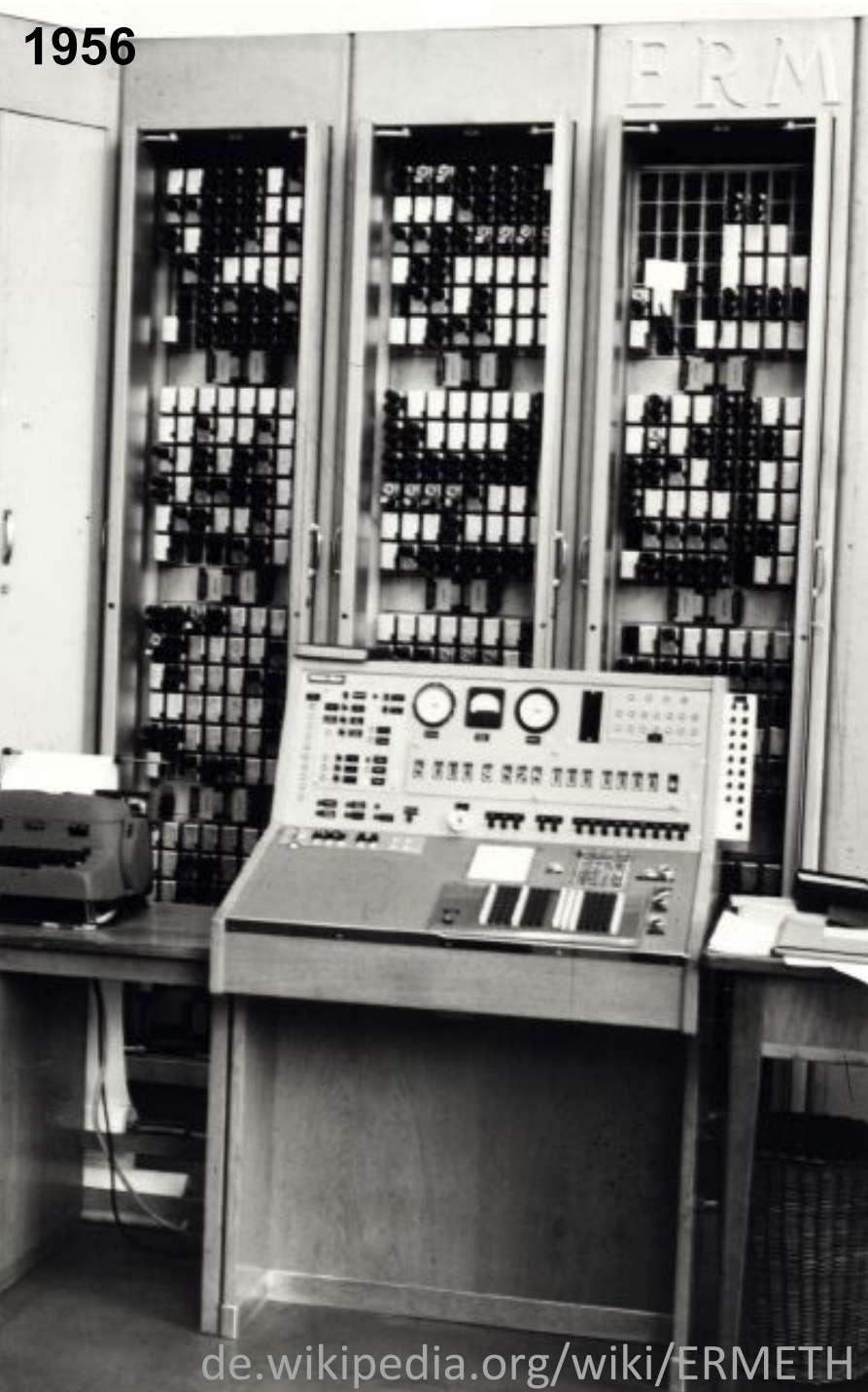


Open Source IoT & Bottom-up Innovation

thomas.amberg@yaler.net

1956



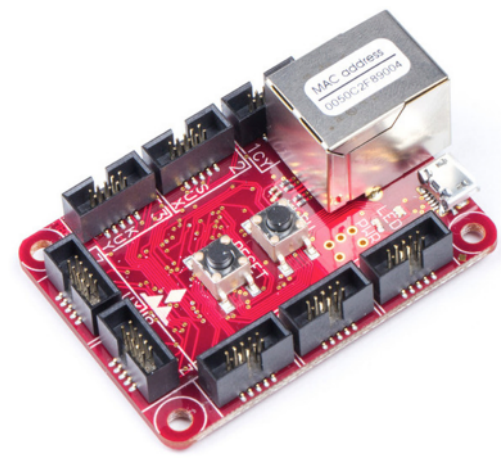
de.wikipedia.org/wiki/ERMETH

1990



Archiv D-INFK

2012



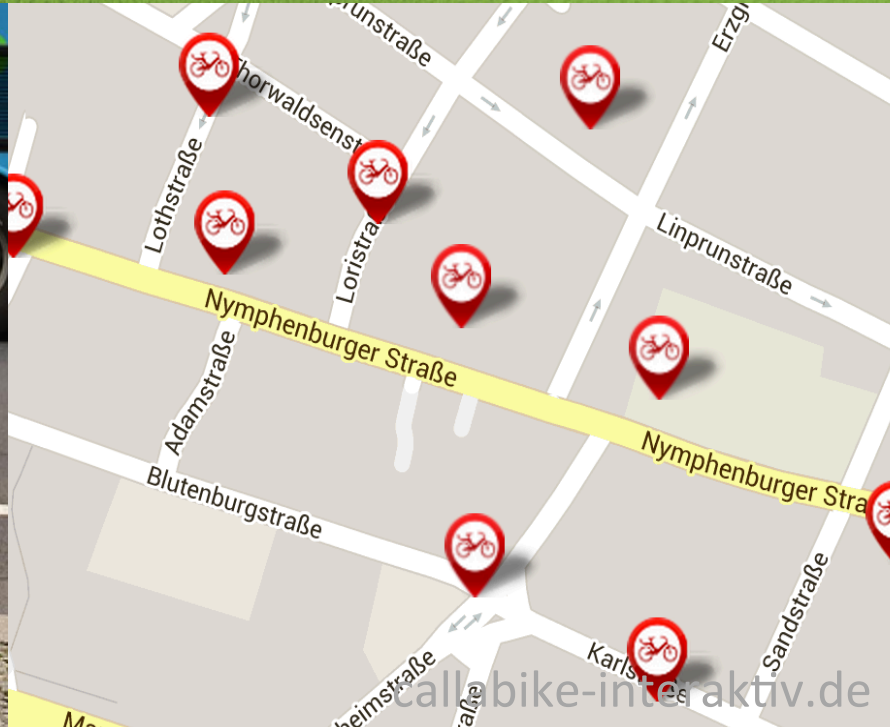
mountaineer-boards.com

Internet of Things (IoT)

Internet-verbundene Computer, mit Sensoren und Aktuatoren

Internet dringt in die reale Welt ein

Dinge werden zu Web-Services





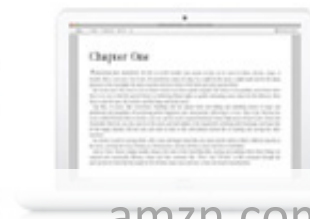
Honda Jazz Hybrid



Economy

mobility.ch

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amzn.com/kindle

Mike Kuniavski: Service Avatars



Amazon Dash Button - Offi x


https://www.amazon.com/oc/dash-button/

amazon

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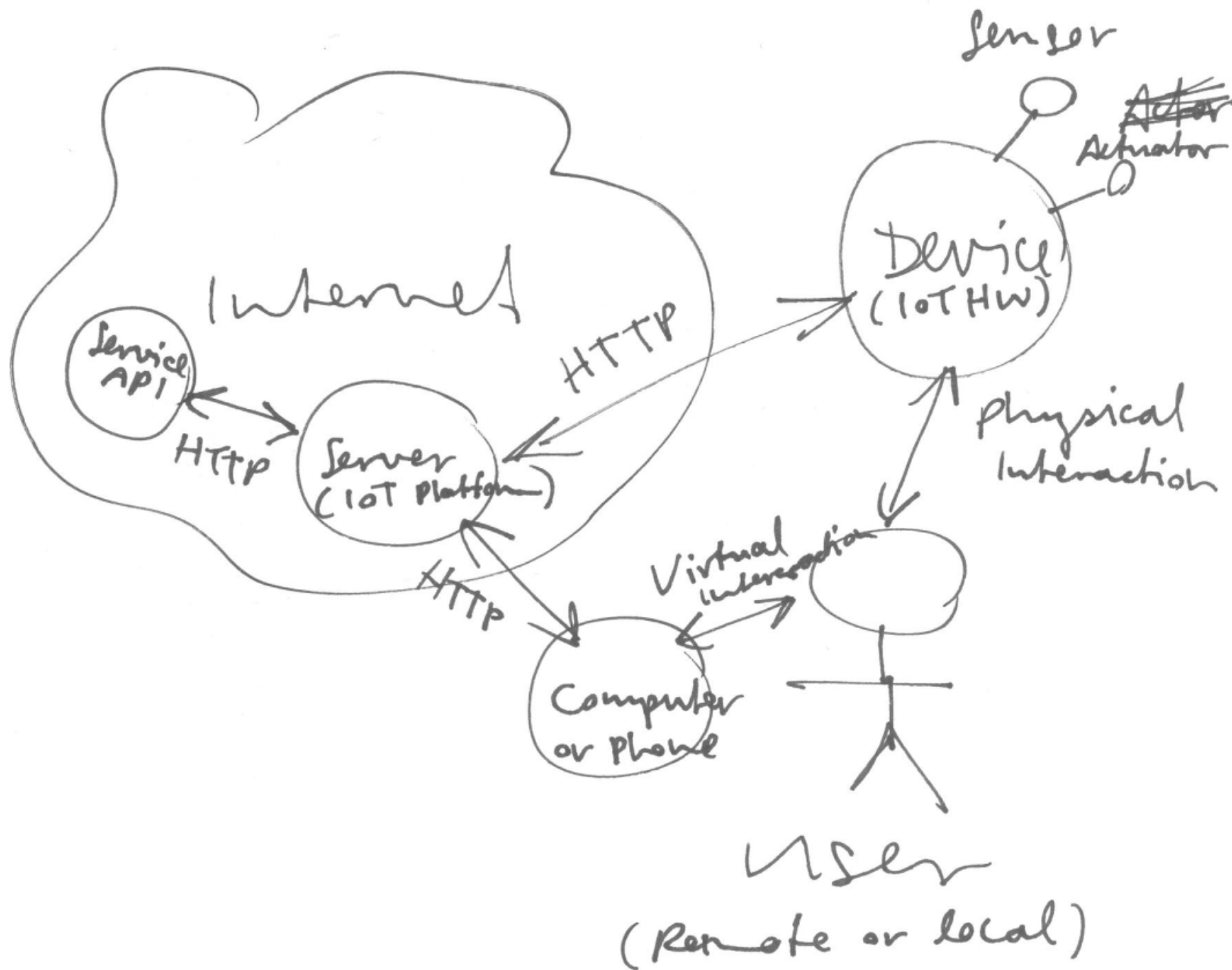
if
UP

then




**When I don't get
much sleep, text my
colleague to let her
know I'll be cranky.**









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www.meetup.com/find/?allMeetups=true&radius=50&userFreeform=Zürich%2C+Switzerland&mcName=Zürich%2C+CH&la...

