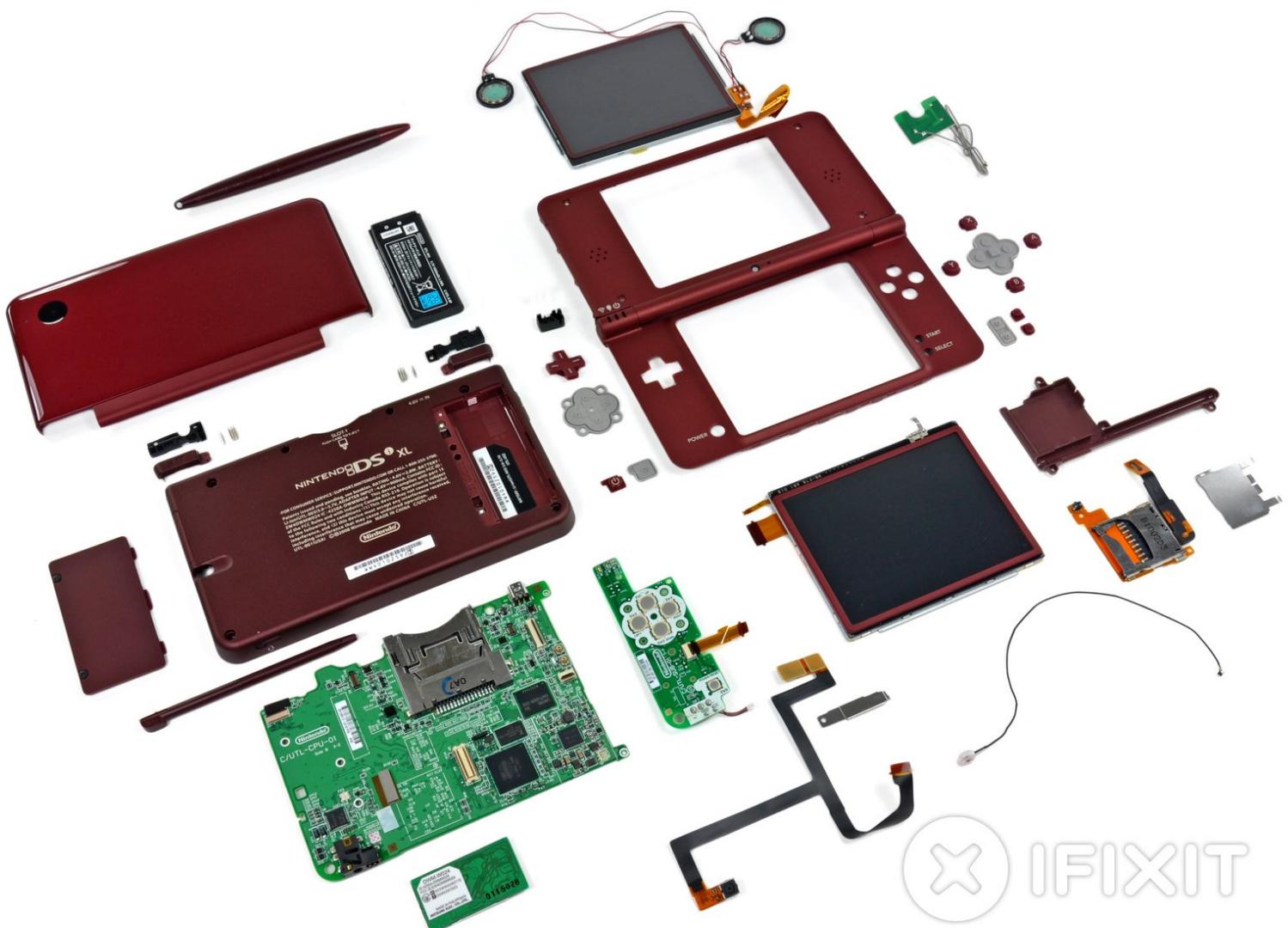




# Nintendo DSi XL Teardown

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## INTRODUCTION

Oh Happy Joy! It's here! The Nintendo DSi XL for all to see! Whoopee! Join us for an exciting teardown into the innards of this behemoth of a DSi.

