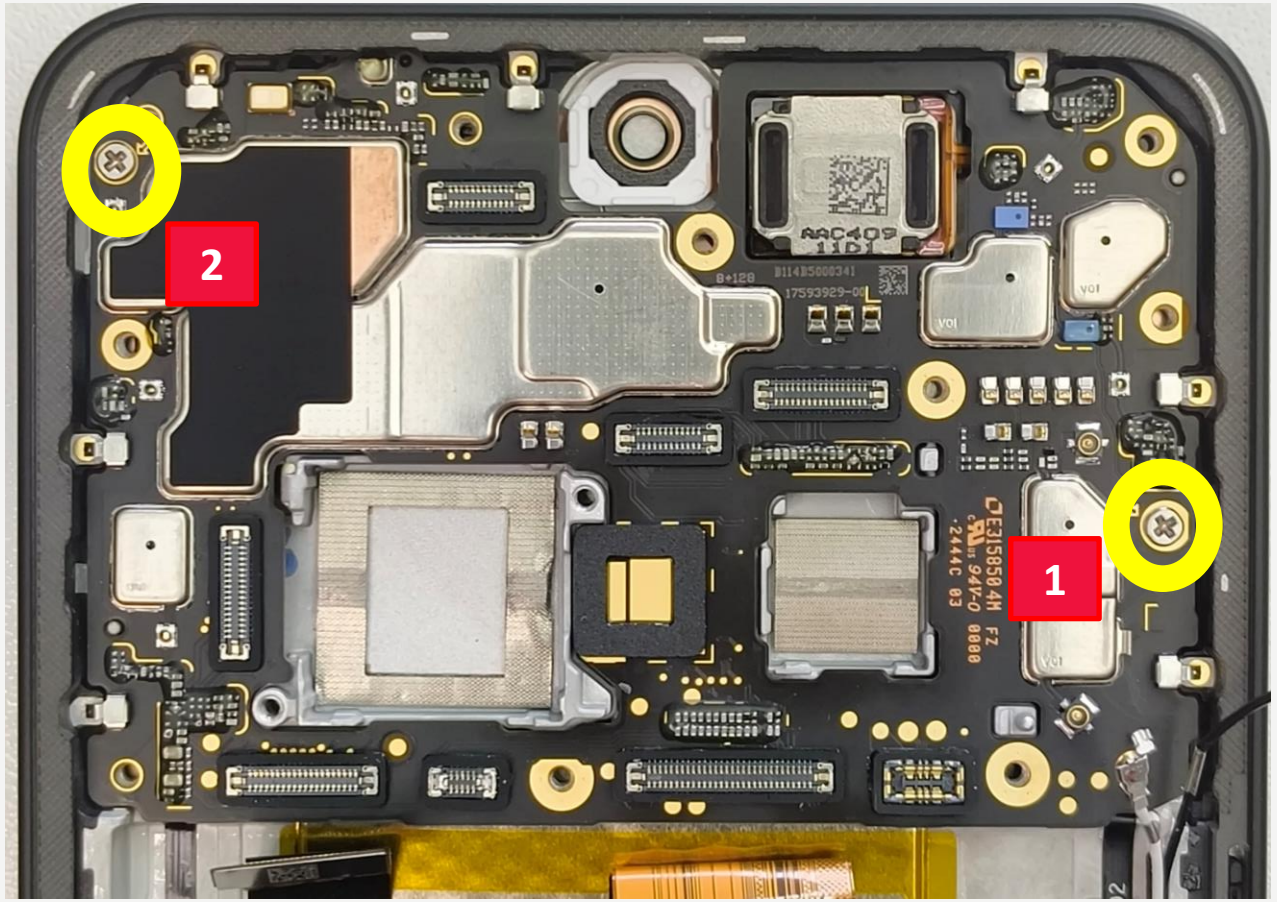
Step 2: Carefully use a pair of tweezers to detach the BTB connectors and RF connection clips at the mainboard end. Ensure that you handle these components gently to avoid damaging the surrounding components.



8.Disassembly

Disassembly - Display assembly

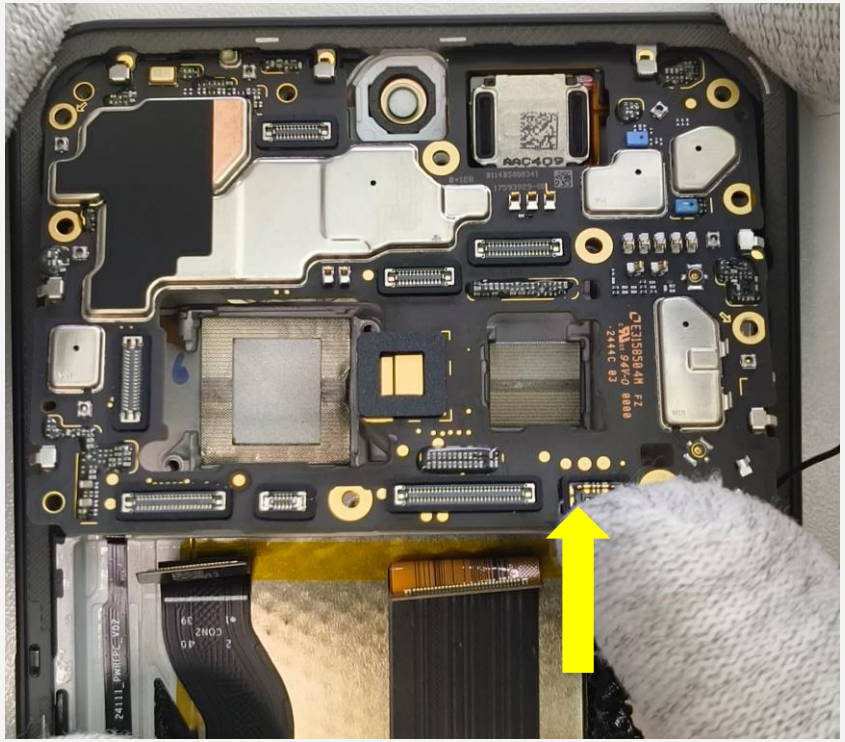
Step 3: Using a PH00 screwdriver, remove 2 screws (M1.4×2.8) from the mainboard.

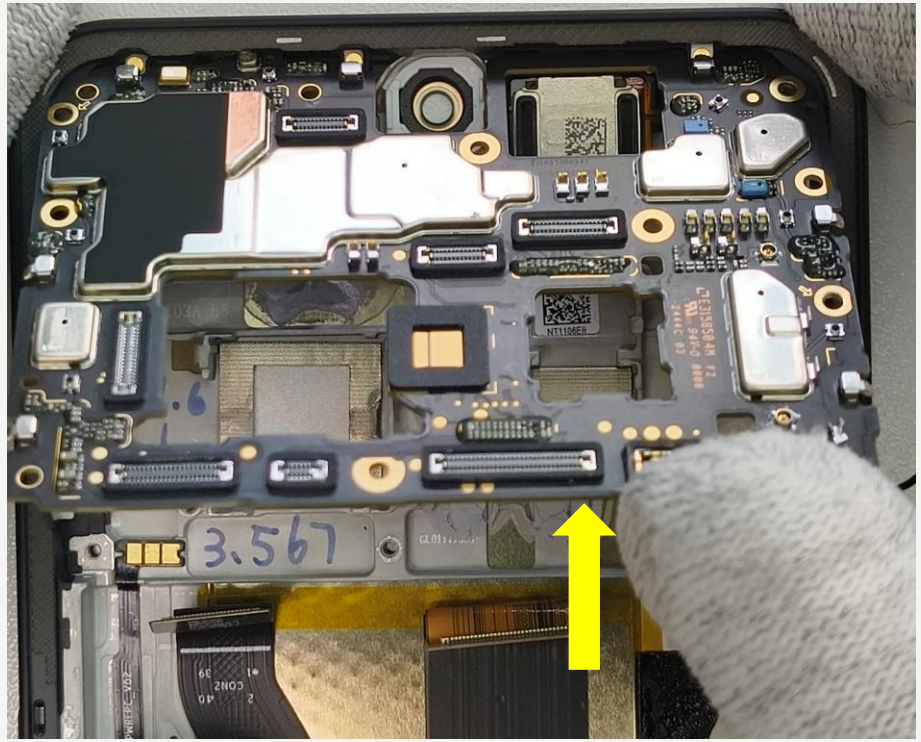


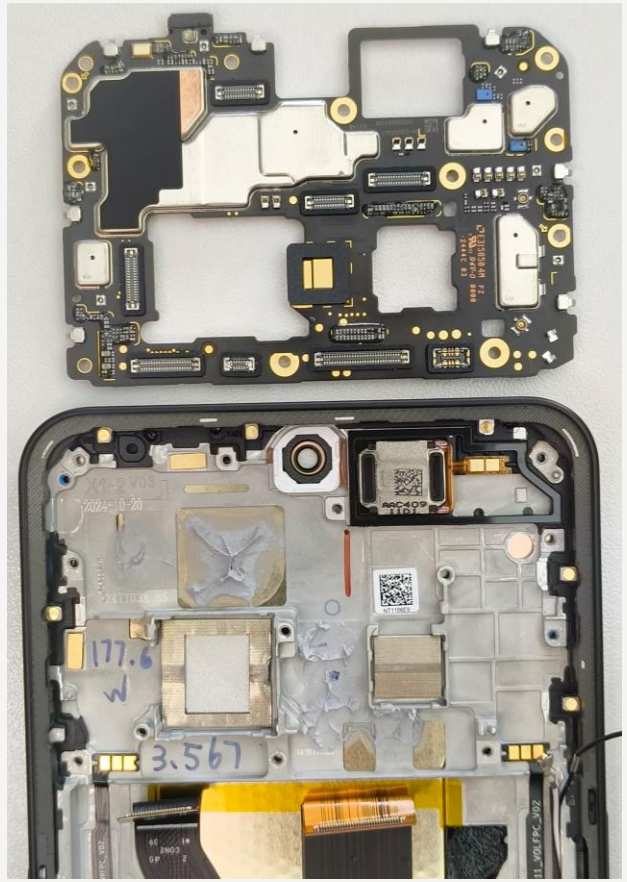
8.Disassembly

Disassembly - Display assembly

Step 4: Place your fingers under the bottom edge of the mainboard. Then gently apply steady and even pressure upward to lift the mainboard. Remove the mainboard slowly and carefully to avoid damaging any delicate surrounding components.



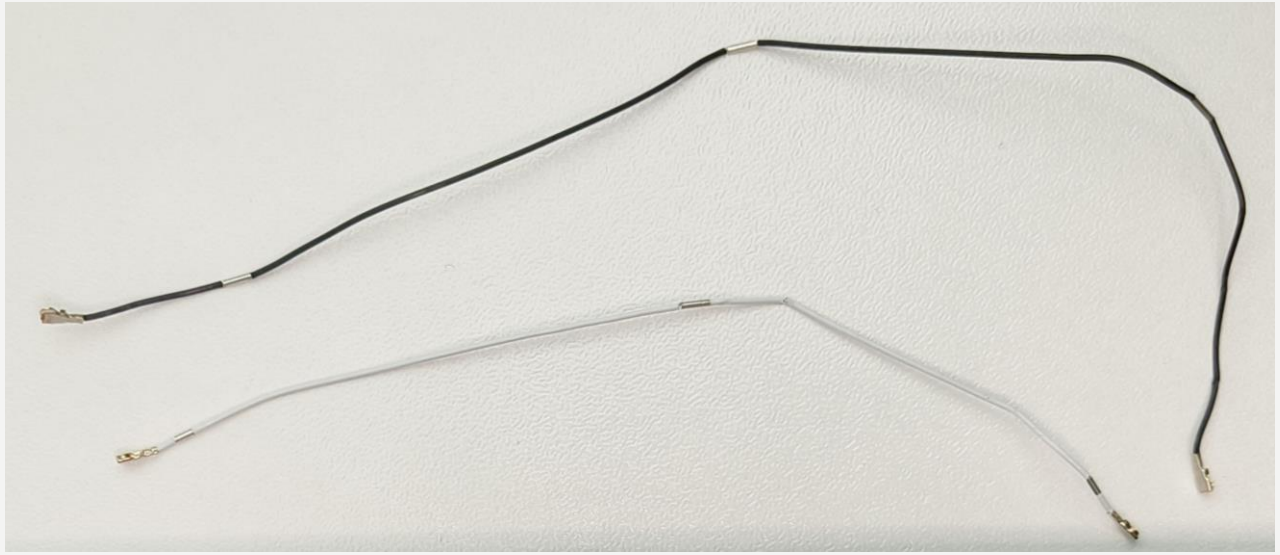




8.Disassembly

Disassembly - Display assembly

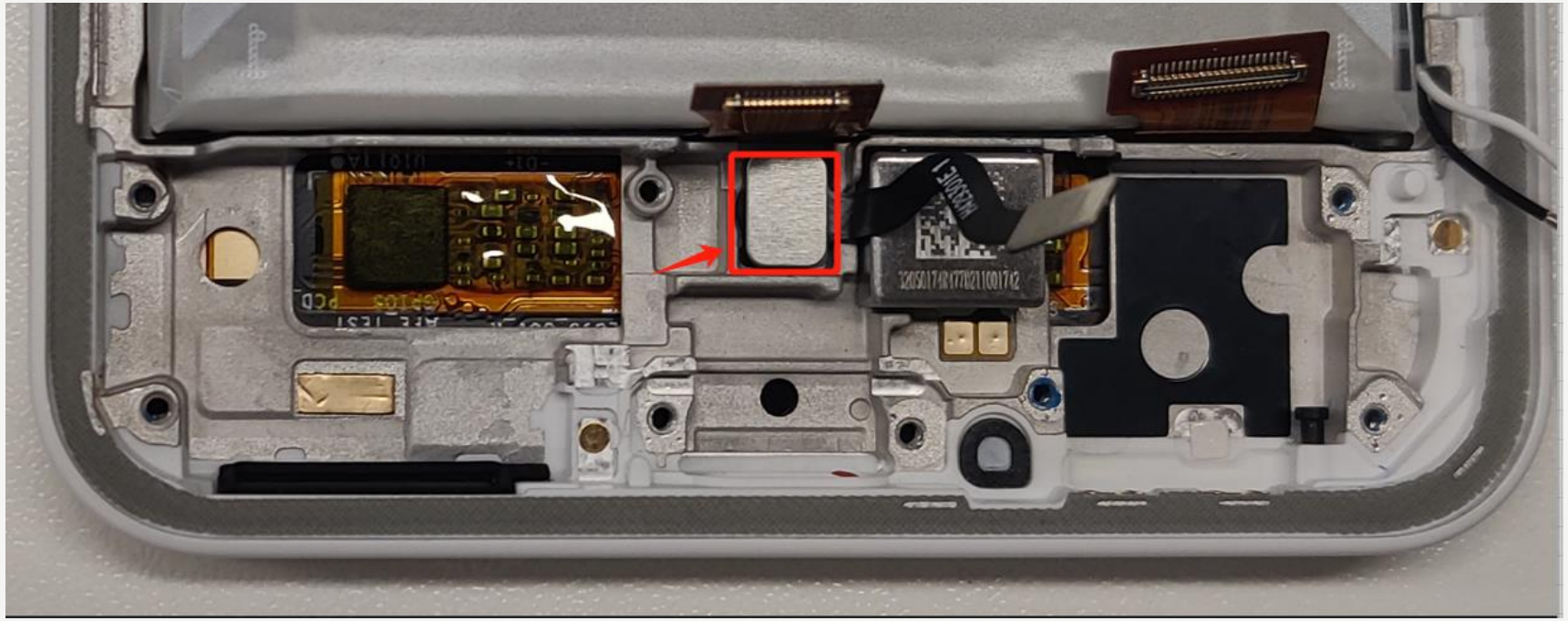
Step 5: Remove the two RF cables from the grooves in the middle frame.



8.Disassembly

Disassembly - Display assembly

Step 6: Insert a pry tool into the gap between the fingerprint assembly and the midframe. Gently lift the fingerprint module using the pry tool. Once it's slightly raised, grasp the fingerprint FPC with your fingers. Carefully and slowly pull the FPC outward, applying consistent force until the fingerprint module is successfully detached.

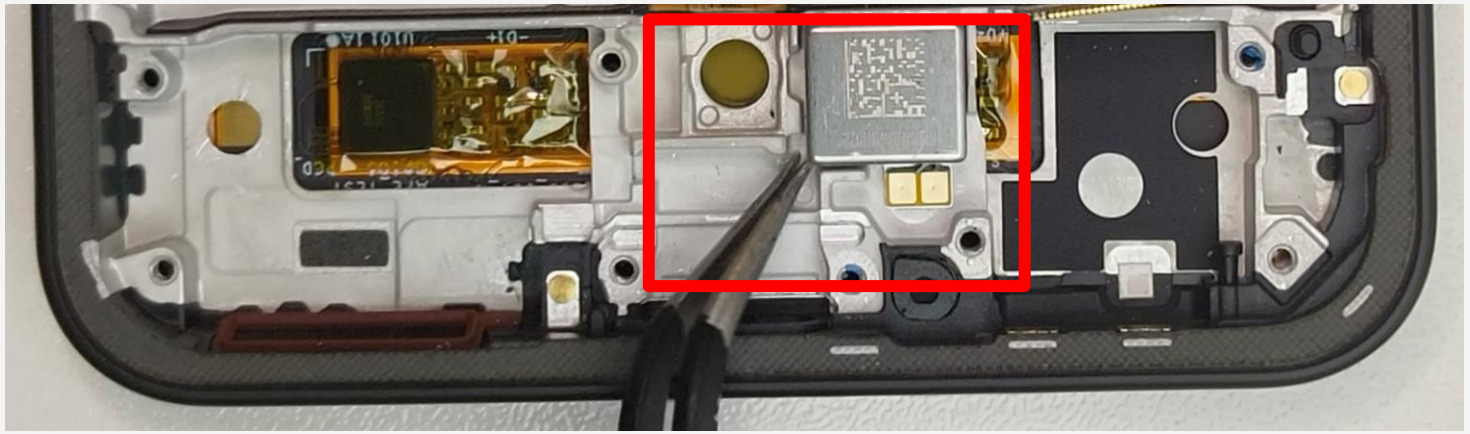


Fingerprint

8.Disassembly

Disassembly - Display assembly

Step 7: Insert a pair of metal tweezers into the gap between the vibration motor and the midframe. Carefully use the tweezers to gently lift the vibration motor, applying even and gradual pressure outwards. Continue this careful operation until the vibration motor is successfully separated.