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a Meetup Group



Your Next Meetup

JUN
23


IoT Zurich
Make IoT ZH at MechArtLab
Tuesday, June 23 at 8:00 PM

26

Meetups in your groups

415

Meetups nearby



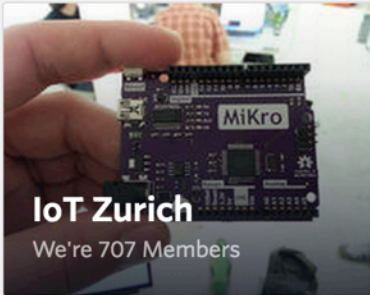
within 50 miles of Zürich, CH

Groups


Calendar

Your Meetups


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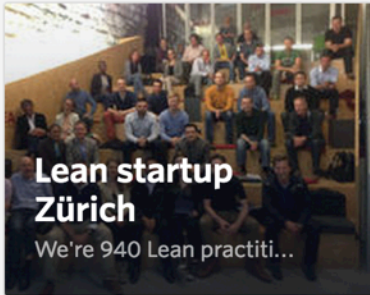
IoT Zurich
We're 707 Members



3D Printing Zürich
We're 348 Members



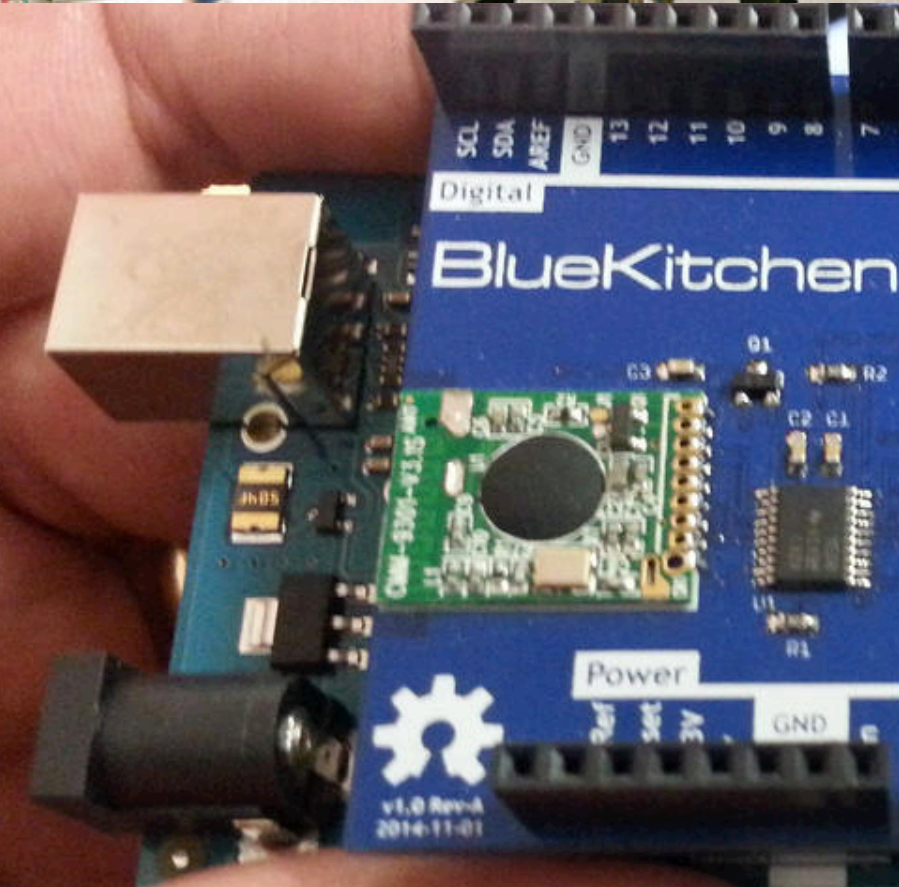
Hardware Startup Zürich Meetup
We're 97 Members



Lean startup Zürich
We're 940 Lean practiti...



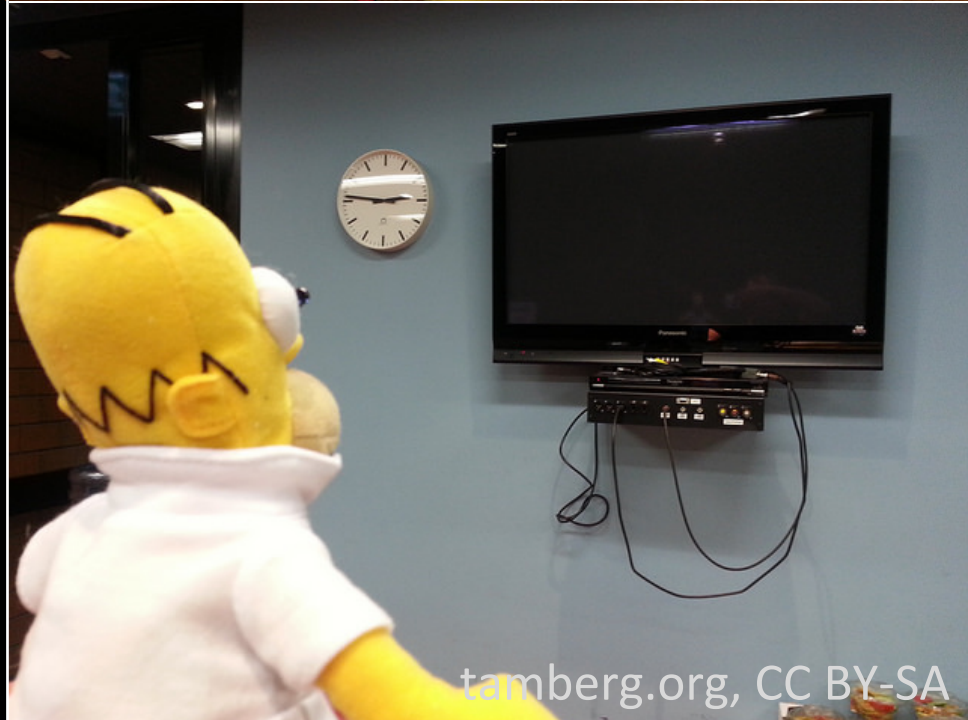
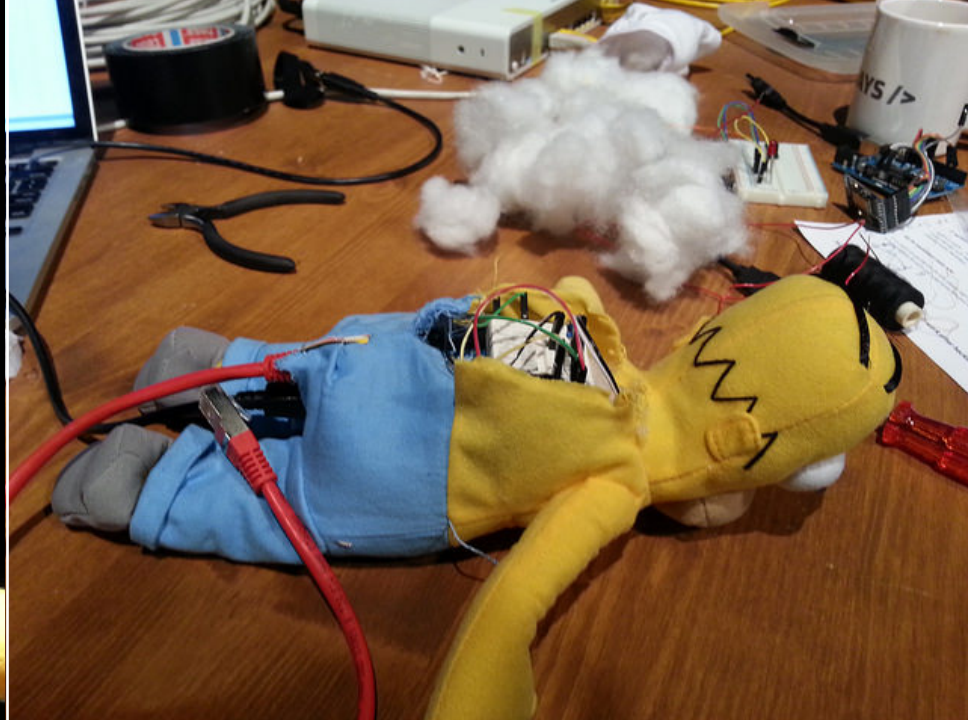
Boaz Heller, CC BY-SA



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mikro-labs.com, bluekitchen-gmbh.com

