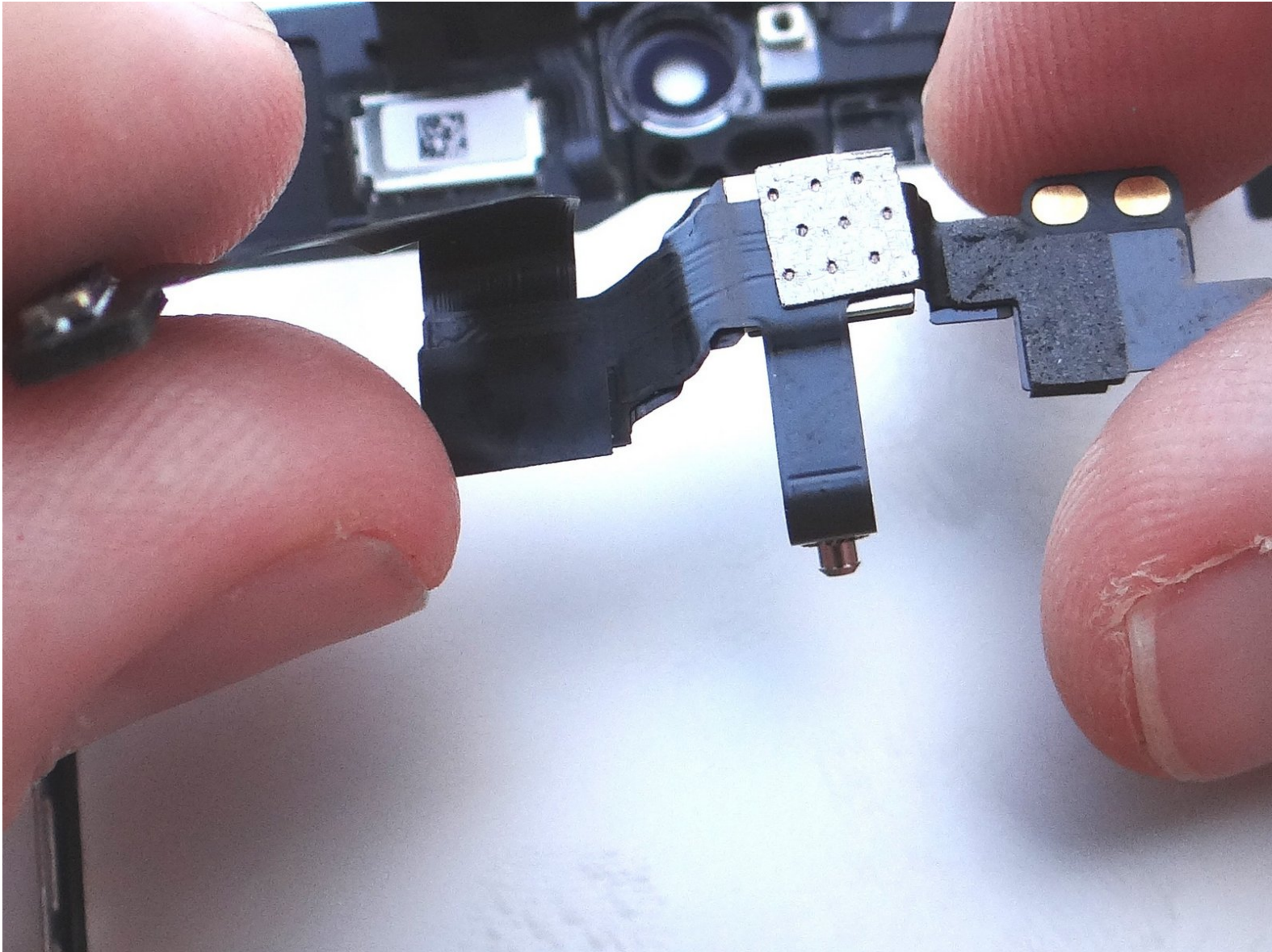


# CELLPHONESANDBOX

## Manual 03 - Front Facing Camera / Microphone

Written By: Josh Patterson

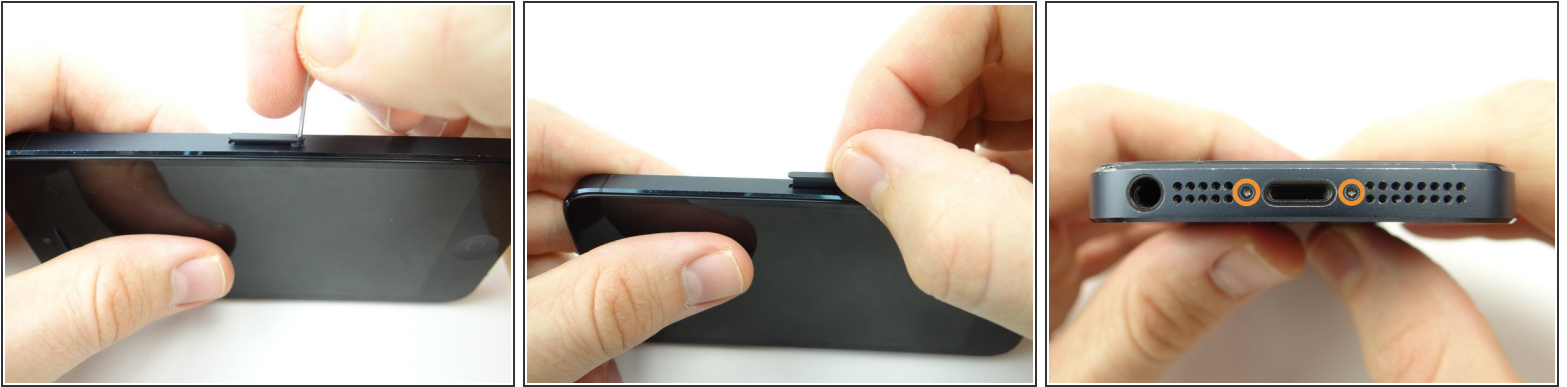




## TOOLS:

- [Technician Starter Package](#) (1)
-

## Step 1 — Removal 1.0: Front Panel Assembly




- Picture 1: Push down on SIM card ejector opening with a large paper clip to pop up the tray.
- Picture 2: Remove SIM card tray and SIM card. Place both in Sandbox COMPARTMENT A.
- Picture 3: Remove two 3.6 mm Pentalobe screws near charging port. Place screws in Sandbox SLOT 1.

## Step 2



- Picture 1: The iPhone 5 opens like a book with the top edge acting as a hinge.
- Picture 2: The front panel is held shut tightly with clips on both sides of the display.
- Picture 3: There are three cables attached in the upper-right corner of the interior. Be careful not to put tension on these cables as you open the iPhone.

 We show you how to release the clips and safely open the phone over the next few steps.

## Step 3



- The iSlack tool (double suction cups) is best if you intend to reuse the screen. It also works on most cracked screens if you cover the screen with tape as shown in Step 1.
  - The iSesame is used when it's impossible to create suction.
- i** We demonstrate the iSesame method over the next three steps. Skip to step 9 if you're able to use the iSlack tool.



## Step 4



- Cut a thin strip of packing tape and fold it over the lower-right corner of the iPhone.
