

**The Kitty-Proof
Raspberry Pi
Experience**

CutiePi



TL;DR what is a CutiePi tablet

1280x800
8-inch touchscreen

14mm in
thickness

microSD card

built-in handle

sleep/wake
button

micro HDMI

USB-C charging

USB type-A



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RUHAcam

github.com/penk/ruha.camera

Mainboard Terminal

github.com/penk/MainboardTerminal





Penkēsu Computer

github.com/penk/penkesu



"Business Plan"

1. Make toys I've always wanted
2. Release everything in open source license
3. ???
4. Profit!

Prototype #1

It started as a paper prototype

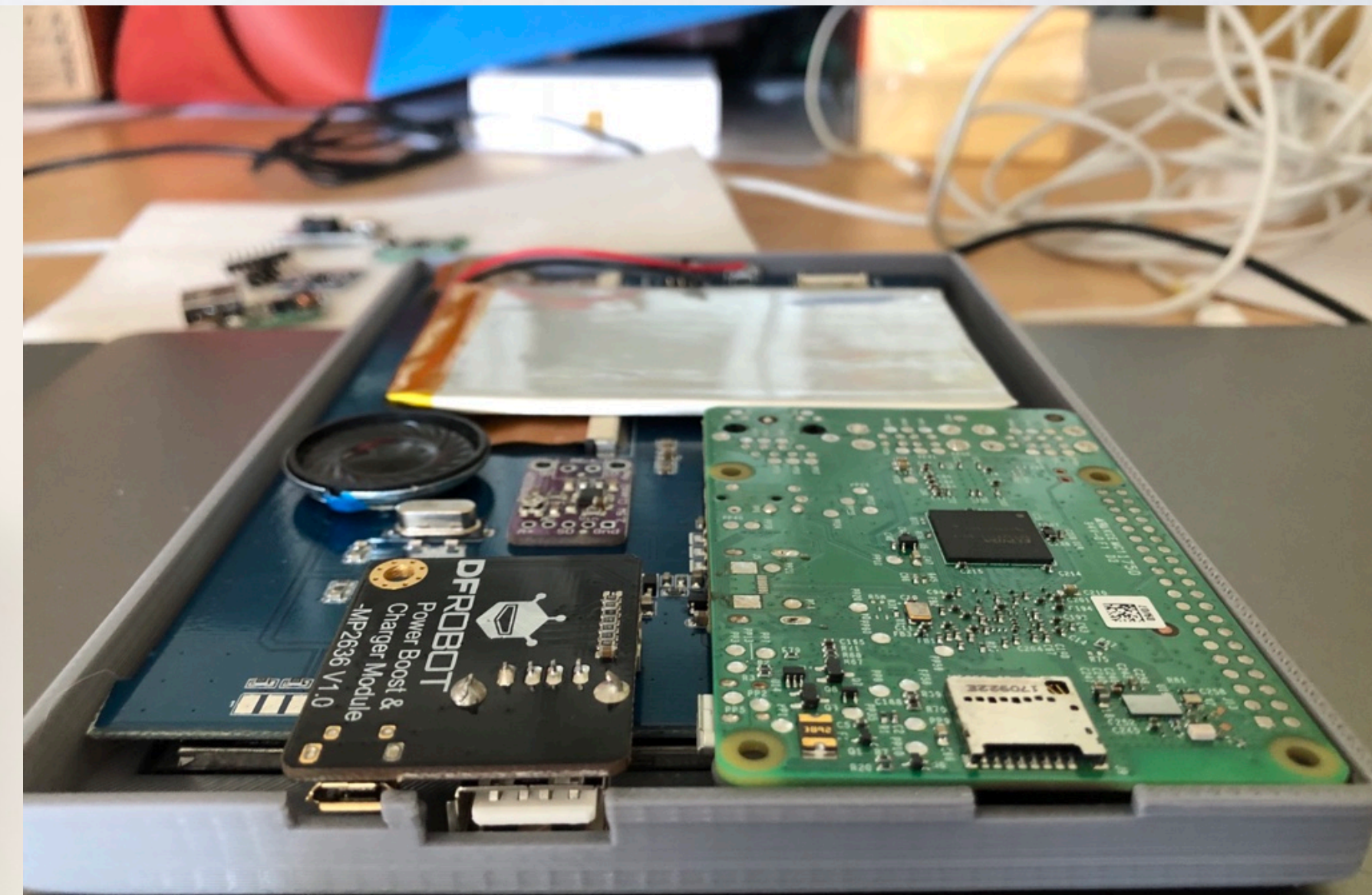
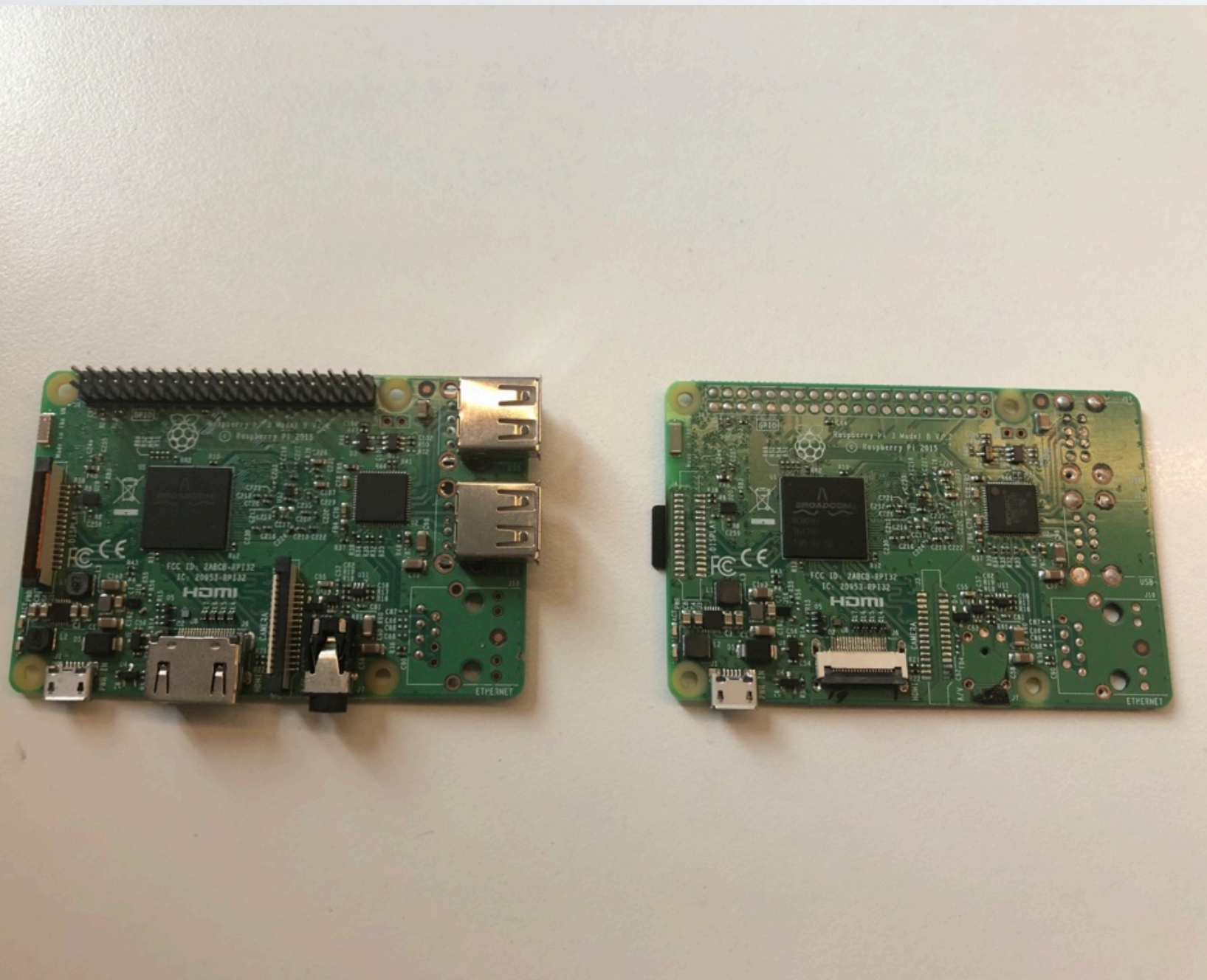
- ✓ very bio and eco friendly
- ✓ removable battery
- ✗ "under voltage" warning



