

Misc News from the GTA04 family...

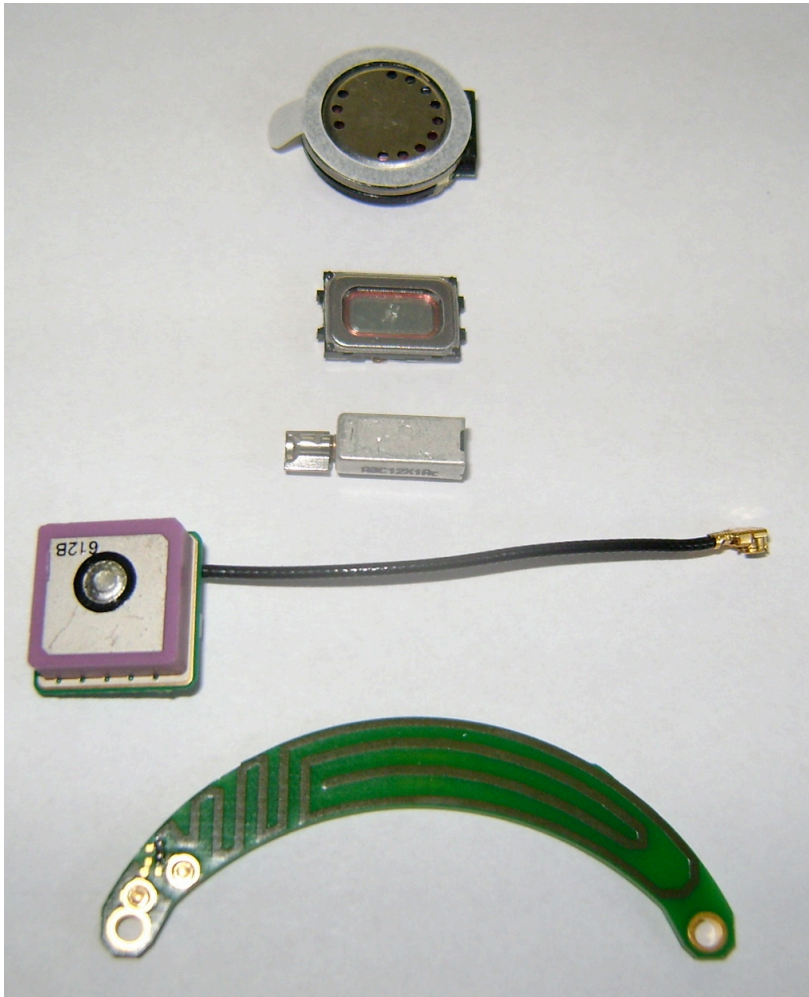
Nikolaus Schaller, Golden Delicious Computers
OpenPhoenix Hard & Software Workshop
Garching, 30. 11. 2013

GTA04A5

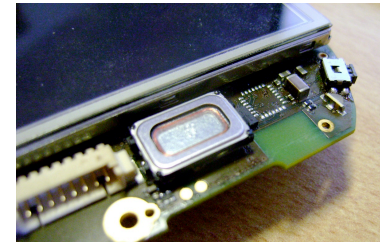
No stock of GTA04 but some demand

- The last GTA04A4 from the Group Tour was shipped in April 2013
 - There are some second choice boards (with minor defects)
 - But nothing for ca. 20-30 people showing demand by the “Wishlist”
- ➡ new Preorder campaign started last week