- Run your fingernail in the groove between the front panel and rear case.
- i** The tape protects the rear case from being scratched by the iSesamo tool in the next step. However, we removed the tape to improve picture clarity.

## Step 5



- Pictures 1 & 2: Wedge the iSesamo between the display bezel and rear case at a 90° angle.
- Picture 3: Slowly rotate the iSesamo in one hand while pinching the screen with your opposite hand. Lift just enough to insert the blue pry tool in the lower-right corner.

## Step 6



- Picture 1: Insert the blue pry tool in the lower-right corner, then twist to pry the front panel up from the rear case.
- Picture 2: Repeat in the lower-left corner.
- Picture 3: Work your way up both sides of the iPhone, twisting to open the device from the bottom (as shown in the previous step)

☒ Remove the thin strip of tape packing tape.

## Step 7



- Picture 1: Close the iSlack suction cups on either side of the iPhone.
  - Note the placement of the top suction cup centered above the home button.
- Picture 2: The iSlack tool opens the phone in one rapid motion: use your left hand to moderately squeeze the top of the iPhone while you open it with your right hand.

## Step 8



**⚠** There are three ribbon cables still attached at the top of the iPhone: do not lift the front panel past an 80° angle:

- Pinch the front panel with your thumbs, then:
- Open front panel until it reaches an 80° angle. Continue holding the front panel as pictured.

