Samsung Blu-Ray BD-JM57 Teardown

The destruction of a Samsung DVD player. Brace thyself.

Written By: Jessica Parnelli Fawkes

INTRODUCTION

Well, I found this thing in the recycling. All parts seemed intact, and the first thing that flew through my mind was: tear it apart. I used my trusty set of tools, and my own self-taught mind to rip this thing to its core, even going as far as to remove the laser assembly!
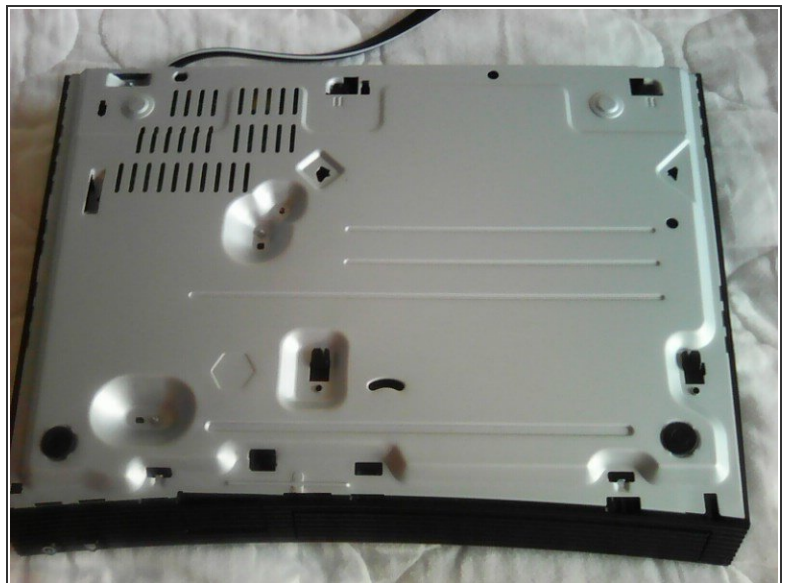
Yours truly,

Jessica P. Fawkes

www.iFixit.com

Step 1 — External features

- This appears to be a run-of-the-mill Samsung Blu-Ray player, capable of handling 1080p output with downgrading for DVD's, plus a few smart features.
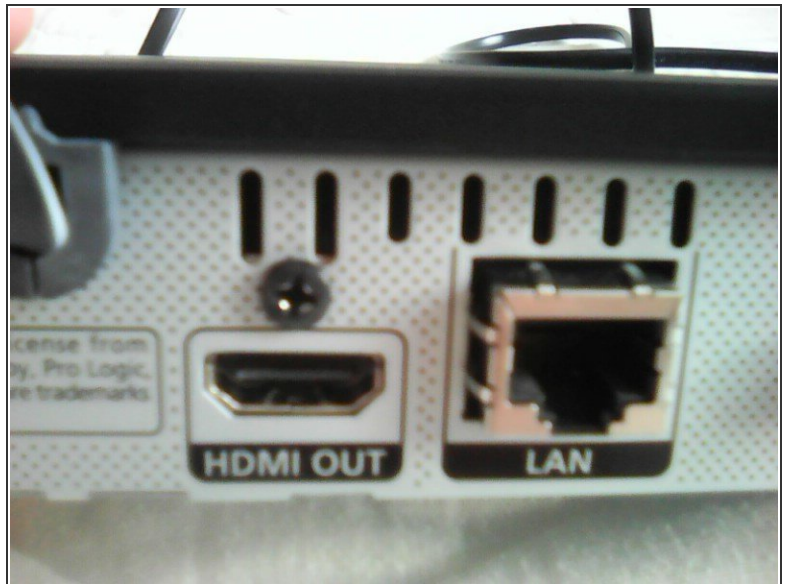
Step 2 — Nothing here, sir.

- Nothing on the bottom or the front that hints at how to crack this #!@$% thing open! (DIY cussing. Let the games begin)

Step 3 — Rear I/O

- It appears to have HDMI, Ethernet, and Coaxial "Digital Audio Out." And it's also powered by coffee, apparently.

