Motorola Droid 3 Teardown

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INTRODUCTION

The Motorola Droid 3 has landed on our doorstep, and no new gadget would be complete without a proper iFixit teardown.

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TOOLS:

- iFixit Opening Tools (1)
- Spudger (1)
- T3 Torx Screwdriver (1)
- T5 Torx Screwdriver (1)

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Step 1 — Motorola Droid 3 Teardown

- After various upgrades and special editions of the Droid 2, its successor has finally arrived! The third Droid to hail from the halls of Motorola is appropriately named "Droid^3," or more officially, the Droid 3.

- With almost two years since the launch of the first Droid, Motorola has had plenty of time to load the Droid 3 with some impressive tech specs.

  - Android 2.3 OS (Gingerbread)

  - Dual-Core 1GHz processor

  - 5-Row full QWERTY keyboard

  - 8 MP Camera with 1080p video capture

  - 4" 960 x 540 qHD display with Gorilla Glass

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Step 2

- Motorola advertises that the Droid 3 is the "Thinnest Full QWERTY Smartphone Ever."

  ⓘ When compared to the original Droid, it is clear that the Droid 3 *is* smaller. However, the thickness difference is hardly something to brag about.

- The rear-facing camera on the Droid 3 includes an LED flash and 8x zoom capability.

- The Droid 3 features both micro USB and micro HDMI ports, allowing for full 1080p output to any compatible device.

  - The port layout on the left side gives the Droid 3 an uncanny resemblance to the Motorola Atrix.

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Step 3

- Pulling off the back cover gives us our first glimpse at the user-replaceable battery.

- Motorola claims that the battery inside the Droid 3 will last for over 9 hours of continuous talk time, or over 300 hours of continuous stand-by time.

  - We suspect, however, that having the phone in standby for 300 hours would be very, very boring.

- ⓘ The battery is rated at 3.7 V and 1540 mAh.

Step 4
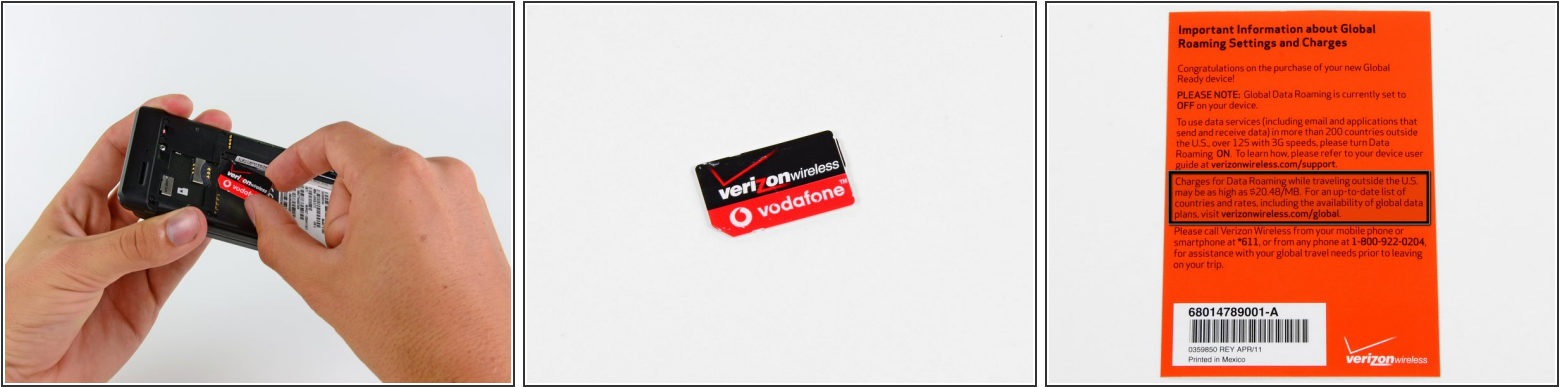
- Whoa! This Droid has a SIM card!

  (i) CDMA, the network protocol for Verizon, does not require SIM cards.

- A lack of SIM cards severely hampered international use of Verizon's network. This SIM will enable the Droid 3 to be used almost anywhere in the world.

  (i) For a more complete explanation of Verizon, CDMA, SIM cards, and other, similar things, check out our Verizon iPhone Teardown.

- ⚠ A very attention-grabbing informational card included with the phone is neon orange for a reason. For some regions outside the USA, data charges might be as high as **$20.48 per MB**!