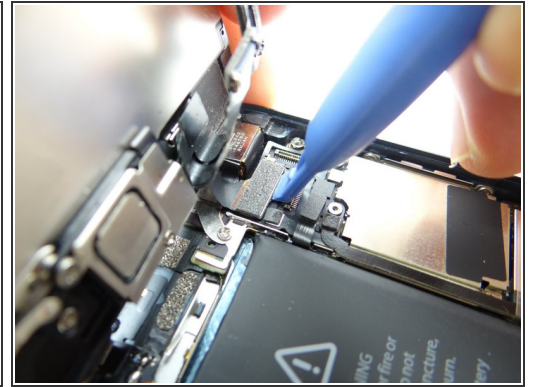
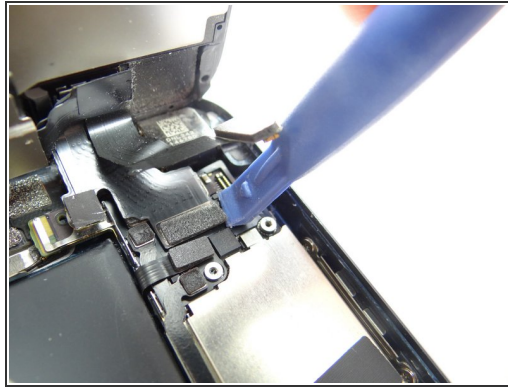
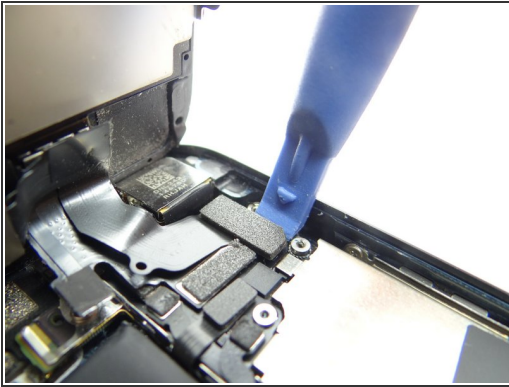
## Step 9



- Picture 1: Remove the non-magnetic 1.6 mm #00 Phillips screw and place in SLOT 2.
- Picture 2: Remove two 1.2 mm #00 Phillips screws and place in SLOT 3.
- Picture 3: Remove cable shield held down by the screws. Place in COMPARTMENT B.

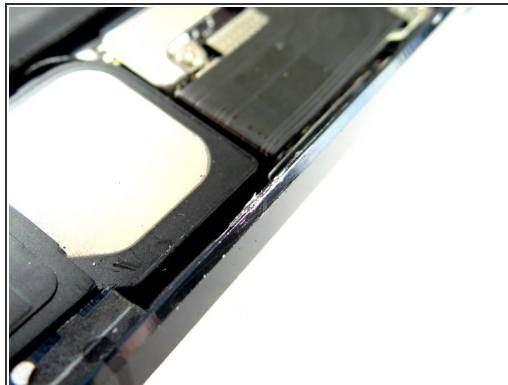


## Step 10 — Use the blue pry tool to disconnect the three front panel assembly cables:



- Picture 1: Release front-facing camera and sensor cable.
- Picture 2: Release digitizer cable.
- Picture 3: Release LCD cable.

## Step 11



- Picture 1: Separate front panel from rear case.
- Picture 2: Check if the iSesamo scratched the rear case bezel.
- Picture 3: If you're repairing a black iPhone, use a black sharpie to color any scratches caused by the iSesamo tool. Be careful to only color over the scratched area.

**⚠ Don't color over scratches on a white iPhone!**

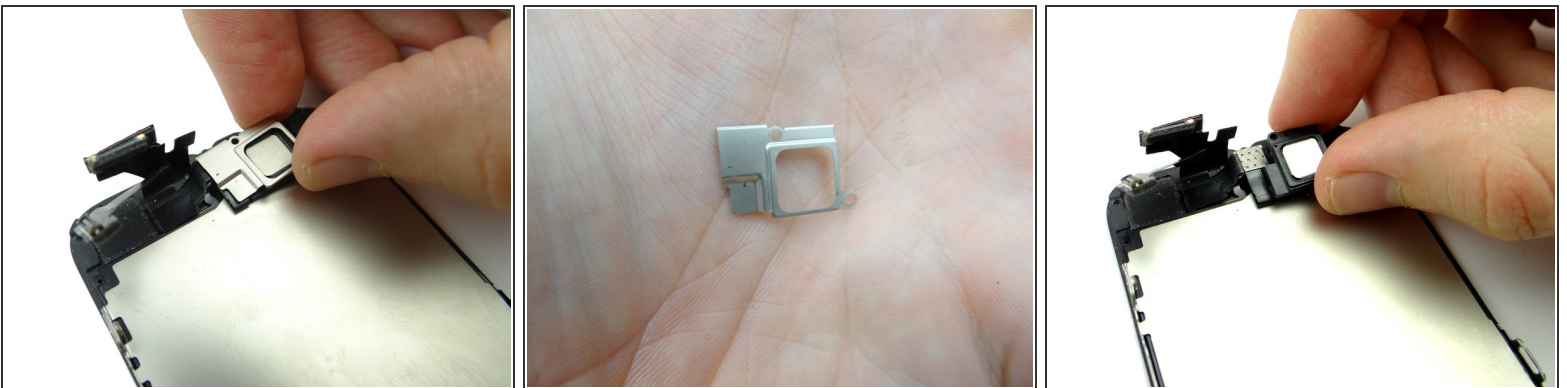
- Place the rear case Sandbox ZONE I.