- Safety first, kiddos!

Step 4 — Position of Screws

- The positions of the screws: One in the center (Above the coffee), one above the HDMI port, and that's it. Please tell me if there's a third, I can't remember.

This document was generated on 2019-10-20 06:22:14 PM (MST).

Step 5 — Whoops, forgot about these.

- Guess it's too late to heed these warnings.

Step 6 — Prying the Beast Open

- Pry open the two outer edges of the DVD player. Look to the photos for reference.

- I removed the top plastic casing to make it easier to access. You can leave it on. (If you want to)

This document was generated on 2019-10-20 06:22:14 PM (MST).

© iFixit — CC BY-NC-SA

www.iFixit.com

Page 5 of 15

Step 7 — Inside the Beast

- Would ya look at that compactness? It's "amazing"! (I've seen better laptops than this)

- Y'all are welcome to scan that QR code. It's probably a repair link or something.
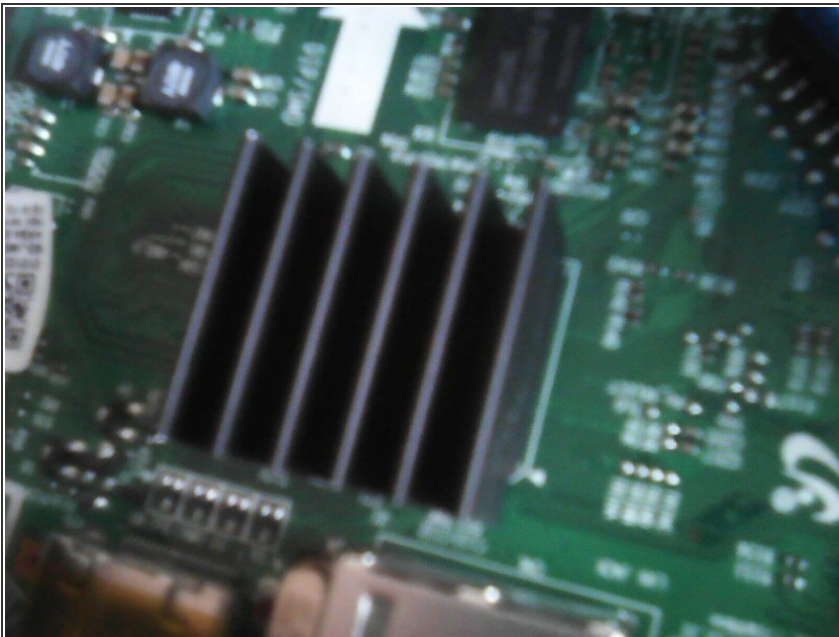
Step 8 — Murder!

- Removing the AC wire. (Could've sworn that this thing shuddered when it lost power)

- Interesting... They didn't use the center pin. Safety reason? (Or just plain weird?)