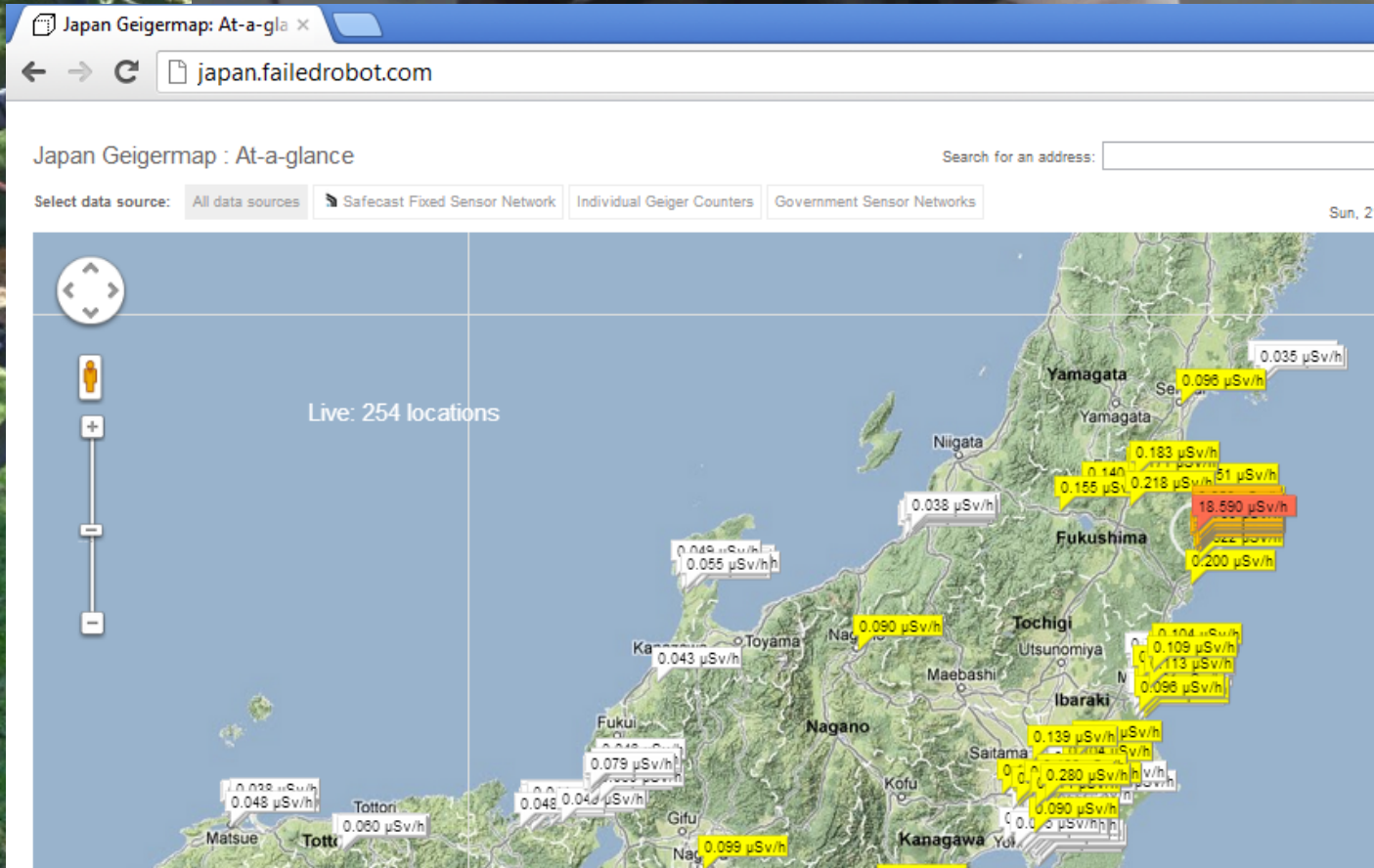


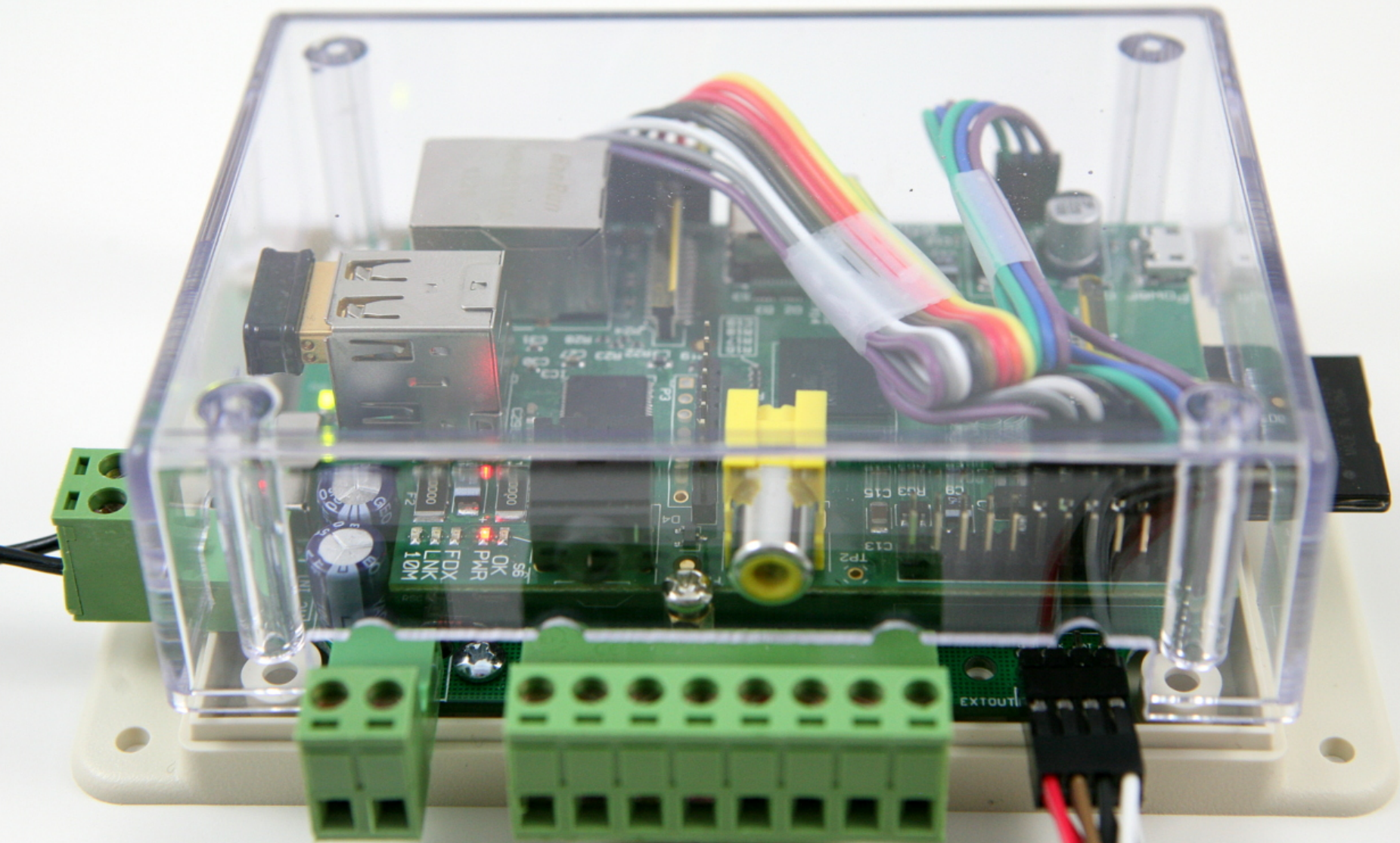


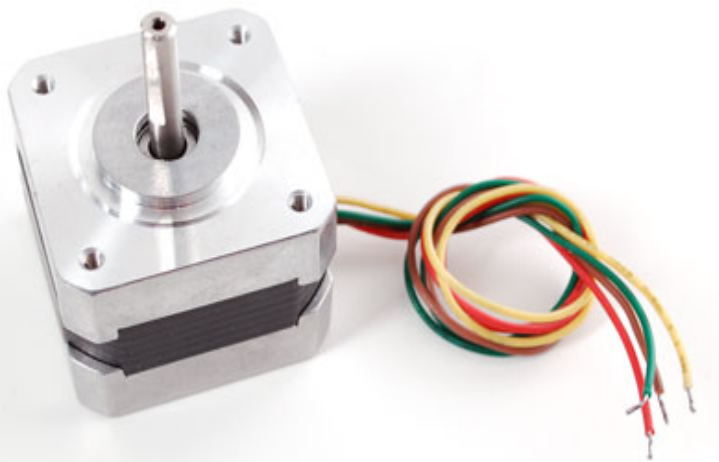
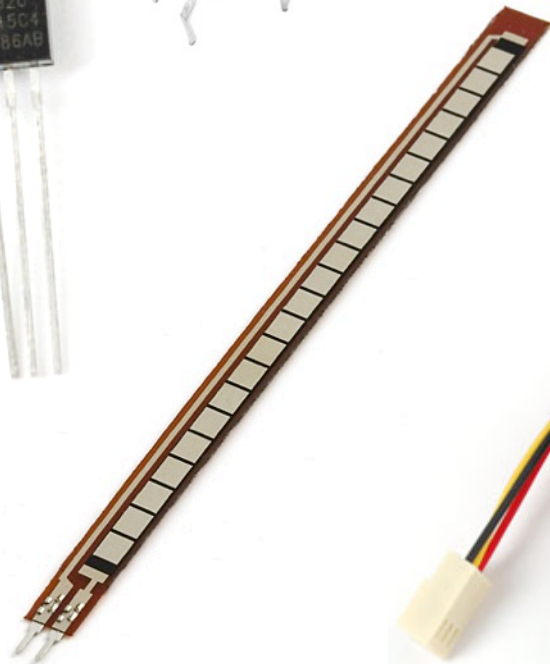
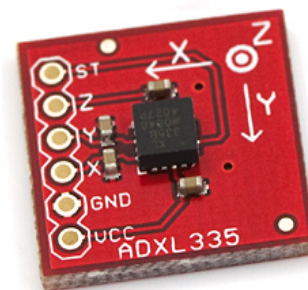


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A Nation Of Makers



European Maker Faire





Massimo Banzi

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Intel CEO Announces Collaboration with Arduino to Inspire Creativity, Learning and Invention with Makers and Students

Posted by IntelPR in Intel Newsroom on Oct 3, 2013 4:00:10 AM

Introduces First Intel-Based Arduino-Compatible Development Board; Announces Donation to 1,000 Universities Worldwide

MAKER FAIRE ROME, Oct. 3, 2013 – Intel Corporation CEO [Brian Krzanich](#) today announced a collaboration agreement with [Arduino LLC](#), the leading open-source hardware platform in the maker and education community. Krzanich also unveiled the Intel® Galileo board, the first product in a new family of Arduino-compatible development boards featuring Intel®




Arduino.cc

Patents

www.makerbot.com/legal/patents/

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Patents

MakerBot Industries, LLC is a world leading manufacturer of 3D printers. The following listings serve as notice under 35 U.S.C. 102(b)(2).

MakerBot Replicator Desktop 3D Printer (Fifth Generation)
U.S. Pat. Nos. 6,004,124, 7,384,255.
Additional patent applications pending.

MakerBot Replicator Z18 3D Printer
U.S. Pat. Nos. 6,004,124, 6,722,872, 7,384,255.
Additional patent applications pending.

MakerBot Replicator Mini Compact 3D Printer
U.S. Pat. Nos. 6,004,124, 7,384,255.
Additional patent applications pending.

MakerBot Replicator 2 Desktop 3D Printer
U.S. Pat. Nos. 6,004,124, 7,384,255, D677723.

MakerBot Replicator 2X Experimental 3D Printer
U.S. Pat. Nos. 6,004,124, 6,749,414, 7,384,255, D677723.

MakerBot Digitizer Desktop 3D Scanner
Patent applications pending.

Help

Twitter / josefprusa: So I c X

Twitter, Inc. [US] https://twitter.com/josefprusa/status/24852983...

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Josef Jo Průša
@josefprusa

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So I called @makerbot support and asked. Replicator 2 is NOT Open Source! #FAIL #reprap :-(\ I'm sad! /cc @bjepson @adafruit @make @hackaday

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11:11 PM - 19 Sep 2012

Makerspace | DARPA MENT x

makerspace.com/press/darpa-mentor-award-to-bring-making-to-education

MENTORing Kids into Makers

Stocking Up on Tools and Materials (for Feedback)

DARPA MENTOR Award to Bring Making to Education

By Dale Dougherty On January 16th, 2012 · 11 Comments

O'Reilly Media's **Make division**, in partnership with **Otherlab**, has received an award from The Defense Advanced Research Projects Agency (DARPA) in support of its Manufacturing Experimentation and Outreach (MENTOR) program. The award will support the development of a new Makerspace Playbook, a guide for educators and makers to help them understand the challenges involved in creating a makerspace.

Want to make a makerspace?

Check out our playbook. It covers many of the challenges involved in creating a



Twitter / maltman23: It's o x

Twitter, Inc. [US] https://twitter.com/maltman23/status/1869974701...

26 # 13





Mitch Altman
@maltman23



It's official. I'm greatly saddened I won't be helping at US Maker Faires after they applied for and accepted a DARPA grant.