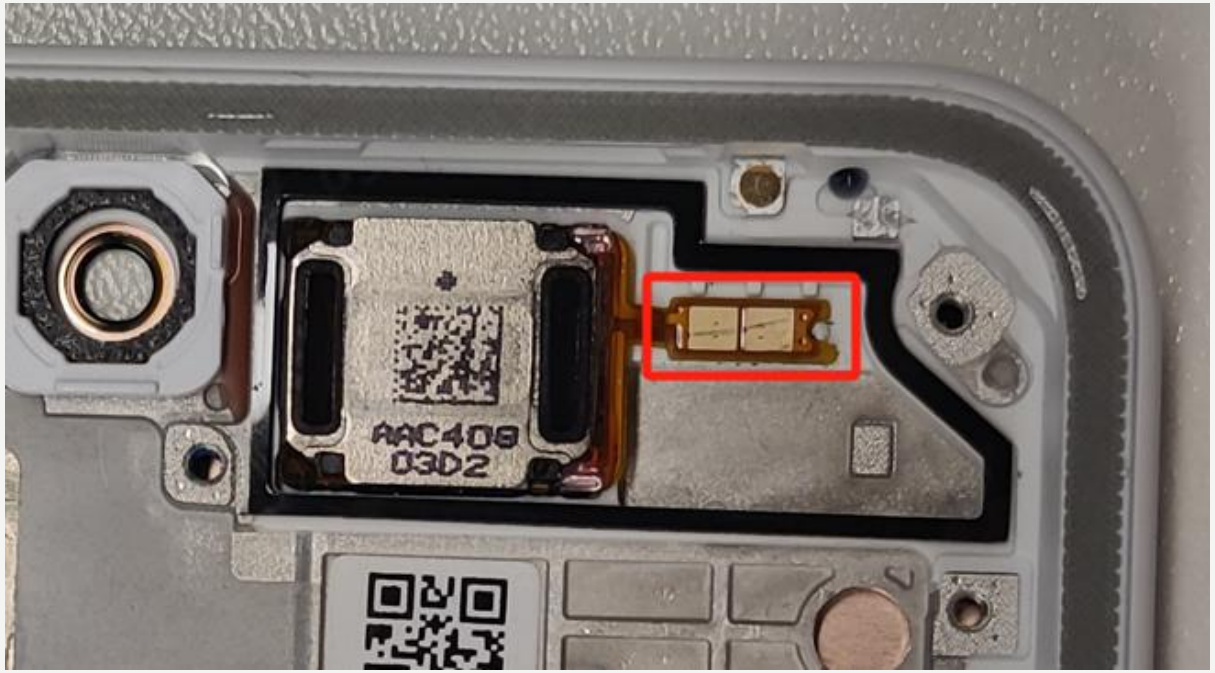
Vibration motor

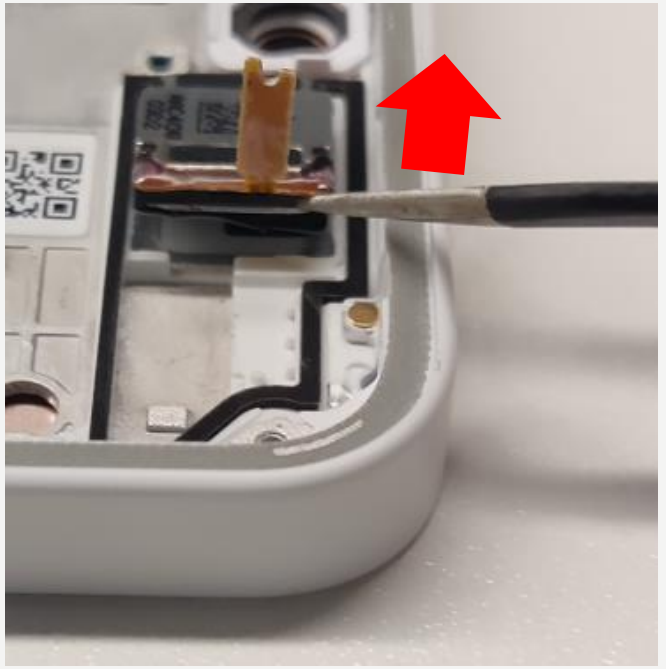
8.Disassembly

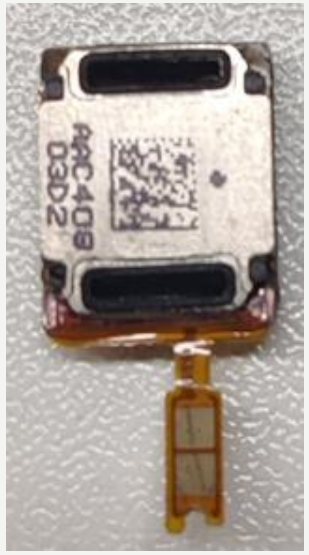
Disassembly - Display assembly

Step 8: Using a pair of tweezers, carefully disconnect the pad connecting the receiver to the FPC. Next, gently insert one tip of the tweezers into the small gap between the earpiece and the mid-frame. Slowly and steadily pry the receiver up.

If the earpiece proves difficult to remove, mildly heat the area to soften the adhesive for easier detachment. Be sure to handle the earpiece delicately during this process to avoid any damage.





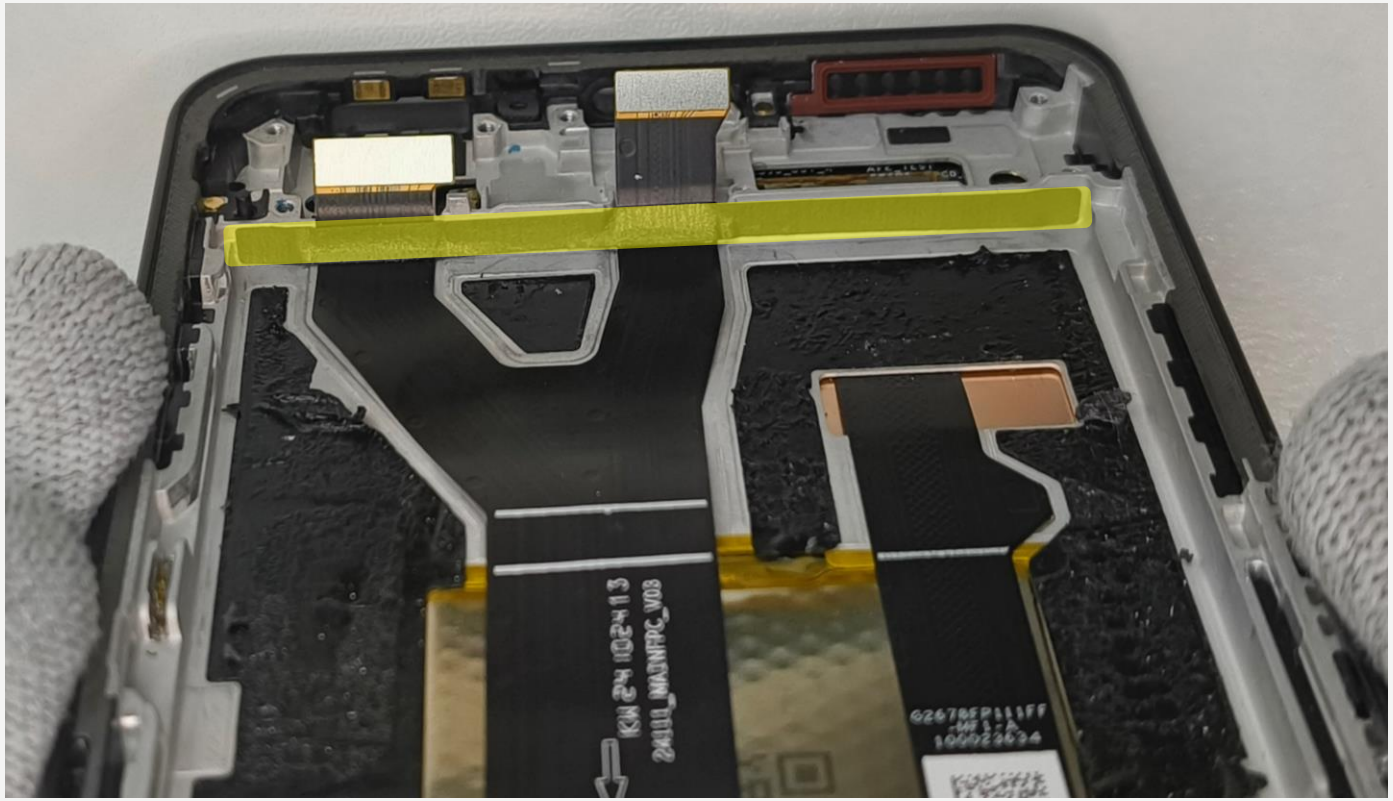


Receiver

8.Disassembly

Disassembly - Display assembly

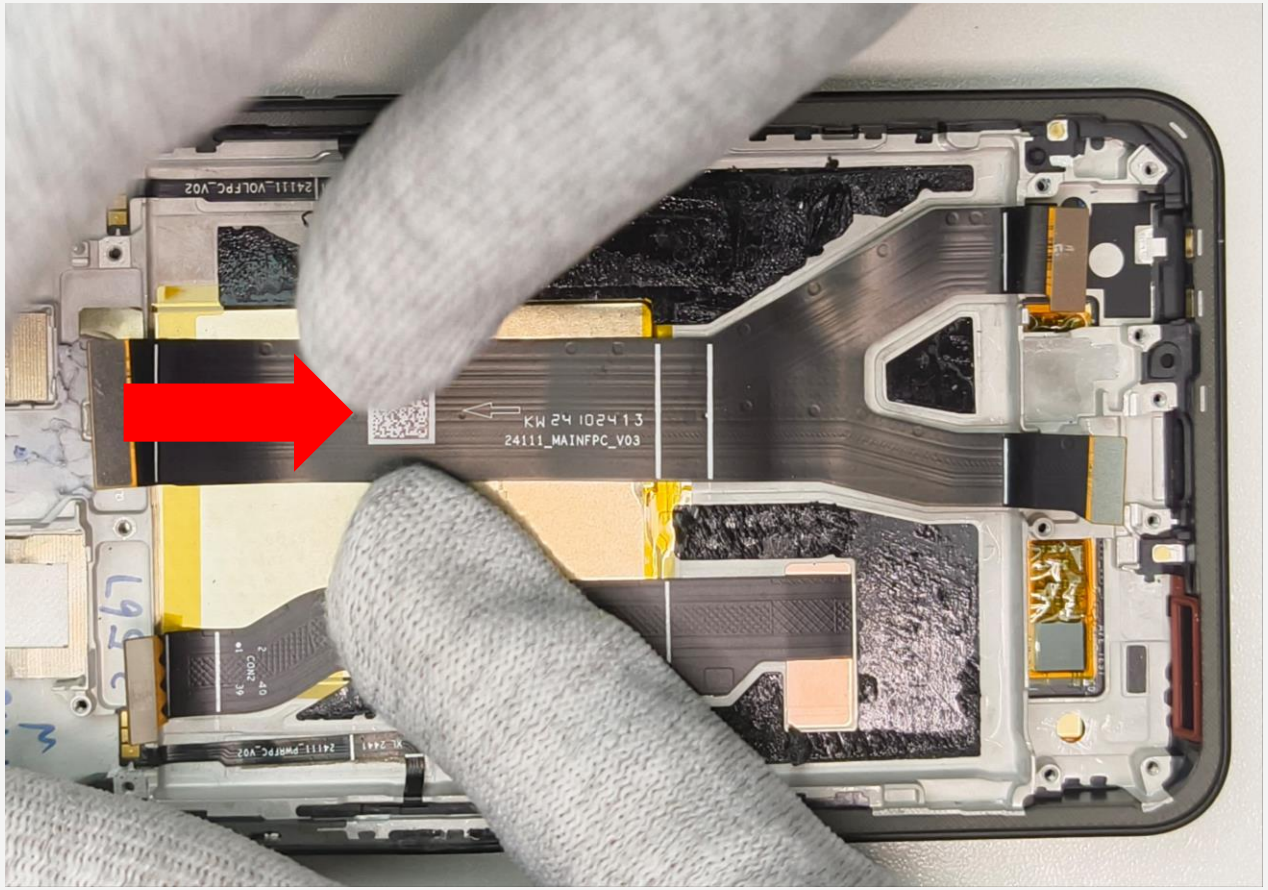
Step 9: Use plastic tweezers to remove the foam at the bottom of the battery compartment.

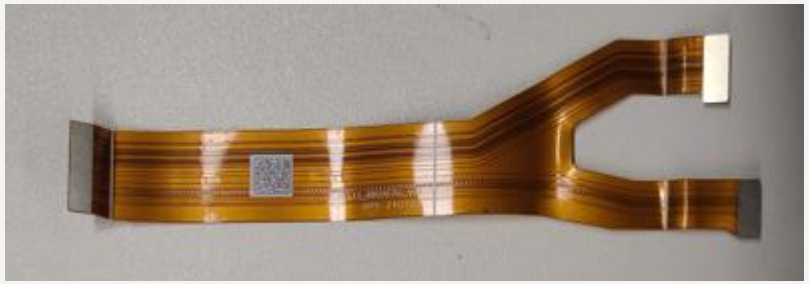


8.Disassembly

Disassembly - Display assembly

Step 10: Starting from the direction of the mainboard, carefully and gently detach the Main FPCA from the middle frame. Make sure to handle the ribbons and connectors with care to avoid damaging any components. Use a plastic pry tool if necessary to assist in separating any delicate parts that may be firmly attached.

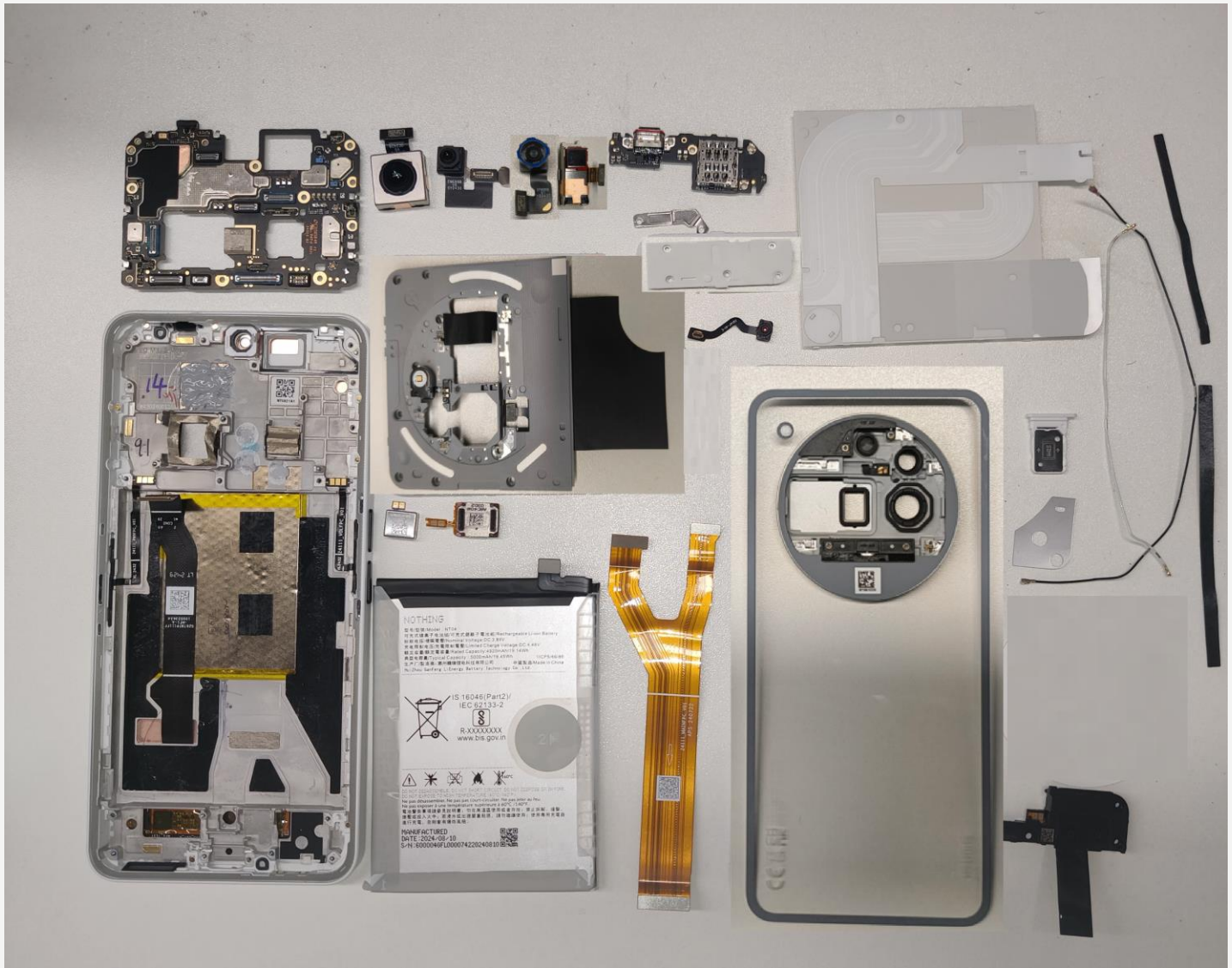




Main FPCA

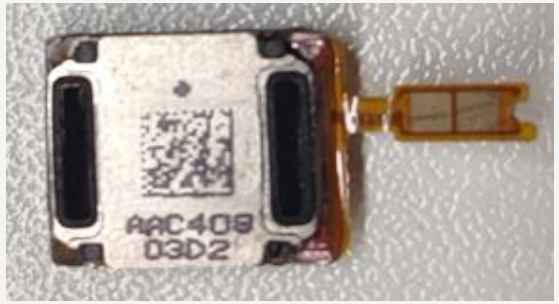
8.Disassembly

Disassembly - All parts of the device

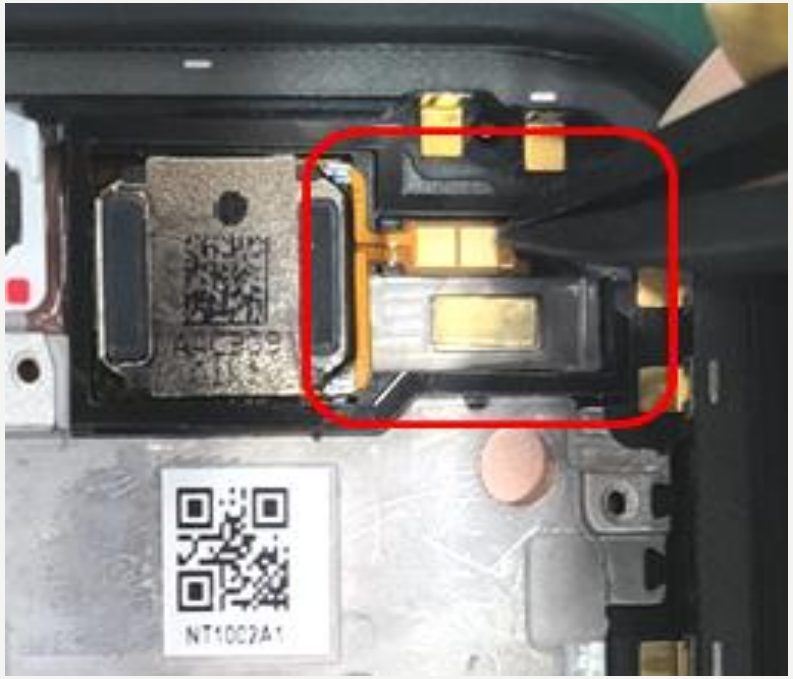


9.Assembly

1. Inspect the receiver to ensure there is no visible damage. If there is release liner on the midframe, remove it first. Then, place the receiver into its designated slot on the midframe. Using tweezers, gently push the receiver PAD, aligning it precisely with the positioning slots on the midframe. Firmly press down the flex cable adhesive with your fingertip to activate it. Finally, check that the receiver sits flat and is neither misaligned nor lifted.