Step 9 — Check out my WiFi, man!
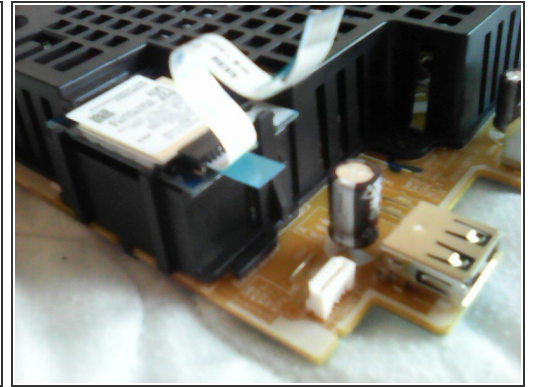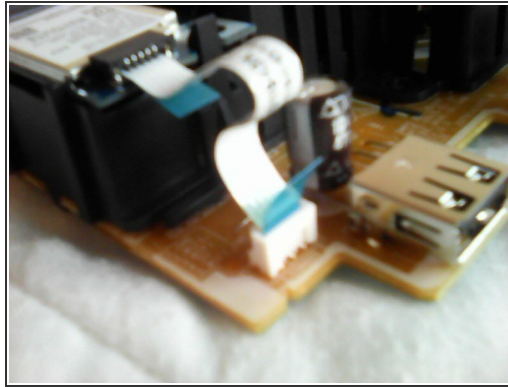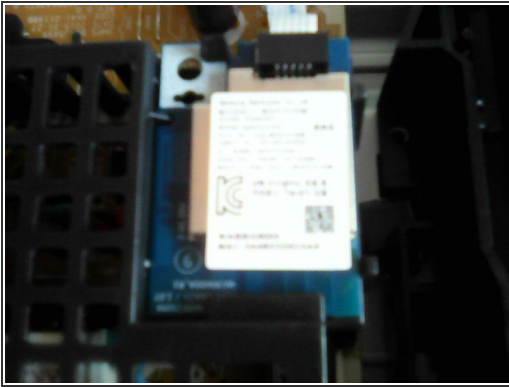
- Removing the wireless data wire. (Why are there only 5 wires? Does it have a USB converter hidden inside?)

Step 10 — Hot Topic

- Well... that wasn't expected. A heatsink, inside a DVD player? Huh.

- Funnily enough, they provide a preinstalled heatsink for this machine, but not for a Raspberry Pi.

This document was generated on 2019-10-20 06:22:14 PM (MST).

Step 11 — Removing WiFi Card + Shield
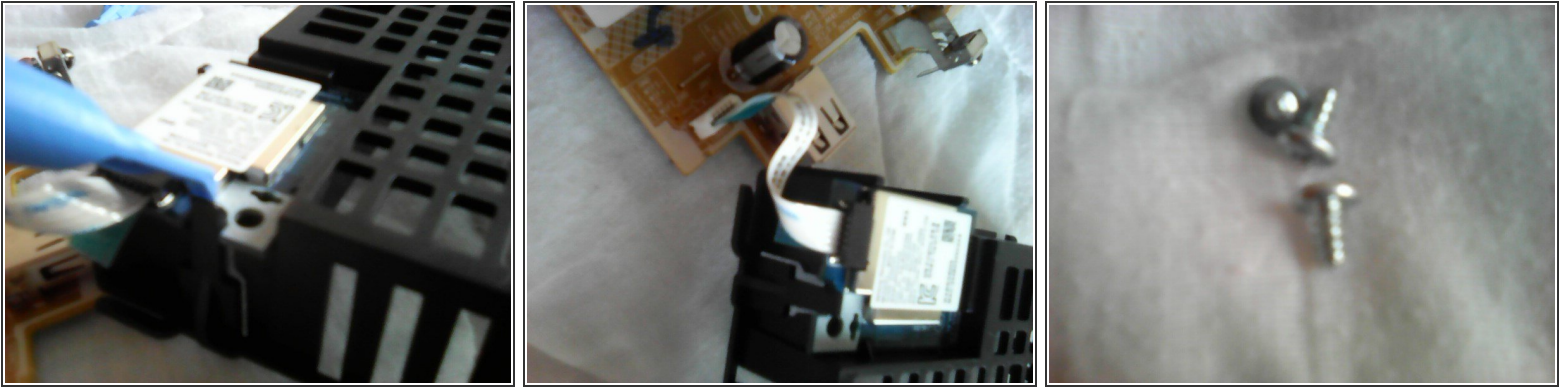
- Pry out this little tab, to remove the wireless card. There's no wired antenna (It's on the board), so you can literally yank it out.