Step 5
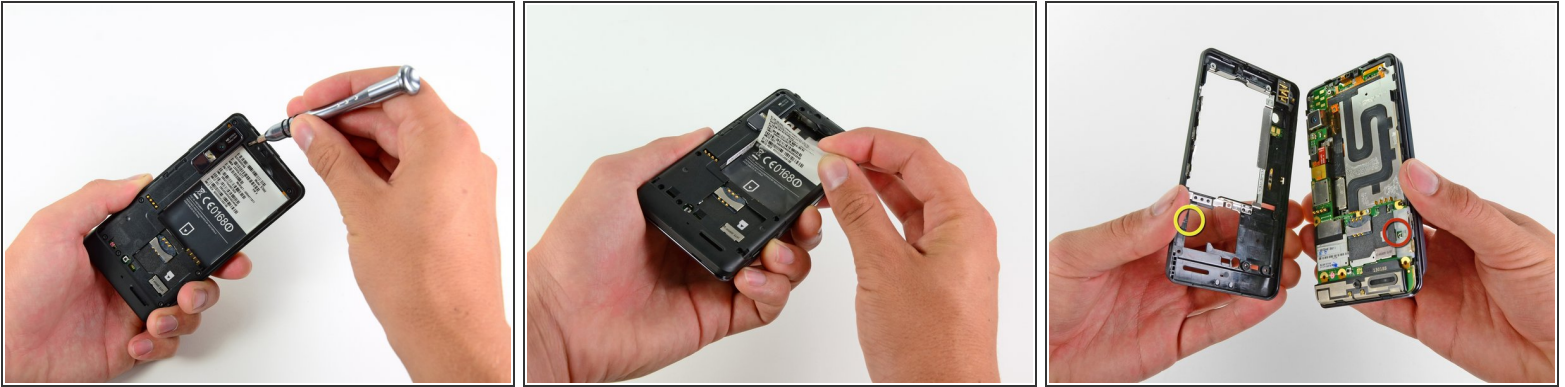
- Like its predecessors, the Droid 3's rear case is held in place by a few T5 Torx screws.

- Motorola likes to hide screws and latches beneath the information label, making opening the phone a rather sticky affair.

  - Of course, these obstacles are of little challenge to our spudgers, 54-piece bit driver kits, and talented fingers.

- With the screws unscrewed, the clips unclipped, and the stickers unsticked, we get a full-on exposè of the Droid 3's innards.

Step 6
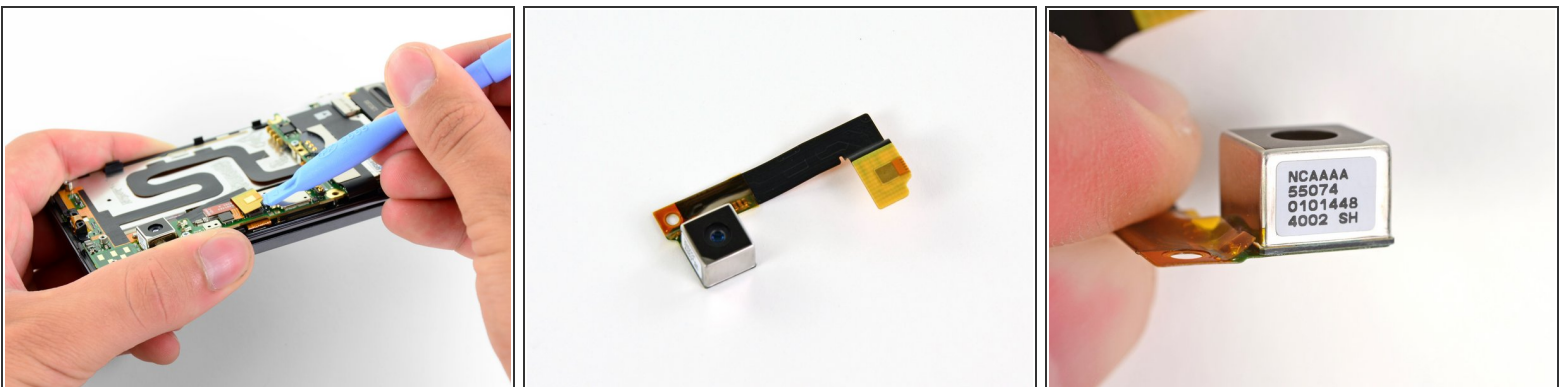
- Next, we use a plastic opening tool to lift the camera ribbon cable off its socket on the motherboard.

