



# D-Link DNS-323 Teardown

Written By: Mc128k



## INTRODUCTION

Teardown of the D-Link NAS DNS-323.

Fairly easy to open.

### TOOLS:

- [Phillips #1 Screwdriver \(1\)](#)
- [Flathead 3/32" or 2.5 mm Screwdriver \(1\)](#)

## Step 1 — D-Link DNS-323 Teardown



- The DNS-323 is a powerful NAS with Gigabit Ethernet, print server and extension via software. It can have a FTP server, DHCP, and even BitTorrent!
  - ↗ This is my first disassembling, please be patient, correct my grammar mistakes if you find some.
  - ⓘ This was pretty easy, nothing compared to iPods or Macs.

## Step 2



- First thing first remove the frontal part by sliding it up and pulling out.
  - You will be able to see the hard disks.
- By the way, the DNS-323 can support up to 3TB of disk space with the new firmware update. That's 1.5TB per disk! Could you imagine such capacity twenty years ago?

## Step 3



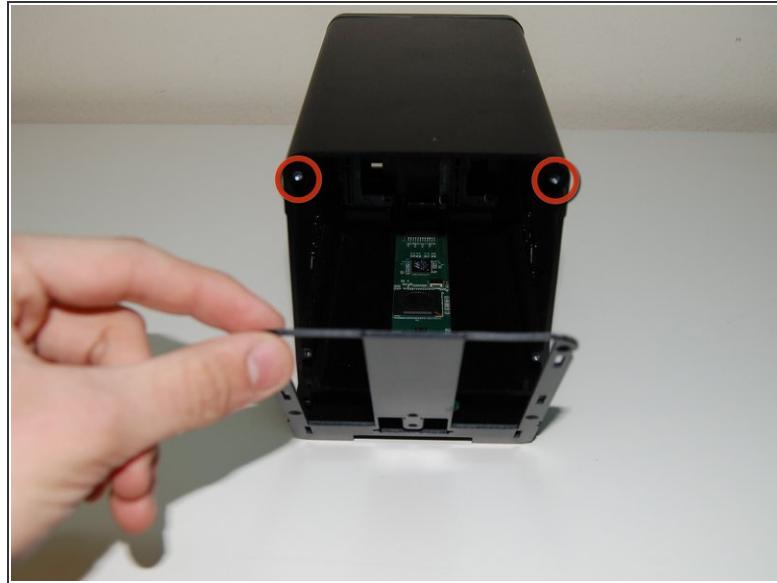
- Now it's time to remove the Hard Disks.

**⚠ BE CAREFUL**, when handling these parts do not touch the circuits, do not shock, and do not let your dog play with them. I'm serious, this could lead into data loss.

- At the back of the DNS, pull out the two little levers to make the hard drives come out.
- Gently put them in a safe place until the whole unit is reassembled.

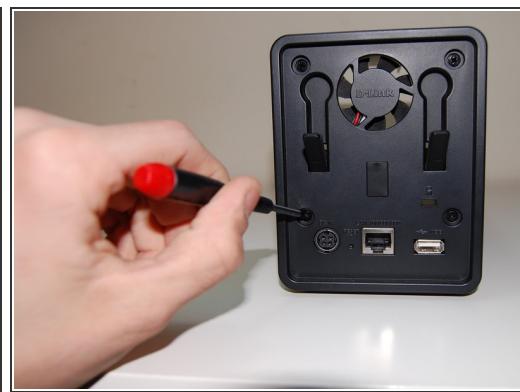
**⚠** The drives are order-specific! Remember if they were right or left, otherwise you will be prompted with a message when accessing the NAS after reassembly.

