

Fingernail Displays

What happens if we put small displays on fingernails?

Type:

Research

Topic:

Fingernail Displays

Researcher:

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Status:

[planning](#)

Keywords:

[fingernail](#), [touch](#), [displays](#)

started:

2012-08-01



This wiki page documents ongoing research. Sometimes it does not.

Current Status (05/2013)

Prototype functional, working on code. CHI WiP poster presented at CHI.

Publications

- Wimmer, Raphael and Echtler, Florian. [Exploring the Benefits of Fingernail Displays](#). CHI 2013 Extended Abstracts

Related Work

- Su et al. [NailDisplay: Bringing an Always-Available Visual Display to Fingertips](#). CHI 2013
- Winkler, Martin and Steimle, Jürgen. [Fingernail displays: Handy displays at your fingertips](#). CHI 2013 Workshop "Displays Take New Shape: An Agenda for Future Interactive Surfaces", 2013.

To Do

- put figures on [openclipart.org](#)

Misc. Resources

Git Repository (private at the moment): https://gitlab.rafael.cc/fingernail_displays

E-Ink segmented displays: <http://www.digikey.com/product-search/en?FV=ffec8d22>

OLED module: <http://www.digikey.com/product-detail/en/ISC01P/360-2342-ND/2039169>

Another OLED module:

http://www.glyn.de/Produkte/Displays/OLED-Displays?q=M00931_VGM064032A0W02

HUD OLED display - expensive (400 USD) and extremely high resolution (~1800 dpi):

http://olightek.en.alibaba.com/product/476349700-210642598/0_6inch_SVGA_800_600_OLED.html

„Index finger better for pointing than thumb“, according to:

Wobbrock, J.O., Myers, B.A., and Aung, H.H. *The performance of hand postures in front- and back-of-device interaction for mobile computing. International Journal of Human-Computer Studies* 66, 12 (2008), 857-875.

Log

04.05.2013 German national radio station *Deutschlandfunk* reports on our research presented at CHI: <http://www.dradio.de/dlf/sendungen/computer/2096779/>

01.05.2013 Poster presentation at CHI.

10.02.2013 Our WiP was accepted. Along with the one from Taiwan and a workshop paper on the same topic by Jürgen Steimle et al., there will now be 3 (!) presentations on fingernail displays at CHI 2013. Obviously, a topic whose time has come.

22.01.2013 Apparently, researchers at National Taiwan University had the same idea and got their paper "[NailDisplay: Bringing an Always-Available Visual Display To Fingertips](#)" accepted as a note for CHI 2013. They also suggest using a fingernail display for mitigating the fat thumb problem. No real evaluation conducted :(.

09.01.2013 Submitted paper for CHI2013 WIP, presenting the concept and discussing research directions.

04.01.2013 Working on draft for CHI 2013 WIP.

03.01.2013 Soldered new connector for OLED.

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Last update: **08.03.2017 09:39**