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66

FAVORITES

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4:04 AM - 3 Apr 2012



Dawn Danby CC BY-NC-ND



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London Tech City



Alexandra D-S



5600+ Members

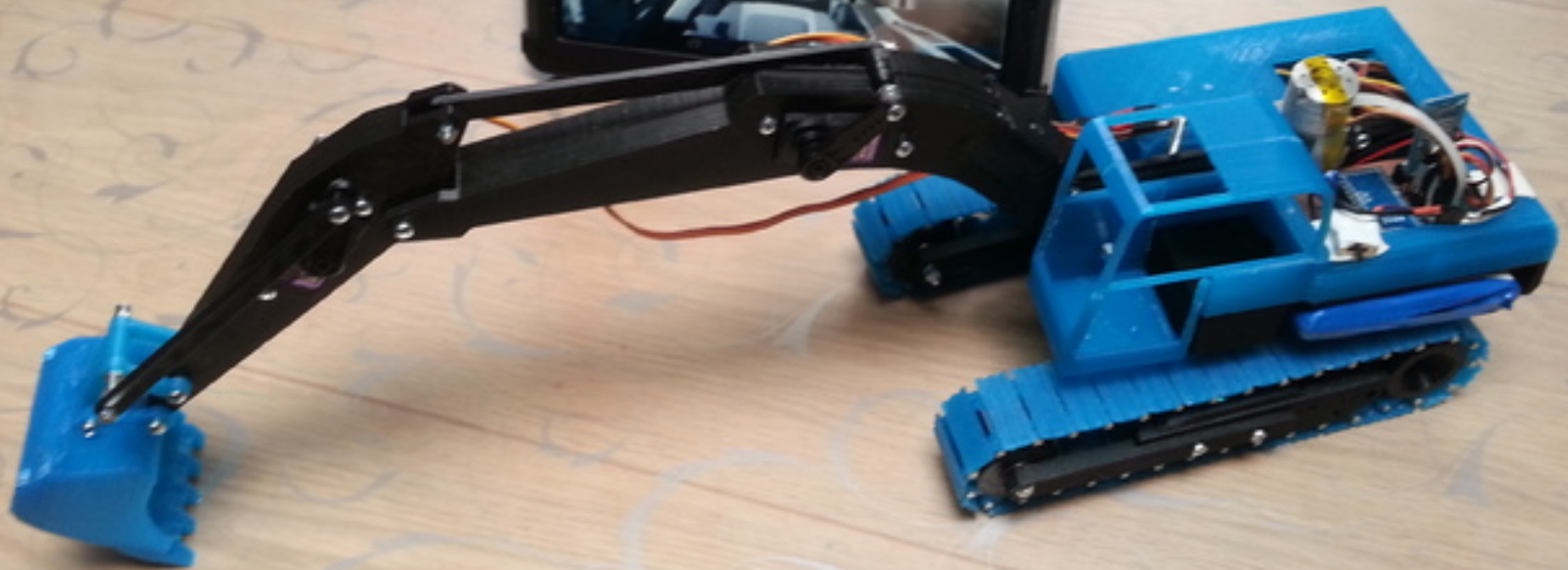
Barcelona Fab City



Fab Lab Zürich




3D Printed Remote Controlled Toy

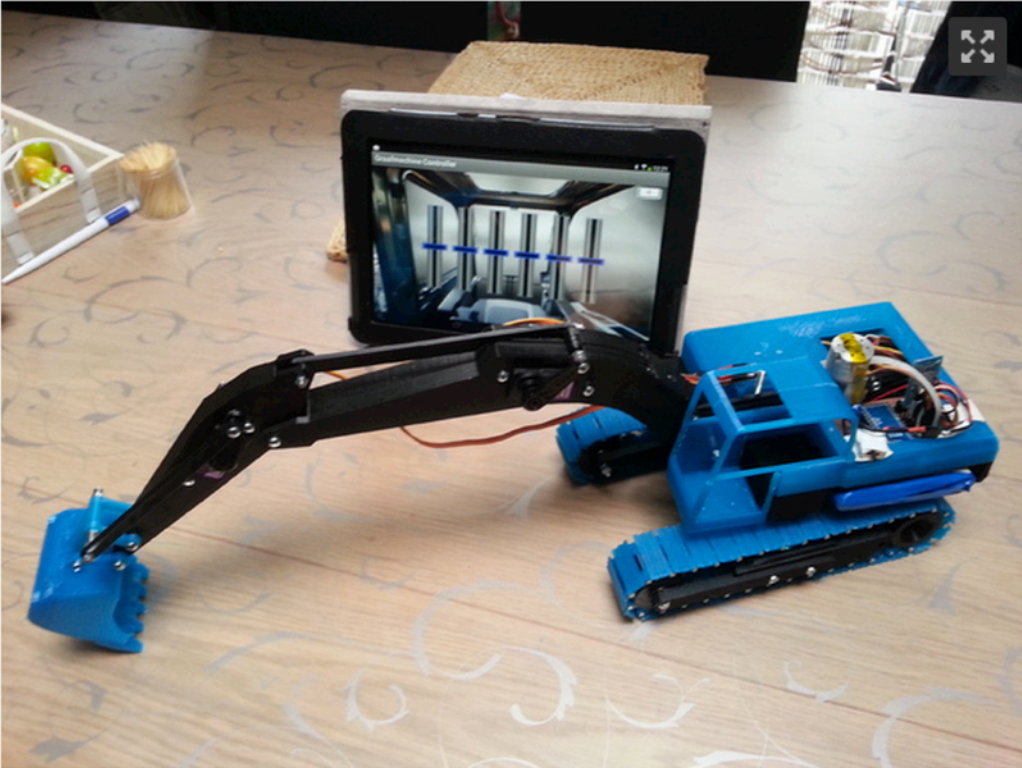


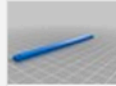




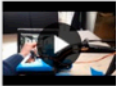

Excavator Bluetooth by Bla x


www.thingiverse.com/thing:285559





Excavator Bluetooth
by Blackline, published Mar 31, 2014





 **Thing Info**

 **Instructions**


 **Thing Files**

8
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0
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303
Collections


0
Remixes

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289

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303

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8

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0


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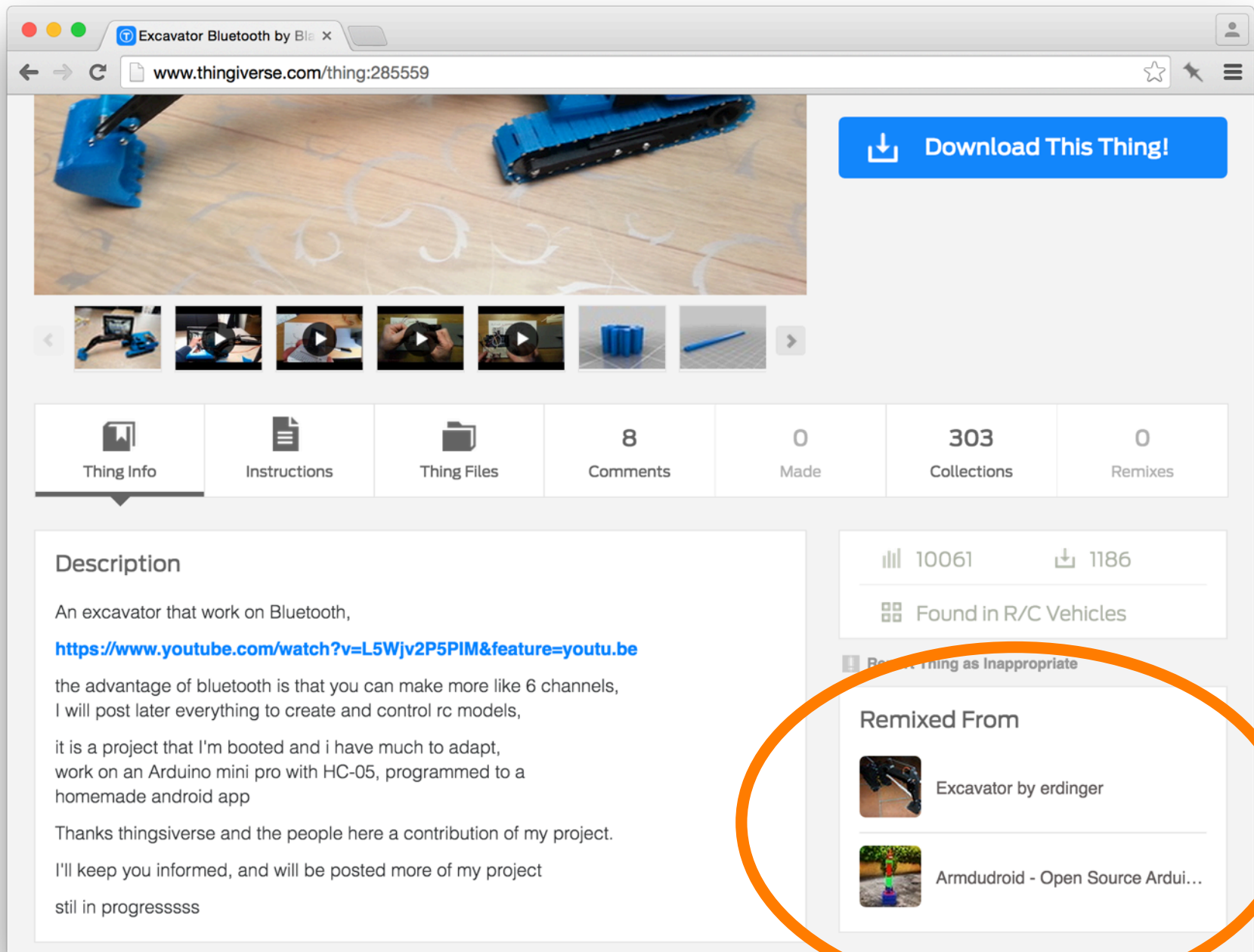
13

 Remix It

0


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Armdudroid - Open Source








www.thingiverse.com/thing:81830





Armdudroid - Open Source Arduino and Android Controlled Robotic Arm
by Whatakuai, published Apr 30, 2013








 Thing Info

 Instructions


 Thing Files

23
Comments


1
Made

320
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1
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193

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320

 Comment


23

 I Made One


1


 Watch

18

 Remix It

1

 Share

 Download This Thing!

Laser-cut DIY Bio Lab Equipment



The image displays a variety of custom-built laboratory equipment made from laser-cut wood and acrylic. The items include:

- Hard Drive Centrifuge:** A device that repurposes a hard drive platter as a centrifuge rotor, with four red-tipped tubes mounted on it. It features a power switch and a speed control knob.
- Incubator:** A box with a digital display and a fan, designed to maintain a constant temperature for samples.
- Pipette:** A clear plastic pipette with a black plunger, used for precise liquid measurement.
- Hand-Drop Counter:** A device with a black handle and a digital display, used for counting individual drops of liquid.
- Test Tube Rack:** A wooden rack designed to hold multiple test tubes.
- Other components:** A small electronic circuit board, a power supply unit, and various cables and connectors.

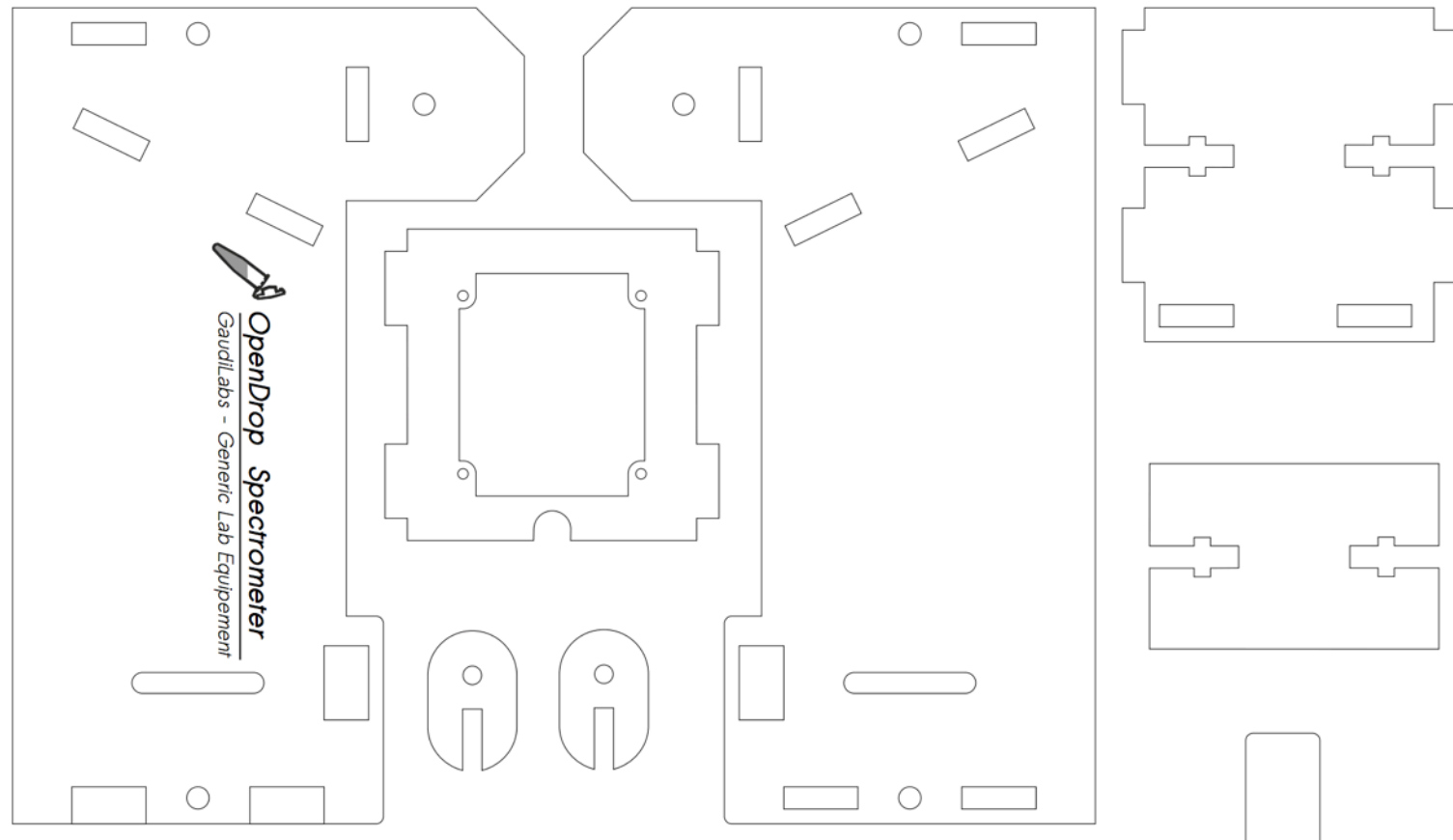
The equipment is shown on a white surface, highlighting the intricate laser-cut details of the wooden components.