## Step 4



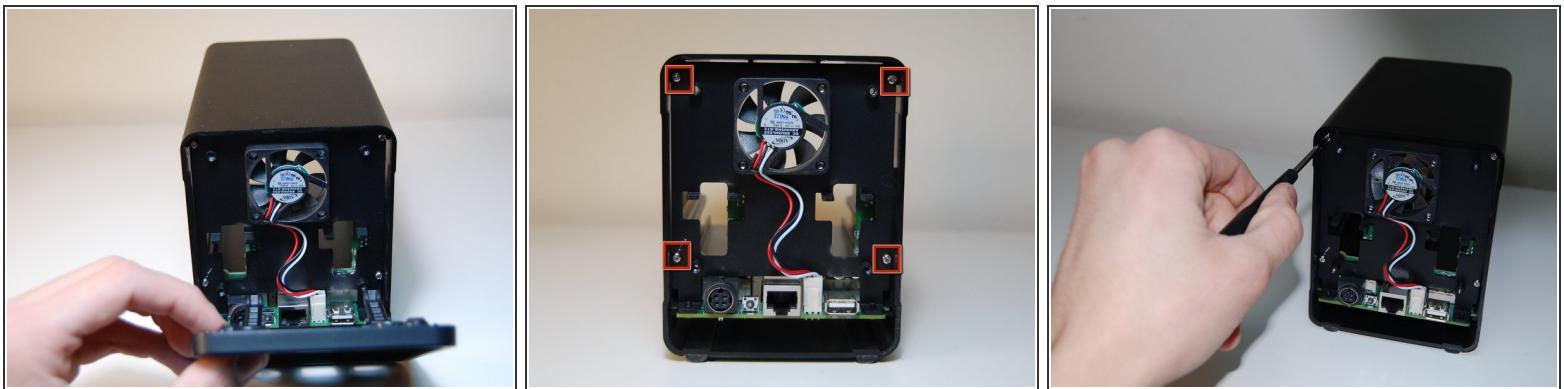
- Remove the frontal part.
  - There are two screws; remove them with a cross screwdriver.
  - Pull off the little sheet of metal that's covering the front.

## Step 5



- Now it's time to open the rear.
  - Locate the four rubber caps which cover the screws, then remove them with a flat screwdriver.
  - Remove the screws with a Phillips screwdriver.

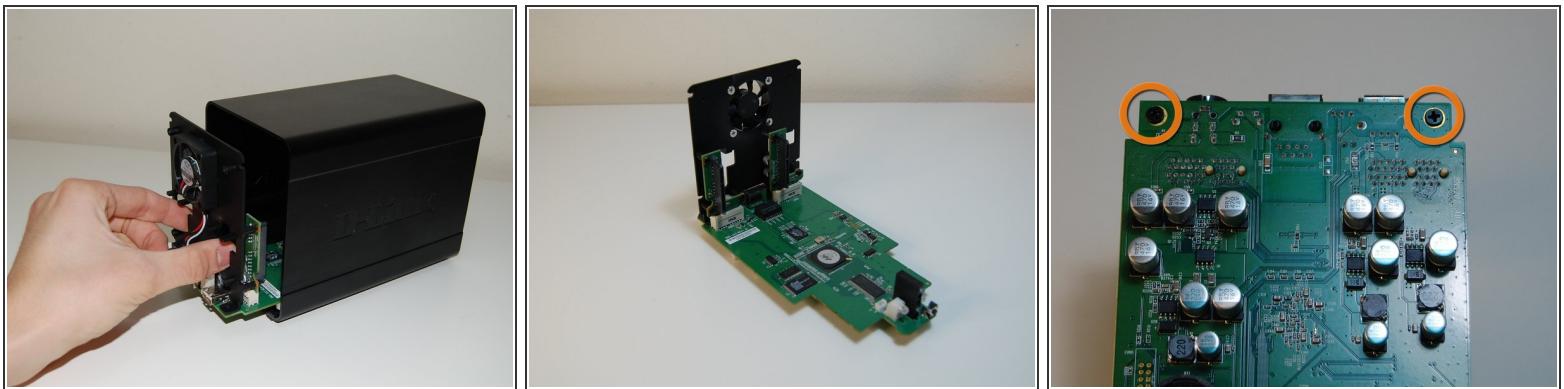
## Step 6



- Take off the rear and unscrew the next four screw showed in the picture.