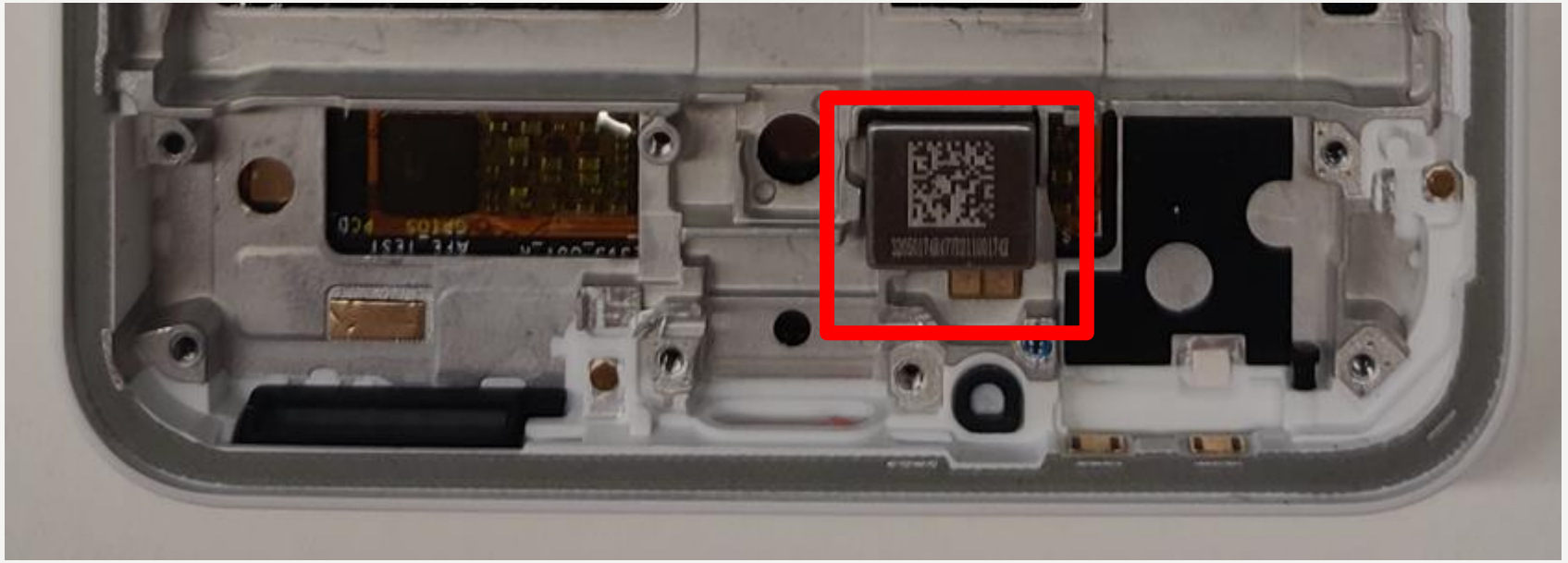
Receiver



9.Assembly

2. Verify the vibration motor to ensure there are no visible damages. If there is an anti-stick liner on the mid-frame, carefully remove it first. Next, position the vibration motor into the designated slot on the mid-frame, making sure it precisely aligns with the grooves. Firmly press the vibration motor into place using your fingertips to ensure it adheres securely.

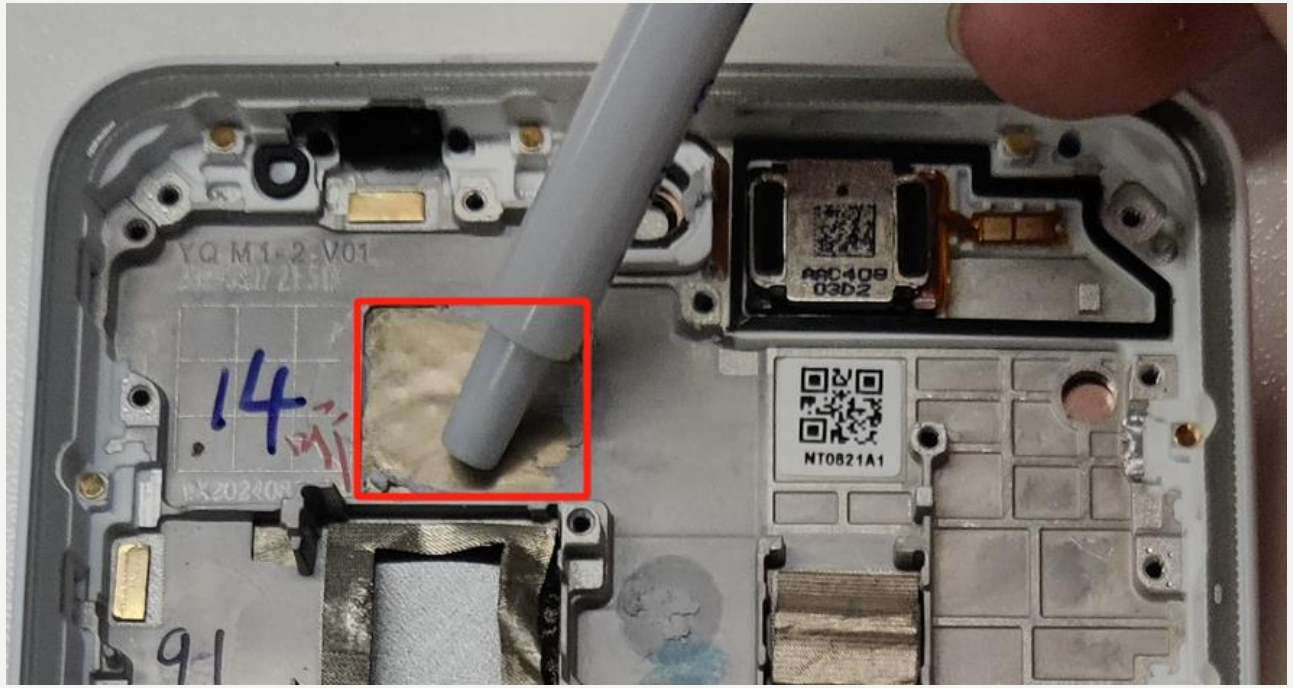
Vibration Motor

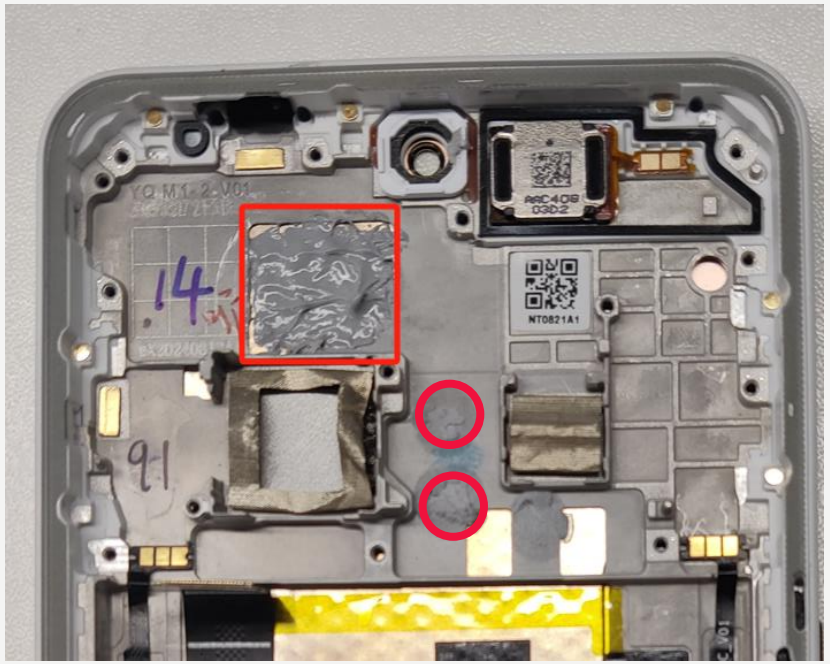


9.Assembly

3. If the mid-frame does not have thermal paste, you need to apply thermal paste evenly to the corresponding areas on the frame. If there is existing thermal paste on the mid-frame but it is not evenly spread, you may choose to either add more paste to achieve an even application or thoroughly remove the old thermal paste and then reapply a new, even layer.

Caution
Please apply it within the area marked by the red frame. Do not go beyond the marked range to avoid causing malfunctions.

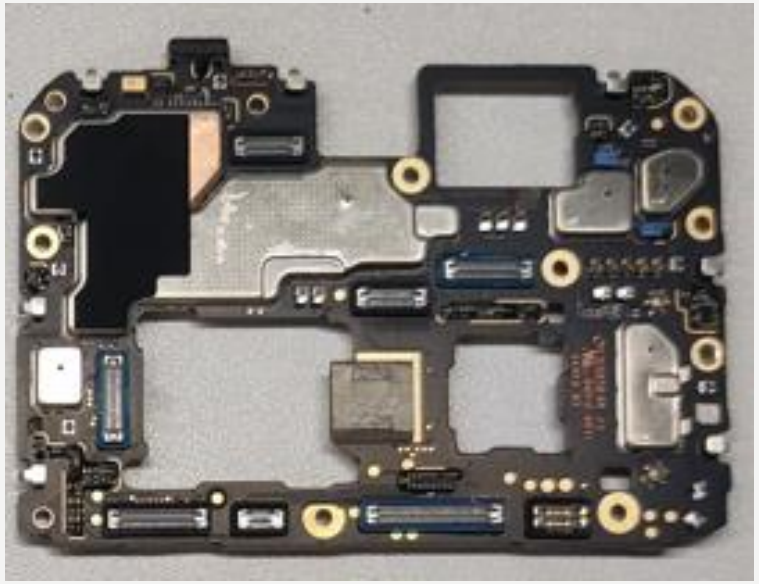




Thermal paste

9.Assembly

4. For a new mainboard , first, remove the release paper from both sides by carefully peeling it off. Hold the mainboard securely by gripping both the top and bottom edges near the center. Align the light sensor located on the left side of the mainboard with the corresponding sensor area on the middle frame. While keeping the right side slightly elevated, align the top part with the top edge of the middle frame. Then, gently lower the mainboard into place, ensuring that the alignment pegs on the middle frame fit precisely into their corresponding holes on the mainboard.



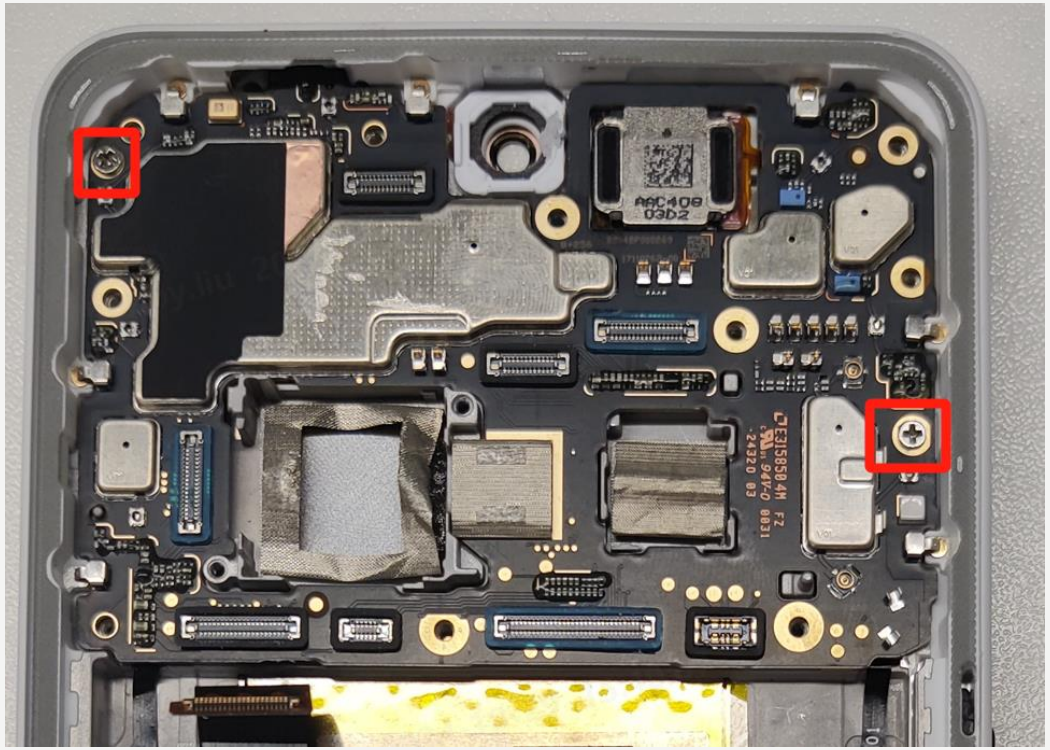
Mainboard

9.Assembly

5. Use a PH00 screwdriver to insert and secure 2 screws (Phillips_Screw_M1.4X2.8) into the mainboard to ensure it is firmly fixed in place.

PH00 screwdriver

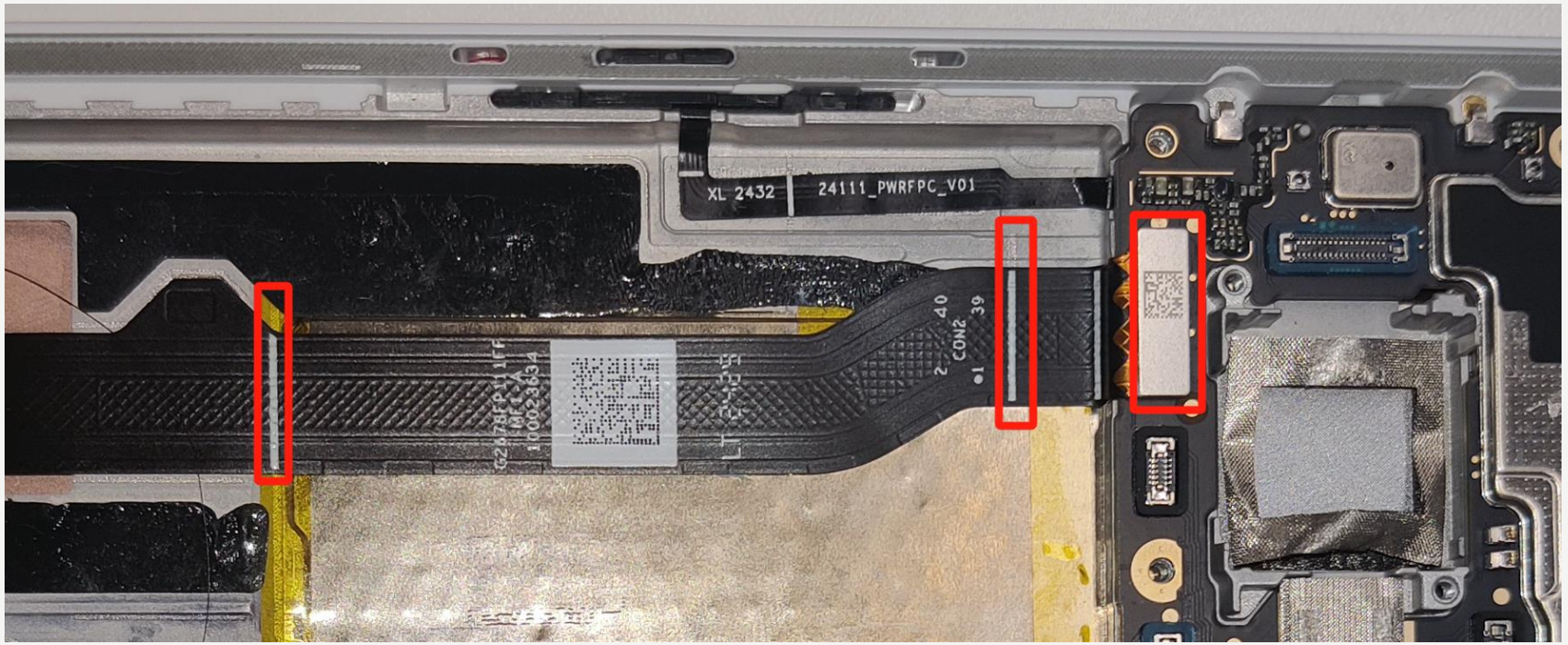
Phillips_Screw_M1.4X2.8



9.Assembly

6. Connect the screen FPC flex cable connector on the middle frame to the mainboard. While doing this, use one hand to press the BTB connector and the other to carefully smooth the flex cable along the battery compartment towards the mainboard. Ensure that the screen's FPC alignment mark matches the silkscreen marking on the middle frame, and avoid pressing the VC copper foil area on the frame.