- The Droid 3 is equipped with an 8 MP rear-facing camera capable of recording 1080p video at 30 fps.

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Step 7
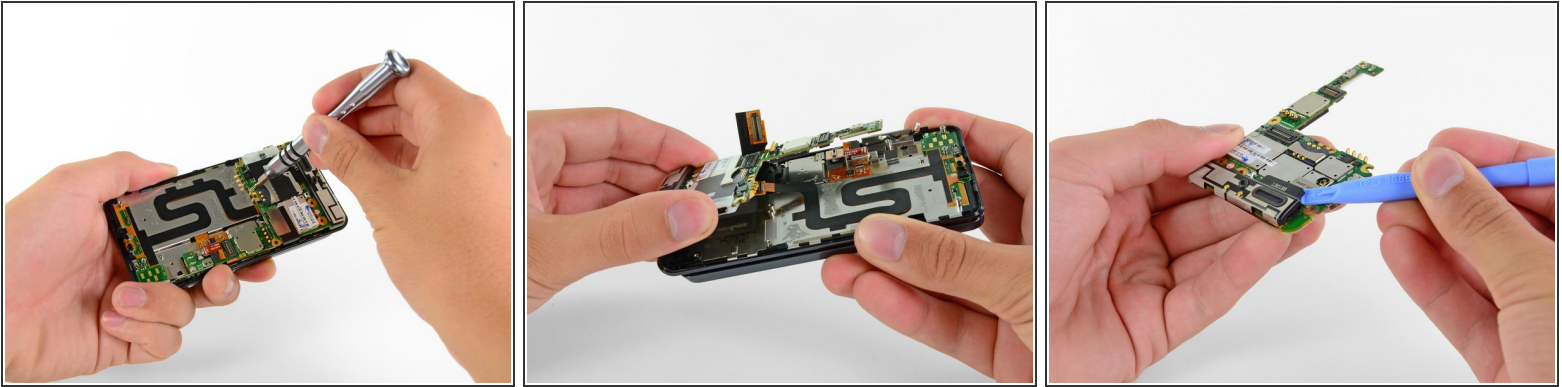
- Adiós motherboard screws, we hardly knew you...

- After removing a few more connectors, the motherboard easily lifts off the phone.

- In order to strip the motherboard bare, the speaker/antenna assembly must be pried off of the board.

- The speaker assembly uses pressure contacts to transmit data to both the speaker and the antenna. Interestingly, a hole through the motherboard allows sound to pass through for better transmission to the outside of the phone.

Step 8
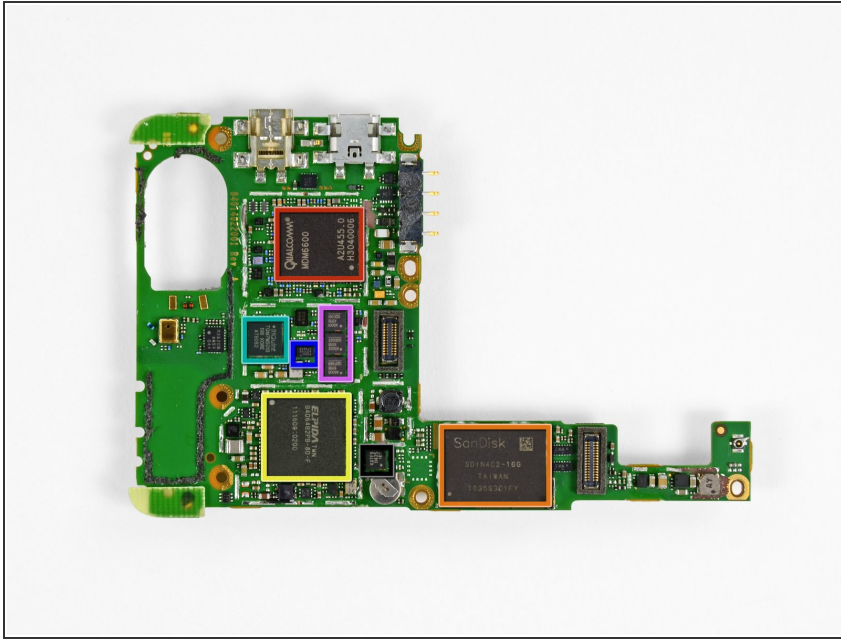
- The main ICs on the front side of the motherboard include:
  - Qualcomm MDM6600 supporting HSPA+ speeds of up to 14.4 Mbps
  - SanDisk SDIN4C2 16GB MLC NAND flash
  - Elpida B4064B2PB-8D-F 512MB RAM and TI OMAP 4430 CPU
  - Triquint TQM7M5013 Linear Power Amplifier
  - Avago A2F1106
  - A5005 K1116, A5002 K1118, A5001 K1118 (from bottom to top)
 - Kionix KXTF9 11425 1411 three-axis accelerometer