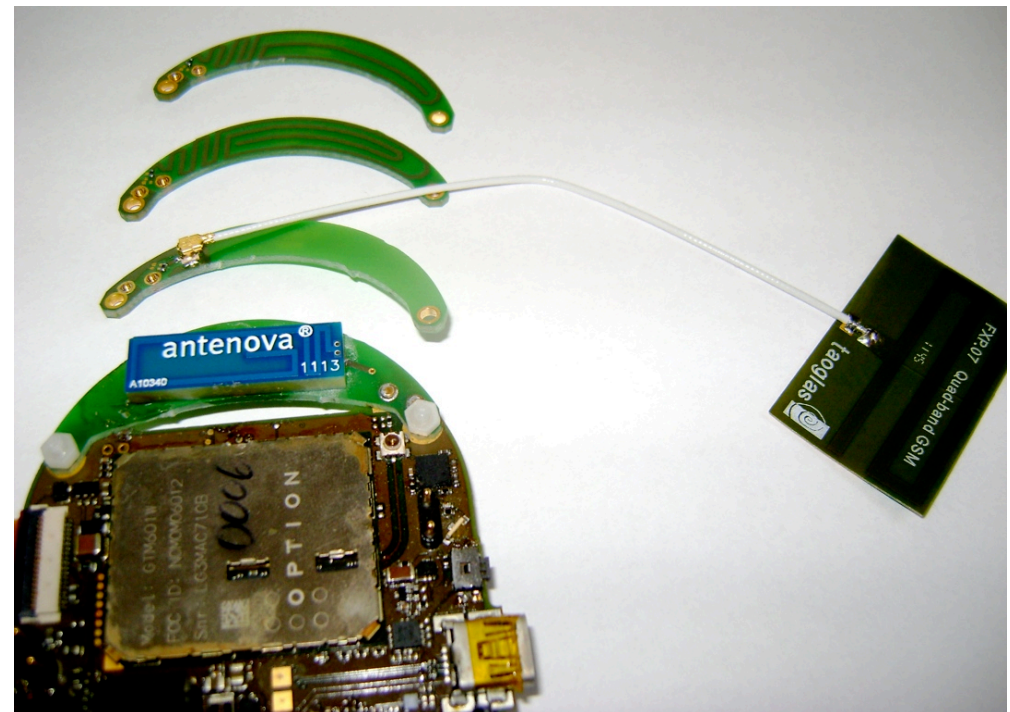
Case Kit



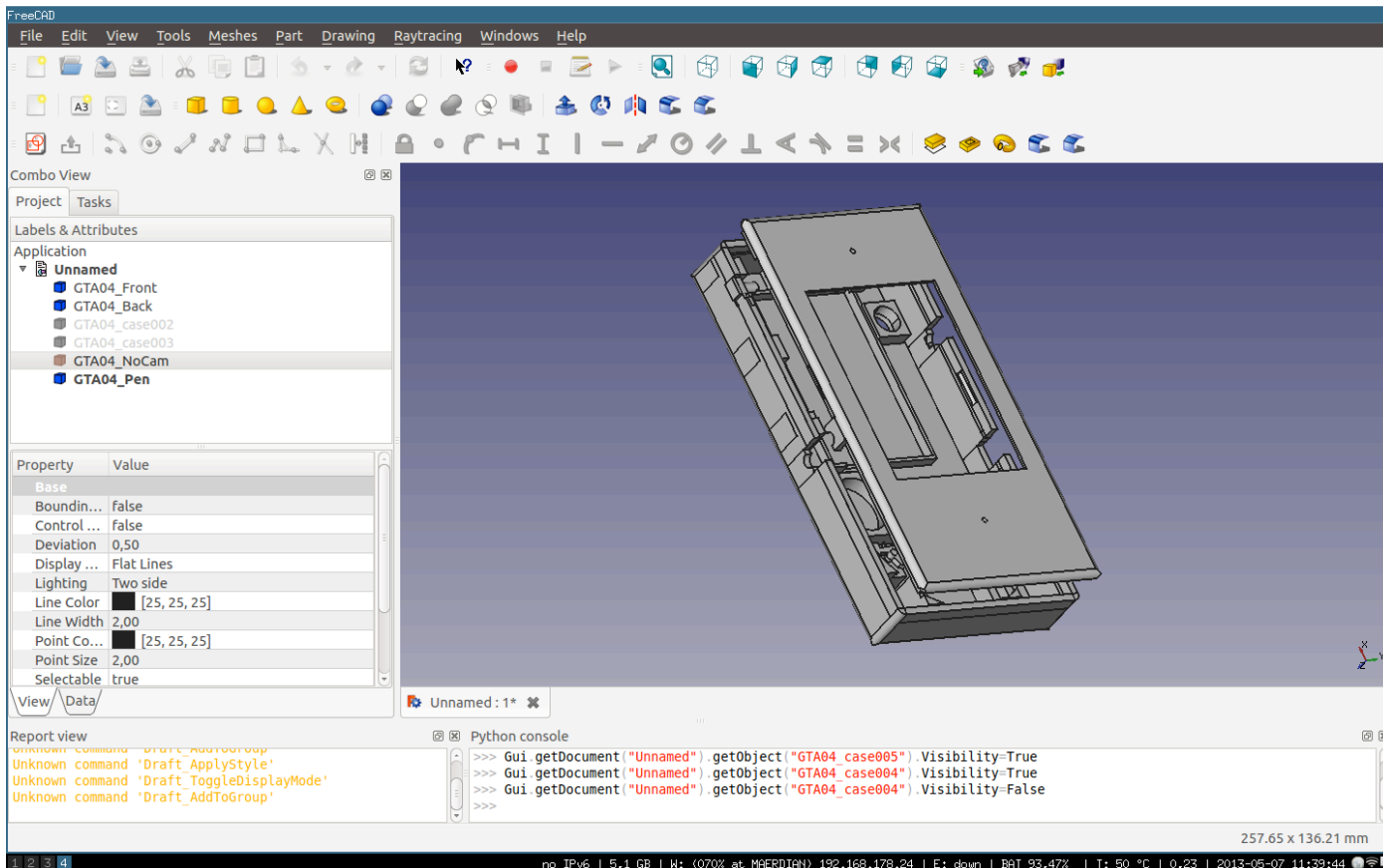
GTA04A5 notwendig:



Antennenoptimierungen notwendig:

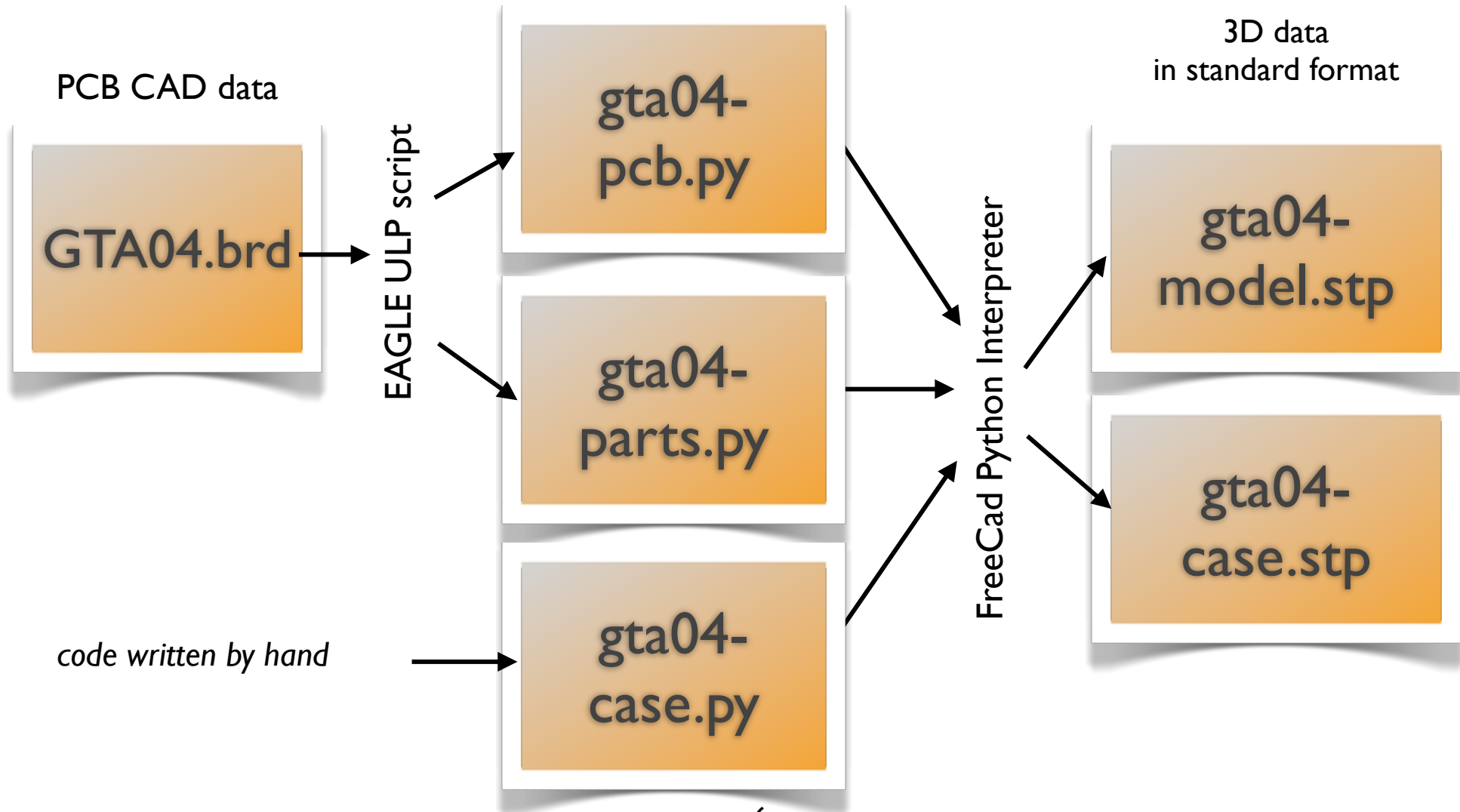


Case replacement



How it works

Python scripts



Getting replacements for obsolete parts

Component	Status Nov 2013
Charger FETs	
BMA180	BMC050/150
W2SG0004	W2SG0084
Vibramotor (Case Kit)	
Camera module	
Earpiece receiver (Case Kit)	
Stereo speakers (Case Kit)	
UMTS antenna (Case Kit)	Antenova module
Case	3D print
GPS antenna (Case Kit)	
Battery	



replacement part found



no replacement found
but we can try
component brokers



no source or
replacement found yet

Software

2012

Software

2013

- Kernel 3.4/3.5 sind stabil 3.12 is mature and almost stable
 - erste Experimente mit Kernel 3.6 (Device Tree) 3.13 started!
 - QtMoko v50 robust und stabil QtMoko v56
 - SHR robust und stabil
 - Replicant (Android 2.3) läuft Replicant 4.0 running!
 - weitere Projekte arbeiten im Hintergrund no news :(
- first drivers and patches are upstream!!!