Caution
The side of the screen FPC connected to the mainboard must be perpendicular to the mainboard, and the FPC should align accurately with the silkscreen indication inside the middle frame.



9.Assembly

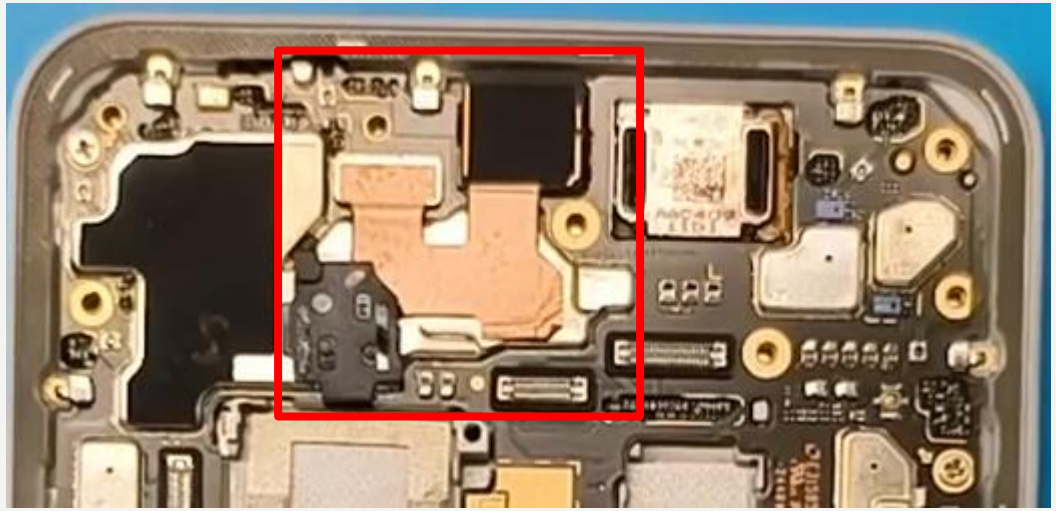
7. For the new screen assembly, first, manually peel off the release paper from the front camera bracket. Inspect the front camera hole to ensure there are no white spots, lint, or dirt. Next, take the front camera and check that its flex cable is free from damage and that the connector is not deformed. Insert the front camera FPC diagonally into the bracket of the mainboard, pre-aligning the BTB connector. Press the middle part of the reinforcement plate vertically to connect the front camera interface. You should hear a "click" sound, indicating that the connector is firmly in place.

Notice

If you are replacing the front camera with a new one, you need to additionally attach a graphite film to the front camera. Check that the graphite film is undamaged, then place it on the top right corner of the front camera and smooth it out by hand, ensuring it is properly applied. The copper foil should not extend beyond the edges of the front camera module.

Graphite film

Front camera



9.Assembly

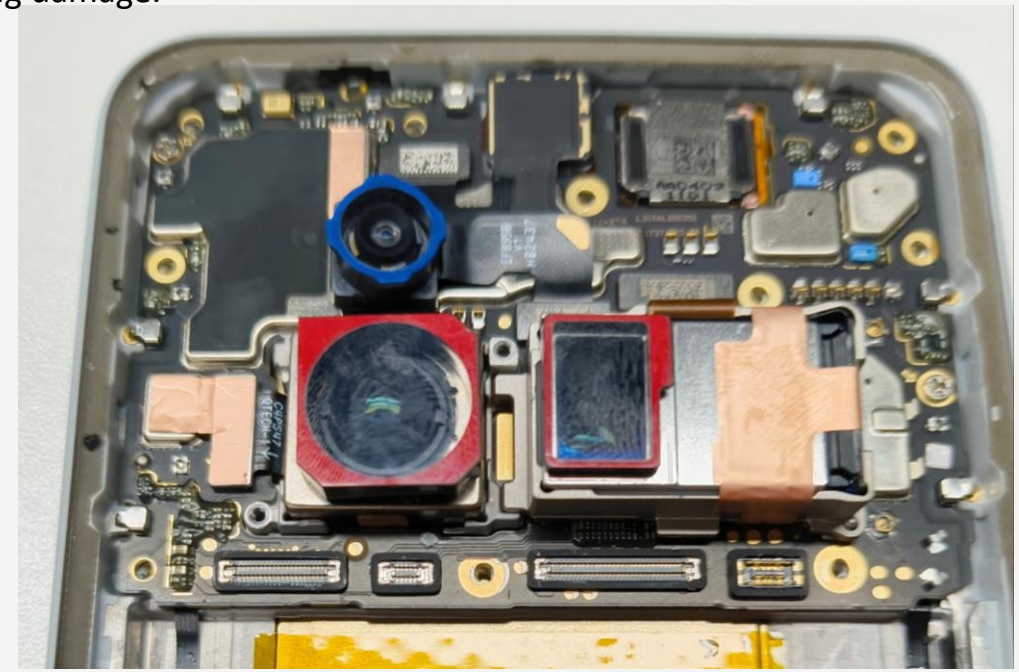
8. Check the rear main camera, wide-angle camera, and Periscope camera for scratches, lint, white spots, and white edges. Ensure all cameras are free of these defects. Align the rear main camera with the designated slot on the mid-frame assembly and carefully insert it vertically. Once aligned, secure the rear primary camera by vertically pressing down on the middle part of the reinforcement plate until it clicks into place. Repeat this process for both the wide-angle and Periscope cameras, ensuring each camera is properly aligned and securely fitted into the mid-frame assembly.

Notice
During operation, please do not touch the camera lens to avoid causing damage.

Main camera

Wide-angle

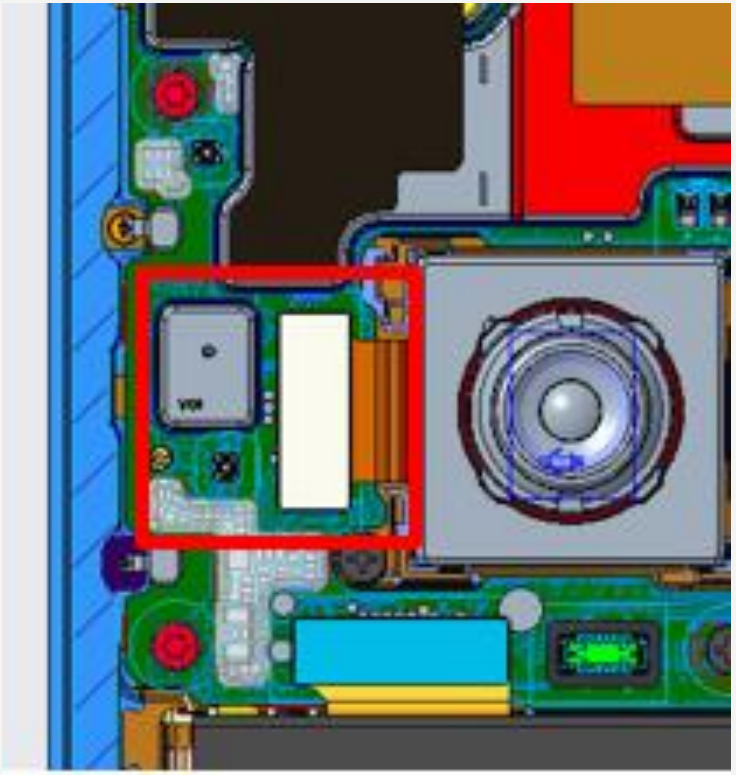
Periscope



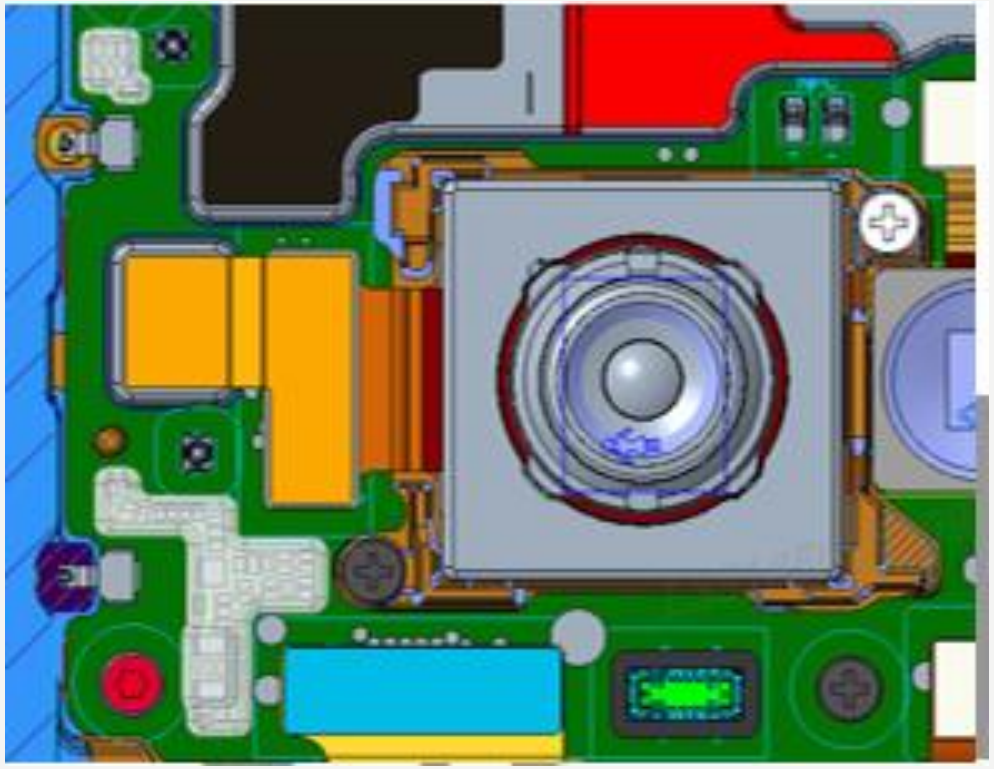
9.Assembly

9. Using tweezers, pick up 1 piece of the main camera BTB conductive cloth, ensuring there are no damages. Align the conductive cloth accurately with the main camera BTB connector, and then smooth it out gently using your fingers. Ensure that the conductive cloth does not extend beyond the edge of the main camera BTB assembly.

Main camera BTB conductive cloth



Attachment location

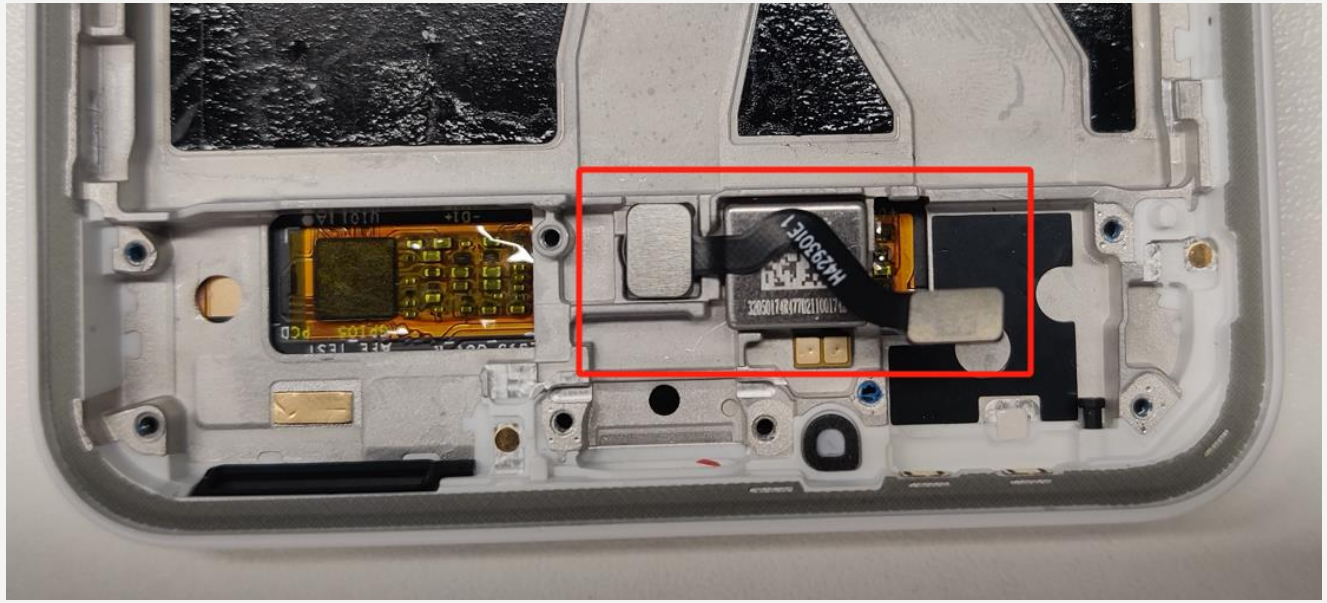


Effect picture after attachment

9.Assembly

10. First, inspect the fingerprint FPC for any breaks or damages. Carefully align the fingerprint sensor with the corresponding spot on the middle frame and securely install it in place.

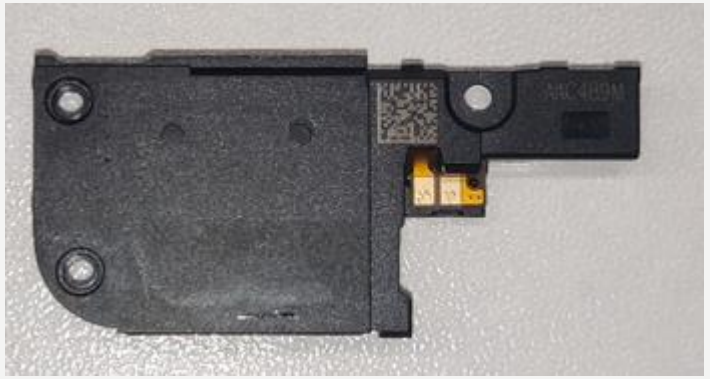
Fingerprint



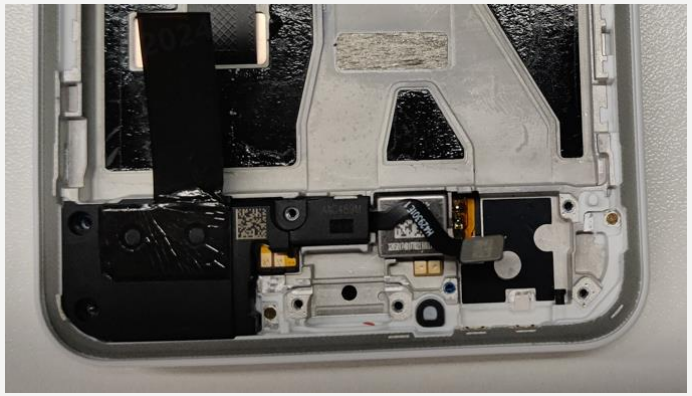
9.Assembly

11. First, align the speaker with the silicone area on the bottom frame. Then, flatten both sides of the speaker and press down at the aligning slots to ensure the clips snap fully into place within the frame. If you are installing a new speaker, you will also need to apply a speaker graphite film. Follow these steps to do so: Carefully use tweezers to pick up one piece of the speaker graphite film. Position the film according to the alignment posts on the speaker, then gently press and smooth it onto the speaker with your fingers.

speaker graphite film



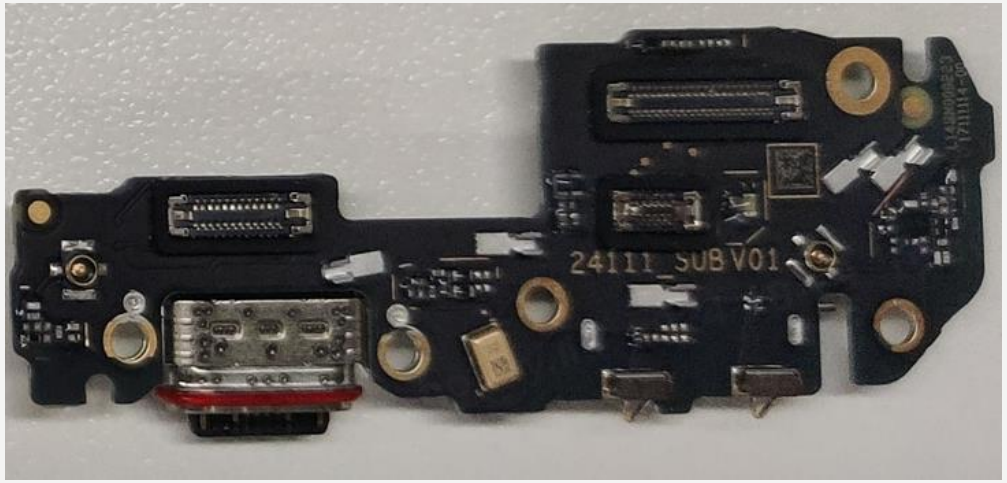
Speaker



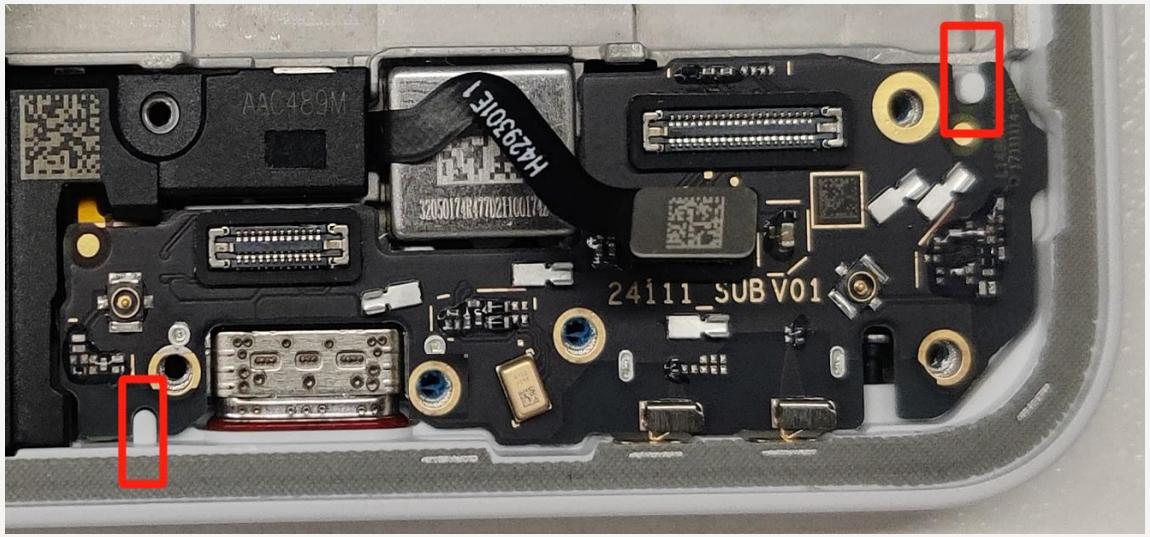
9.Assembly

12. Take the sub board. For the new sub board, first, remove the separating paper from the foam insulation by hand, lift the fingerprint FPC, tilt the sub board down about 30°, use the USB assembly to position and assemble the sub board, then align and level the positioning post into the middle frame.

