

Nexus One Glass Replacement

How to replace the Glass (or the display) of a Google Nexus 1.

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INTRODUCTION

This guide depends upond the "teardown" - it shows only the few extra steps that are missing after the end of the teardown.



TOOLS:

- Phillips #00 Screwdriver (1)
- iFixit Opening Tools (1)
- T4 Torx Screwdriver (1)



PARTS:

 HTC Google Nexus G5 Touchscreen Glass (1)

Step 1 — Nexus One Teardown







- The Nexus One, manufactured by HTC, is the latest and greatest Android phone. It sports:
 - A 1 GHz Qualcomm (QCOM) Snapdragon processor.
 - A 3.7" 480x800 widescreen WVGA AMOLED display.
 - A 5MP digital camera w/ LED flash that also records .mp4 video.
 - 802.11n wireless capability for when you can't depend on 3G.
 - 7 hours of 3G talk time from a removable 3.7V, 1400 mAh lithium battery.
- The box's color scheme kind of looks like Google's.
- Pawning apps on the clear plastic protective sleeve? Guess the app store really *is* that desperate.





- Droid, meet Nexus One. Anyone else see the transition from Terminator to T-1000?
- iFixit's Android family. Darwin would agree that progress has been made.







- The unbelievably easy task of removing the plastic rear cover gives access to the replaceable battery. Hey Apple, take notes!
- Inside the battery compartment you can see:
 - The 5MP camera lens
 - LED flash bulb
 - External speaker
 - The warranty-killing VOID sticker





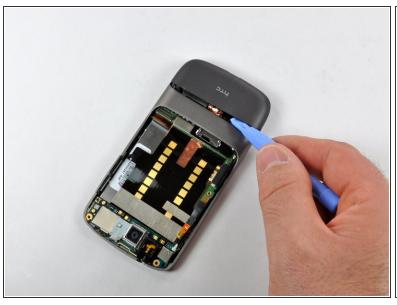


- Warranty = VOID. No turning back now.
- This phone is very nicely put together. After removing three screws and prying with a plastic opening tool, the battery tray comes right out.



- The upper circuit board is held in place by another Phillips screw.
- After removing the screw, maneuver the upper board past the two metal clips holding it in place and lift it out of the phone body.
- The large black-coated foil section is the data connection between the two main circuit boards.

Step 6





- After some trying moments with a few <u>tools of destruction</u>, we figured out the bottom cover can simply be popped off with a plastic opening tool.
- Guess what? We found more screws.
- This phone uses many foil antennas attached to the several plastic internal frame pieces.

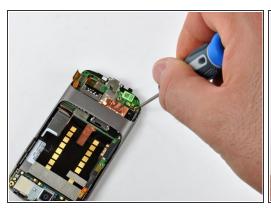
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- With a quick pry of the plastic opening tool, we found that the black plastic frame slightly envelops the lower side of the logic board.
- And just like that, the plastic frame snaps off, revealing the lower logic board.
- It's quite a colorful phone on the inside. We've got oranges, greens, yellows, dark grays, and all sorts of fun stuff!

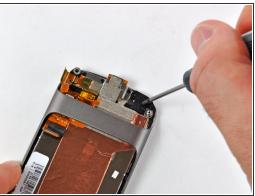






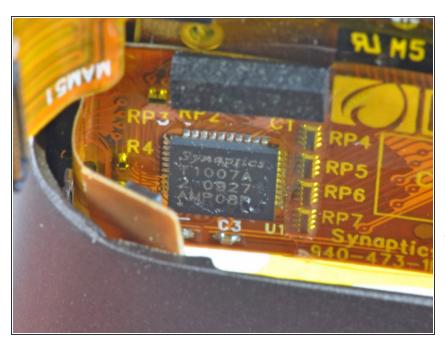
- We had to take care of one more Phillips screw.
- After that, the logic board assembly slowly-but-surely slid out from the rest of the phone.
- The camera and headphone jack are both soldered directly to the main board.



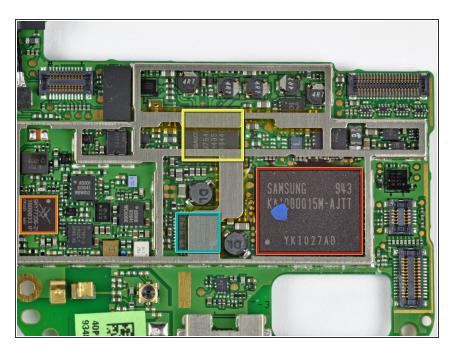




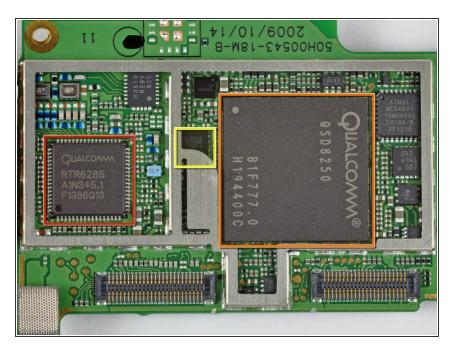
- The Nexus features a 3.7-inch (diagonal) widescreen WVGA AMOLED touchscreen.
- This is the second device we've taken apart with an OLED display. The <u>Zune HD</u> we took apart last September also featured a Samsung-branded OLED display.
- The Nexus display features a resolution of 480 x 800. That's a few less pixels than <u>Motorola's</u>
 <u>Droid</u> (480 x 854), but far more than the <u>iPhone 3GS</u> (320 x 480).