Also check out the [video slideshow](#) of the teardown!

### TOOLS:

- [Phillips #00 Screwdriver](#) (1)
- [Spudger](#) (1)

## Step 1 — Nintendo DSi XL Teardown



- The Nintendo DSi XL is the latest iteration of Nintendo's ever-popular handheld gaming console, the Nintendo DS.
- Along with fancy new packaging, the new features include:
  - Two screens that are 93% proportionally bigger than those found in the DS Lite.
  - A new full size stylus for added precision on larger screens.

## Step 2



- Contents of box:
  - Nintendo DSi XL
  - Operation Manual
  - Quick Start Guides
  - AC Adapter
  - Full Size Stylus
- Mario, Mario, Mario...when will you understand...no matter how many invitations you send for Club Nintendo, our answer is still no...

## Step 3



- The DSi XL measures in at 161 x 91.4 x 21.2 mm and weighs in at a whopping 314 g. That's 45% heavier than the 217 g DSi.
- Side by side comparison of the DSi (left) and DSi XL (right).
- The featured specs of the DSi XL are the twin 4.2" LCD panels.
- The back side of the DSi XL. What a surprise! It's made in China.

## Step 4



- The full-sized stylus, measuring 10 x 130 mm, takes a little getting used to but fits more comfortably in the hand than its 5 x 90 mm smaller twin.

## Step 5



- Remove the two Phillips screws securing the battery door to the outer case of the DSi XL.
- Lift battery door off the bottom outer case and remove the battery from its housing.

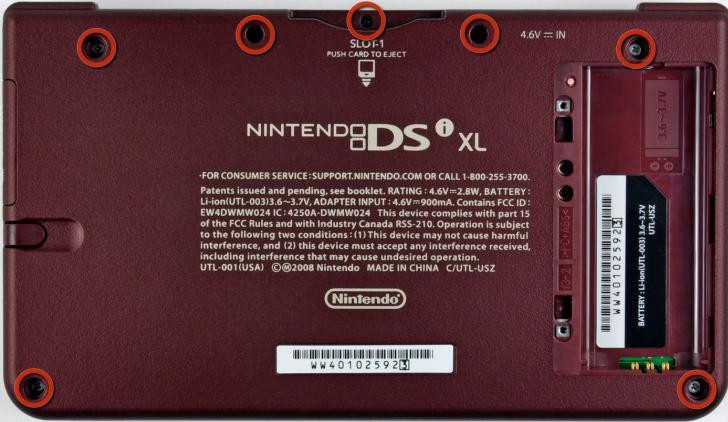
**(i)** Both screws remain captive within the battery door.

## Step 6



- Nintendo provided quite a hefty upgrade in battery size from 840 mAh in the DSi (Right) to 1050 mAh in the DSi XL (Left).
- For all you math haters out there, that's 25% more capacity!
- Larger capacity comes with the cost of more weight. The XL's battery weighs 23 g compared to the 19 g DSi battery.

## Step 7



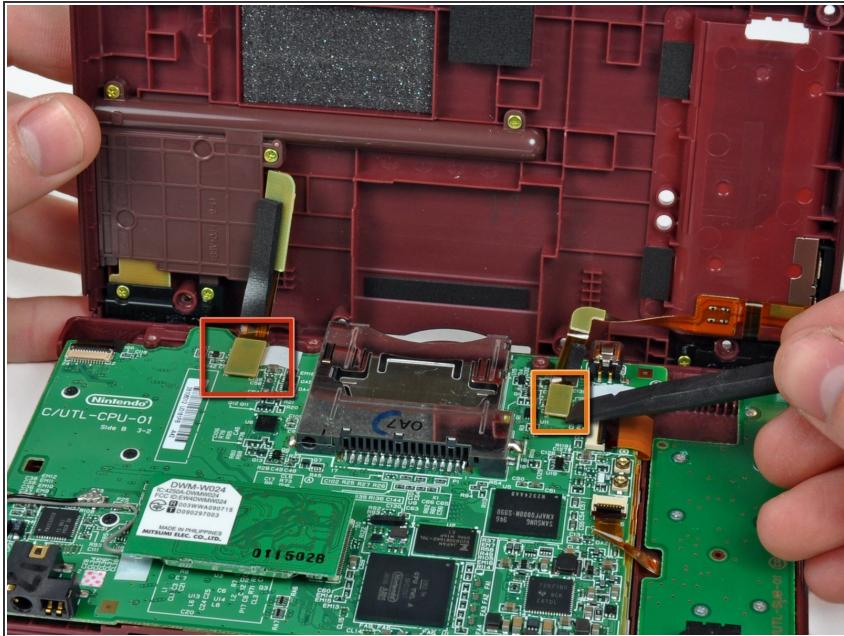
- A total of seven Phillips screws are all that stand in the way between us and the innards of the DSi XL.
- *i* Keep track of each screw's location because they have different lengths.