## Step 12 — Removal 1.1: Earpiece Speaker



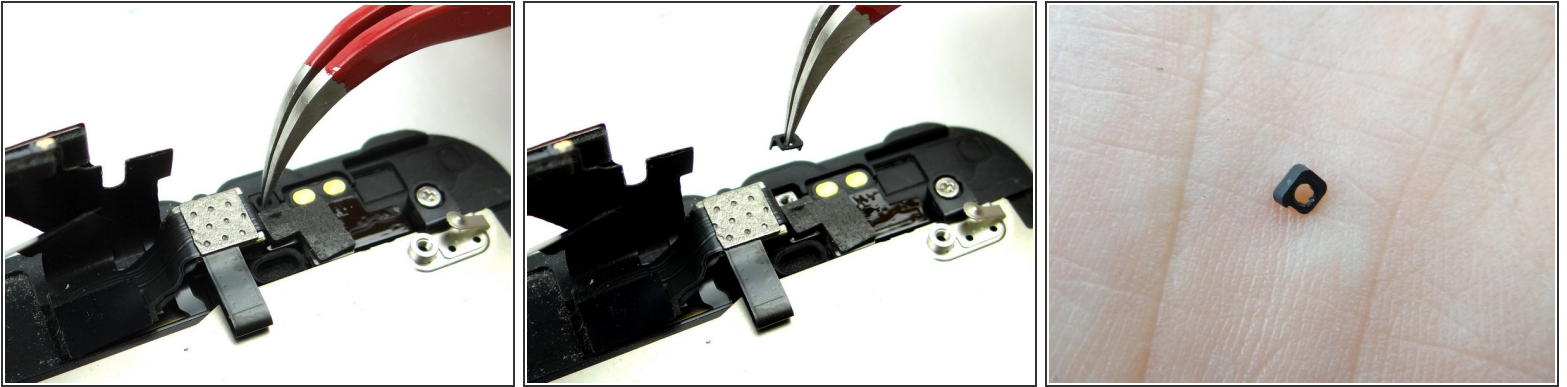
- Remove 4.1 mm Phillips screw securing the earpiece speaker bracket. Place in SLOT 4.
- Remove 2.2 mm Phillips screw. Place in SLOT 5.

## Step 13



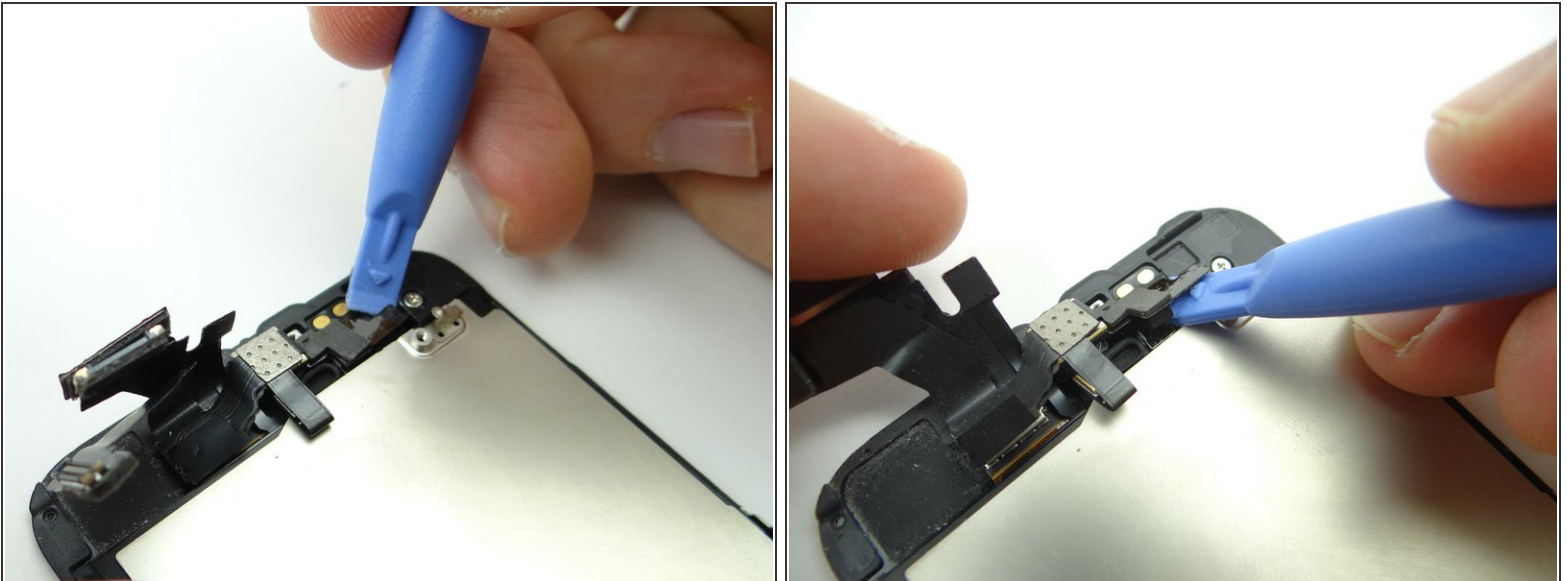
- Pictures 1 & 2: Remove the earpiece speaker bracket. Place in COMPARTMENT C.
- Picture 3: Remove the earpiece speaker. Place with bracket in COMPARTMENT C.