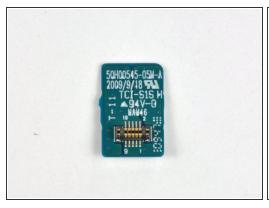
- Here's what looks to be the Synaptics (SYNA) touchscreen controller.
- The chip is labeled T1007A, 2 0927, AMP08P. It controls the ClearPad 2000 series capacitive dualtouch sensor used in this phone.
- We haven't been able to find any specifics on this chip. If you can help out with details, let us know!

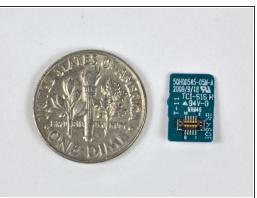


- A list of the chips we've identified so far:
 - Samsung 943 KA100O015M-AJTT
 - Skyworks (SWKS) <u>SKY77336</u>
 GSM power amplifier (labeled SKY77336-21 3888833 1P 0940 MX)
 - Qualcomm (QCOM) <u>PM7540</u>
 power management chip (labeled PM7540 AH43510 C4944001)
 - The TI (TXN) <u>TPS65023</u> integrated Power Management IC (labeled TPS65023 TI 9AJ P675 G4)



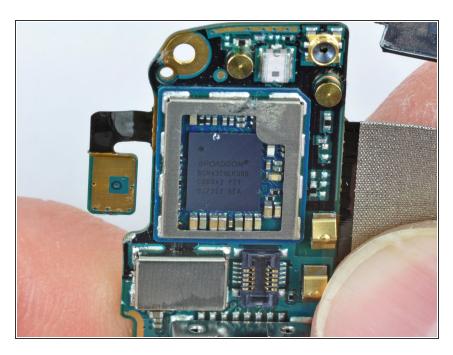
- Qualcomm (QCOM) appears to be the big winner on the Nexus. We've found at least three of their chips in here already.
- On the left is a RTR6285 RF transceiver.
- The large chip on the right is the nexus of the Nexus. It's a Qualcom (QCOM) QSD8250 "Snapdragon" 1 GHz ARM processor.
- The small chip between the two Qualcomm (QCOM) chips is an <u>Audience A1026</u> voice processor, including ambient noise cancellation.



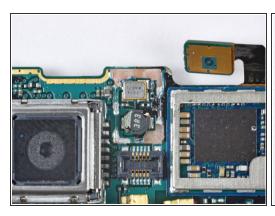


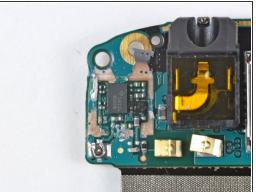


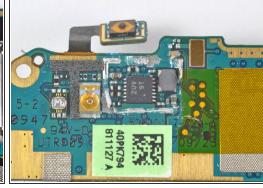
- What have we here?
- It's a plane, it's a bird, no... it's smaller than a dime? What are you?
- It's the LED flash.



- The Bluetooth and 802.11n wireless is provided by a Broadcom (BRCM) BCM4329 chip.
- The 802.11n capability gives the Nexus an advantage over the iPhone 3GS, which only has 802.11g connectivity. The Broadcom (BRCM) chip in the Nexus is the same chip we found in Apple's newest (3rd generation) iPod touch.
- The package is labeled
 BCM4329EKUBG CD0942 P21
 937322 SEA







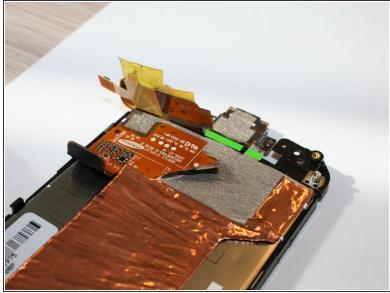
- Three more chips.
- Unfortunately these were located underneath soldered EMI covers. For the sake of science and gadget lovers everywhere, we had to be a little forceful to get these covers off.
- Using the Nexus One post-teardown just became very iffy. Previous to this step, we felt good about its functionality, but no longer...



- There you go, folks...
- Hopefully our kryptonite wasn't too much for the Nexus "Superphone" One.

Step 17 — Glass





- Slip out the display+glass compound from the body. seen on the right hand side here, the OLED Display, the Glass and it's frame are still connected.
- To separate the display, we have to cut the gray fabric in the places indicated





- Unplug the strip (shown in the blue rectangle)
- Unplug the black cord (shown in the red circle)
- Unplug three more plugs (not marked)



- Separate the OLED display (not shown here!)
- Seperate glass from Frame. This is glued in, so you need a bit of force
- there is one thingy thats connected to the glass and is threaded through a hole in the frame - don't cut / tear that, but un-thread it!



 put the Trackball back in it's place: the 4 sides are not the same, one is different. Let this side point outwards

If you don't end up with 2 screws left over, you did something wrong. No, no, just kidding: please edit and correct this guide if you find out where I went wrong.