## Step 8



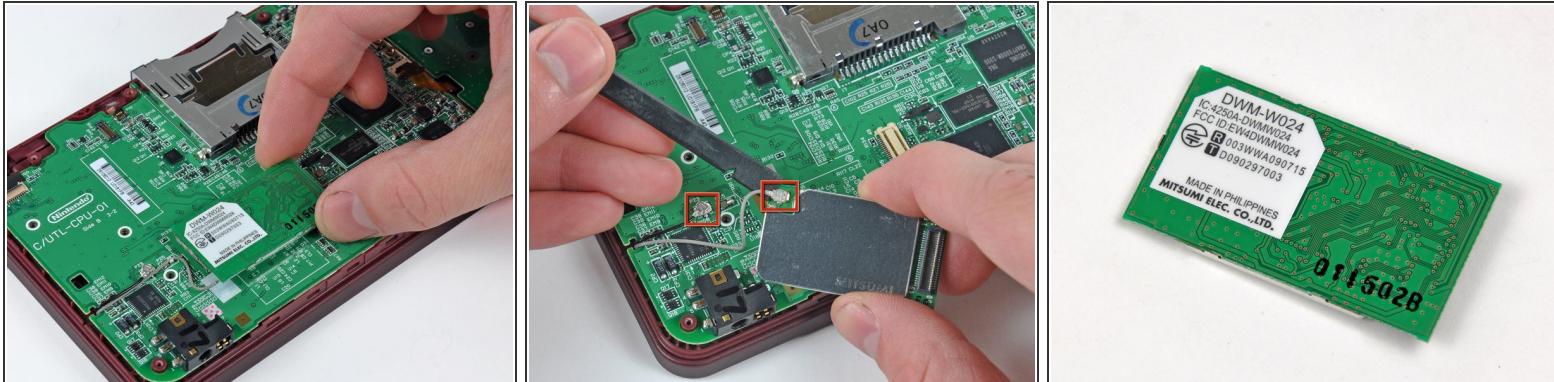
- After a bit of careful prying, the lower case comes off without a hassle.
-  An orange ribbon remains connected to both cases. Pry with care to prevent any damage to this connector.