## Step 14 — Removal 1.2: Front-Facing Camera and Microphone Assembly



- Squeeze curved-tip tweezers into closed position and place the tip in the center of the spacer.
- Loosen your grip on the tweezers just enough to put tension on the spacer. Lift the spacer away from the phone and drop it in your hand.
- Place spacer in COMPARTMENT D.

## Step 15



- Picture 1: Wedge the blue pry tool under the right edge of the front-facing camera cable.
- Picture 2: Pry the cable free up from the bottom, as pictured.

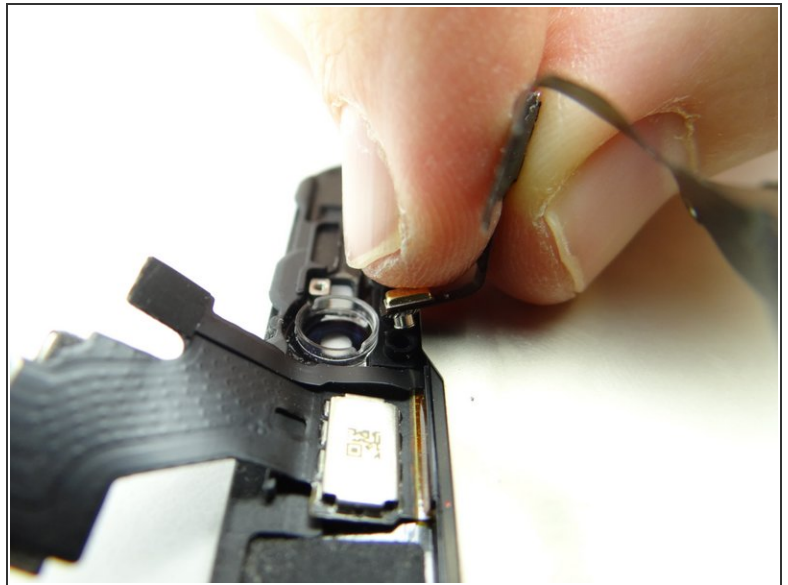


## Step 16



- Peel up front-facing camera and microphone assembly with your fingers.
- Place in COMPARTMENT E.