Prototype #2

3D printer comes to play

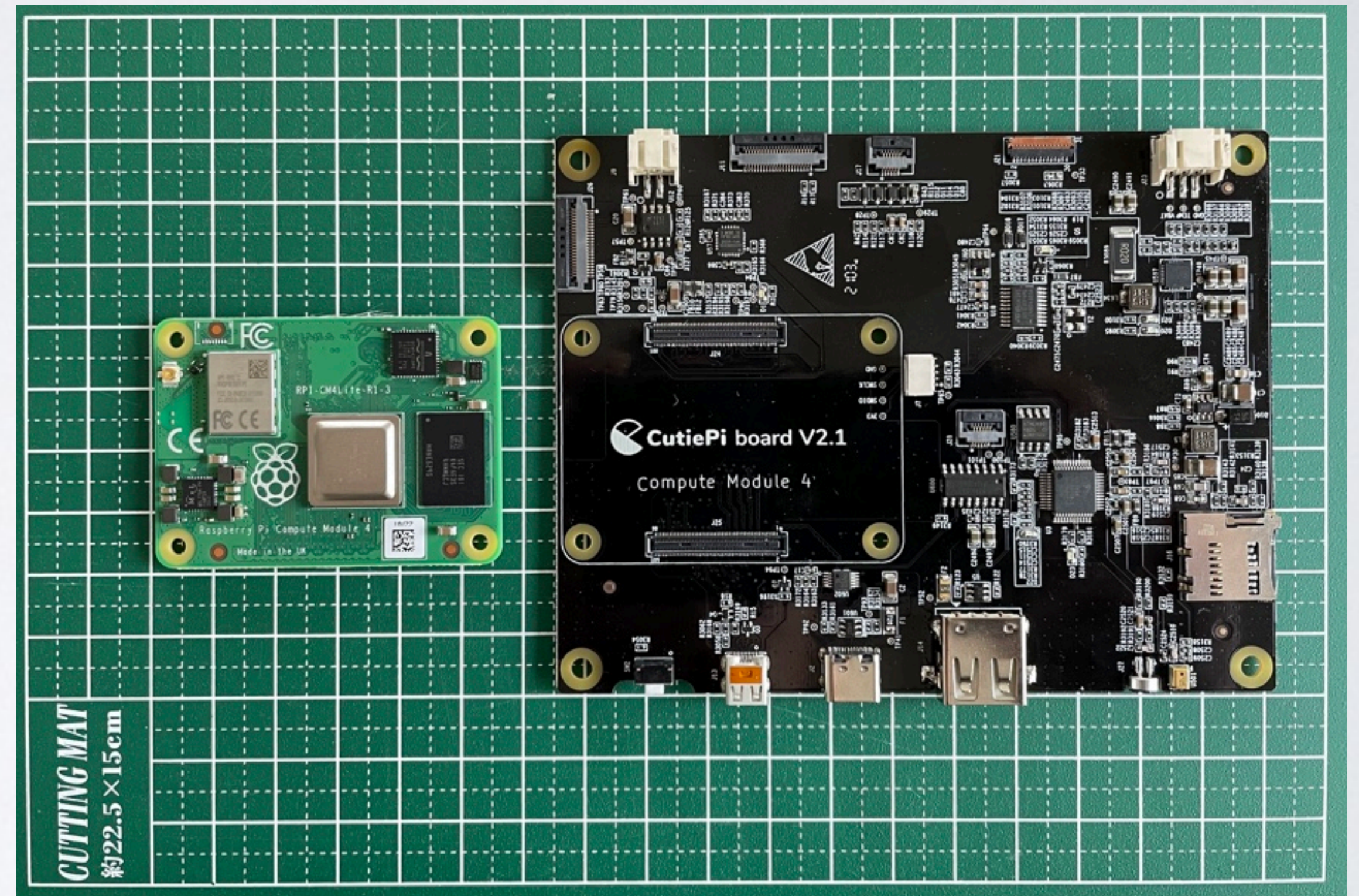
- ✓ off-the-shelf (a.k.a AliExpress) parts
- ✓ a lot thinner than the cardboard box
- ✗ lots of soldering (and desoldering)