## Step 9



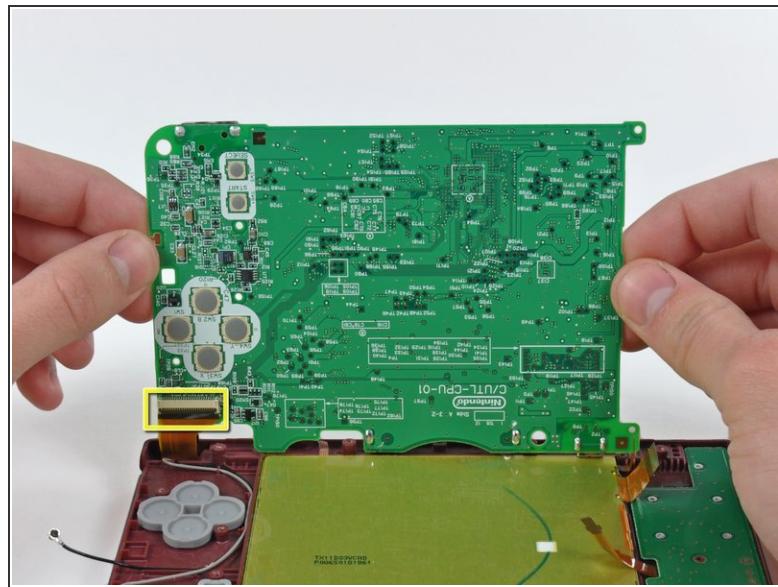
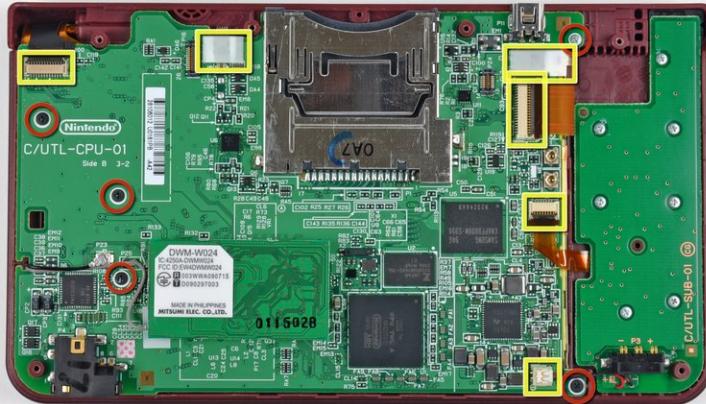
- Pry the following connectors straight up using the flat end of a spudger:
  - SD board cable connector
  - Volume control cable connector
- **i** The lower case should now be completely detachable from the upper case of the DSi XL.
- Thankfully, Nintendo designed the DSi XL to eliminate a [long ribbon cable](#) spanning the width of the old DSi.

## Step 10



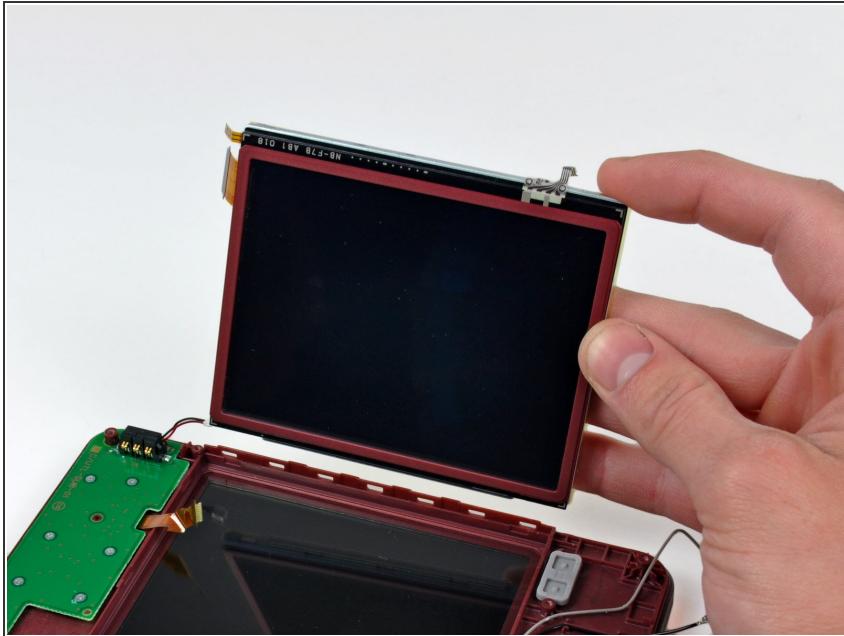
- Lift the Wi-Fi board from its edge nearest the center of the DSi, and it comes right off the logic board.
- Use the flat end of a spudger to pry both antenna cable connectors from their respective sockets on the Wi-Fi board and logic board.

## Step 11



- Removing the main board is a piece of cake:
  - Remove the five Phillips screws.
  - Disconnect the six connectors on the front side, flip the board over and remove the one last connector hiding on the back.
- Whenever unlocking flat ribbon cable sockets, use your fingernail to flip up the small retaining flap.