2012

Was fehlt noch?

(what is still missing)

2013

- Kamera-Treiber der funktioniert **working (with limitations)**
- Flash/Torch-Treiber **still open**
- FM-Transceiver-Treiber **Receiver is working**
- IrDA-Treiber **still open**
- Replicant (Android) 4.x **working!**
- webOS, Maemo/Meego/Mer/Jolla, Plasma Active, ... **still nobody?**
 - + perfect power management**
 - + (free) GPU drivers**

Public Events

Public Events 2013 with GTA04

- FOSDEM 2013,
Brussels
- LinuxTag 2013,
Berlin
- OHSW 2013,
Garching



Our Basic Problem

Mass production: GTA04A5

- GTA04A5 revision of PCB is ready to go to production
- Price is still high due to small batch size
- therefore it is not a consumer mass product
- there are not enough orders to start a new batch
(200 units could be produced within ca. 8-10 weeks)



Projects running into the same problem

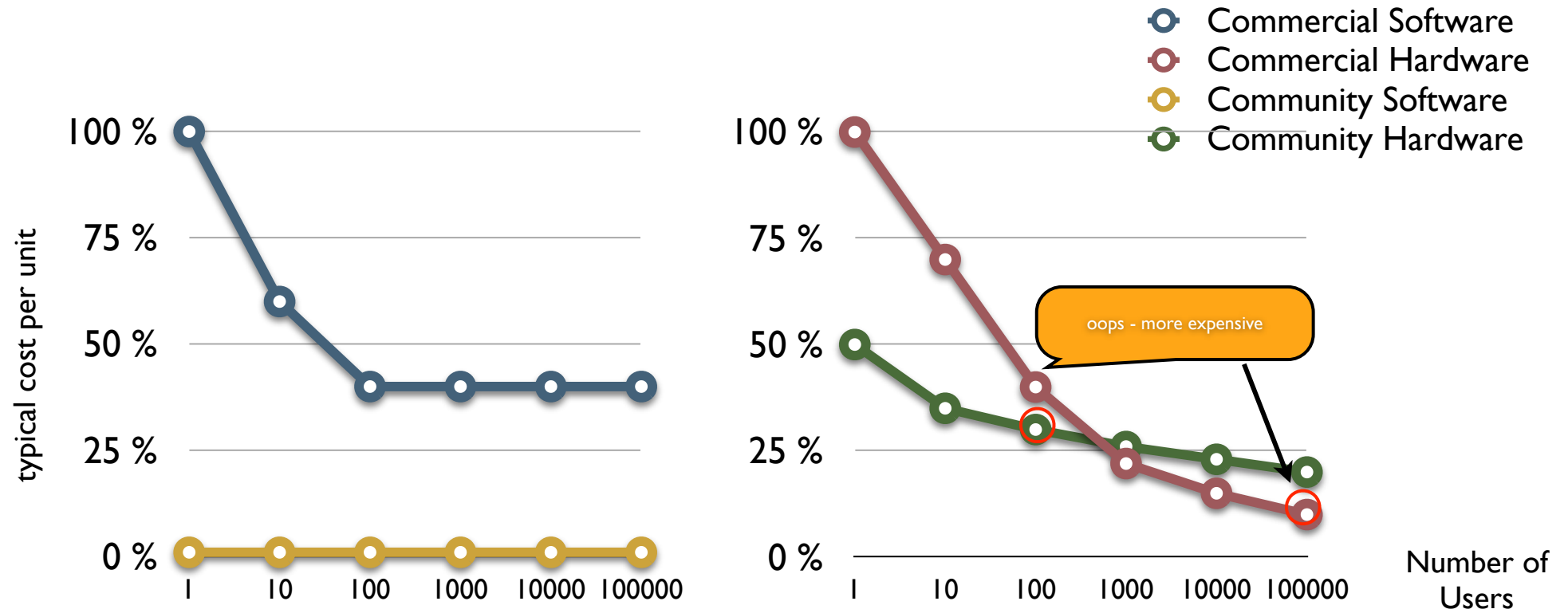
- Qi/Ben Nanonote, Always Innovating, Vivaldi/Spark tablet
- Only OpenPandora is doing better
- starting with verve, ending underfinanced, too expensive and with “old” technology

Why?