Prototype #3

Time to make our own hardware

- Custom carrier board based on Raspberry Pi **Compute Module 4**
 - **BSD licensed** like the reference design
 - Schematic, BOM, Gerber, and PCB file
 - OSHWA certified!
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- github.com/cutiepi-io/cutiepi-board

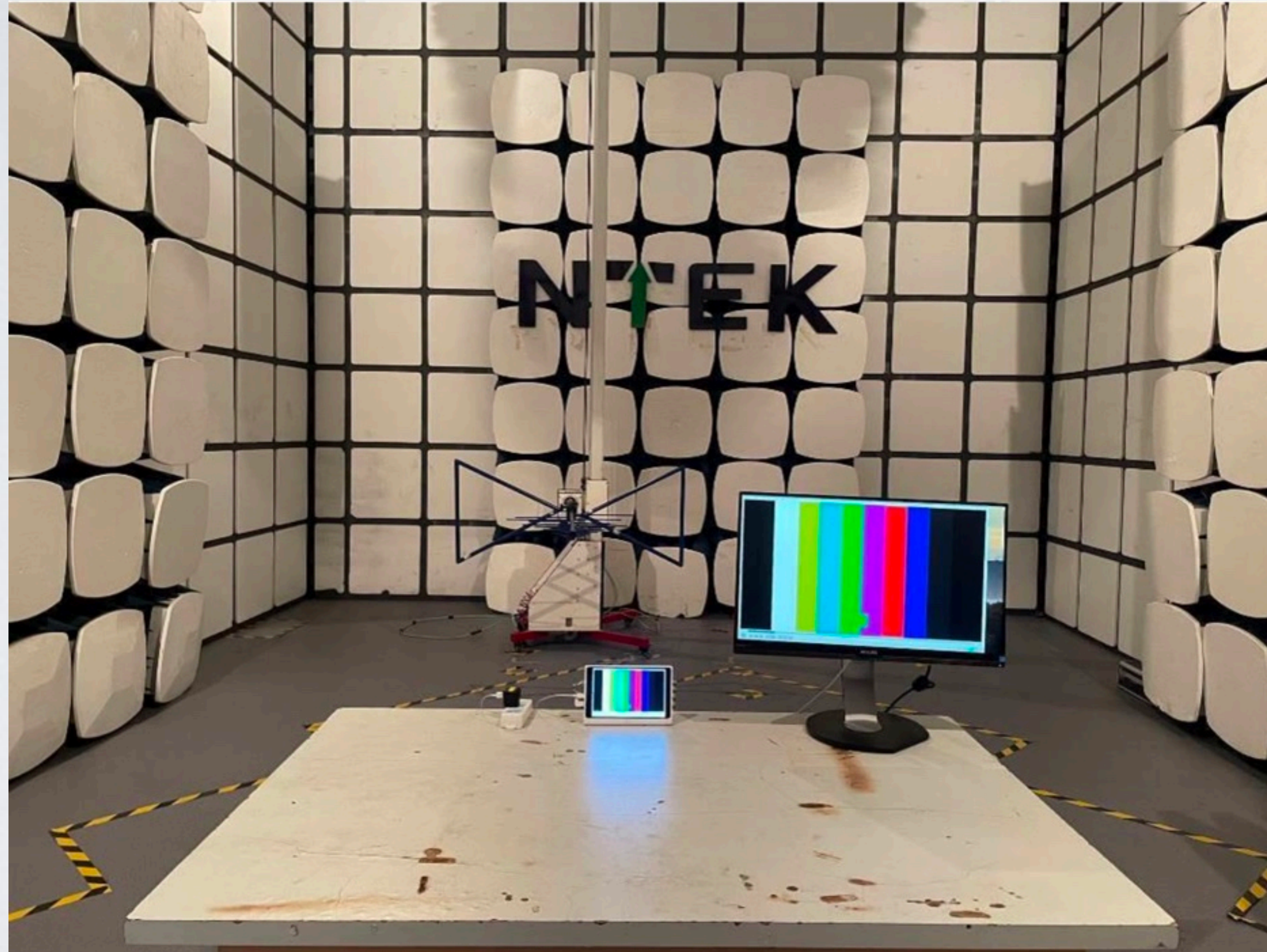


Mechanical design and Right to Repair

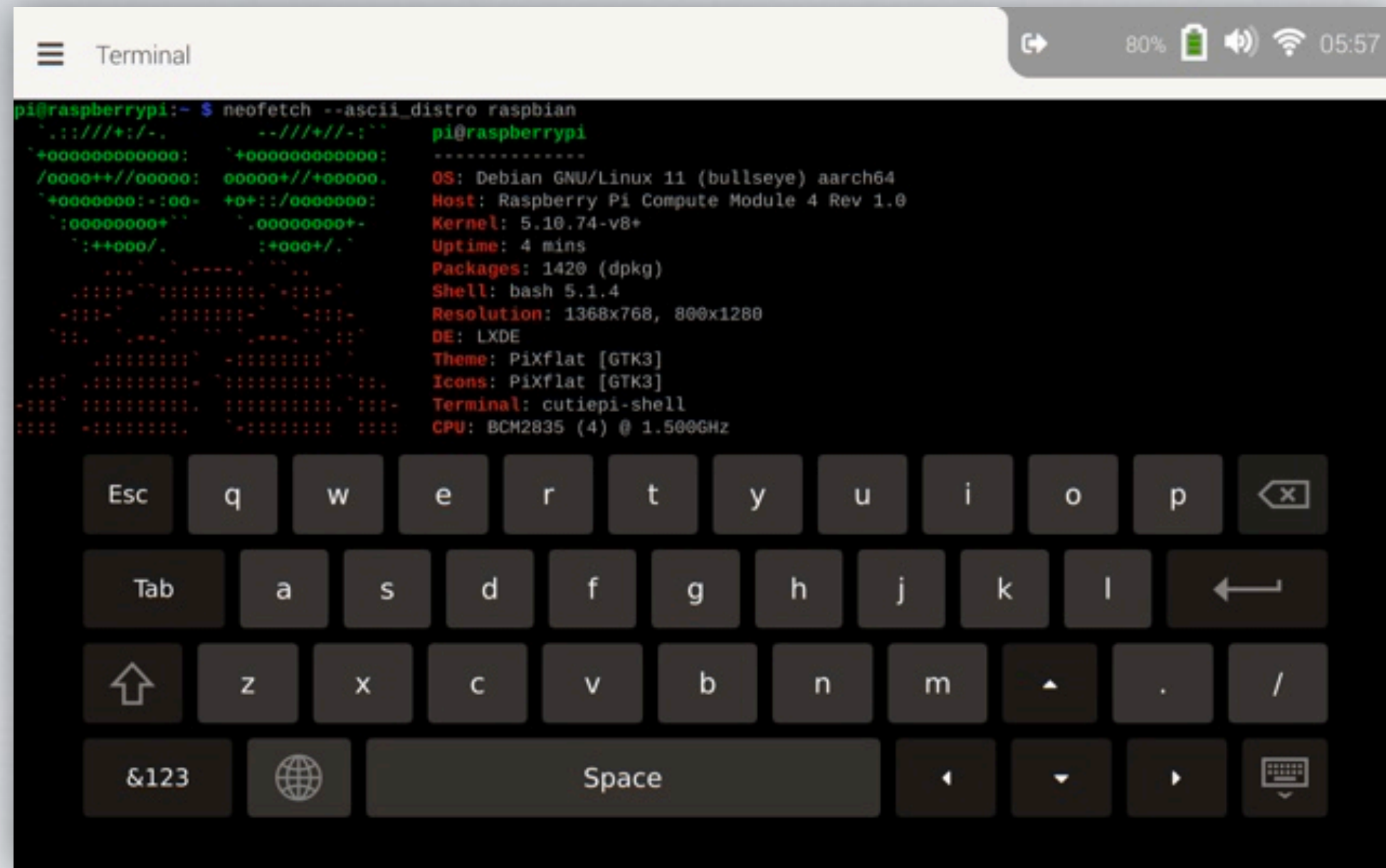
- It takes one Phillips screwdriver to disassemble the whole device
- Every parts is user-replaceable
- github.com/cutiepi-io/cutiepi-enclosure