- There are a few silver screws holding down the plastic shield. Remove them, then you can unclip the shield. (Should be pretty obvious)
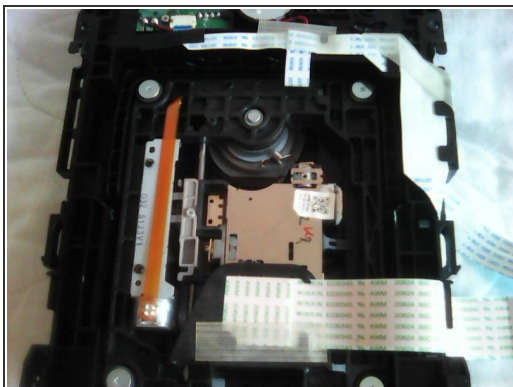
Step 12 — Removing the guts...

- Metal casing, begone! Everything's literally out of the factory packaging, and it looks weird. Like, why are the boards 2 different colors(?)

This document was generated on 2019-10-20 06:22:14 PM (MST).

Step 13 — ERROR: NO CABLE IS CONNECTED
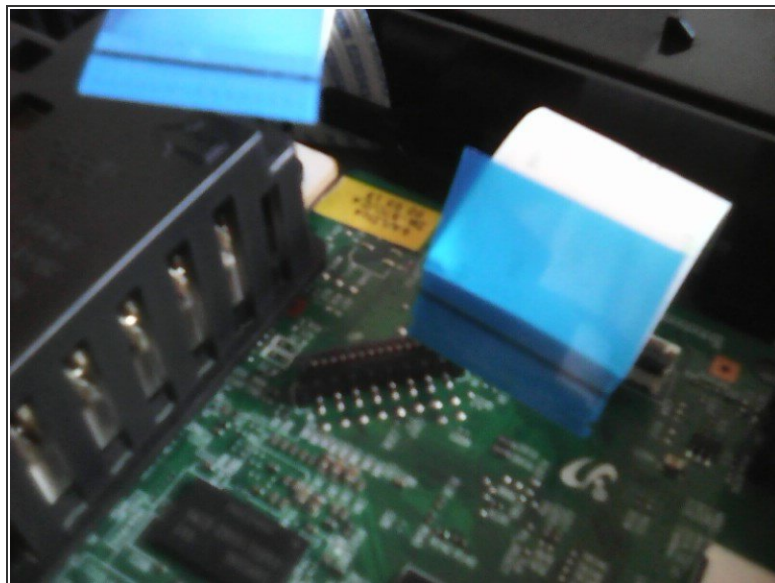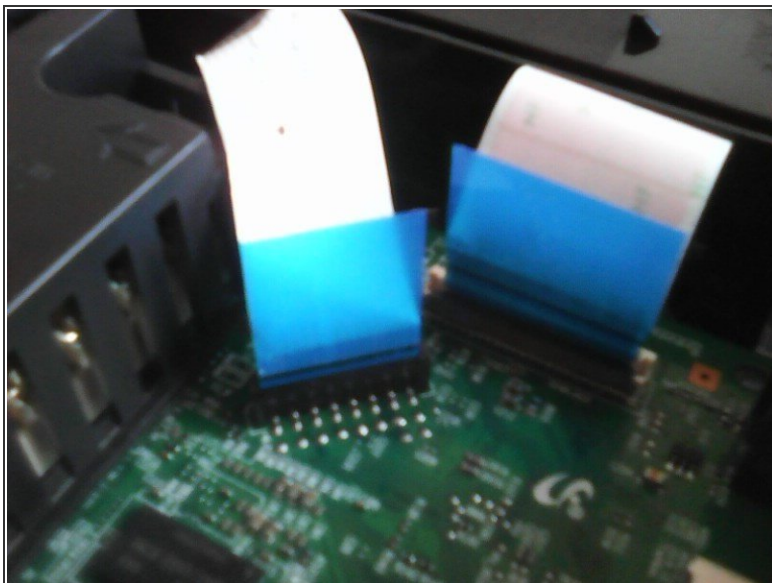
- Bixby: "Sir, we've detected missing cable anomalies in the primary data disc reader. Please confirm connection."

- Anyone get my reference? (FRIDAY in Civil War)

This document was generated on 2019-10-20 06:22:14 PM (MST).