Notice
Check that the sub board is assembled flat without any lifting or missing components, and confirm that the positioning post is in the positioning hole.



Sub board

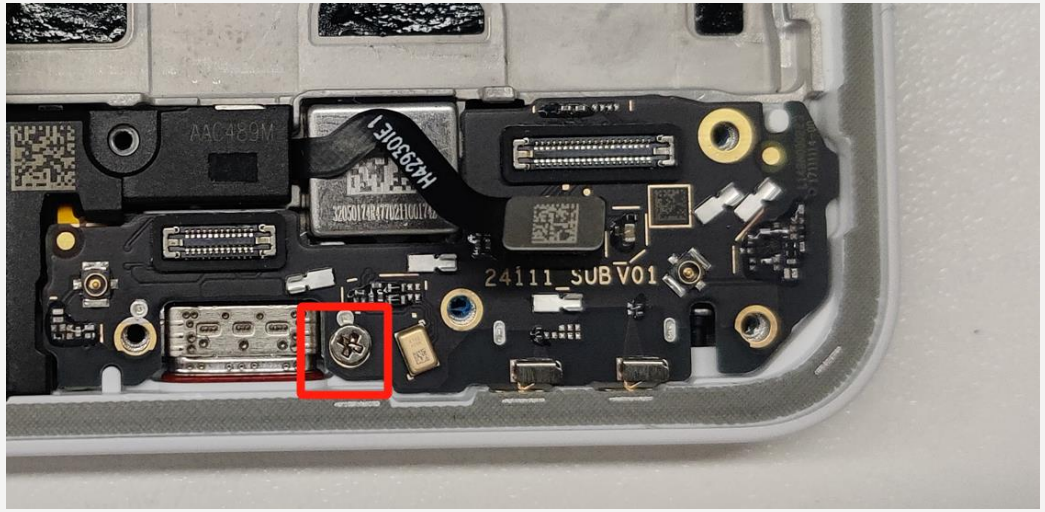


9.Assembly

13. Use a PH00 screwdriver to insert and secure 1 screw (Phillips_Screw_M1.4X2.8) into the sub board to ensure it is firmly fixed in place.

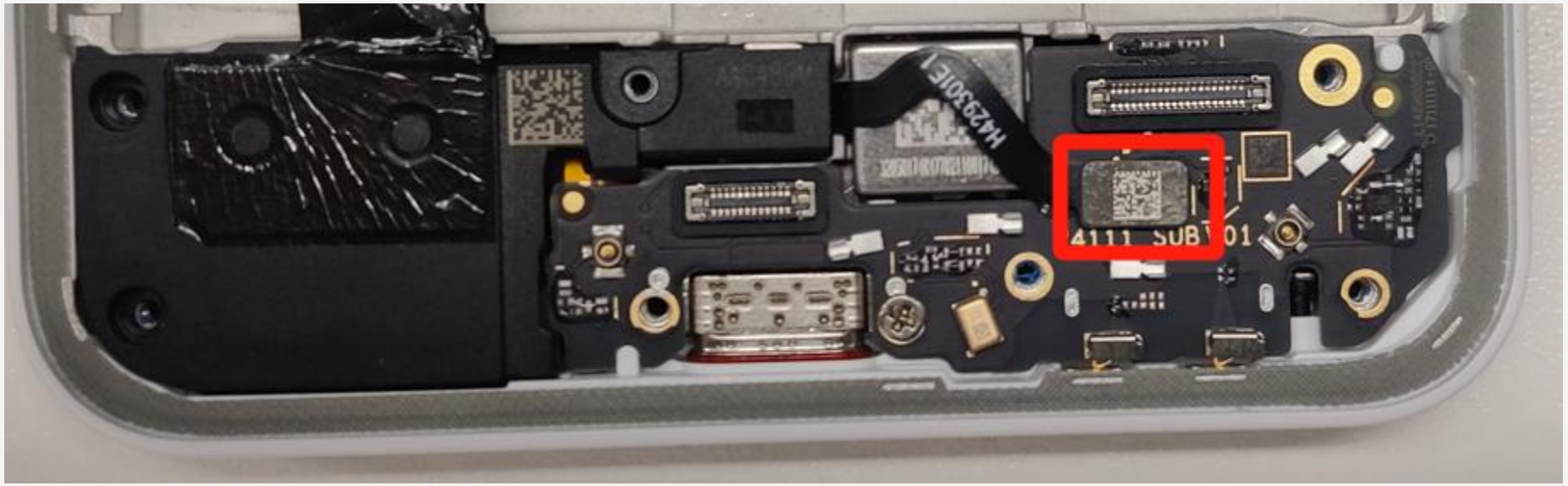
PH00 screwdriver

Phillips_Screw_M1.4X2.8



9.Assembly

14. Inspect the fingerprint FPC for any signs of breakage or damage. Align the fingerprint BTB with the connector on the sub board. Press the fingerprint BTB connector firmly and vertically using your finger pads to ensure a secure connection.

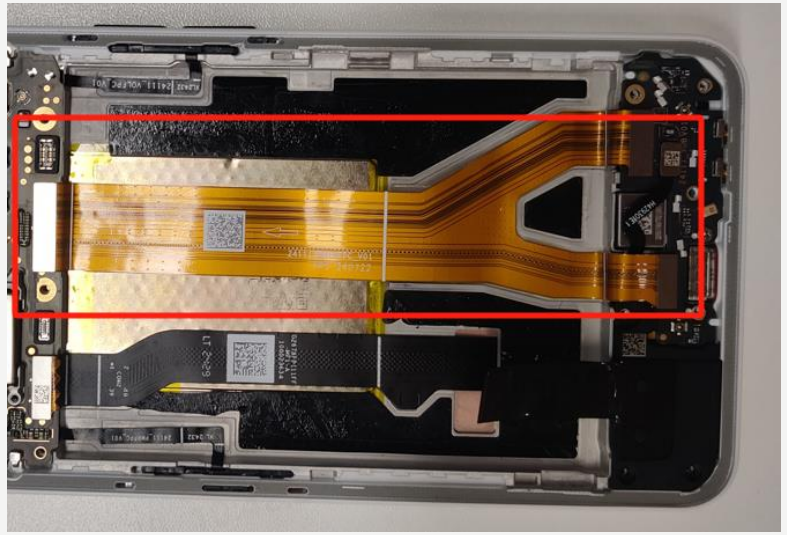


9.Assembly

15. Take the Main FPC and align it precisely with the mainboard BTB connector. Press it down vertically until it clicks into place, ensuring a secure connection with the mainboard. Next, align the other end of the FPC with the sub board's BTB connectors. Press each of the two BTB connectors on the sub board end vertically downwards, securing them firmly.

Notice
Align the FPC with the silkscreen markings on either side and carefully smooth the FPC upwards and downwards, ensuring it lies flat against the inner battery compartment. This alignment ensures that there is no slack and the FPC adheres properly within the device chassis.

Main FPC



9.Assembly

16. First, align the end of the black RF cable that is closest to the grounding ring with the corresponding RF port on the mainboard. Firmly snap the connector into place. Next, take the other end of the black RF cable, which is farther from the grounding ring, and align it with the corresponding RF port on the sub-board. Again, ensure a secure connection by snapping the connector into place.

Once both ends of the black RF cable are connected, locate the cable clips on the mid-frame. Carefully route the sub-board end of the RF cable into its designated clip within the mid-frame to secure it. Repeat this process for the mainboard end of the RF cable, ensuring it is also firmly held in place by the clip. This ensures that the cable is neatly organized and secured, minimizing the risk of damage or disconnection during subsequent handling and assembly.

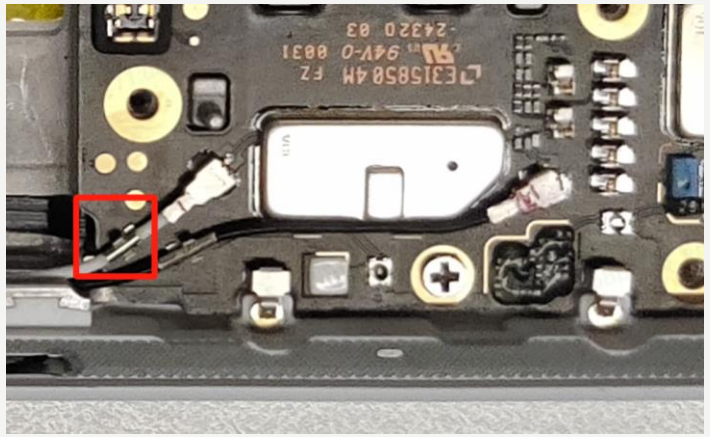
Black RF cable

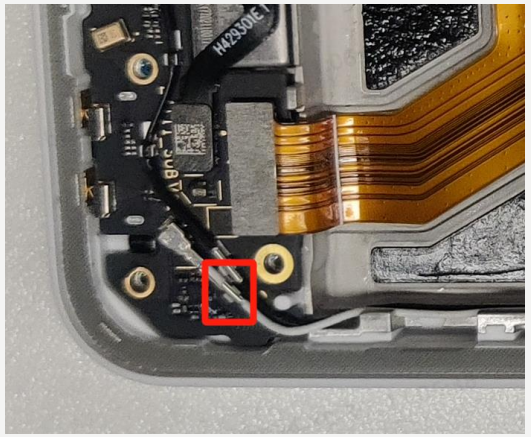
9.Assembly

17. Carefully align one end of the white RF cable with the RF connector on the mainboard and press down gently to lock it into place. Next, align the RF cable's clip with the corresponding connector on the sub board and ensure it is securely attached.

Once both ends of the white RF cable are connected, locate the cable clips on the mid-frame. Carefully route the sub-board end of the RF cable into its designated clip within the mid-frame to secure it. Repeat this process for the mainboard end of the RF cable, ensuring it is also firmly held in place by the clip. This ensures that the cable is neatly organized and secured, minimizing the risk of damage or disconnection during subsequent handling and assembly.

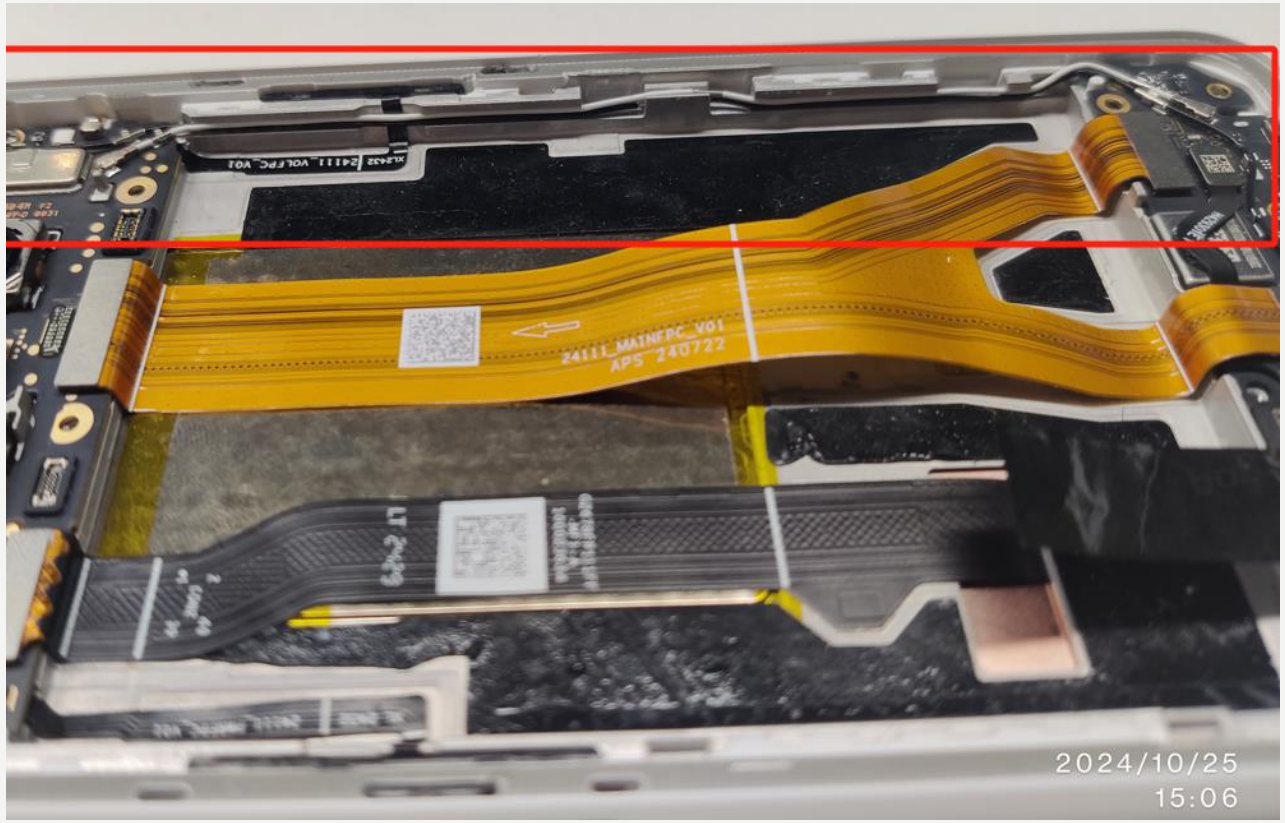
White RF cable





9.Assembly

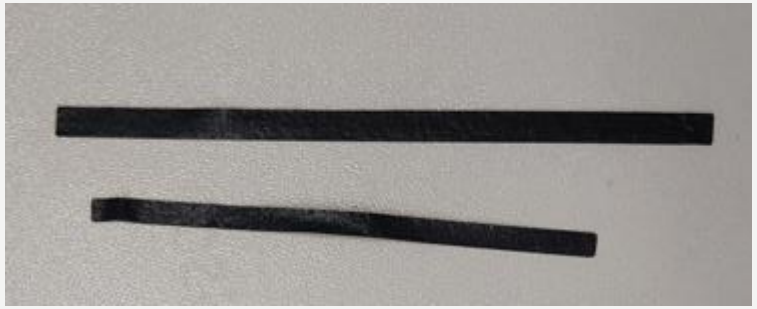
18. Using tweezers, carefully insert the black RF cable into the cable groove, starting from the mainboard and working your way towards the sub board. Next, using tweezers again, place the white RF cable into the cable groove, also starting from the mainboard and moving towards the sub board.



9.Assembly

19. Use tweezers to carefully pick up the battery bottom protect foam and RF cable protect foam. Align them with the marked line, and attach them along the right-angled edge of the battery compartment in the designated area of the midframe. Gently smooth out the foam horizontally to ensure it adheres properly.

RF cable protect foam



Battery bottom protect foam

9.Assembly

20. **Warning**

Before assembling the battery, it is essential to prioritize safety and quality. Batteries that have been previously disassembled must not be used under any circumstances. Should you encounter such batteries, they must be replaced with new ones immediately.

9.Assembly

21. **Warning**

Before assembling the battery, it is essential to prioritize safety and quality. Batteries that have been previously disassembled must not be used under any circumstances. Should you encounter such batteries, they must be replaced with new ones immediately.

Prior to installing a new battery, conduct a thorough inspection of its exterior. Look for any signs of damage such as punctures, scratches, or leakage. If any such defects are found, the battery should not be used, and a new battery should be installed instead..

9.Assembly

22. Before installing the battery, ensure that the inside of the mid-frame battery compartment is free from screws, sharp objects, or any other foreign matter to prevent puncturing the battery and causing safety hazards.

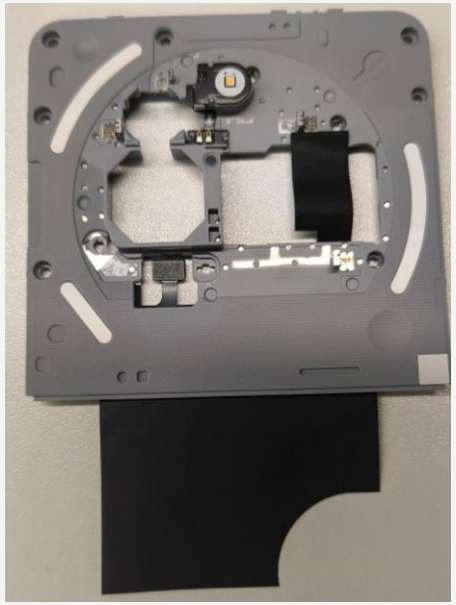
Carefully handle the battery and place it centered vertically in the battery compartment. Gently press the battery to establish firm contact with the adhesive on the mid-frame underside. Finally, connect the battery BTB connector to the designated port on the mainboard.