Speaking of compliance and lab testing

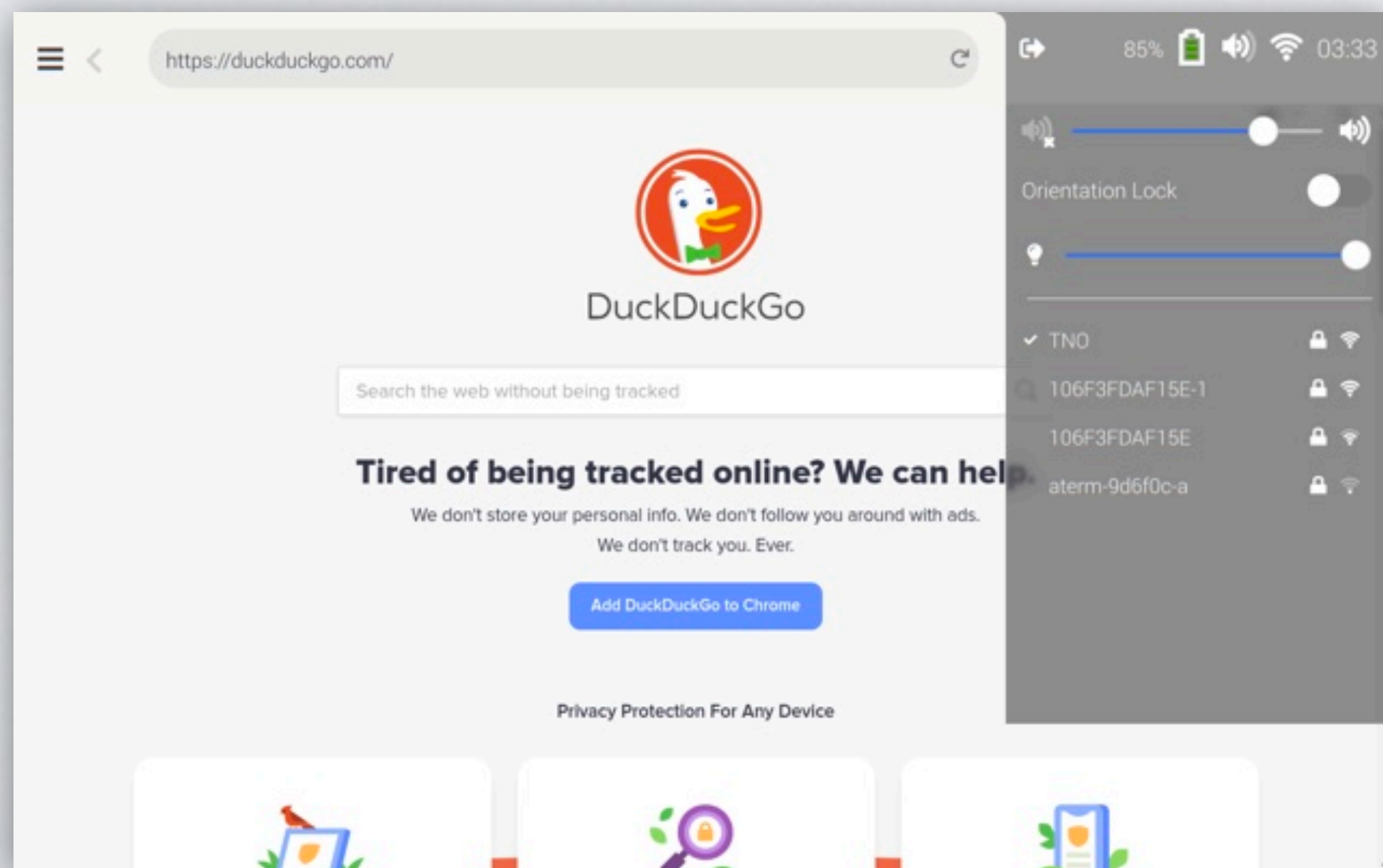


- We want to make it legit
- CE-RED, FCC SDoC, and RoHS
- Product Information Portal is your best friend
- pip.raspberrypi.com