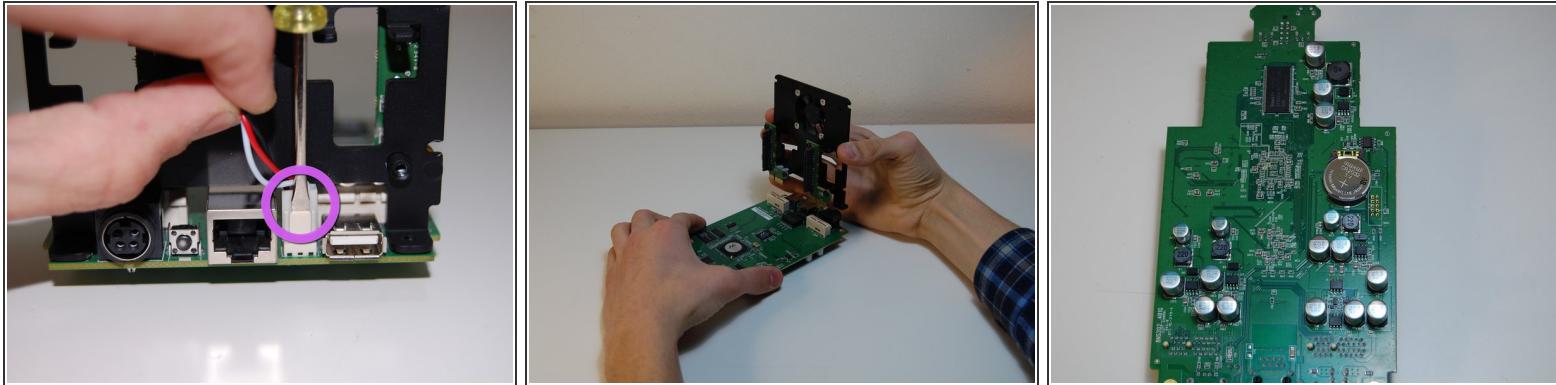
 These screws are hard! Pay attention not to strip them!

## Step 7



- Pull the board to make it slide out of the case.
- The board is quite simple, a little ARM-based computer mounting Linux. (is it?). The condensers are mostly for power supply, doubled because of the two HDDs.
- Remove two more screws under the circuit.

## Step 8



- Time to remove the iron part.
  - Pull out the fan wire. If you need you can use a flat screwdriver, paying attention not to break it.
  - It's time to detach the SATA adapters with the fan, so you can contemplate the main circuit.

**⚠** Don't remove the battery as this could lead to time loss, some basic (board-level) settings, and unwanted resets.

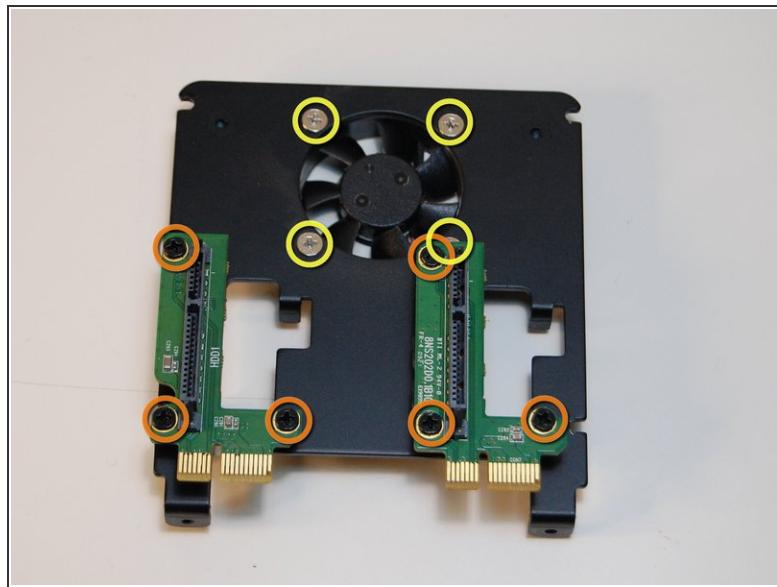
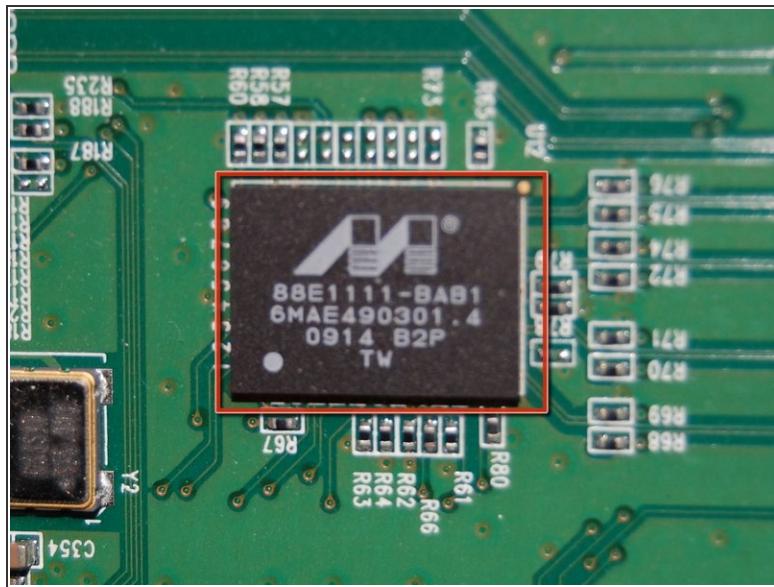
## Step 9