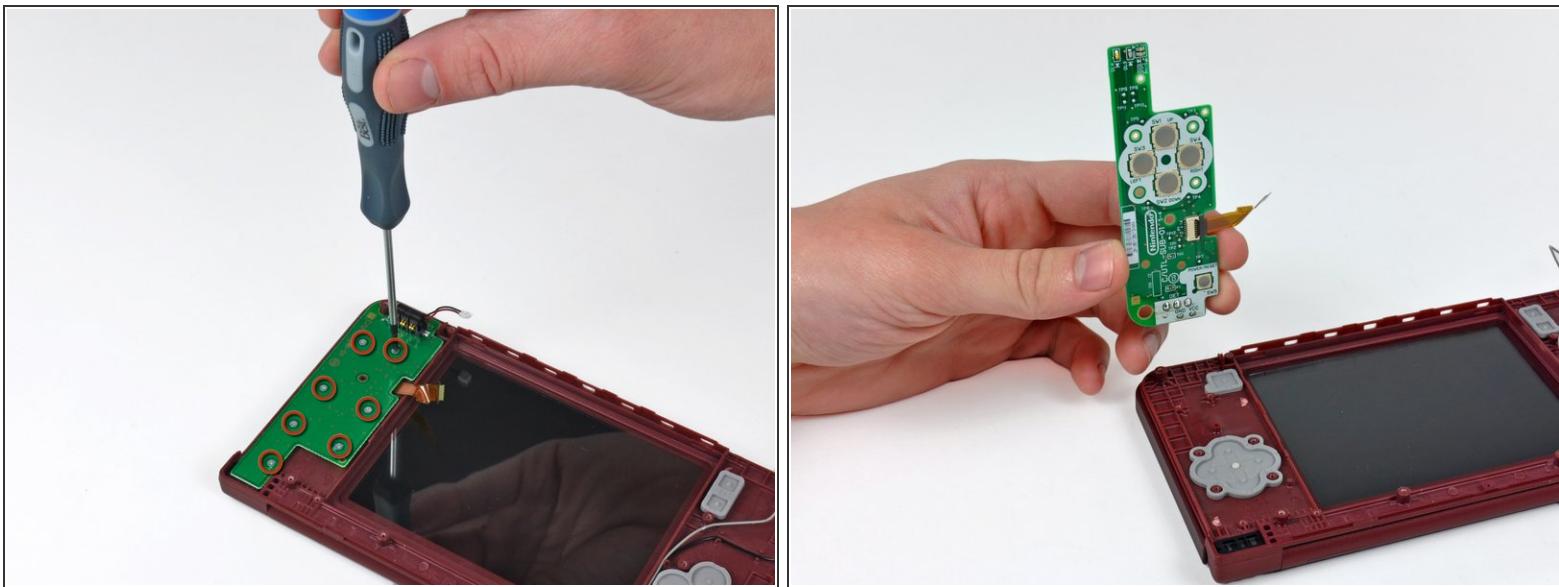
## Step 12



- The lower display is held in place by the pressure of the board secured over it. No screws!
- After freeing it from the light adhesive around its perimeter, lift the lower display out of the DSi XL.

*i* The displays on the DSi XL conveniently integrate the digitizer, LCD, and backlight into one package.

## Step 13



- Remove the seven Phillips screws securing the battery/control board to the upper case.

*i* The D-Pad and I/O buttons are conveniently integrated onto the face of the battery/control board.

## Step 14



- Four red plastic covers need to be removed to reveal the Phillips screws underneath.
- Removing the four Phillips screws allows access to the top display.
- Push the top outer case toward the top edge of the DSi XL, then use a spudger to pry it off the clips holding it to the inner case.