Step 9
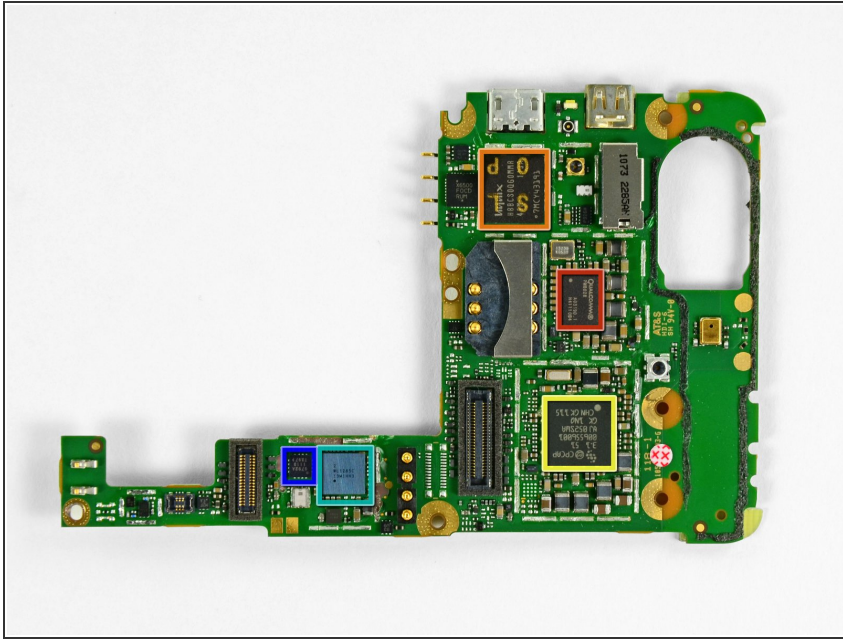
- Big players on the back side of the motherboard:
  - The Qualcomm PM8028 chip works in conjunction with the Qualcomm MDM6600 to provide wireless data connection to the phone.
  - Hynix H8BCS0QG0MMR memory MCP containing Hynix DRAM and STM flash
  - ST Ericsson CPCAP 006556001
 - [WL1285C](#) 13M1HH3
  - 6792A 1113 T3971

Step 10
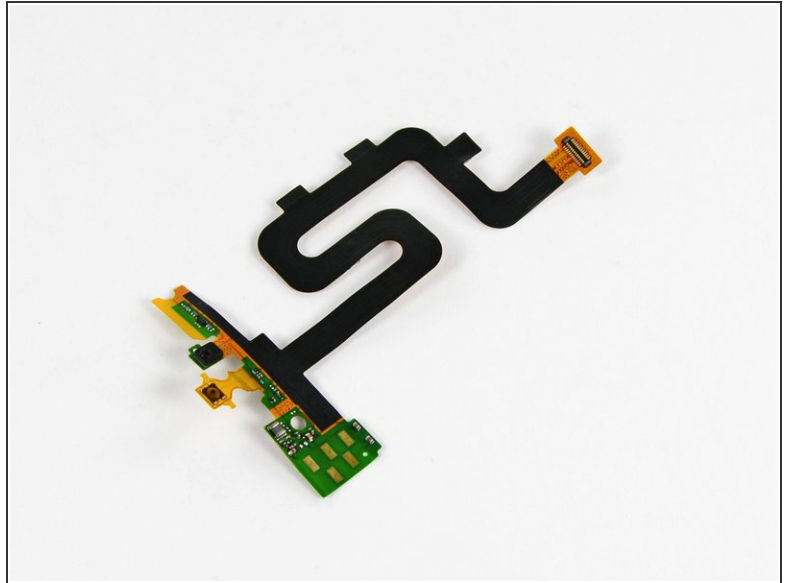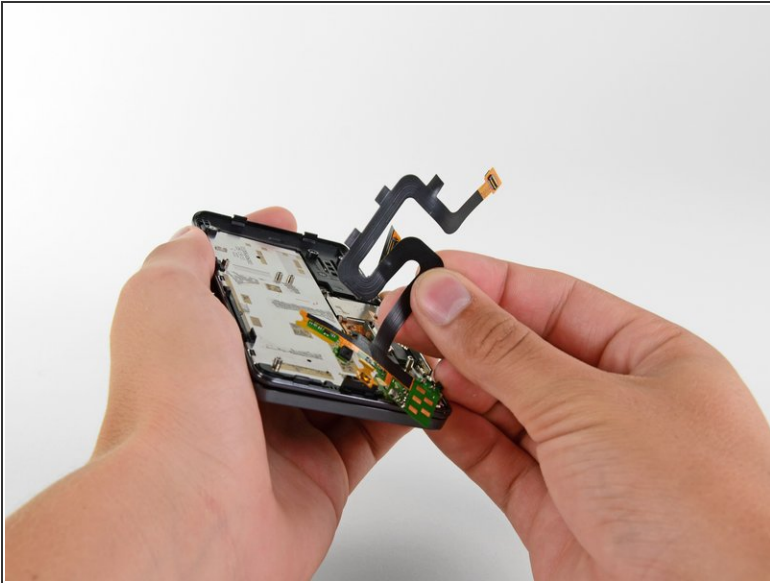
- What's this, a secret Mario Kart track? Sadly, no; it's just the headphone jack assembly.