Community Hardware has an inherent cost problem (I)

Cost	Development	Production	Distribution
Commercial Software	high	low	low
Community Software	lower (volunteers, less quality management, documentation)	none (everything online)	very low (downloads only)
Commercial Hardware	high	goes down with volume	medium
Community Hardware	lower (volunteers, less quality management)	higher due to low volume (and fair conditions)	same (shipment cost...)

Community Hardware has an inherent cost problem (2) due to low(er) production quantities

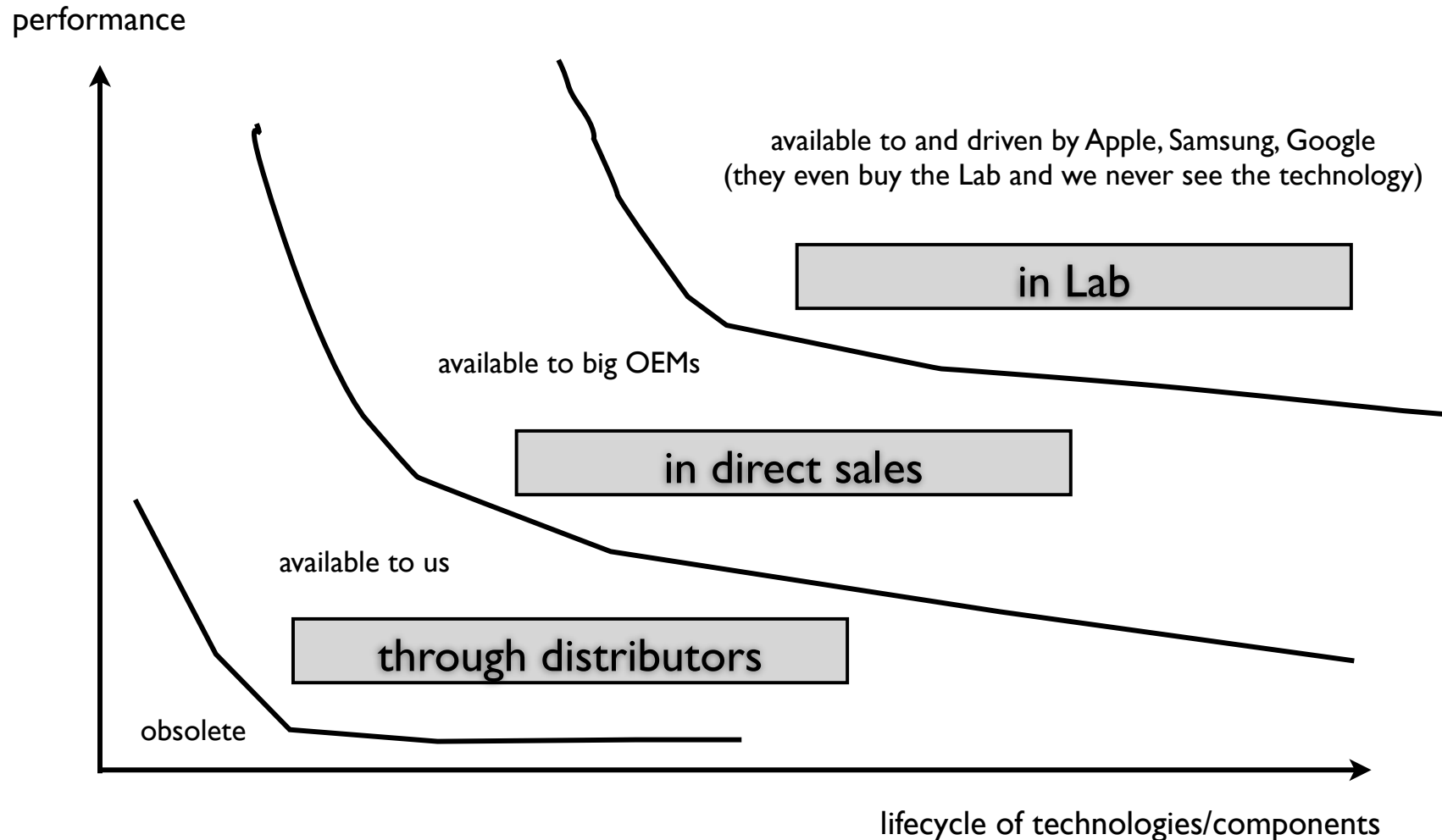


- Community Software is inherently cheaper than commercial
- People compare prices of production batch size 1 Mio-units vs. 100 units and find the commercial (closed) HW much cheaper than the community developed (open) device

- „,... too expensive!“, „,... scam!“, „,... Vivaldi announces 200 EUR“!
- there is no solution or „white knight“ - open hardware is and will be more expensive

How technology innovation works

e.g. Displays, CPUs,
material and
production
technologies



What happens...