## Step 15



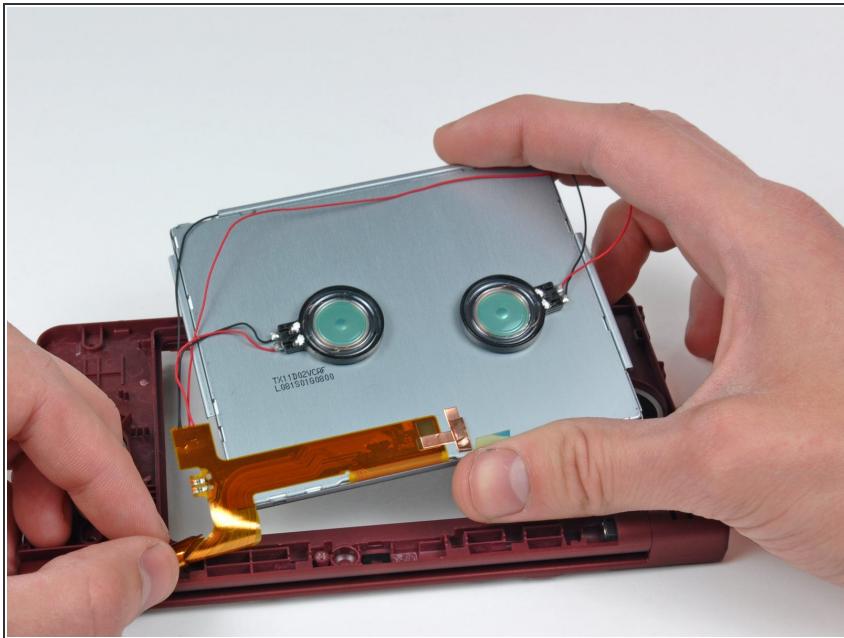
- Use a spudger to pry the outward facing camera from its resting place on the top outer case.
- Remove the single Phillips screw securing the inward facing camera's bracket to the top inner case.
- Carefully pull the camera ribbon cable through the hollow right hinge, being careful not to rip it or the display ribbon cable.
- The DSi XL has two digital cameras; one on the internal hinge pointed toward the user and the other pointed away from the top outer case.

## Step 16



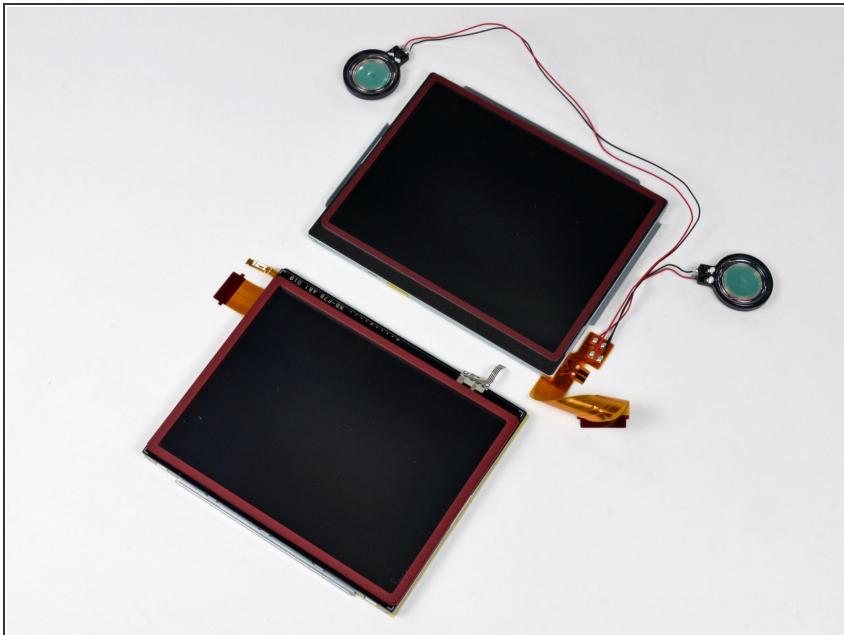
- The antenna board for the Wireless LAN rests in the upper right corner of the top outer case.
- Removing it is as simple as lifting it up.

## Step 17



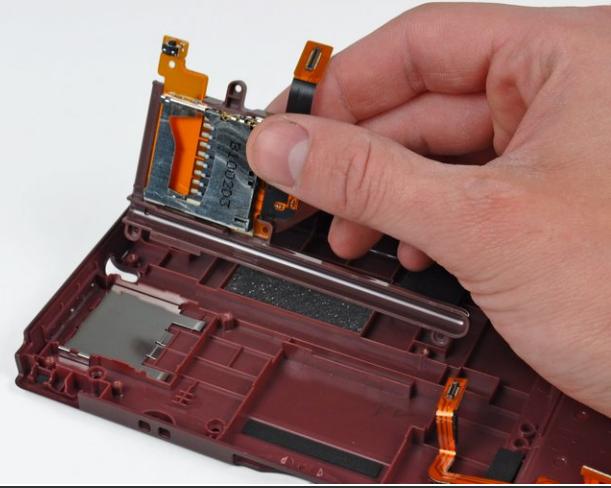
- After prying up the speakers, carefully de-route the display ribbon cable through the hollow right hinge.
- Remove the upper LCD assembly from the inner case.