Hardware alone doesn't make a tablet

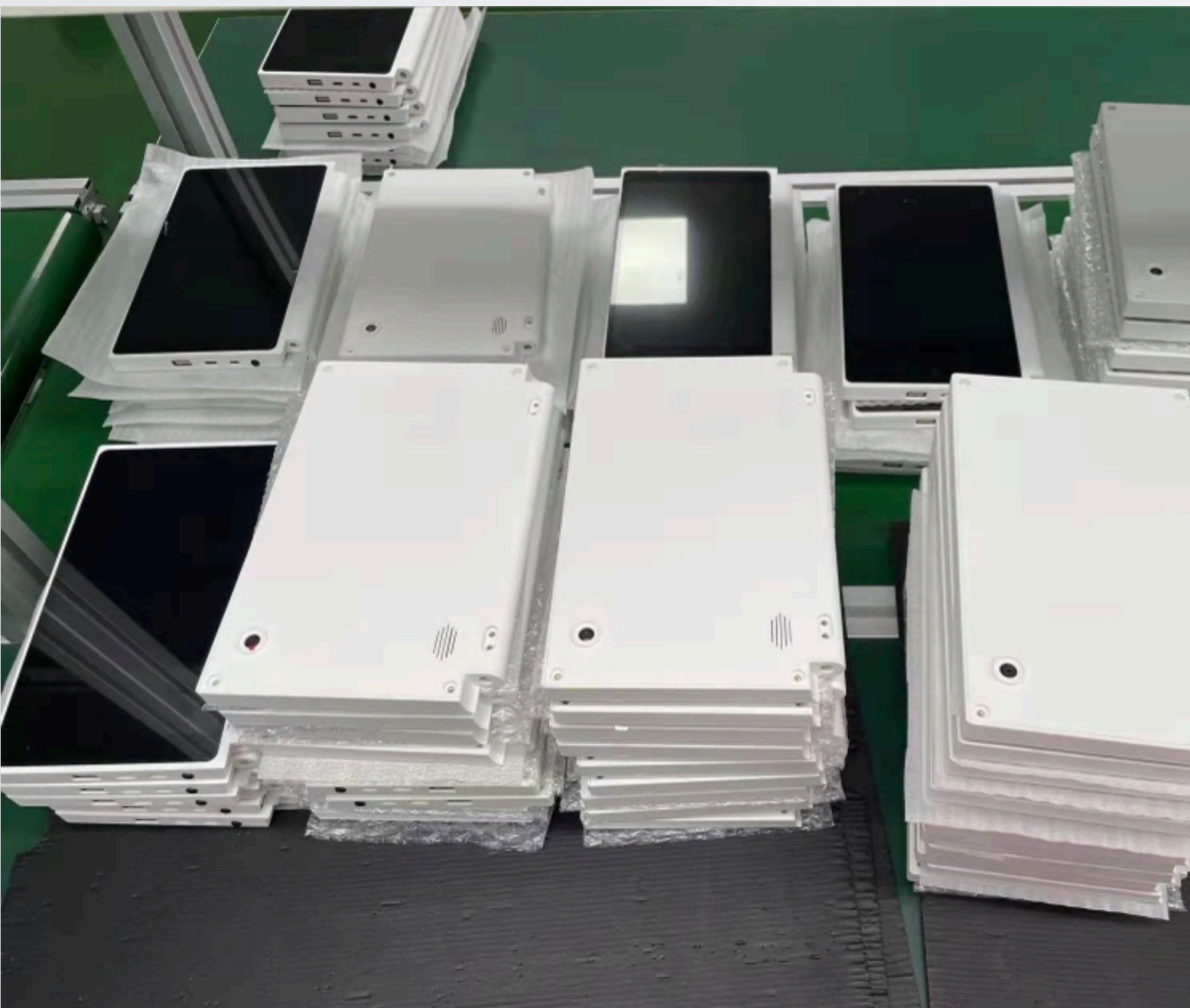
- We built a mobile shell on top of Raspberry Pi OS written in **Qt** (hence the name: Qt + Pi = CutiePi)
- Driver and device tree upstreamed
- github.com/cutiepi-io/cutiepi-shell





About Supply Chain Disruptions

- In hindsight, maybe launching the product during a global pandemic isn't **the best idea**
- We owe it to our backers
- Start small, and work closely with your suppliers





Thank you!

- Project idea or question?
penk@cutiepi.io
- Visit shop.cutiepi.io and use discount code **UbuntuSummit22**
- Interested in developing or porting?
github.com/cutiepi-io/cutiepi-doc