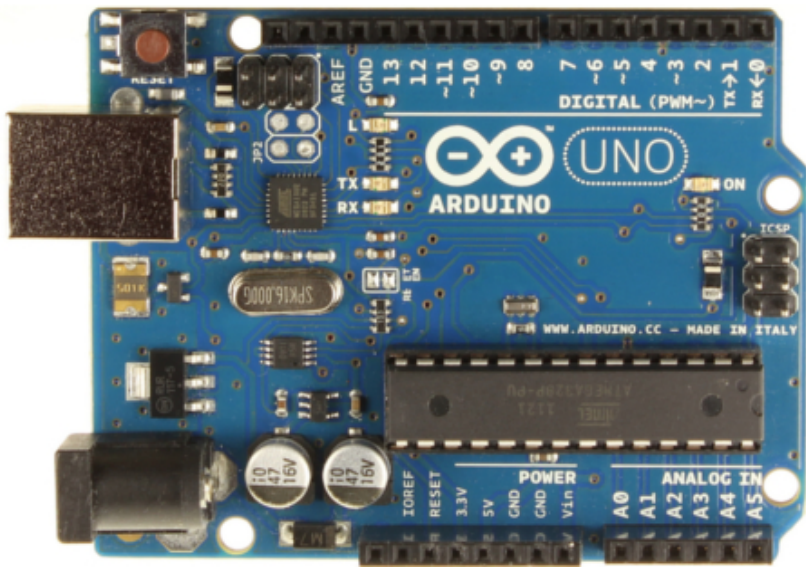
gaudi.ch/GaudiLabs, CC BY-SA

OpenDrop - Do It Your Self Microvolume Spectrophotometer

V2.0, 2015

by GaudiLabs

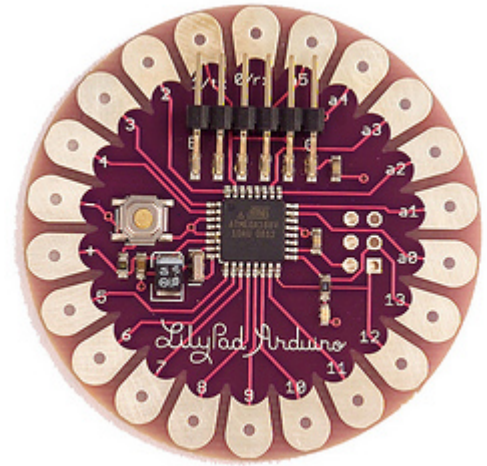




arduino.cc/en/Main/arduinoBoardUno



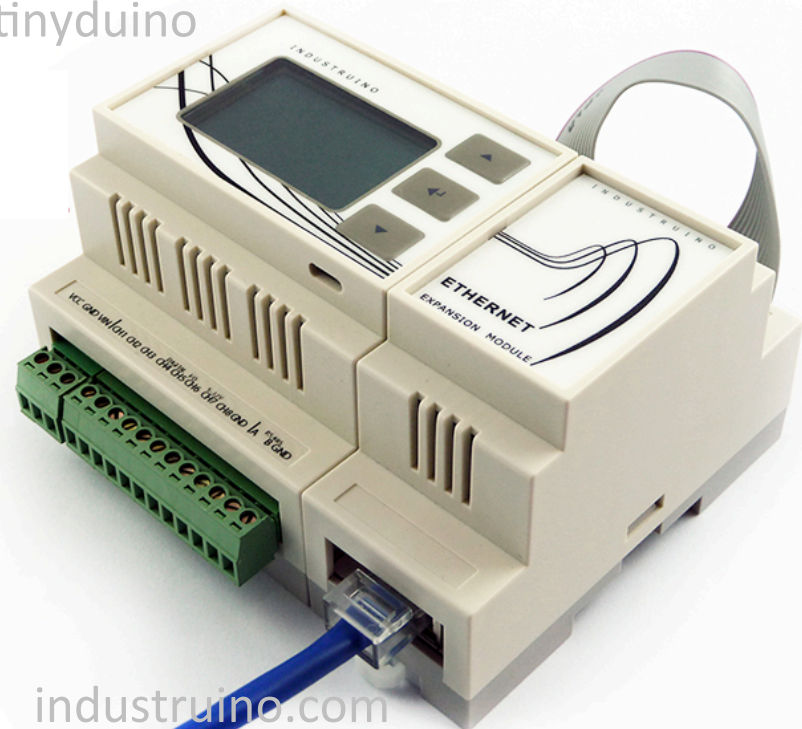
tiny-circuits.com/products/tinyduino



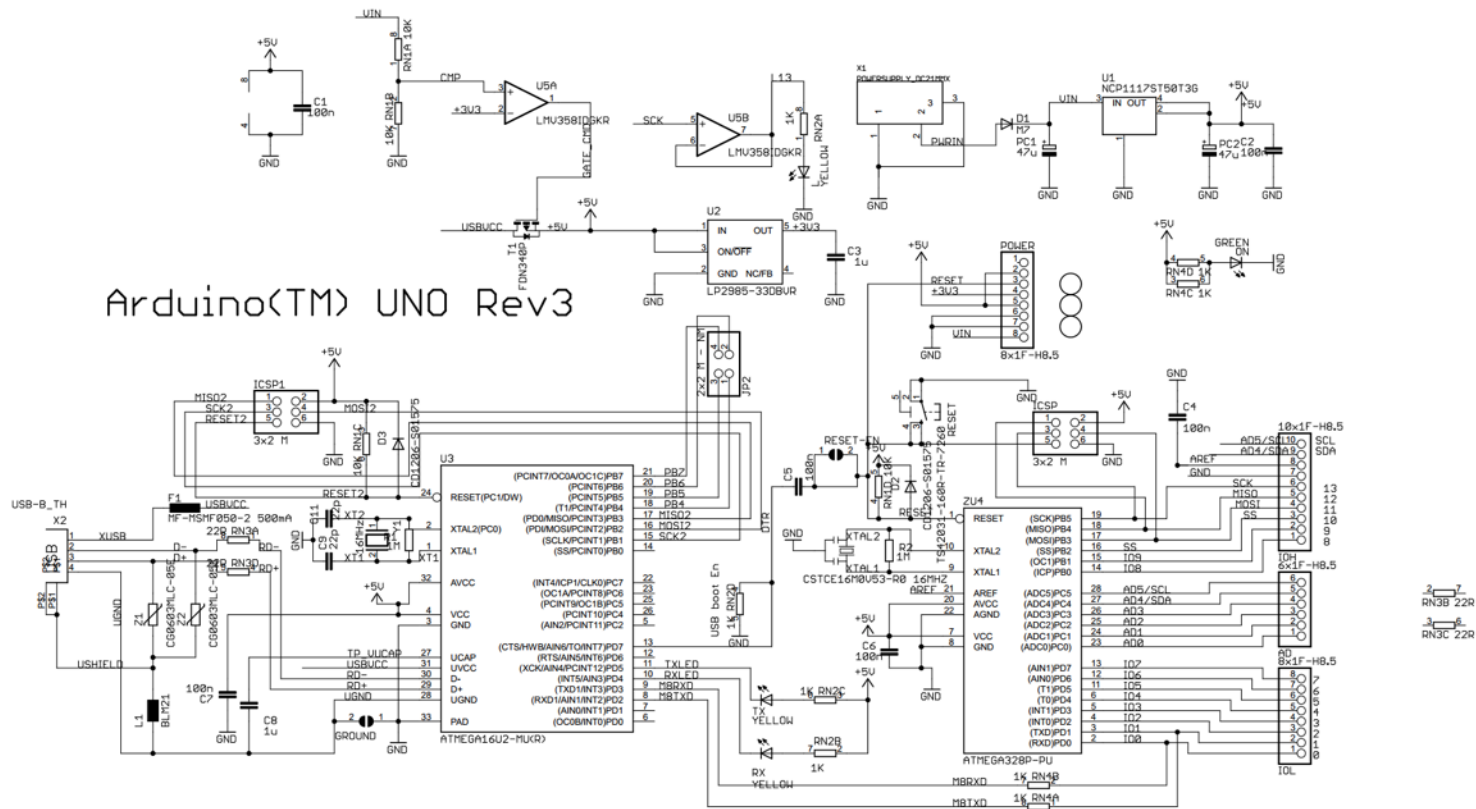
arduino.cc/en/Main/ArduinoBoardLilyPad



hlt.media.mit.edu/?p=2182



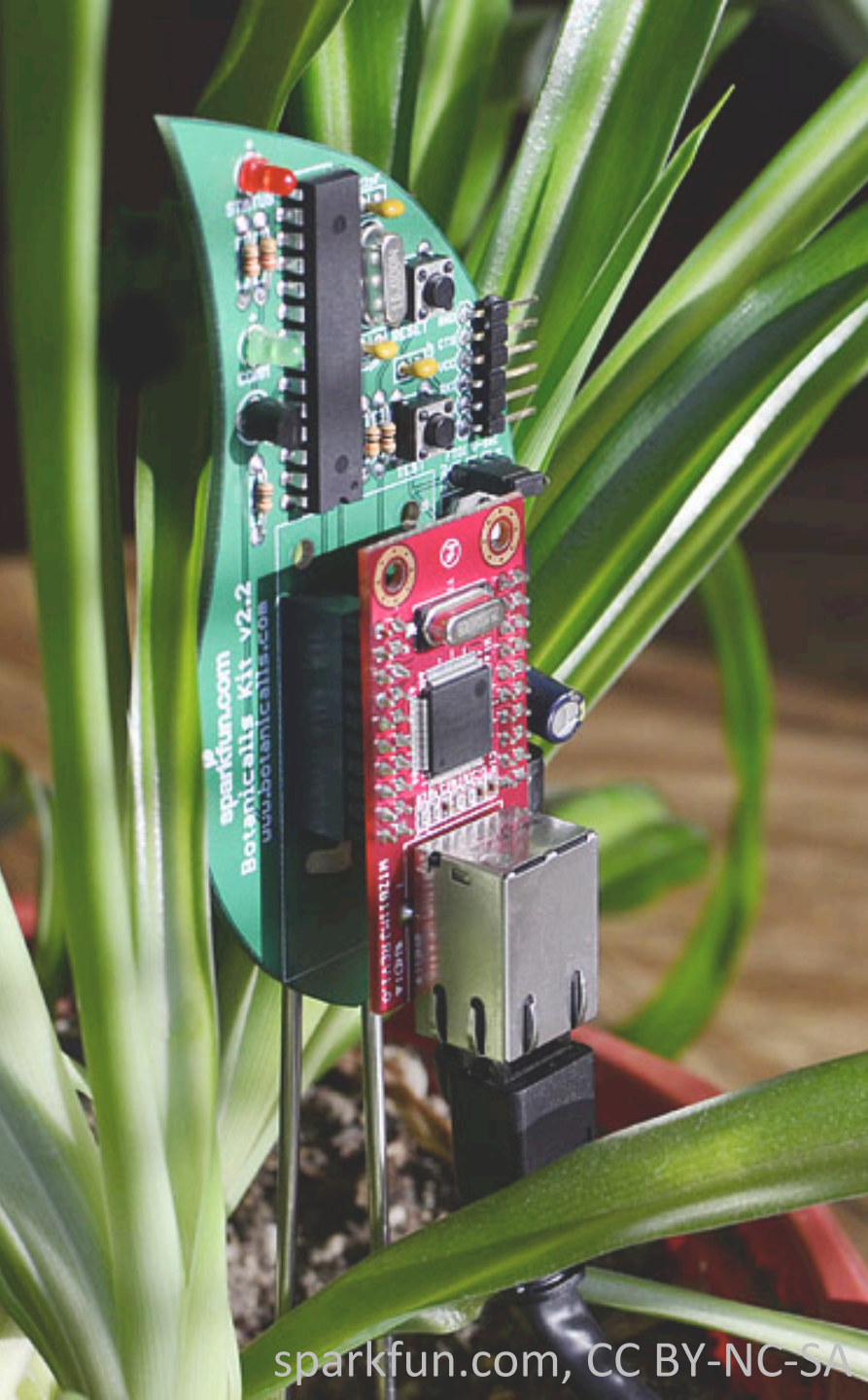
industruino.com



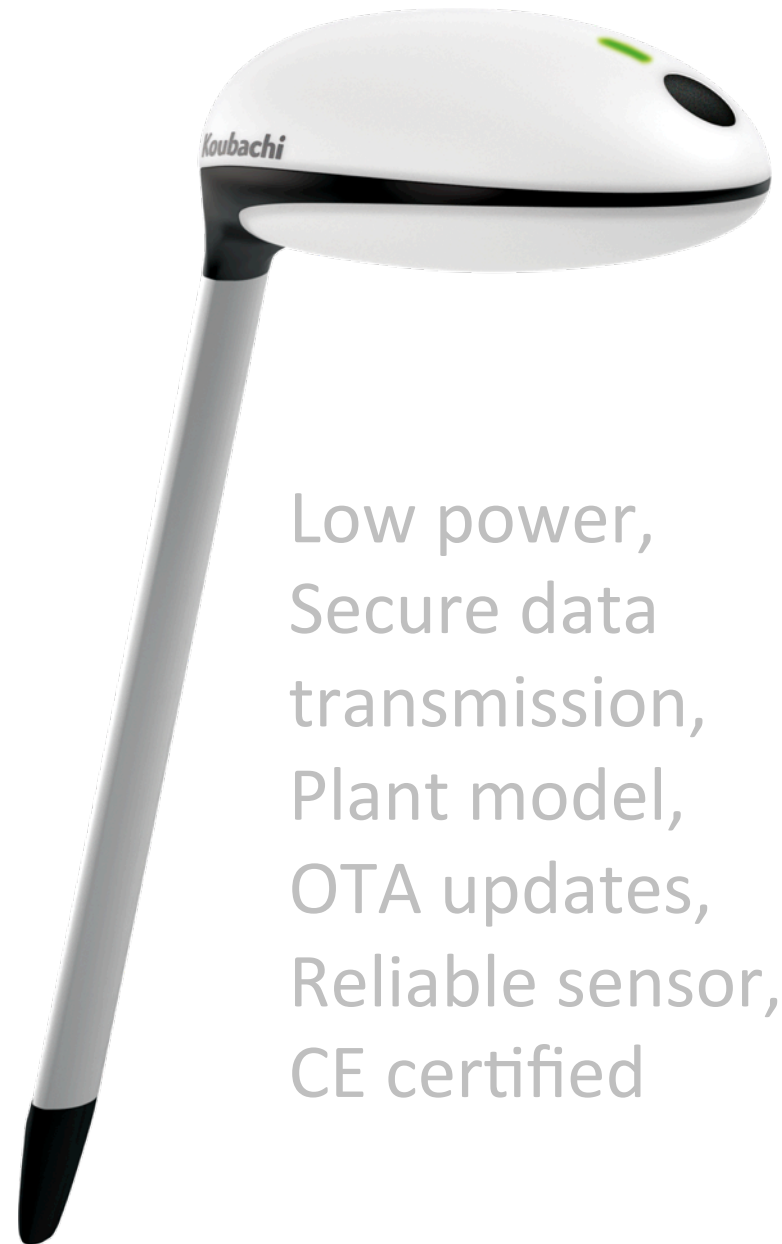
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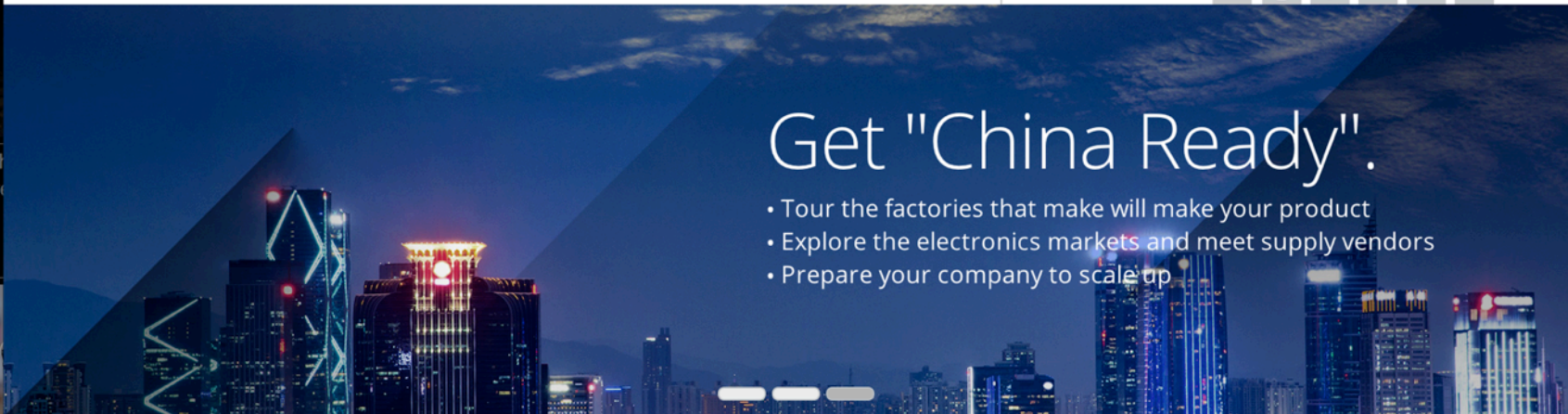
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The Electron is an Arduino-like cellular development kit with a SIM card and affordable data plan from the creators of the Spark Core.