© iFixit — CC BY-NC-SA

www.iFixit.com

Page 9 of 15

## Step 14 — "Removable Media" has been removed.

- That's a lot of cabling? How does one know where to find what?

- That laser assembly looks suspicious. Guess I'll be opening it!

- It'd be awesome if I loaded up a DVD while this thing was running. Imagine the turbulence from the disc...

- That grey circle thing is the "manual eject" slot. In case your DVD is stuck and you can't remove it. Although if you remove the top, it's easy to push the tray out. Was this once a PC drive?

Step 15 — It's mine now
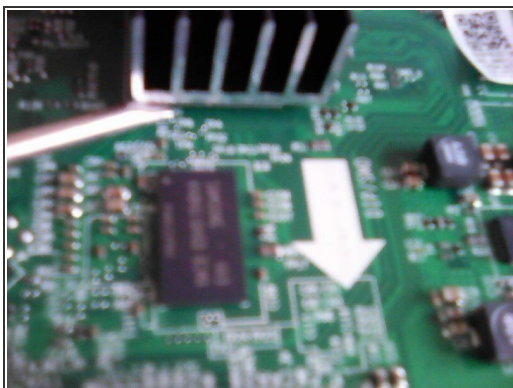
- I decided to pry off the heatsink for 2 reasons: 1) I want to see what kind of CPU it is. 2) Maybe reuse it for my RPi.

Step 16 — The "other" heart of this machine
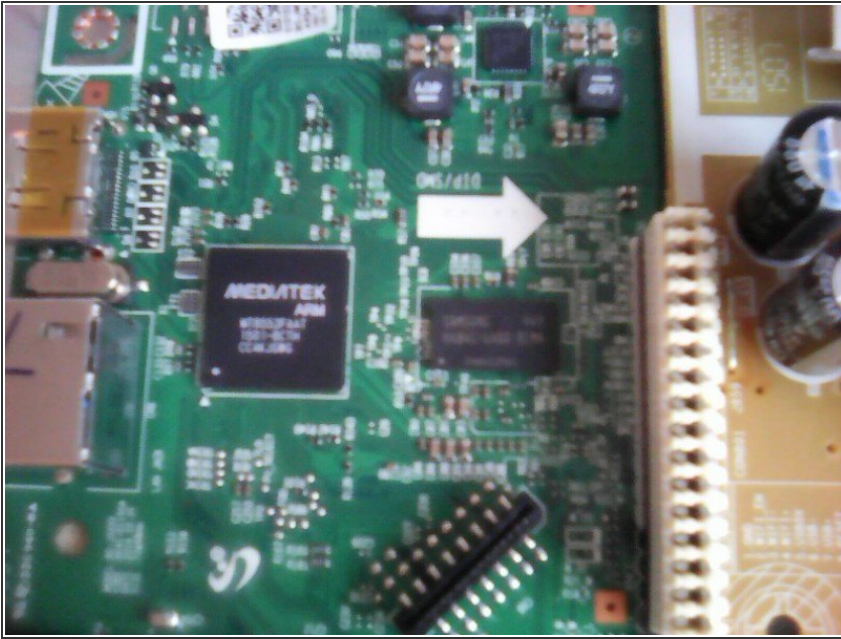
- Apparently this ain't an Exynos CPU. I'm disappointed. At least it's MediaTek...

- CPU: MediaTek MT8553 ARM (32bit, 800MHz Single Core)There's also DDR3 RAM, made by Samsung. (Capacity N/A)

## Step 17 — Memories of a circuit board hitchhiker...

- Flash memory (Capacity N/A, probably around 2GB)

- Unknown TI chip.

This document was generated on 2019-10-20 06:22:14 PM (MST).