- People compare what we can offer
- Complain either about high price or old technology
- Openness alone does not outweigh that
- Venture capital is not interested (we have high risk and no rewards for investors)

What could be successful?

- Do something unique (e.g. OpenPandora)
- be as open as possible
- if „we“ want something, „we“ must pay the higher price for „being different“ from the masses
- Neo900 fund-raising may be a new approach

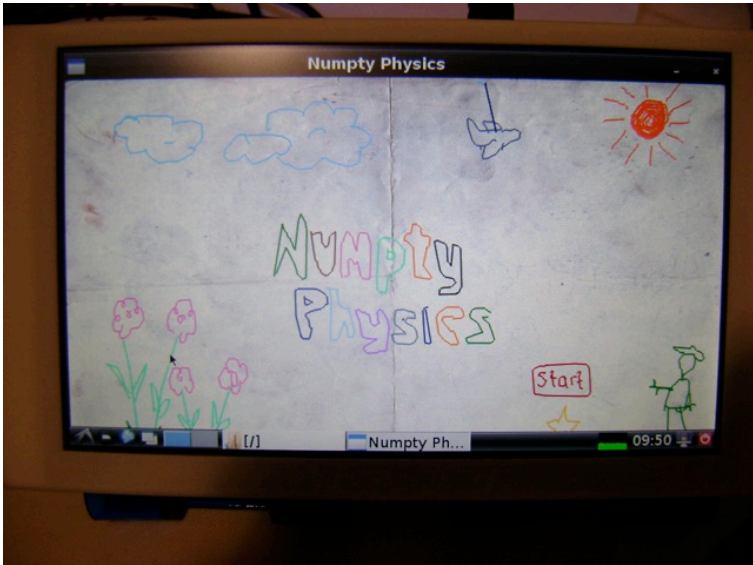
Other Devices

Letux 3704



- we learned that this type of devices must run Android (or the Free&Open variant Replicant)
 - because industrial users don't want Linux or Openness - they want to choose between experienced GUI programmers
- ➔ Replicant 4 for this device being worked on

Letux 7004

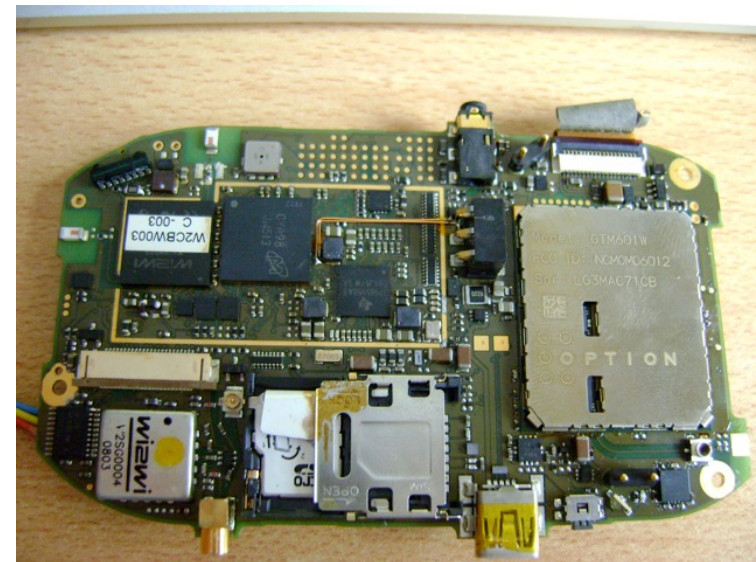


- power management issues solved
 - but device is too thick and too expensive compared to the plentifulness of tablets already flooding the world
- ➡ no further work planned