- The Droid 3 sports a 3.5 mm headphone jack, compatible with just about every headphone set available today.

- The power/lock button is also found on this squiggly cable, as well as the secondary microphone for noise cancelling and clarity during phone calls.

Step 11
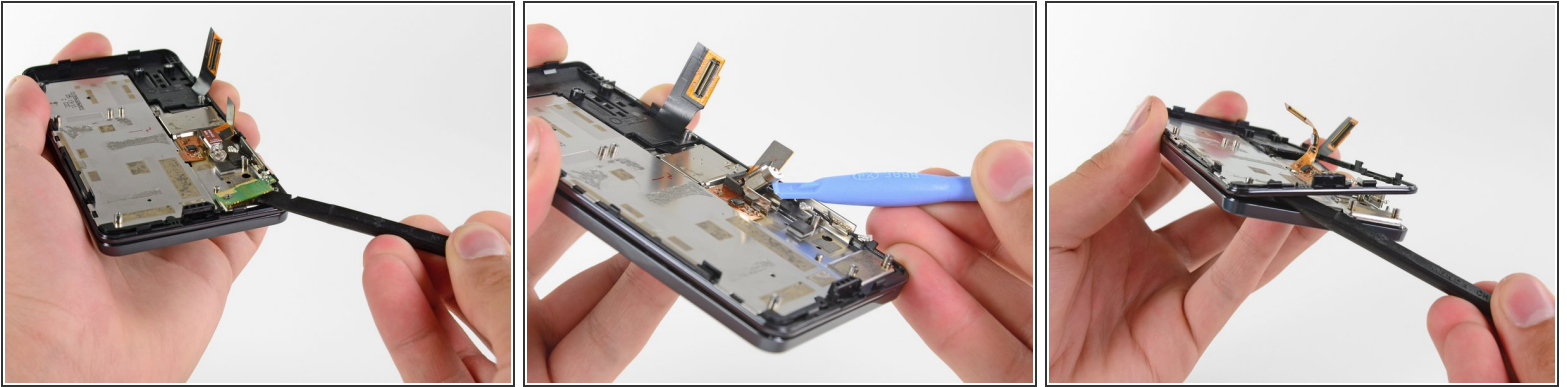
- Some careful prying with a spudger easily removes the Wi-fi antenna.

  - Droid 3 supports b, g, *and* n Wi-Fi signals. Wow!

- We politely evict the vibration motor from its home with some "convincing" from a [plastic opening tool](#).

- More prying with a spudger gives us unbridled access to the sliding plate of the Droid 3.