Step 18 — Gas, gas, gas!
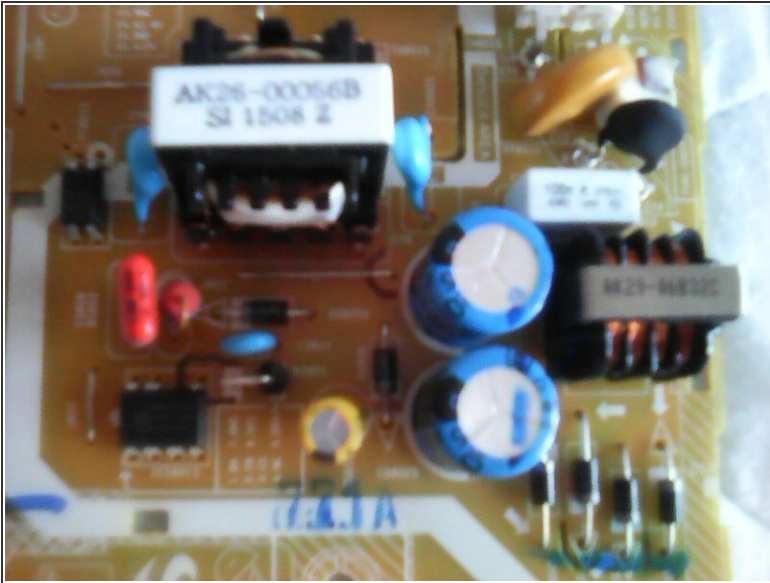
- That is one TINY power supply. Like, seriously, I think it may be smaller than a laptop charger!

- Yup, it's smaller than my Lenovo's charger box. Wow...

- There's a pinout for this little IC. Huh.
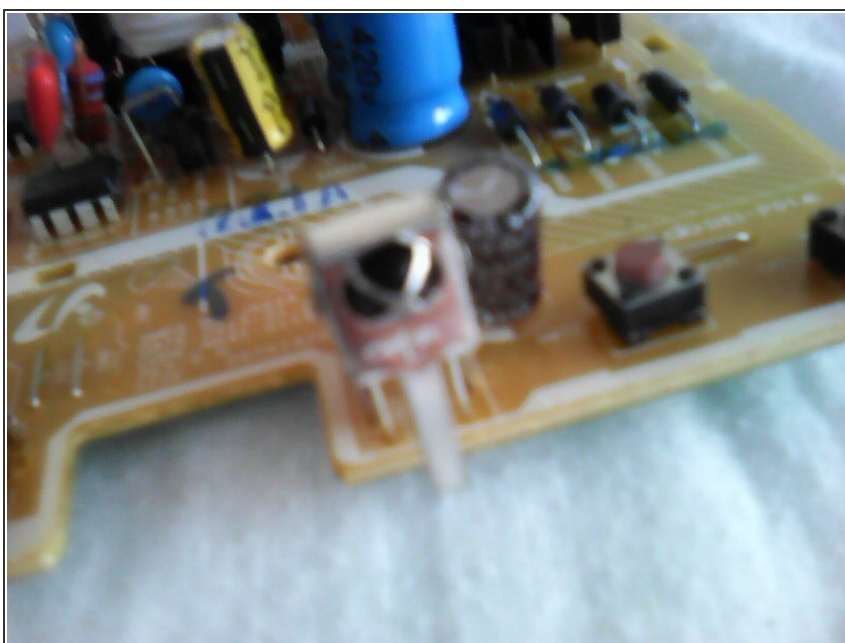
Step 19 — What is this stuff!?
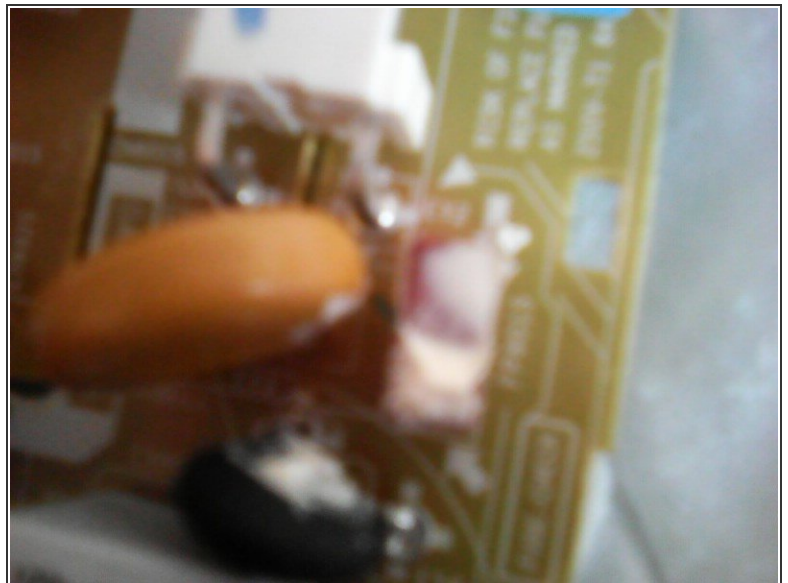
- This weird white goop broke off. I assume it's an epoxy of some kind, but why?