Battery

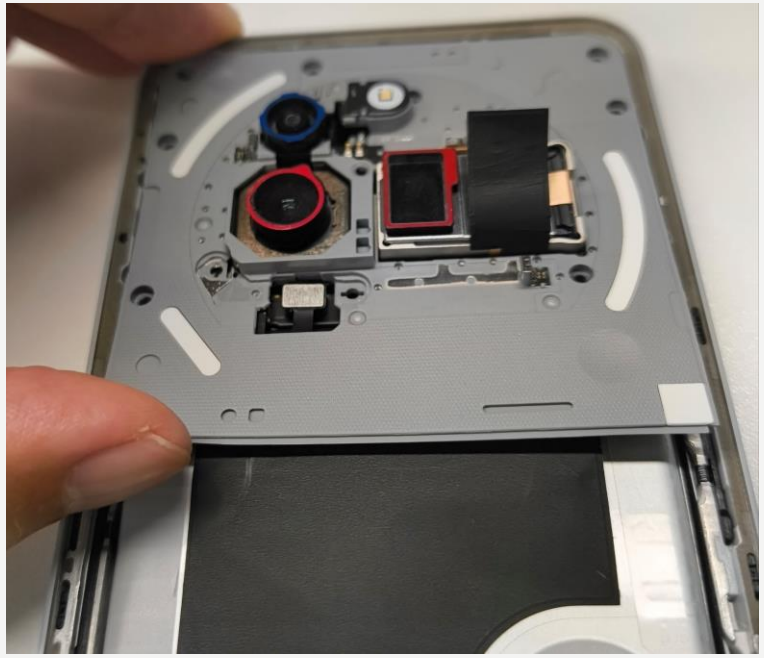
9.Assembly

23. First, take the mainboard bracket and thoroughly inspect it to ensure there is no damage such as broken parts, residue adhesive. Verify that the graphite sheet is intact and that the bracket has no dirt, scratches, or other visible imperfections.

To begin the installation, tilt the top of the bracket downward and align the top left corner with the corresponding slot in the frame. Gently slide the top clip of the bracket into place within the mid-frame. Next, flatten the bracket and press the left clip into the frame. Ensure it securely clicks into position. Then, press down the right clip for additional security. Lastly, press down on the areas with adhesive on both sides to firmly attach the bracket to the frame, ensuring stability and alignment.



Mainboard Bracket

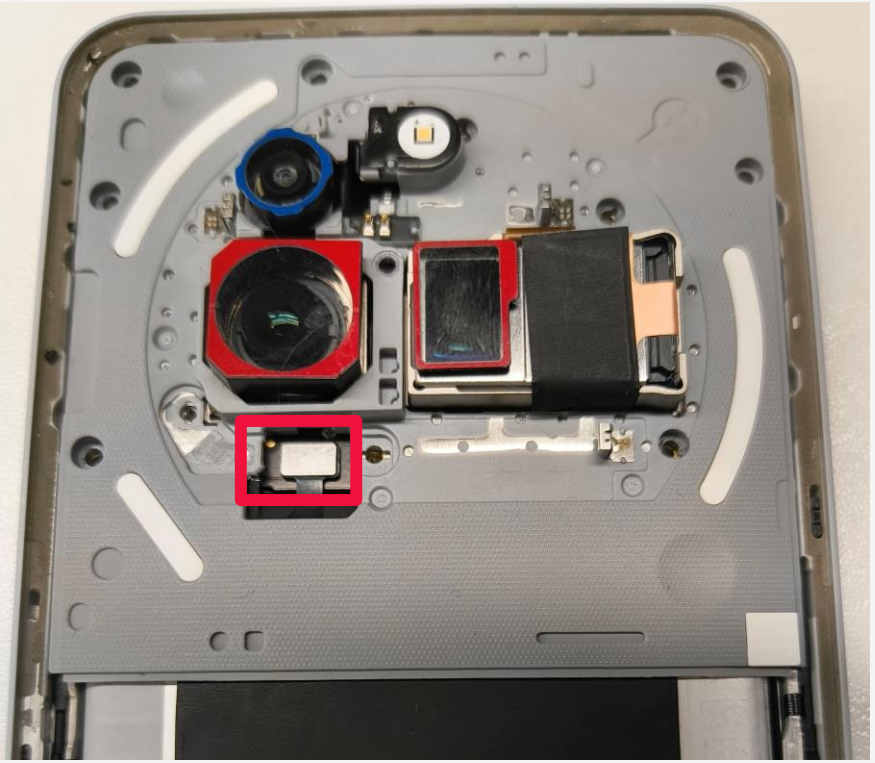


9.Assembly

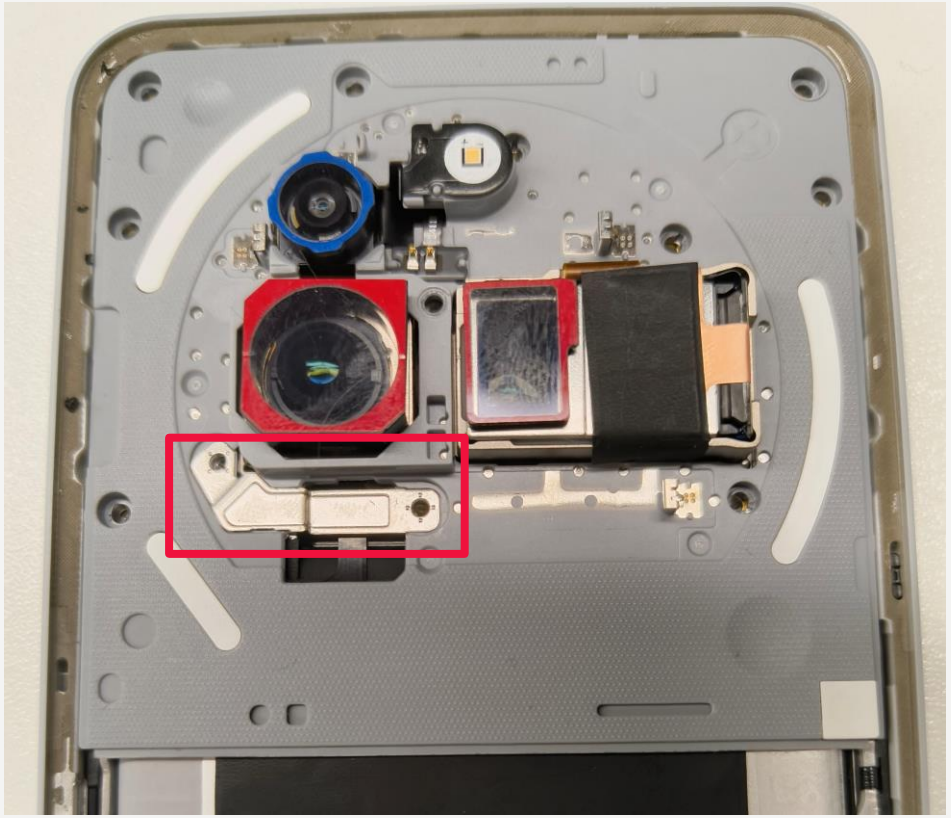
24. Use tweezers to paste the PET sheet on the Periscope camera

9.Assembly

25. Align and press the Glyph light connector BTB to the mainboard, and assemble Glyph connector bracket into the mainboard bracket positioning slot.



Glyph connector bracket

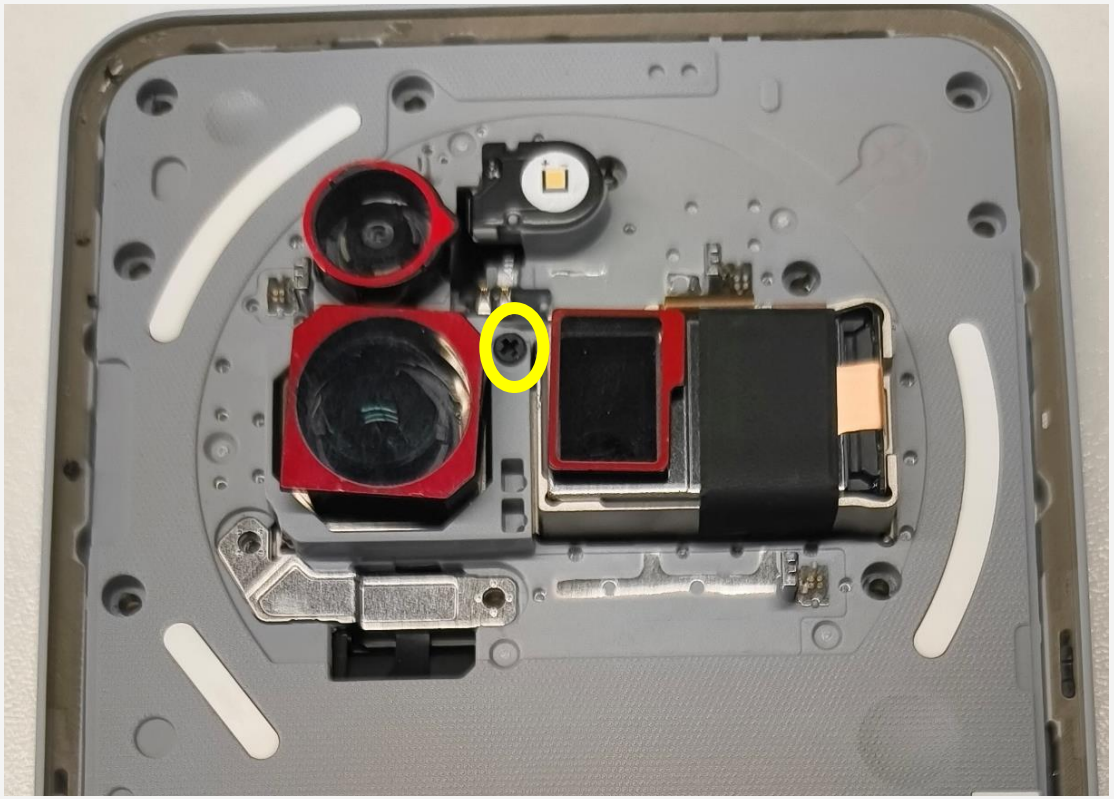


9.Assembly

26. Using a PH00 screwdriver, assemble one screw (M1.4×3.8) to the bracket.

PH00 screwdriver

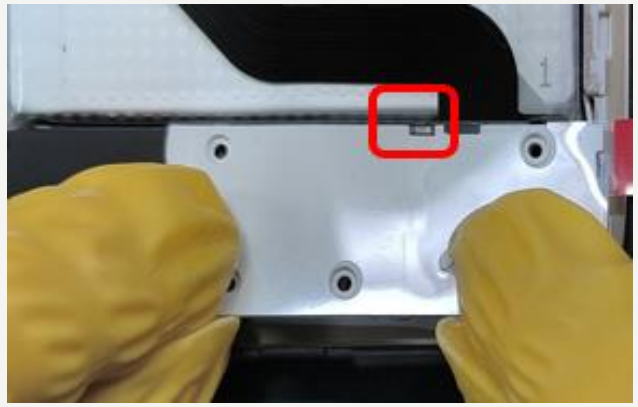
Cross recessed cylindrical head screw
_M1.4×3.8×0.4mm



9.Assembly

27. Align the top of the sub board bracket with the clips on the top of the middle frame. Then, gently press down to level the bracket and secure it by pressing the clips on the bottom and the right side. Ensure that all clips are properly and securely engaged.

sub board bracket

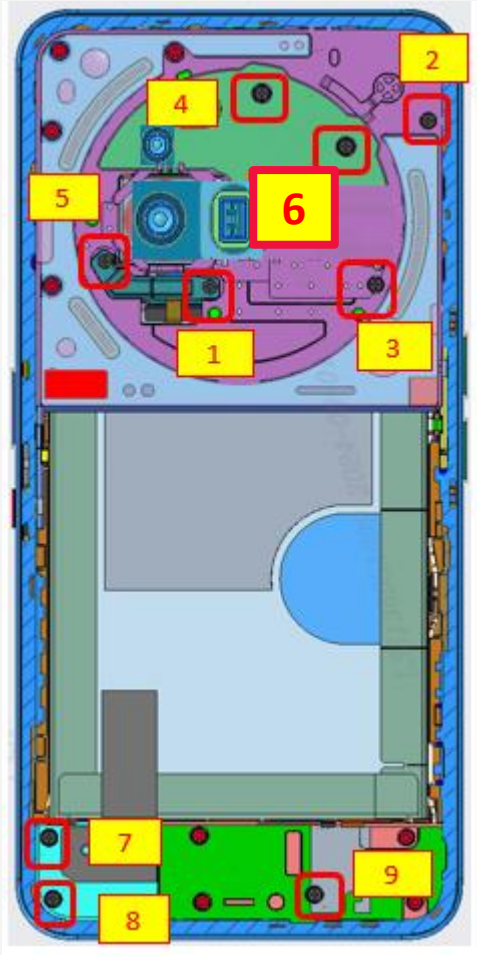


9.Assembly

28. Using a PH00 screwdriver, methodically assemble the 9 Phillips-head screws, as illustrated in the diagram. Each screw is a cylindrical head type with dimensions of M1.4×3.8×0.4mm.

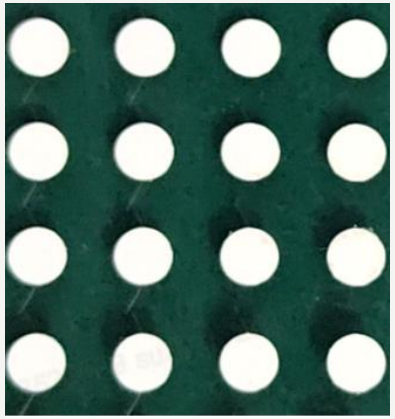
PH00 screwdriver

Cross recessed cylindrical head screw _M1.4×3.8×0.4mm



9.Assembly

29. Place a Fragile Label on each of the two screws shown in the diagram. This helps in identifying if a user has tampered with or repaired the device by checking if the Fragile Labels have been broken.



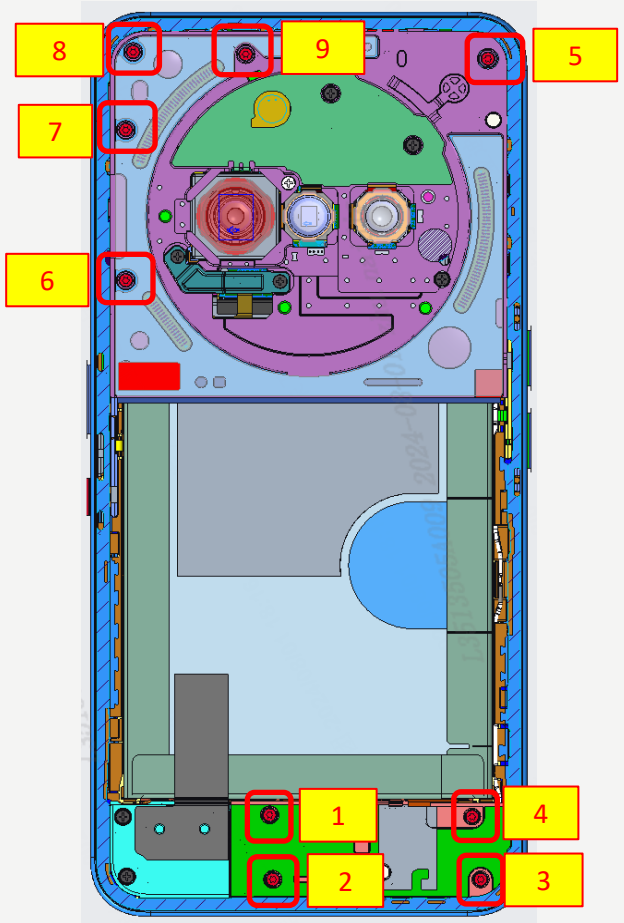
Fragile Label

9.Assembly

30. Using a T5 screwdriver, systematically assemble the 9 hexagon socket flat head screws shown in the diagram (each measuring M1.4×3.9×0.3mm).

T5 screwdriver

Internal hexagon flat head screw_M1.4x3.9x0.3mm

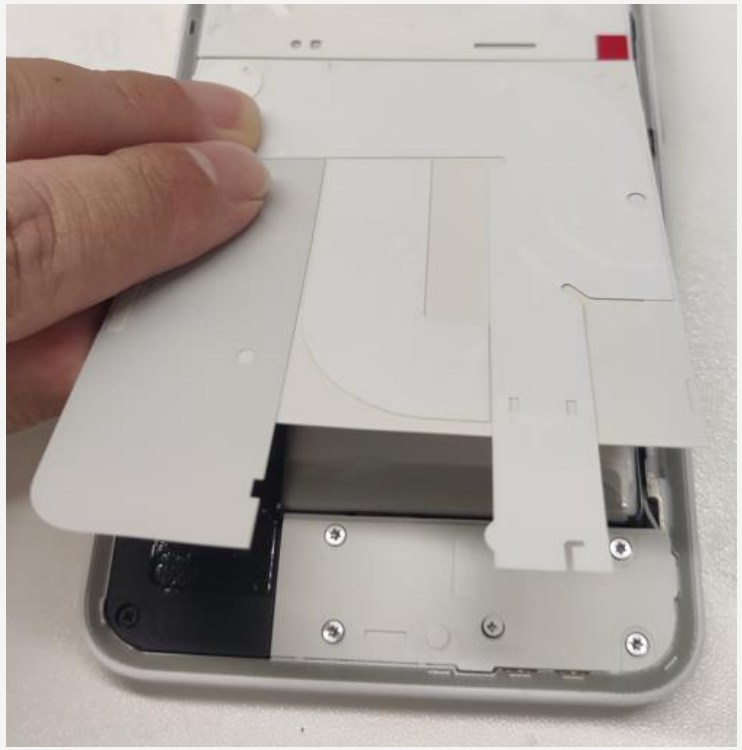


9.Assembly

31. Inspect the battery holder decorative for any scratches, dirt, or other imperfections. After ensuring it is clean and undamaged, carefully align the battery holder decorative with the mid-frame. Once aligned, use your hands to gently press and snap the side clips into place, ensuring a secure fit.

Notice
This material is fragile. If you notice any deformations, scratches, or dirt, replace it immediately with a new piece to maintain repair quality.