Step 12
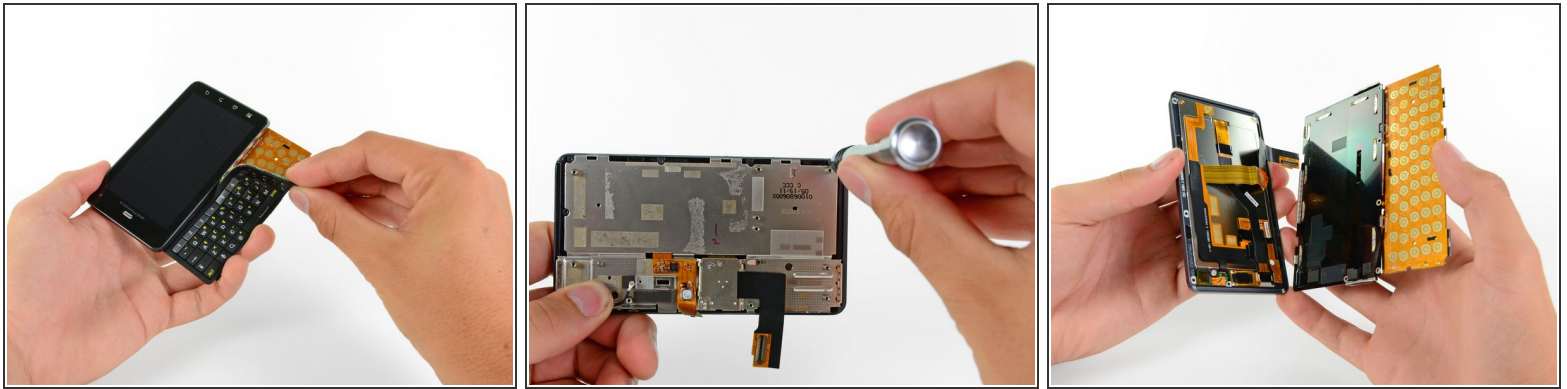
- One of the most important features on the Droid 3 is its 5-row slide-out full QWERTY keyboard.
  - We like the offset keys on the Droid 3, a feature that was frustratingly absent in the original Droid, but added in the Droid 2.
- As with its predecessors, the display assembly in this Droid is very difficult to access.
- Peeling off the keyboard reveals a handful of teeny tiny T3 Torx screws that secure the display assembly to the slider mechanism and keyboard.
- After some cringe-inducing maneuvering of the display data cable, we can separate the two pieces.

Step 13
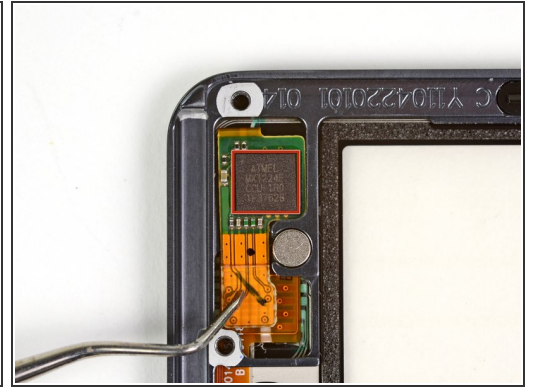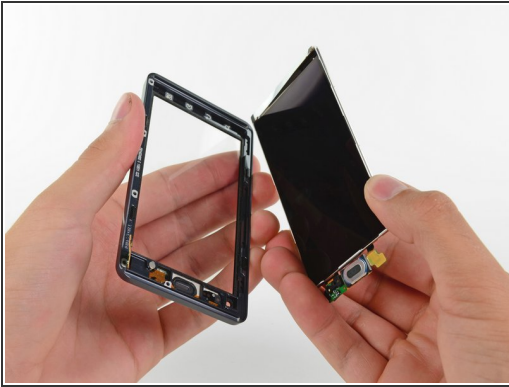
- With a little encouragement, the qHD LCD lifts out of the Gorilla Glass-equipped front panel.
  - The screen in the Droid 3 is 0.3" larger than the screens in both of its predecessors, measuring in at a total of 4". It also has a higher resolution, at 960 x 540 pixels.

- The ribbon cable attached to the rear of the LCD holds the earpiece speaker, the front-facing camera, the ambient light sensor, and the notification LED. Phew!
  - All of these components on one ribbon cable makes disassembly easy, but repair costly.

- An Atmel MXT224E capacitive touchscreen controller can be found within the front panel.

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Step 14

- The Motorola Droid 3 (Droid^3) earns itself a repairability score of **6 out of 10**.

  - There were no security screws in the entire device.

  - The battery was not soldered to anything and was easy to replace.

  - Many components are mounted to a single ribbon cable, meaning that replacing one requires replacing them all.

  - There is a lot of adhesive holding things together, making disassembly and reassembly difficult.

  - To get to the LCD, the entire device has to be taken apart.

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