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KADDZ

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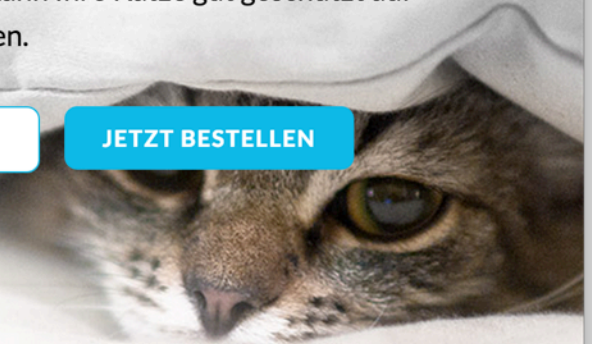


KADDZ – das smarte GPS Halsband für Katzen

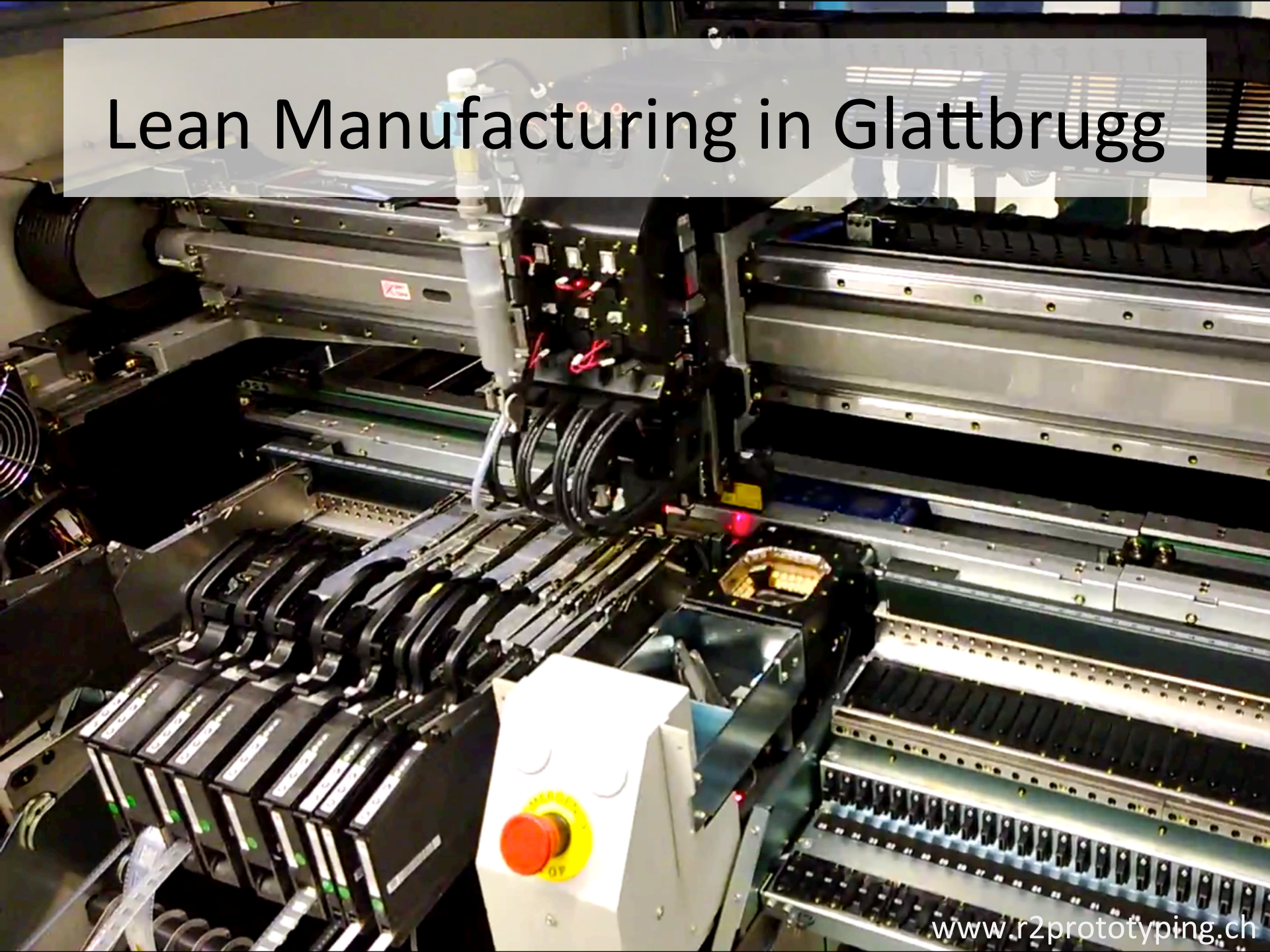
Katzen sind neugierig und lieben ihre Freiheit. Mit dem KADDZ Halsband kann Ihre Katze gut geschützt auf Entdeckertour gehen.

MEHR ERFAHREN

JETZT BESTELLEN



Lean Manufacturing in Glattbrugg





INSTRUCTIONS

Download the Ubooly app:
ubooly.com/app

Tap the alarm clock to wake
Ubooly up. Your code is:

4F

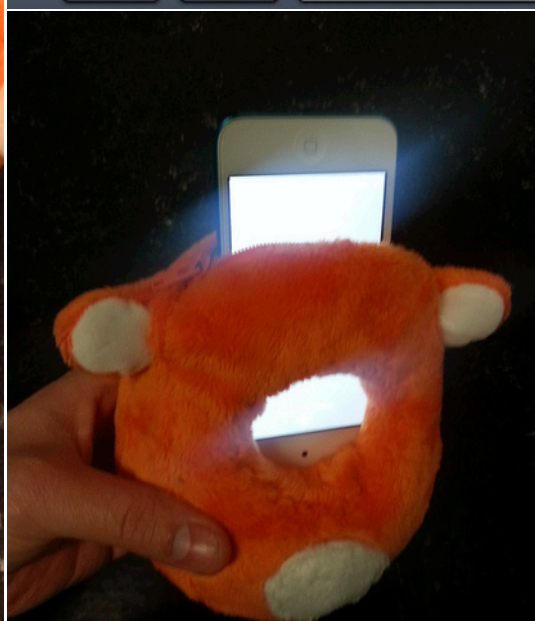
TRY SAYING:

"Tell me a joke"
"Play a game"
"Tell a story"

- * Double tap the face to skip to a new activity.
- * Tap and hold the face to put Ubooly to sleep.