Battery holder decorative

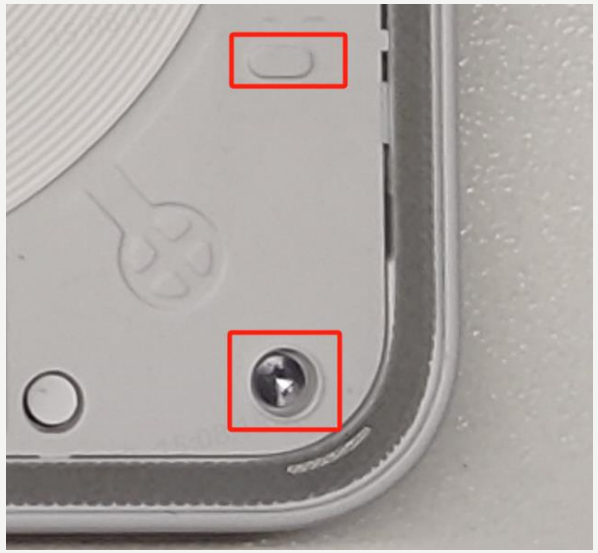


9.Assembly

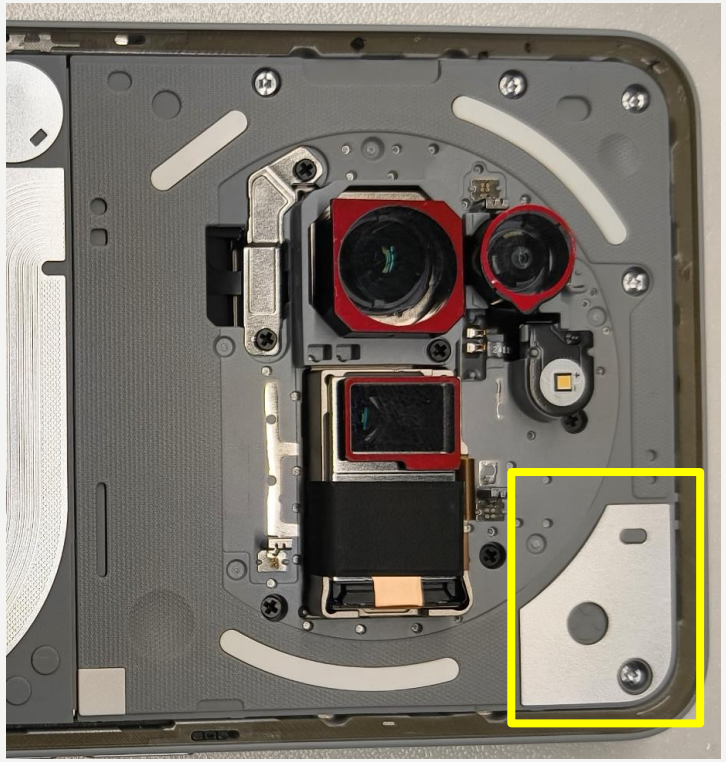
32. Get the Mainboard bracket decorative PET and perform a thorough inspection. Ensure that its surface is free of any deformations, scratches, or dirt. Align the Mainboard bracket decorative PET with the positioning holes/pillars, starting from the left side, and then press it firmly to ensure proper adhesion.

Notice
This material is fragile. If you notice any deformations, scratches, or dirt, replace it immediately with a new piece to maintain repair quality.

Mainboard bracket decorative PET

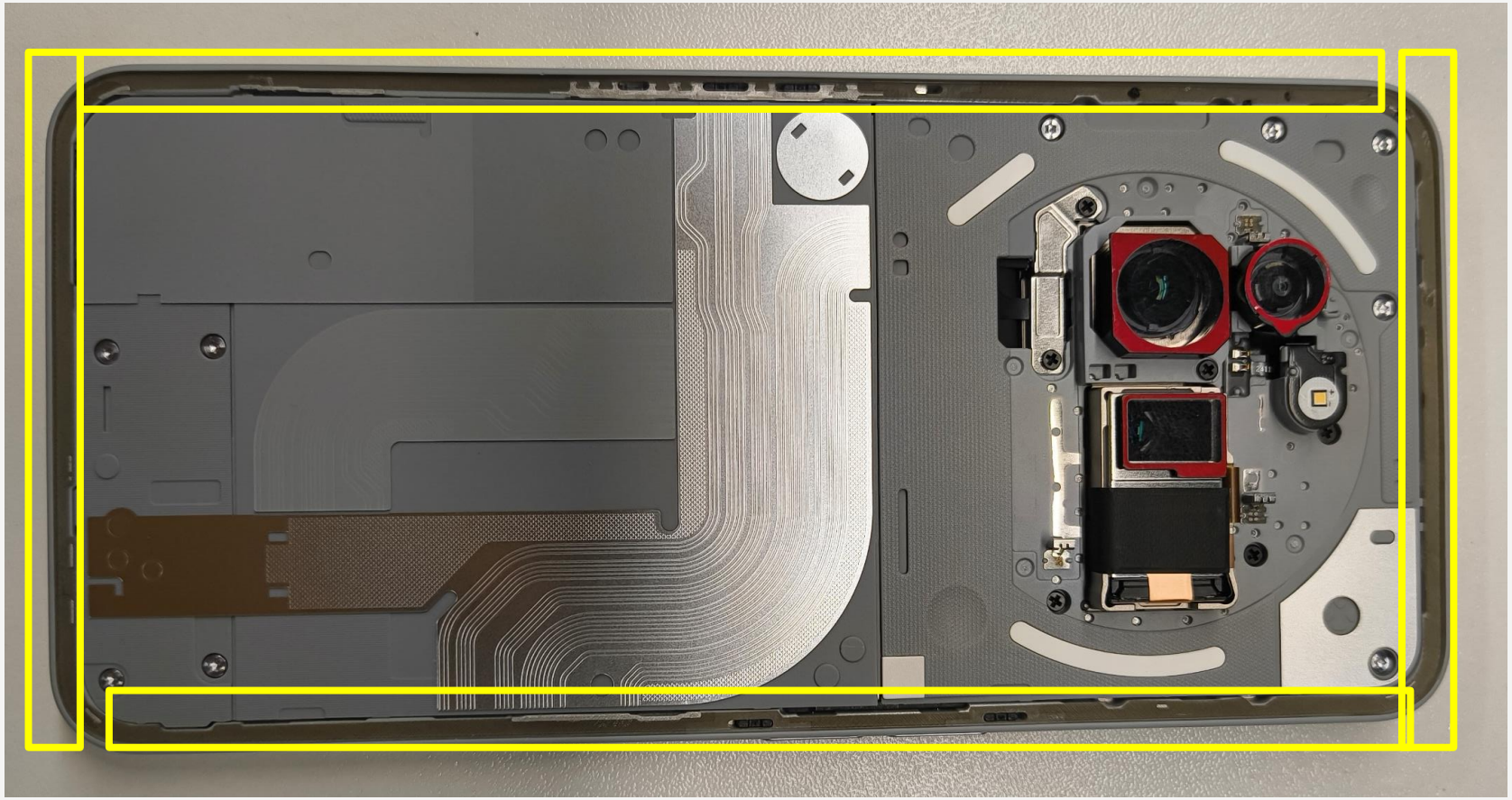


Positioning holes/pillars



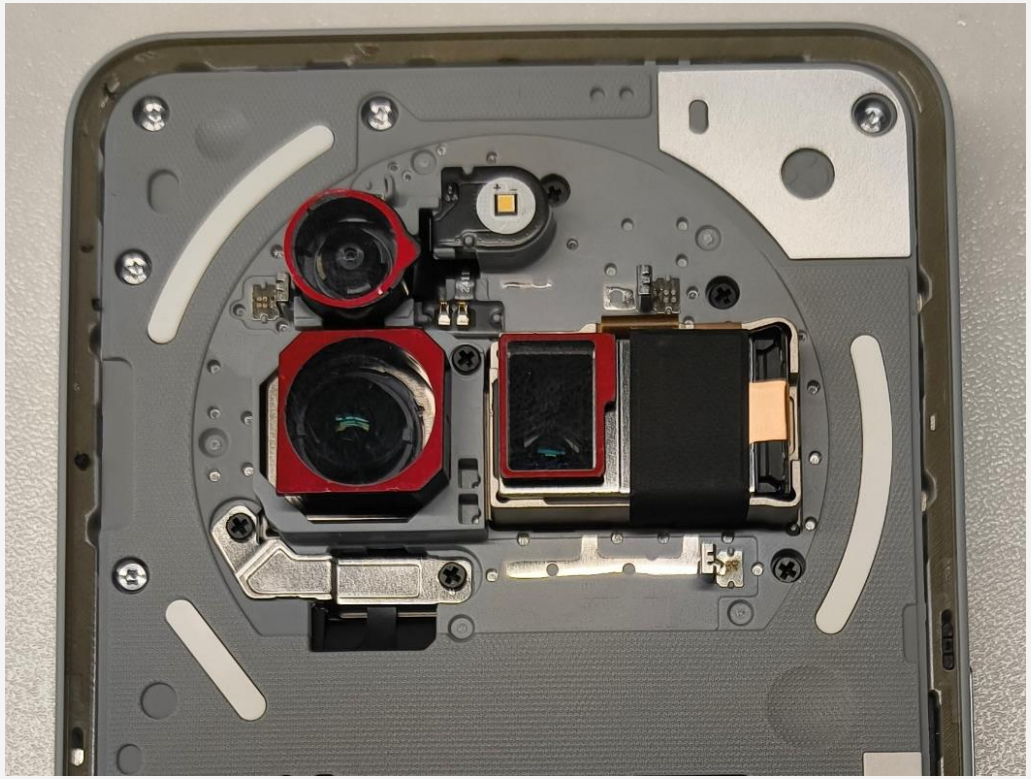
9.Assembly

33. Check and thoroughly clean the middle frame where the adhesive for the back cover will be applied. Remove any remaining adhesive residue to ensure a smooth application surface for the back cover. This preparation will ensure the back cover sits properly and is securely attached.



9.Assembly

34. Carefully and gently peel off the protective cover from the camera, making sure not to damage the lens assembly in the process *(in case of a new camera with protection cover or additional protective cover added during disassembly).*



Camera protective cover (Main, Wide-angle, Periscope)

9.Assembly

35. Use tweezers to pick up any remaining adhesive on the cover and clean off the residue to ensure a smooth surface for the new adhesive. Take the new double-sided back cover adhesive, hold the back cover with one hand and the adhesive with the other. Carefully align the top edge of the adhesive with the upper edge of the back cover, pressing it gently into place. Gradually work your way around, carefully positioning and adhering the adhesive to the remaining edges and sections of the cover. Use your thumb to apply slight pressure, circling around the edges to securely affix the adhesive.

Back Cover Adhesive

Notice
It's important to replace the adhesive promptly, as it helps protect the back cover from dust and other particles.

9.Assembly

36. Before attaching the back cover, carefully check the interior of the device to ensure there are no foreign objects, wrinkles, bumps, dirt, or any signs of lifting or irregularities. Remove all release films from the back cover. Align the top edge of the back cover with the top frame of the phone using your fingers to assist in precise positioning. Once properly aligned, slowly and gently press down on the rest of the back cover to secure it onto the mid-frame of the device.

9.Assembly

37. Insert the SIM tray into the corresponding slot on the phone. Pay close attention to the orientation, as the tray can only be inserted in one direction; attempting to insert it backward will prevent it from fitting properly.

SIM card tray

9.Assembly

38. Put the phone to Back Cover Pressure Holding Fixture_NT Phone(3a) Series and hold at least 5 minutes to ensure that the double-sided adhesive tape is completely attached.

Warning
The Back Cover Pressure Holding Fixture is relatively heavy. During the pressing operation, please avoid your hands or other parts of the body to prevent pinching injuries.

Please place The Back Cover Pressure Holding Fixture on a stable and firm flat surface to avoid injuries caused by the fixture falling or shifting.

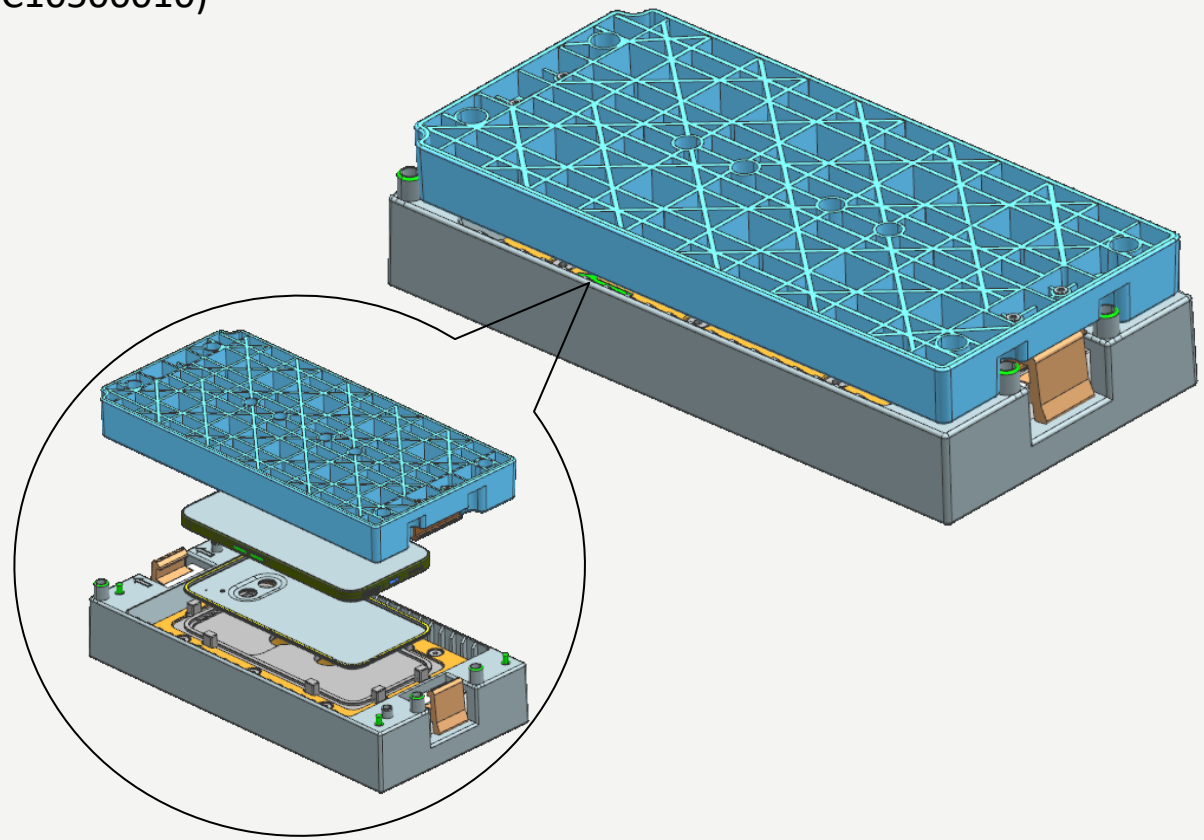
Caution
If the device has issues such as a bent or deformed middle frame, the pressing and bonding may not achieve a complete fit.

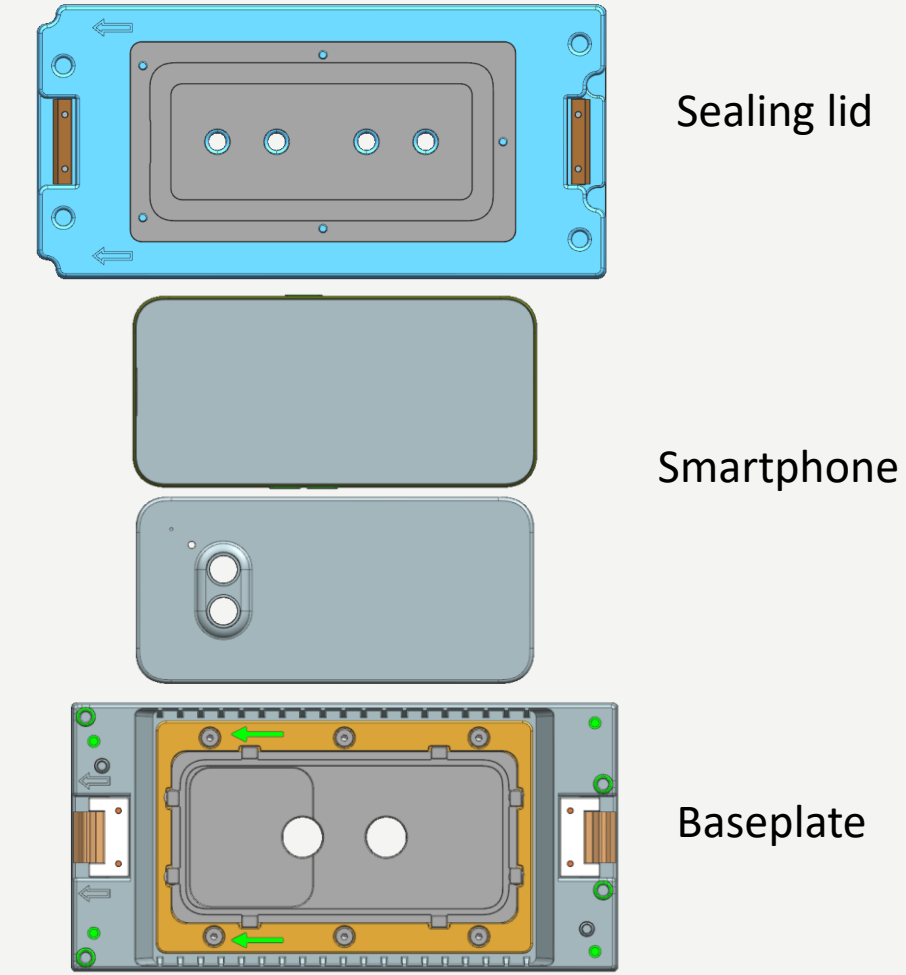
Note: If the Nothing Back Cover Pressure Holding Fixture is not available, please ensure you let the device tight with few strong rubber band for **30min – 60min** after the back cover assembly.

9.Assembly

38. Put the phone to Back Cover Pressure Holding Fixture_NT Phone(3a) Series and hold at least 5 minutes to ensure that the double-sided adhesive tape is completely attached.