GTA04b8 study



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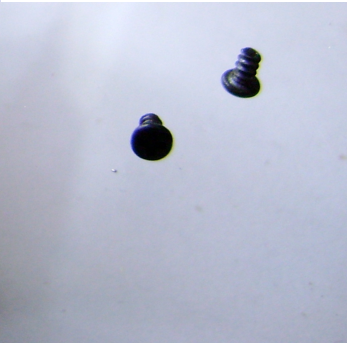
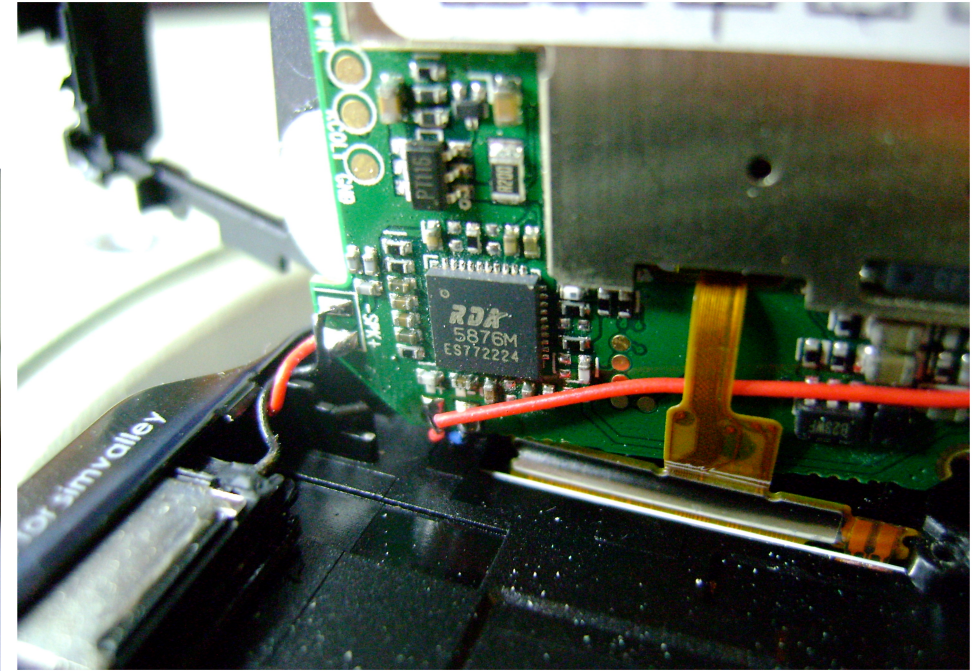
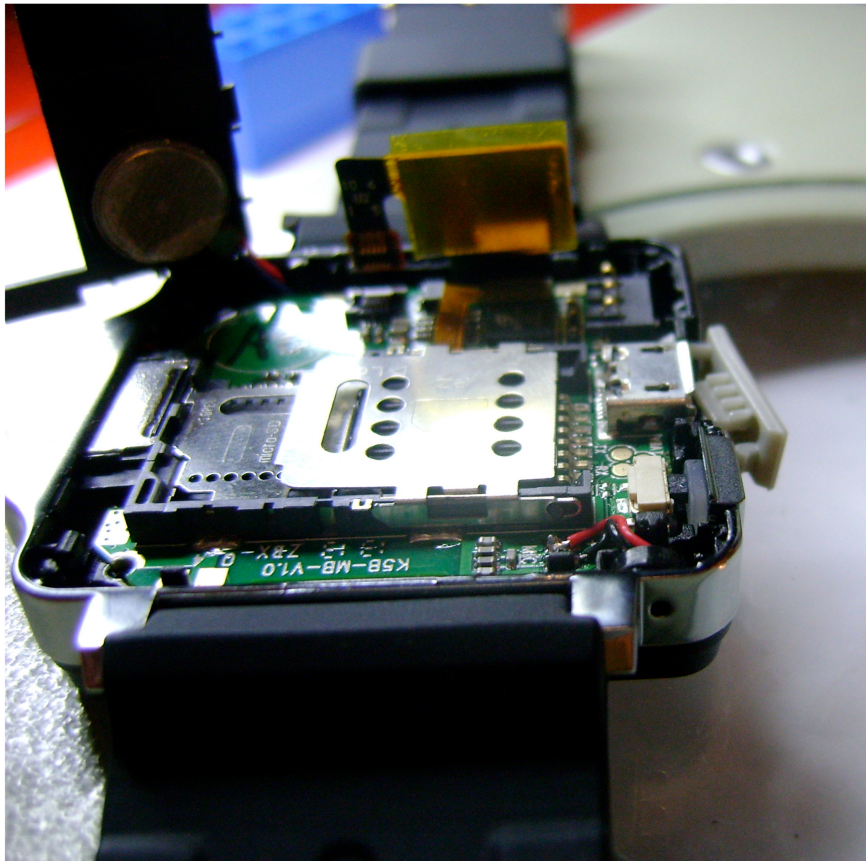
Analysis of the internals