QUESTIONS?

support@ubooly.com

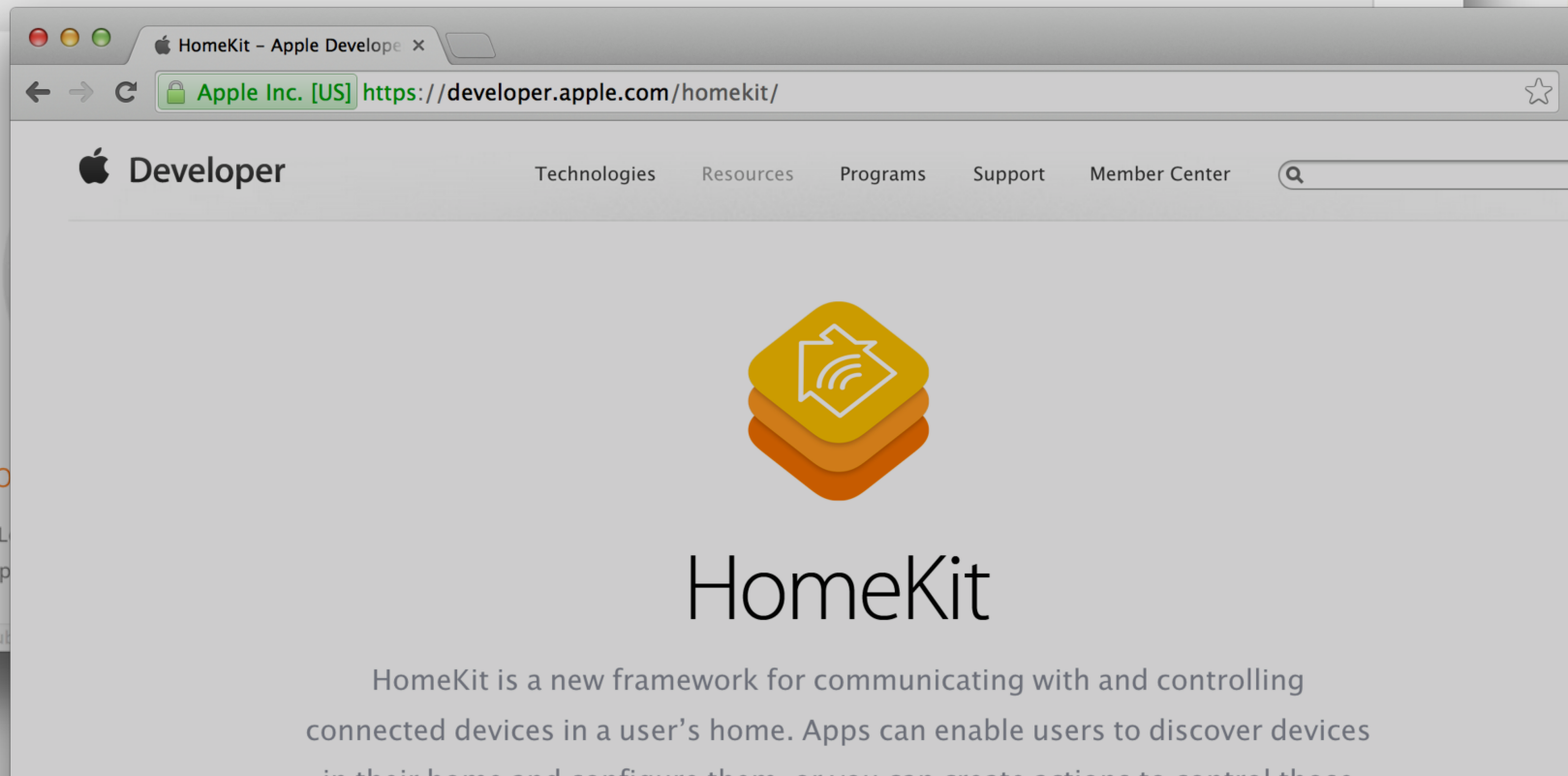
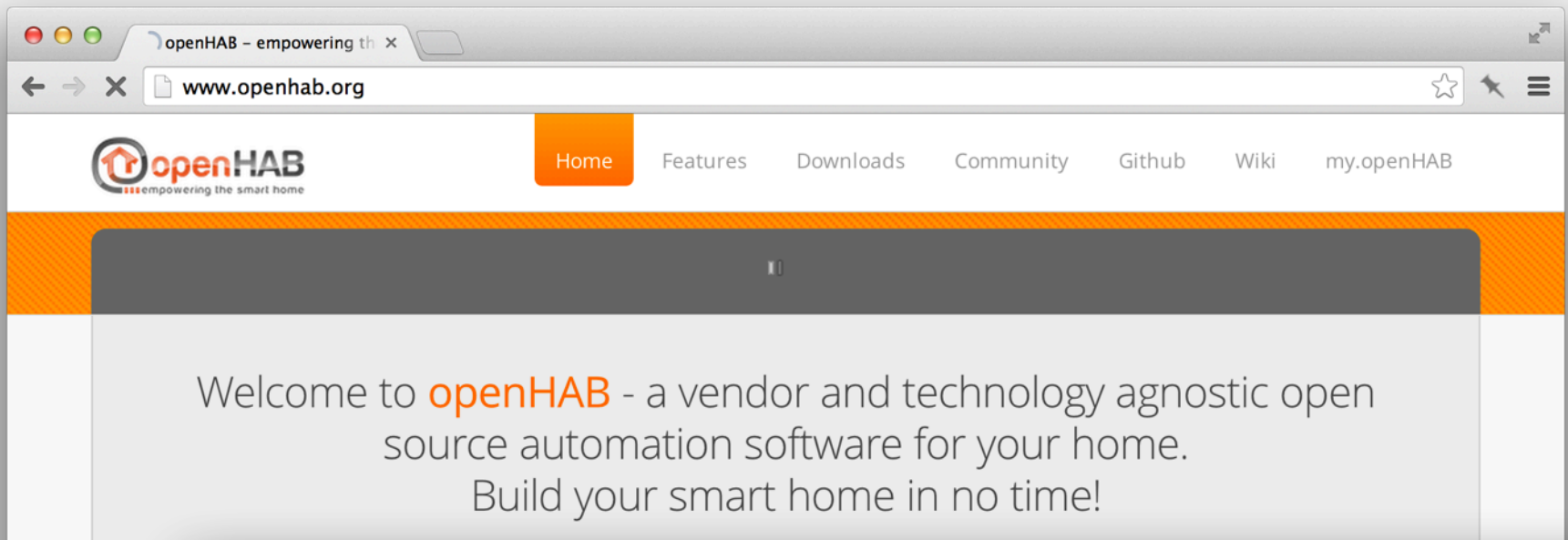






Batterie fast leer
20% Batterieladestand

OK



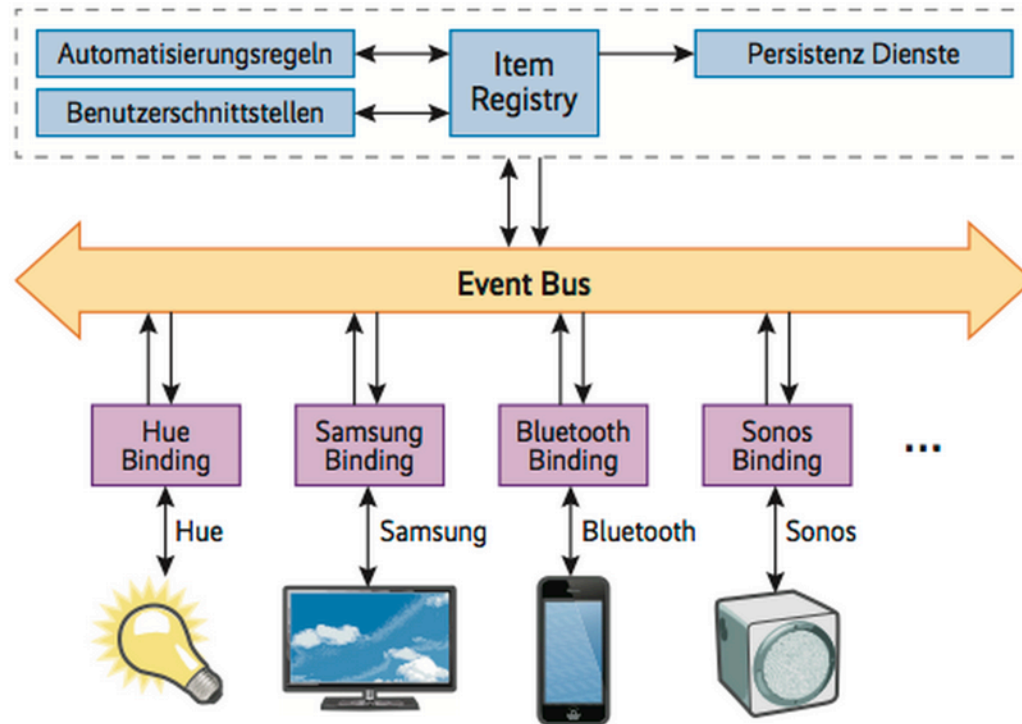



Abb.2: openHAB ermöglicht die Integration verschiedenster Technologien über Bindings


Derzeit unterstützt openHAB bereits mehr als 50 verschiedene Technologien, die neben stark verbreiteten Technologien wie KNX, Z-Wave, EnOcean, Insteon, HomeMatic, digitalSTROM, HTTP, MQTT, Philips Hue, SONOS auch

Eclipse SmartHome - A File

www.eclipse.org/smarthome/

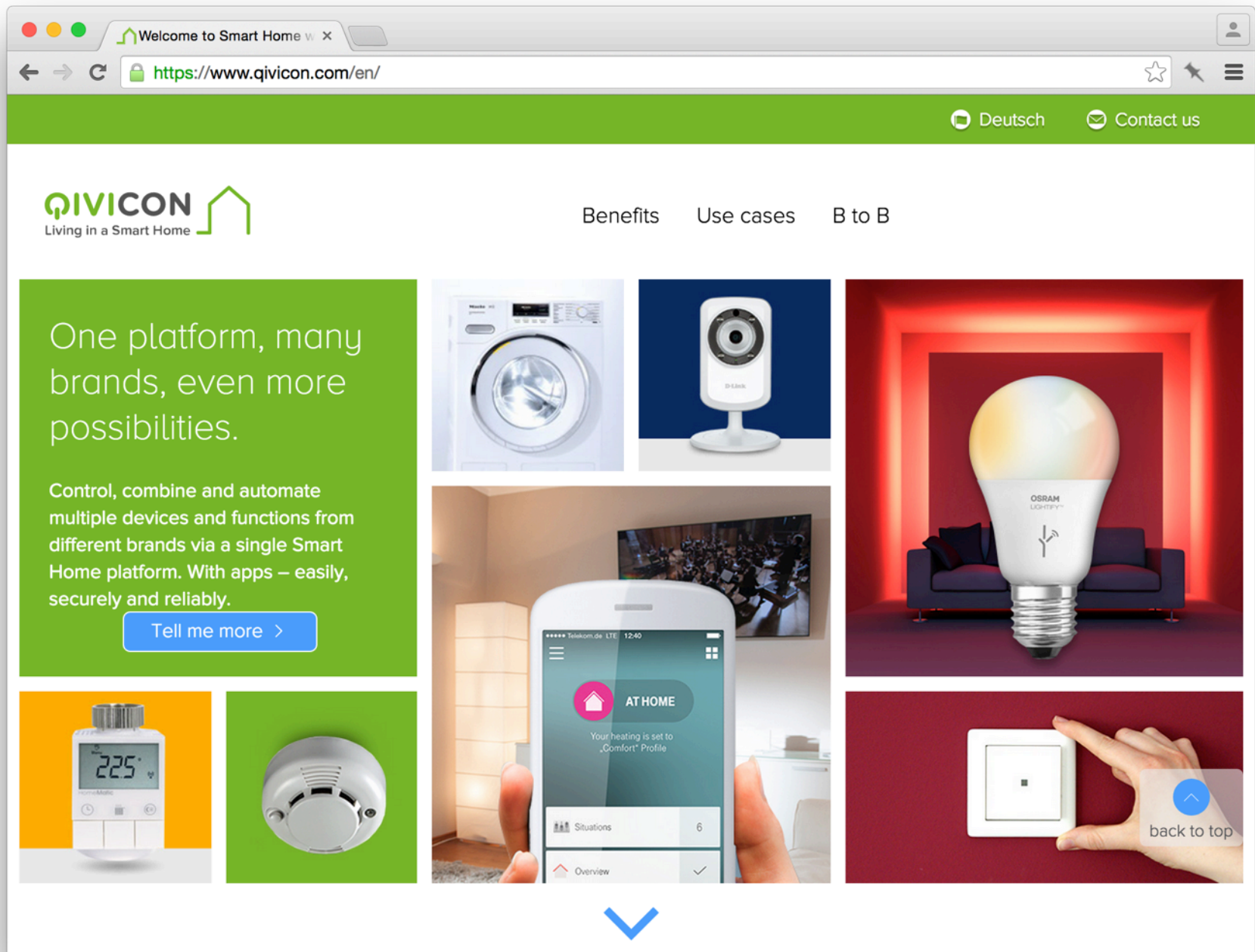
Getting StartedDocumentationGitHub

For an Open Future.