This document was generated on 2019-10-20 06:22:14 PM (MST).

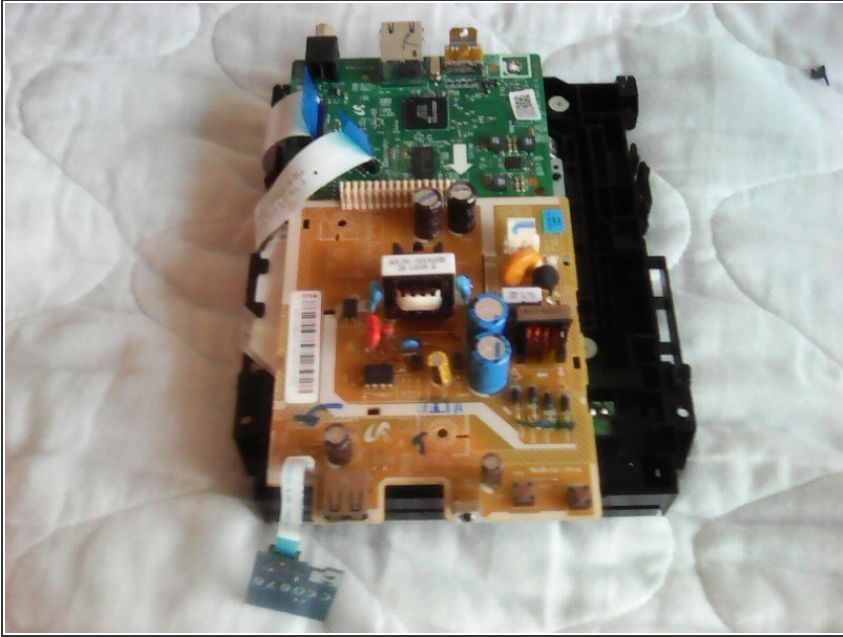## Step 20 — Removing frontal communications...

- Interesting... that looks like an RPi header! I wonder if there's...

- Yup. There's a pinout. I'll be damned.

Step 21 — IR blaster

- Here's part of the I/O on the front. The USB port is on the other side. (USB 2.0 type A)

Step 22 — Theory

- Why didn't they design it like this? I'm a bit stumped.

Step 23 — Stop "pushing my buttons"!

- All the buttons are front press style, but yet the buttons on the PCB are top press? How does this work?

- Each button is actually a small lever, so when you press it one way, it pivots slightly to push the actual button.

This document was generated on 2019-10-20 06:22:14 PM (MST).

© iFixit — CC BY-NC-SA

Step 24 — Done!

- And with that, the entire Blu-Ray player is dead, never to play a movie again. You don't have to tear it down all the way like I did.

- The tools shown are an example of what I used, you don't have to be as specific.

- Every single screw I removed. It's gonna be tough trying to put this back together without duct-tape...

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

This document was generated on 2019-10-20 06:22:14 PM (MST).