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The DIY cellphone.









DIY Cellphone

An exploration into the possibilities for individual construction and customization of the most ubiquitous of electronic devices, the cellphone. I investigate the implications of digital fabrication and open-source hardware for DIY practice. Research questions include:

- To what extent is it feasible for people to make the technology they use in their daily lives? What obstacles and difficulties will they encounter?
- How are devices (and the process of making them) transformed when they can be produced by the people who will be using them?
- How can we combine the flexibility of quick prototyping processes with the reproducibility and robustness of finished products?
- Who will be interested in making their own devices? Why? How can it relate to their existing skills and interests?



MAKE THE DIY CELLPHONE

See the instructions on the DIY Devices website.

PUBLICATION

David A. Mellis & Leah Buechley. 2014. <u>Do-It-Yourself Cellphones:</u> An Investigation into the Possibilities and Limits of High-Tech DIY. In Proceedings of the 32nd annual ACM conference on Human factors in computing systems (CHI '14).

AUTOBIOGRAPHICAL EXPLORATION

The DIY cellphone has been my primary mobile device for over two years. In the process, I've gone through a number of iterations, refining the design based on my personal experience and requirements.

WORKSHOPS

I've taught multiple workshops in which participants have made their own versions of the DIY cellphone. They are described in more detail in the DIY cellphone paper.

ONLINE DISSEMINATION

The DIY cellphone is open-source (<u>software</u>, <u>hardware</u>) and <u>plans for making it</u> are available online. It has been made and modified by people around the world, including America, Germany, and Shenzhen (China). I've created an <u>online forum</u> for those building the phone, which has attracted a small international community.

PRESS

Make Magazine: "Open-Source Cellphone" (Vol. 38, March 2014)

Wired UK: <u>How to make your own mobile phone</u> by Tom Cheshire (Nov. 12, 2012)

BBC Outriders Podcast: (Dec. 10, 2013). [mp3]

David A. Mellis: DIY Cellphone

New Scientist: <u>Making your own phone is easier than you might think,</u> Lisa Grossman (Mar. 21, 2013)

ABC News: Make Your Own Cellphone for \$120 in Parts, Plus SIM Card: It's Not Rocket Science, Karin Halperin (Apr. 23, 2013)

Hamburger Abendblatt: <u>Handys aus Holz, Stoff und Leder selber</u>
<u>bauen (Build cell phones from wood, fabric and leather itself)</u> (Aug. 14, 2014)