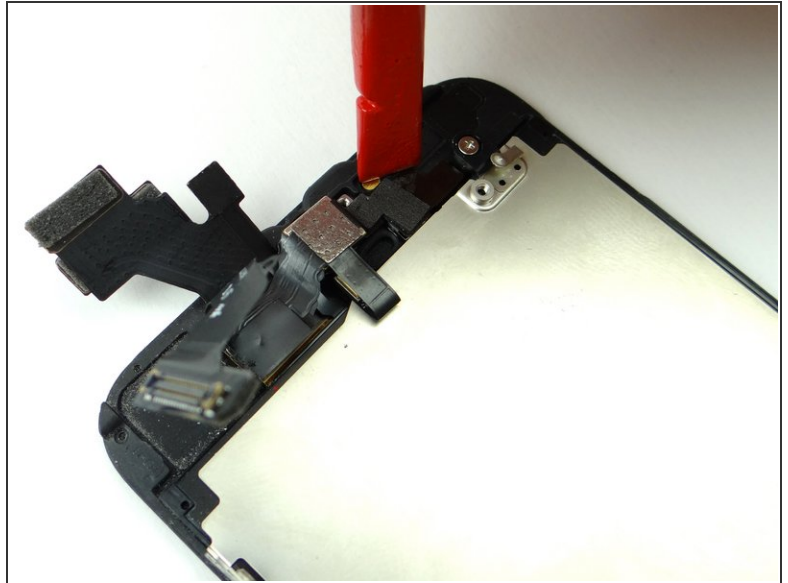
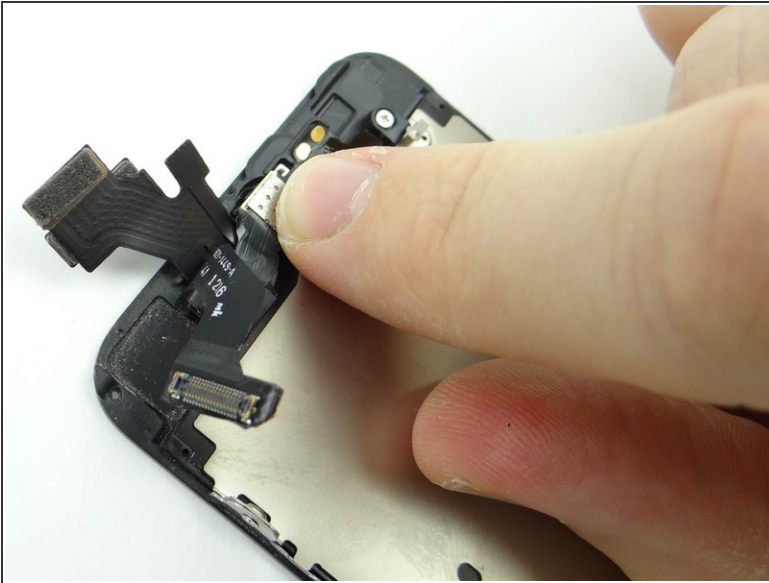
## Step 17 — Replacement 1.2: Front-Facing Camera and Microphone



- Replace front-facing camera and microphone assembly from COMPARTMENT E:
- Seat microphone in socket first.