## Step 18



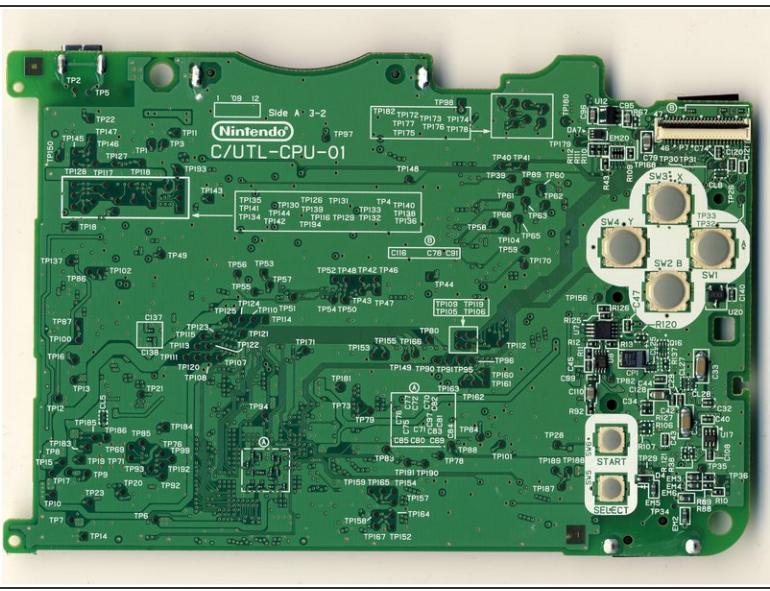
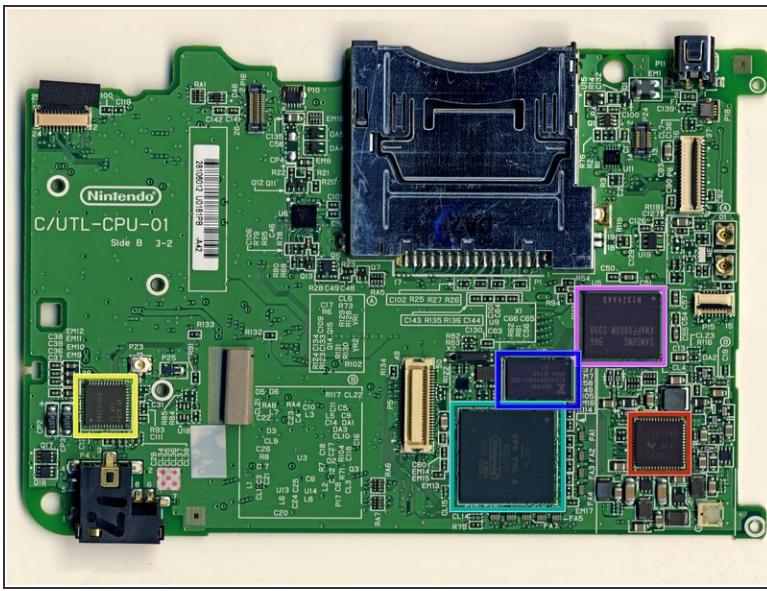
- The DSi XL's twin supersized screens.
- Touchscreen controller: NB-F7B AB1 018
- Each screen measures 4.2 inches diagonally.
- Although the screen size has been enlarged, the resolution still remains the same at 256 x 192 pixels per screen.