### Now all about the chips

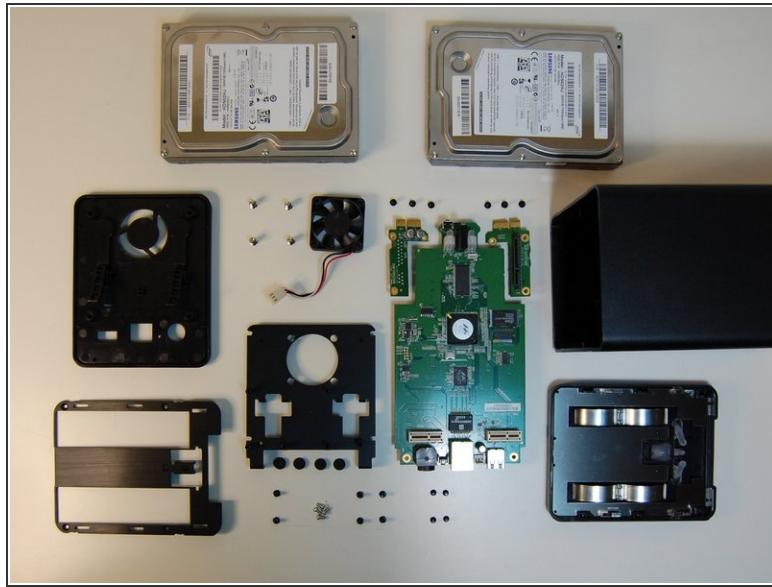
- The first chip looks like a flash memory for the ROM, or the random memory for the OS, there are two of them; Labelled 921EA C HY5DU56 1622FTP-043 Made in Korea NWFM136SAG3
- Marvell 88F8152-A2 "Feroceon(r)" Storage Networking SoC (System-on-Chip)
- A 12 to 24 bit multiplexed D-type latch marked 94CJNQK ALVCH162260 , see more there -->
  - <http://focus.ti.com/docs/prod/folders/pr...>
- Eon SiliconSolution Inc EN29LV640B-90TIP 64Mbit Flash memory

## Step 10



- Last chip... Marvell Alaska 88E1111 single-port GbE transceiver. Markings: 88E1111-BAB1 6MAE490301.4 0914 B2P Taiwan
- Remove the last screws.
  - That's not useful unless you want to replace the fan; six screws keep the two SATA connectors and...
  - ...four tapping screws hold the fan.

## Step 11



- That's all folks! The DNS-323 is now disassembled. If you want to put things back just follow this guide backwards!
- Guide made by Mc128k.