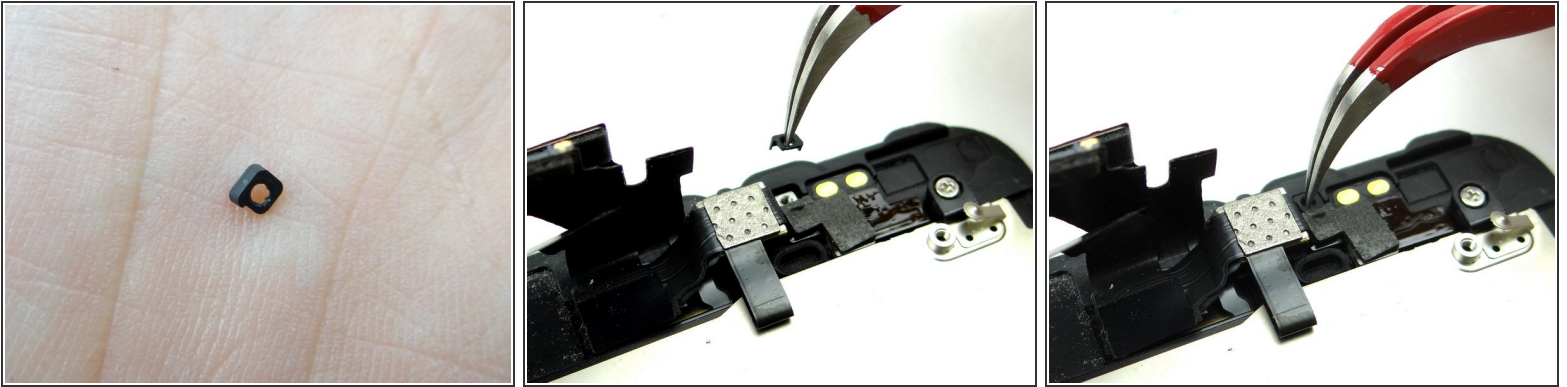


## Step 18



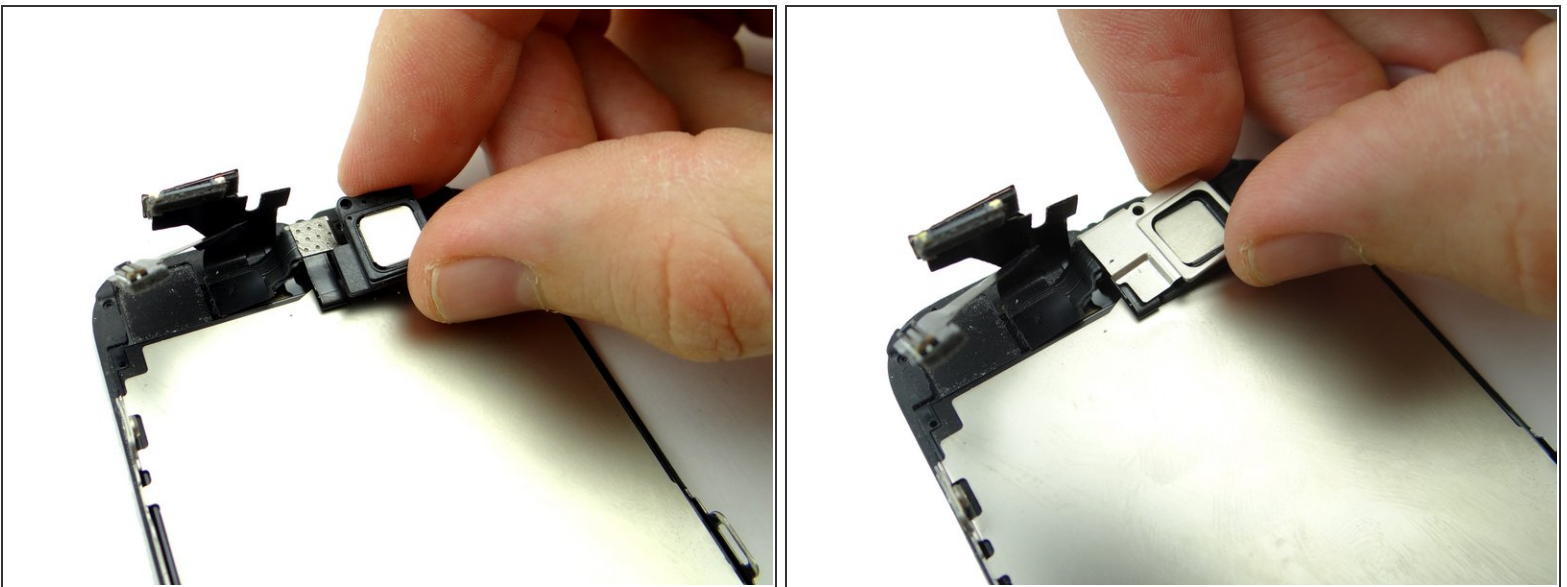
- Push front-facing camera into its frame.
- Use the flat edge of the spudger to press earpiece speaker contacts (right side of the cable) firmly into place.

## Step 19



- Retrieve spacer from COMPARTMENT D:
- Squeeze curved-tip tweezers into closed position and place the tip in the center of the spacer.
- Loosen your grip on the tweezers just enough to put tension on the spacer.
- Move the spacer into position as pictured. When spacer is in the correct position, squeeze tweezers to release pressure on the spacer and allow it to fall into position.

## Step 20 — Replacement 1.1: Earpiece Speaker



- Picture 1: Replace the earpiece speaker from COMPARTMENT C.
- Picture 2: Replace the earpiece speaker bracket also in COMPARTMENT C.

## Step 21



- Replace 2.2 mm Phillips screw from SLOT 5.
- Replace 4.1 mm Phillips screw from SLOT 4 to secure bracket.

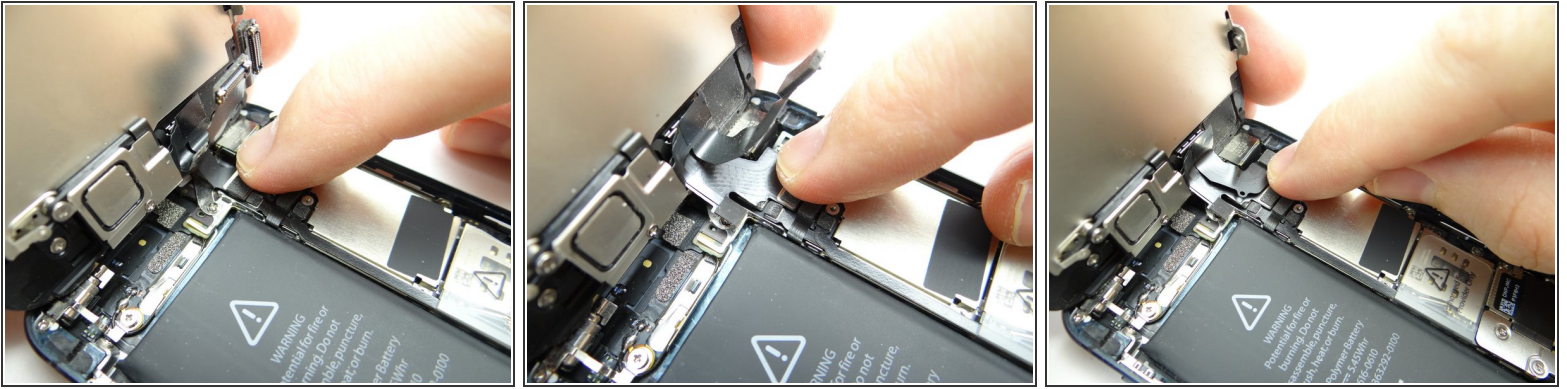
## Step 22 — Replacement 1.0: Front Panel Assembly