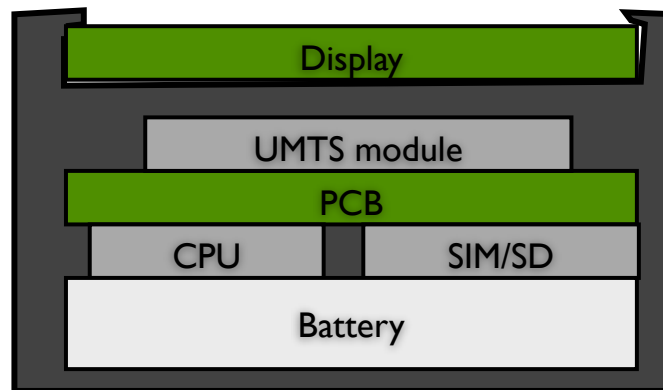
same SIM/SD reader as GTA01/02/04 :)



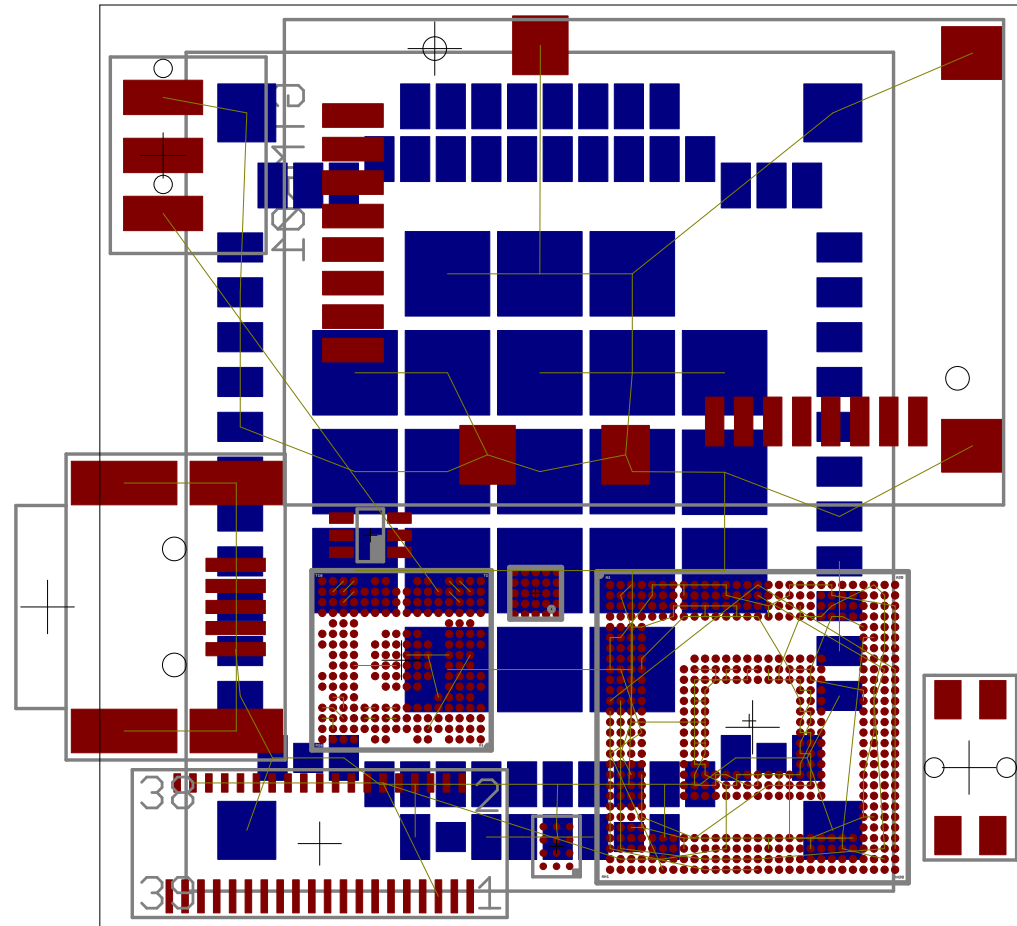
Analysis of the internals



Stacking concept



Yes, could fit



Our key problem again



water resistant, stainless steel case

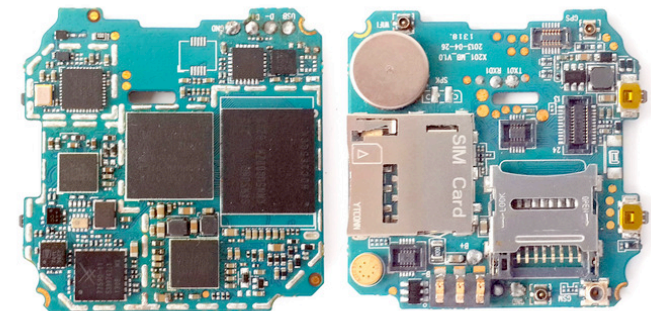
Dual Core ARM (MediaTek)

Android 4.2.2 @ 240x240px

@250-300 USD

shipping next week

people don't care about undocumented CPU



Let's see what next year
will have given us new
ideas and projects...