## Step 19



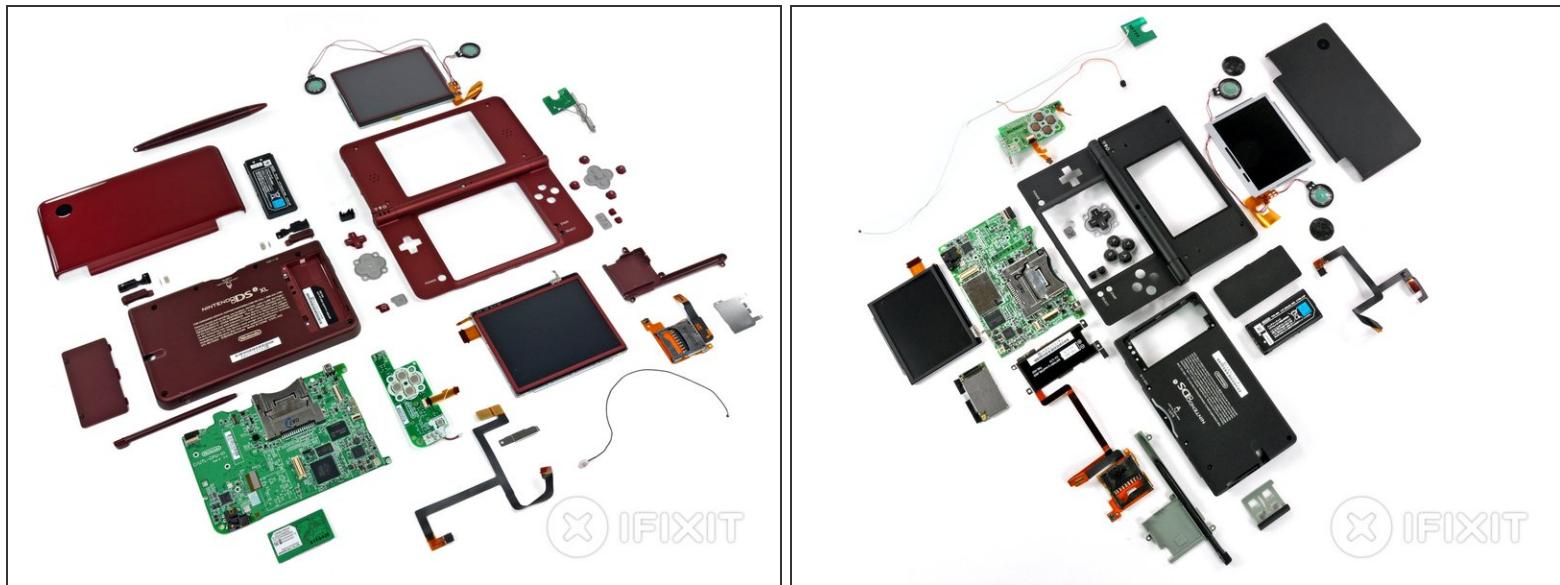
- Remove the seven Phillips screws securing the left trigger, right trigger, and the stylus holder to the bottom outer case.
- Lift the SD board and the stylus holder out of the case.
  - ⓘ The electronic right trigger button is integrated into the SD board.
- Reassembling the triggers is quite difficult. Take them apart if you dare.

## Step 20



- Samsung and Fujitsu chips are identical to the DSi:
  - Samsung 1st generation MoviNAND KMAPF0000M: 256 MB NAND Flash and MMC controller. The integrated MMC controller allows the CPU to offload the complex work of directly talking to the flash memory.
  - 82DBS08164D-70L: Fujitsu Ltd 128-bit FCRAM (fast-cycle RAM) chip.
- TI (TXN) 72071B0 power managing and charging circuit. This used to be a Mitsumi chip in the smaller DSi.
- PAIC3005B: We assume it stands for Primary Antenna Interface Controller, given that it's located right by the antenna.
- Primary Nintendo ARM CPU, manufactured the last week of 2009. This chip's markings are identical to the DSi. It's definitely not the Tegra chip that had been rumored.
- Here's a couple of large photos of the [front](#) and [back](#) of the logic board. Warning for 56K users: we mean **large**.

## Step 21



- Slide by slide comparisons of the DSi XL layout and the DSi layout.
- DSi XL, hear us now! You've been slain by iFixit!

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