Back Cover Pressure Holding Fixture_NT Phone(3a) Series (SKU: C10500010)

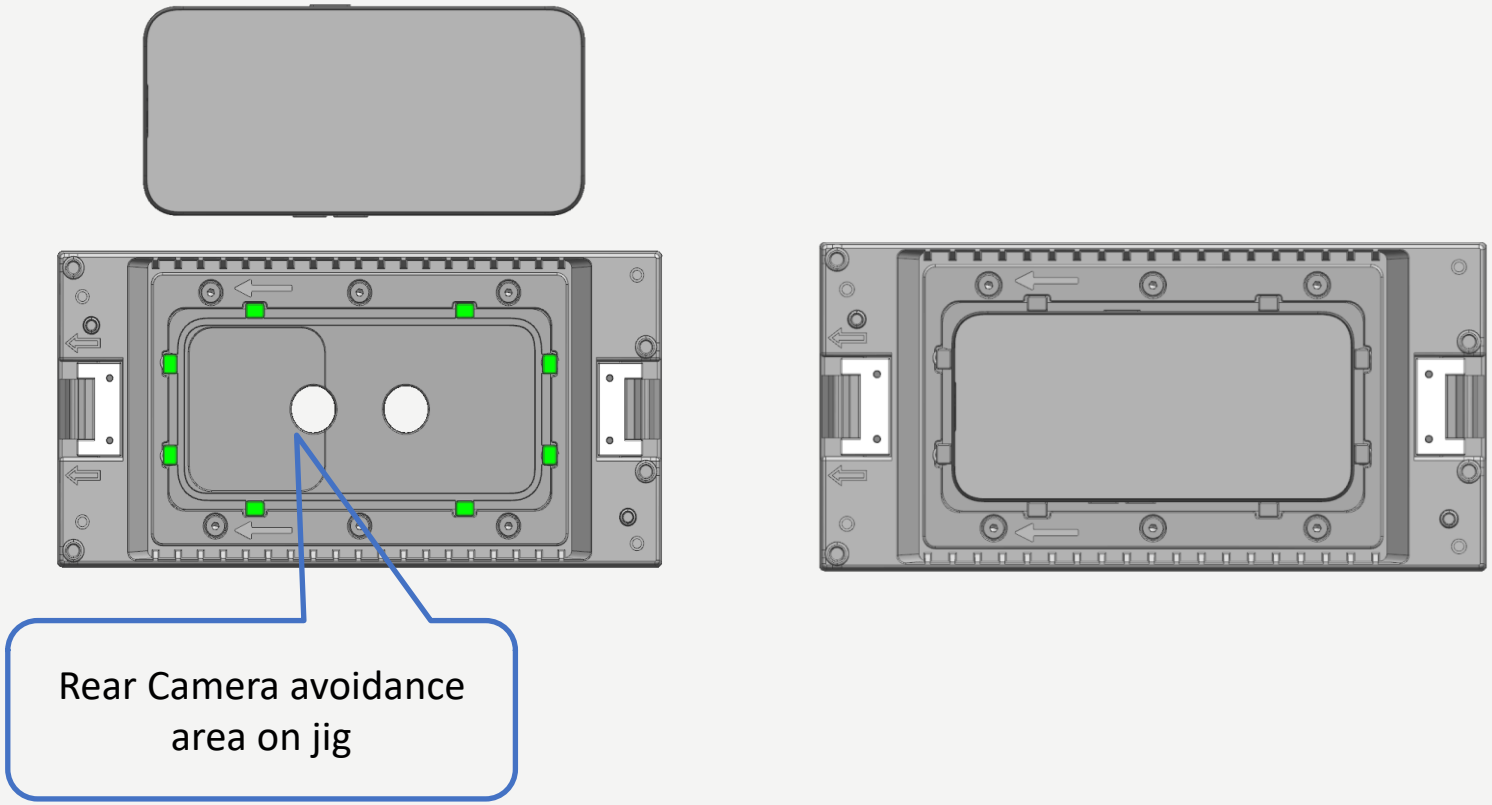




9.Assembly

38. Put the phone to Back Cover Pressure Holding Fixture_NT Phone(3a) Series and hold at least 5 minutes to ensure that the double-sided adhesive tape is completely attached.

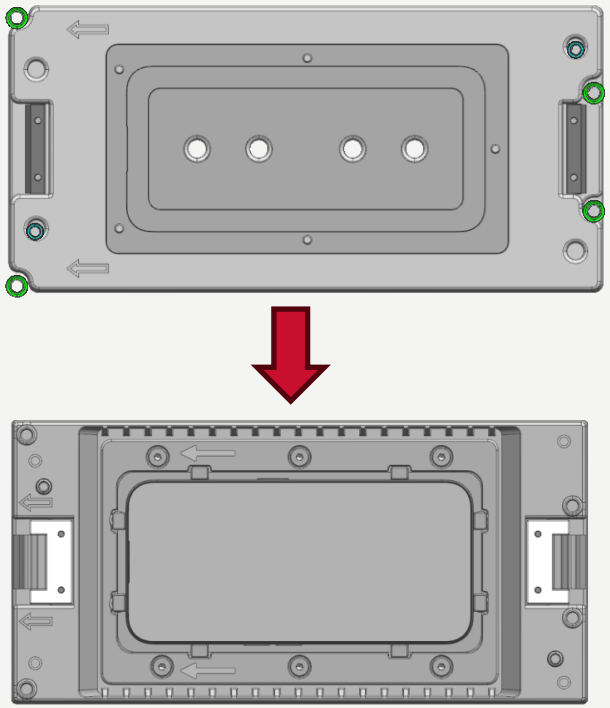
Step1: Translate the phone screen facing up, the back cover facing down, and place the protruding area of the rear camera into the jig avoidance area, then lay the phone flat along the jig positioning column.



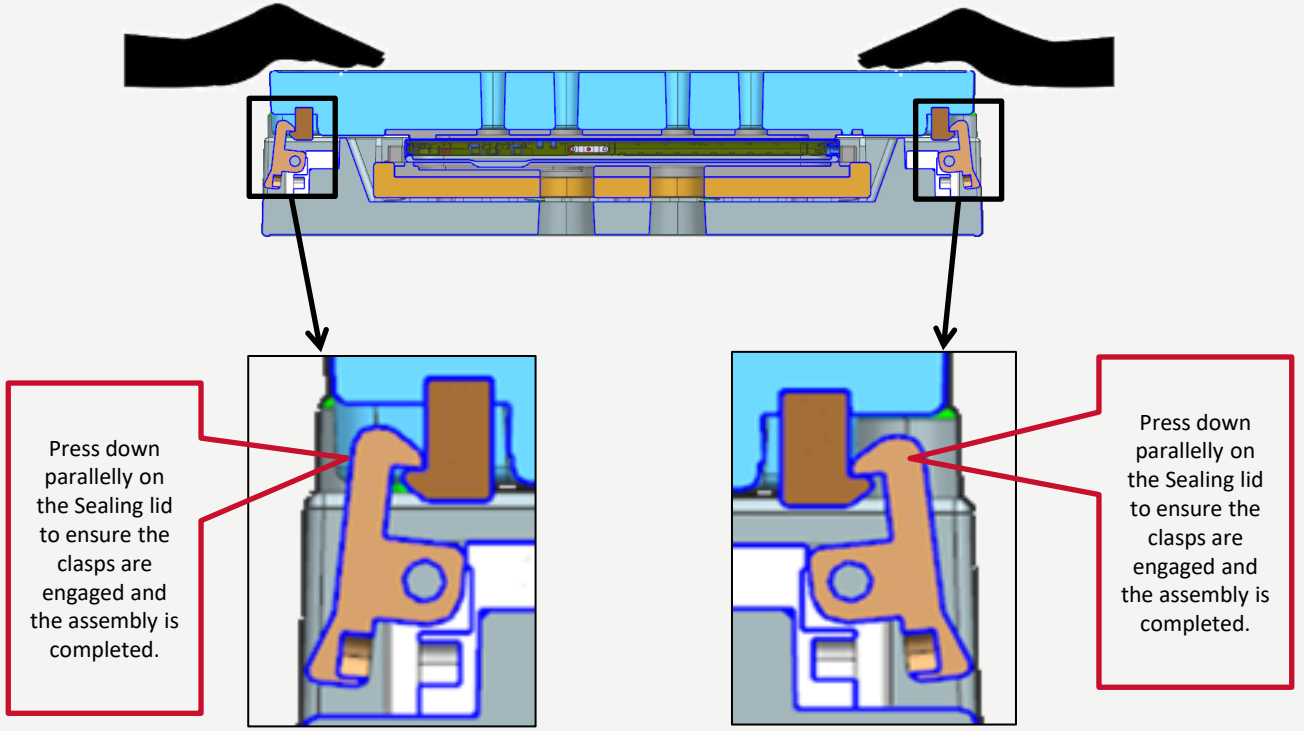
9.Assembly

38. Put the phone to Back Cover Pressure Holding Fixture_NT Phone(3a) Series and hold at least 5 minutes to ensure that the double-sided adhesive tape is completely attached.

Step2: Align the Sealing lid and baseplate through the locating pins / locating slots.



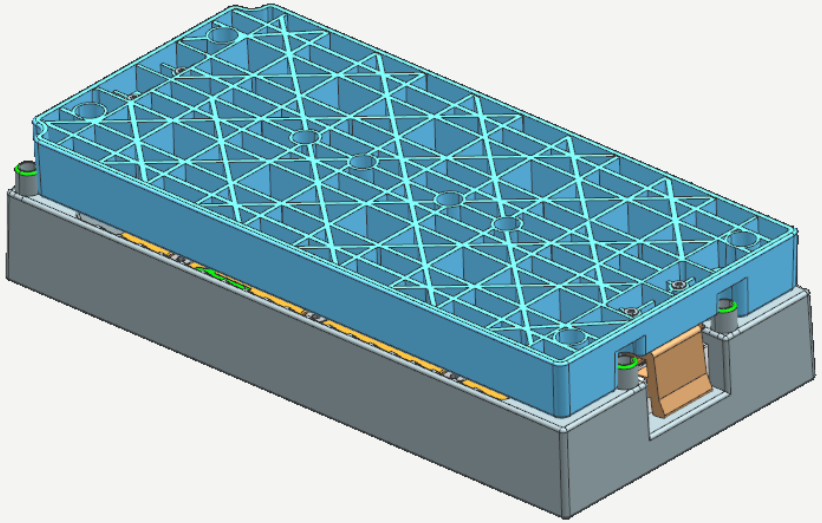
Step3: Press the Sealing lid into the baseplate until it clicks into place, then press down parallelly on the Sealing lid to ensure the clasps are engaged and the assembly is completed.



9.Assembly

38. Put the phone to Back Cover Pressure Holding Fixture_NT Phone(3a) Series and hold at least 5 minutes to ensure that the double-sided adhesive tape is completely attached.

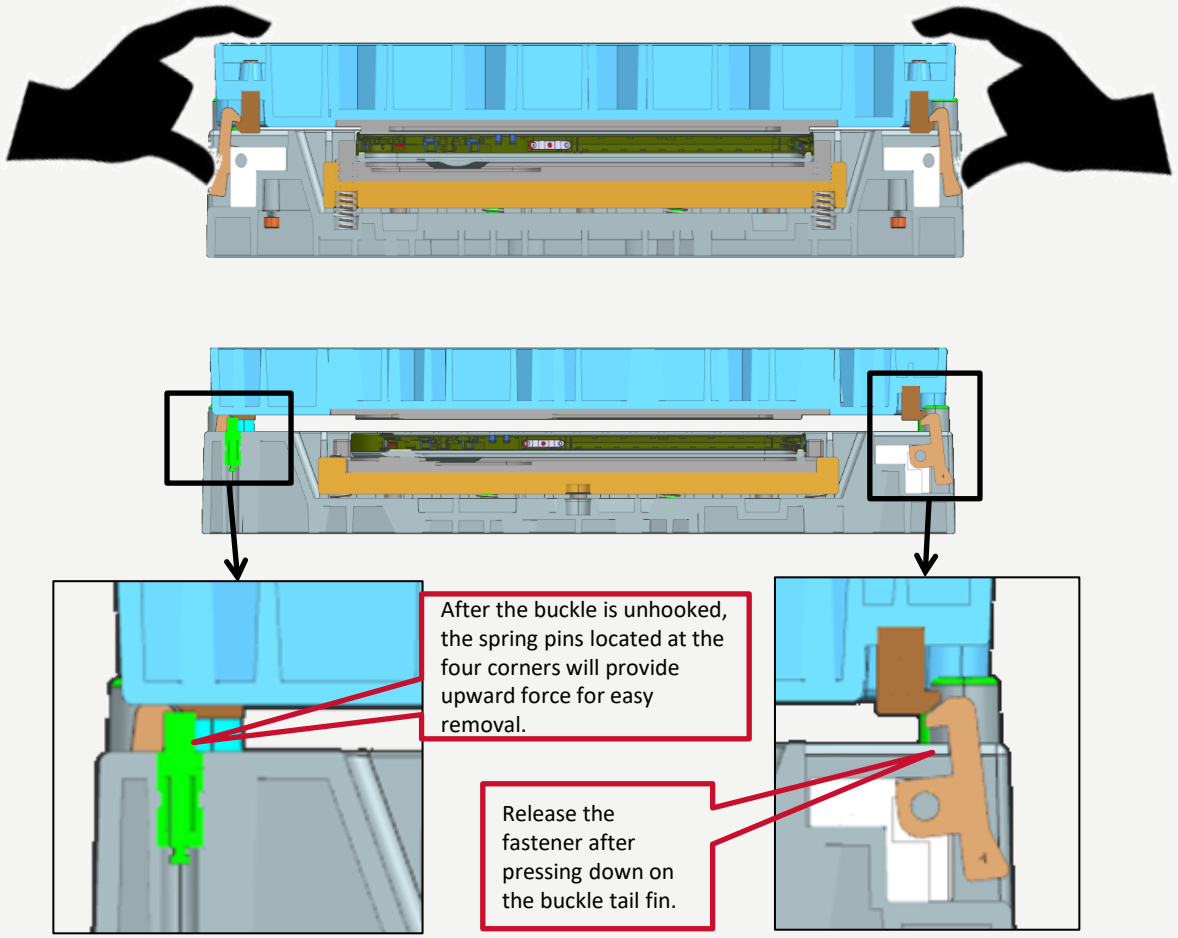
Step4: To ensure that the double-sided tape completely adheres the back cover to the phone, the jig pressure time should be no less than 5 minutes.



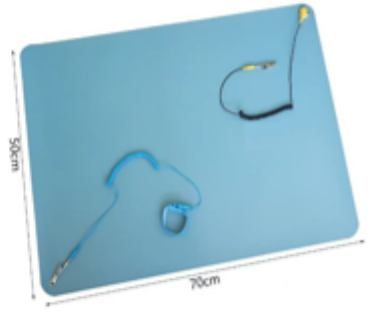
9.Assembly

38. Put the phone to Back Cover Pressure Holding Fixture_NT Phone(3a) Series and hold at least 5 minutes to ensure that the double-sided adhesive tape is completely attached.

Step5: Press down under the clip tail with your finger to release the fastening, and after the clip is unhooked, the spring pins at the four corners will provide an upward force for easy retrieval. Then separate the Sealing lid and Baseplate to remove the phone.



7.Tool list

Item	Description	Quantity	Image
Dust free workbench	Provide a clean environment during the phone repair process to prevent dust particles from entering and affecting the phone's appearance.	1	
ESD mat	Prevents electrostatic damage (recommended)	1	
Safety Gloves	Prevents accidents during repair (protective equipment).	1	

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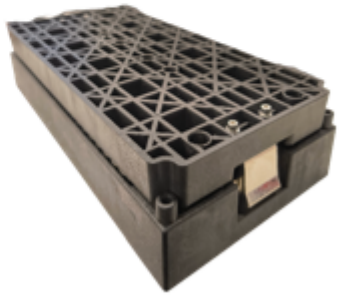
7.Tool list

Item	Description	Quantity	Image
Safety Goggles	Prevents accidents during repair (protective equipment).	1	
Heating bag	After preheating the heating bag at the microwave oven, the heating bag is used to disassemble the back cover and other components of the mobile phone	1	
Suction Cup	Use a strong suction cup with a handle to disasse	1	
ESD Safe Plastic Tweezers	Tool for handling connectors, cables, and other parts. To avoid damaging parts or components, use tweezers made from plastic or rubber material instead of sharp metal tweezers.	1	

7.Tool list

Item	Description	Quantity	Image
ESD Safe Metal Tweezers	When removing a vibrator motor, it is required to use the metal tweezers	1	
SIM tray ejector	SIM card tray ejector tool.	1	
PH00 Screwdriver	Tool for driving cross-head screws	1	
T5 Screwdriver	Tool for driving hexagon socket screws	1	

7.Tool list

Item	Description	Quantity	Image
Nylon probe	The nylon probe is primarily used during phone repairs to safely open and separate connectors, preventing damage to internal components.	1	
Thermal gel	By applying to specific areas of the midframe, ensure that heat is rapidly conducted to prevent the device from overheating.	1	
Back Cover Pressure Holding Fixture_NT Phone(3a) Series	For the repair of the Phone (3a) and Phone (3a)-Pro, after replacing the back cover adhesive, apply pressure on both sides to activate the adhesive and improve the quality of the repair.	1	

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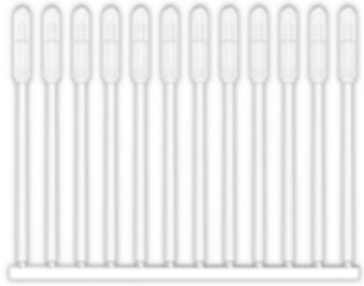
7.Tool list

Item	Description	Quantity	Image
Cleaning wipes	Used for cleaning during mobile phone repairs, removing dirt and residual glue from the device	1	
Dust Cleaning Stick	Used for cleaning during mobile phone repairs, removing dust from the device	1	
Acrylic Protective Tape for Broken Back Cover/Screen	Prevents injuries and scattering caused by broken back cover/screen	1	

7.Tool list

Warning
Non-professionals are prohibited from disassembling or repairing equipment with sharp tools without authorization. Before use, you must ensure that the tools are in good condition, wear necessary protective equipment (such as Safety Gloves and Safety Goggles), and operate in a stable and safe environment. In case of injury or equipment damage, stop operation immediately and take corresponding first-aid measures or treatments.

Cleaning wipes, thermal gel, and similar products may be irritant, corrosive, or toxic. If they accidentally get into the eyes or are ingested, they could cause severe harm to the human body, and immediate medical attention is required. For daily storage, they should be sealed, clearly labeled, and kept away from areas accessible to food, children, and pets.
Please place The Back Cover Pressure Holding Fixture on a stable and firm flat surface to avoid injuries caused by the fixture falling or shifting, and kept away from areas accessible to food, children, and pets.

Thank you!