- Pictures 1 & 2: Line up the replacement front panel with the rear case. In the next step, you'll connect three front panel cables to the logic board.
- Picture 3: This is what the cables will look like when you're finished.



## Step 23



- Picture 1: Seat LCD cable.
- Picture 2: Seat digitizer cable.
- Picture 3: Seat front-facing camera and sensor cable.

## Step 24



- Picture 1: Replace cable shield from COMPARTMENT B.
- Picture 2: Replace two 1.2 mm #00 Phillips screws from SLOT 3.
- Picture 3: Use curved-tip tweezers to seat the non-magnetic 1.6 mm #00 Phillips screw from SLOT 2. Tighten the screw.



## Step 25



- Pictures 1 & 2: Angle the clips on the front panel into their sockets on the rear case.

**⚠ Check the LCD and Digitizer before continuing:**

- Picture 3: Power up the phone and don't close the front panel. If the LCD or digitizer aren't working perfectly (white lines are the most common issue), jump back to Step 11.
- ⓘ If the issue remains after reseating the cables, you'll likely need another display.

## Step 26 — Close the front panel on the rear case:

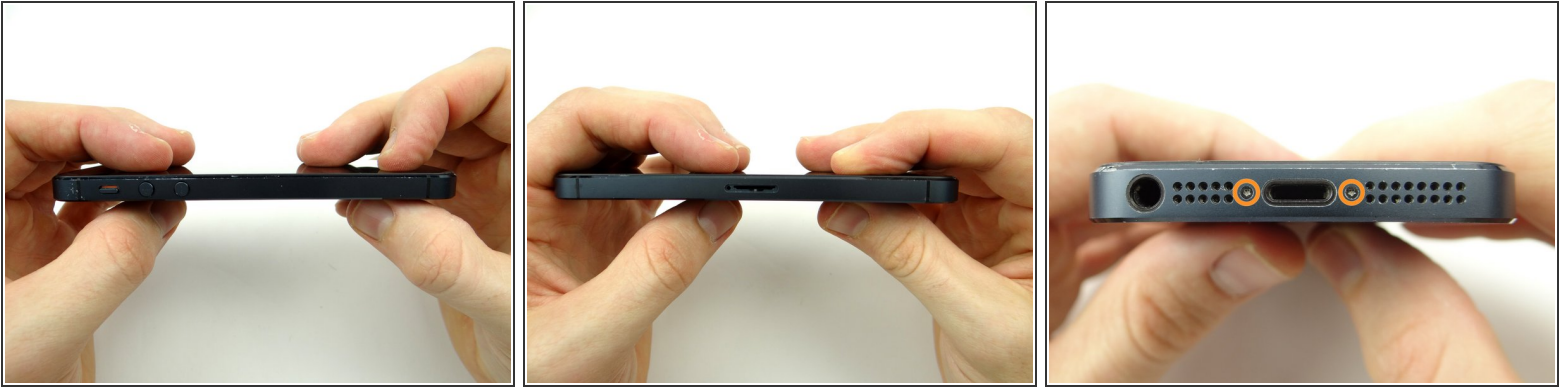


- Picture 1: With the phone on the worktable, push the Pentolobe screw tabs in first.

**⚠ This should take minimal pressure. Check for errant screws or other obstructions if the device is difficult to close.**

- Pictures 2 & 3: Then, push in with your thumbs just below the middle of the display and work your way up.

## Step 27



- Pictures 1 & 2: Check around the perimeter of the device to ensure the display is fully seated.
- Picture 3: Replace two 3.6 mm Pentalobe screws near charging port from SLOT 1.

## Step 28



- Replace SIM card tray and SIM card from COMPARTMENT A.
- Power up and perform full post-repair checklist.
- ☑ Remember to use a chamois cloth to wipe off the screen before returning it to the customer!