Our Vision

Smart Home adoption will only gain momentum if the different devices can be connected into over-arching use cases, but currently the market for Smart Home systems and IoT gadgets is heavily fragmented. While there are a couple of companies big enough to establish their own proprietary ecosystems, we believe that Open Source is the only viable option to provide truly open platforms without vendor lock-ins.



CogniToys Leverages Watson's

spectrum.ieee.org/tech-talk/consumer-electronics/gadgets/cognitoys-leverage-watsons-brains-to-teach-your-kids


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CogniToys Leverages Watson's Brain to Befriend, Teach Your Kids

By Evan Ackerman
Posted 20 Feb 2015 | 0:19 GMT

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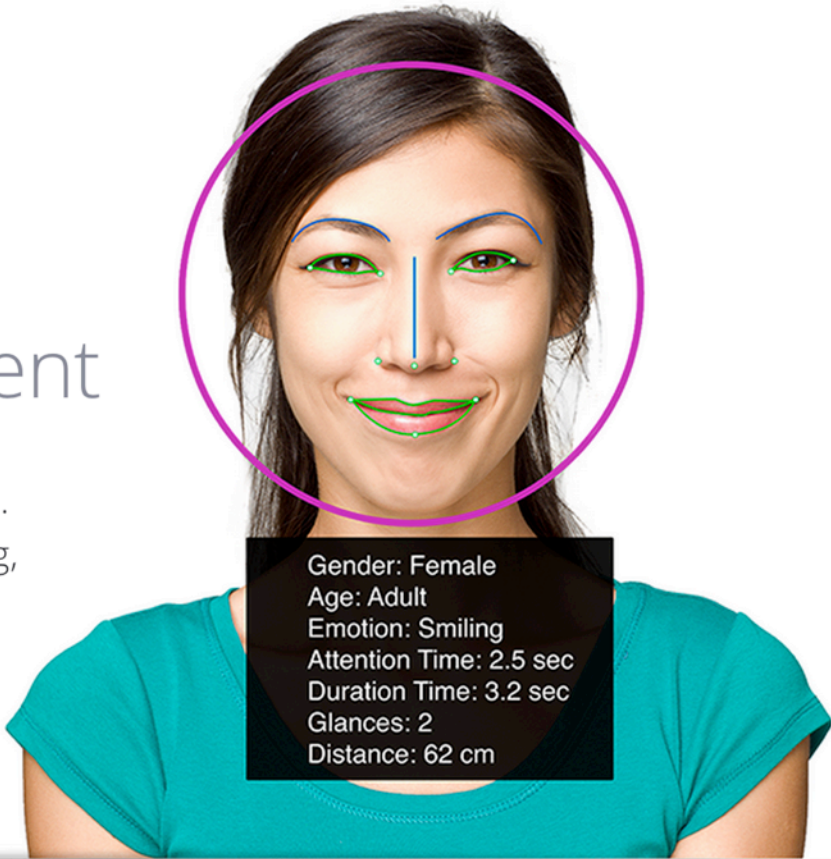
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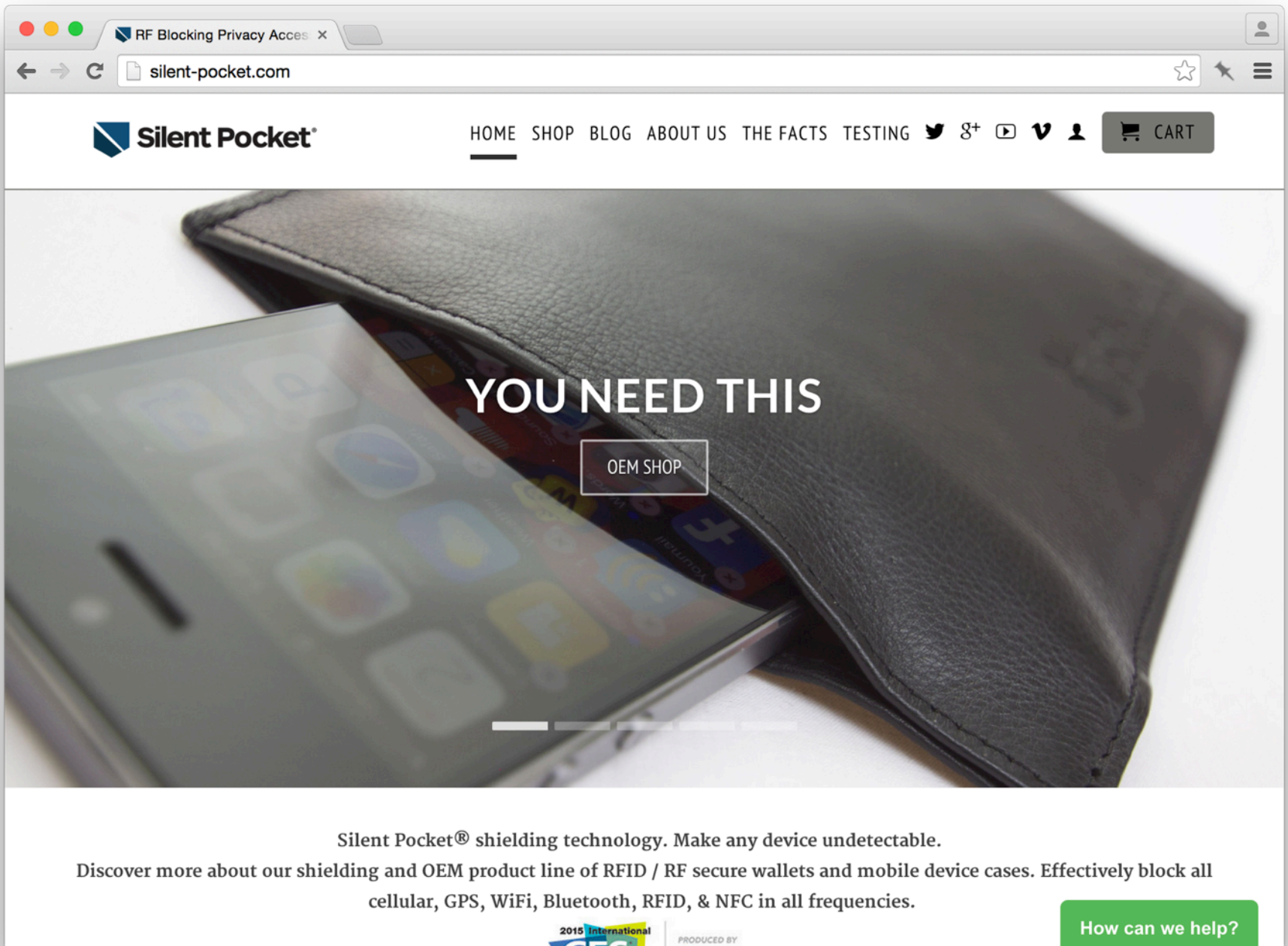
Gender: Female
Age: Adult
Emotion: Smiling
Attention Time: 2.5 sec
Duration Time: 3.2 sec
Glances: 2
Distance: 62 cm

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Why Yaler?

(relay spelled backwards)

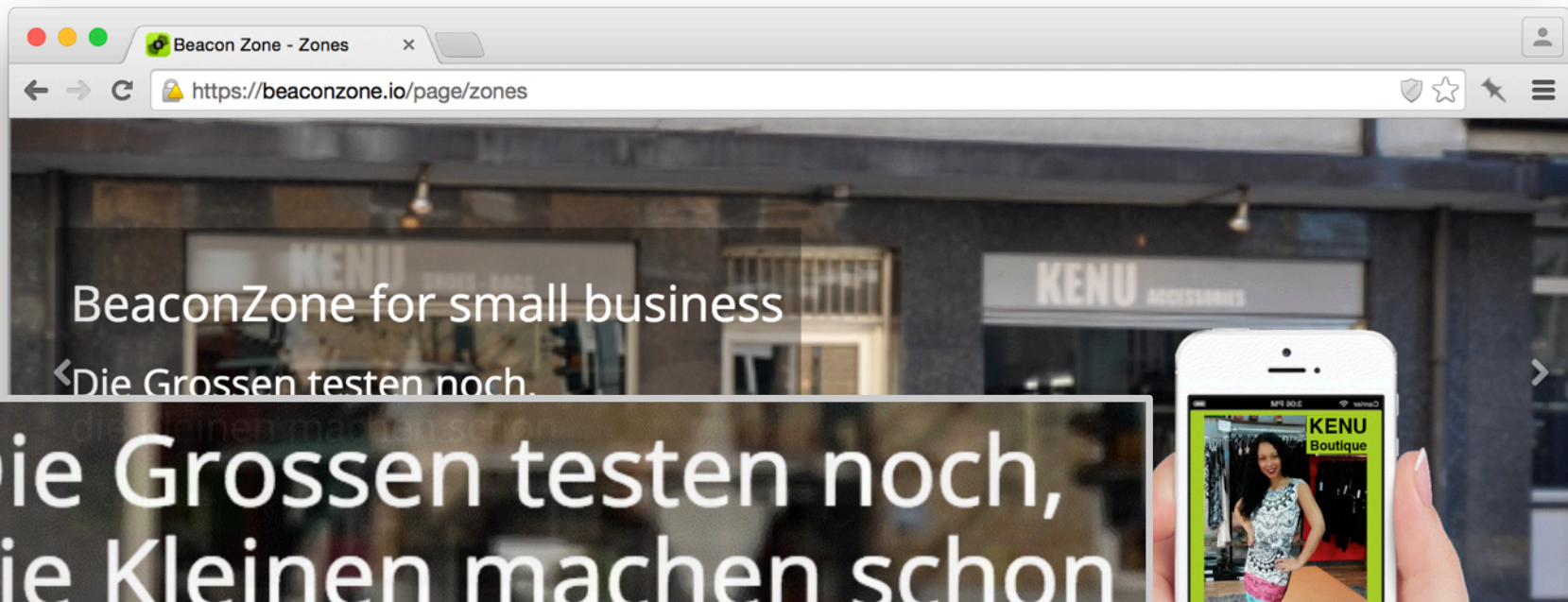
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How it works



```
graph LR; Webclient[Webclient] --> Server[Server]; Server -- "Secure Web access to device" --> Device[Your device]
```

Das Pilotprojekt

Fakten | Zahlen | Ziele



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#WiedikonValley

Sprung in die Gegenwart
Wiedikon ist im Wandel und voll von
schönen alten Wiederräumen. Hochzeits-
Zeit, den Schmelzdegel von Tradition und
Moderne im Herzen von Zürich zu
entdecken: **#Start-up #KMU #Smart**



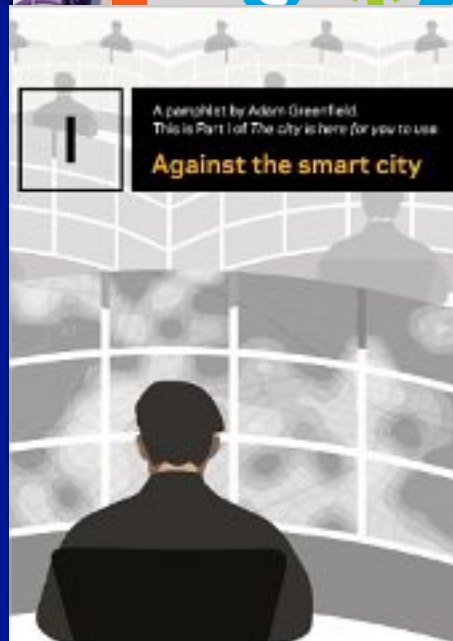
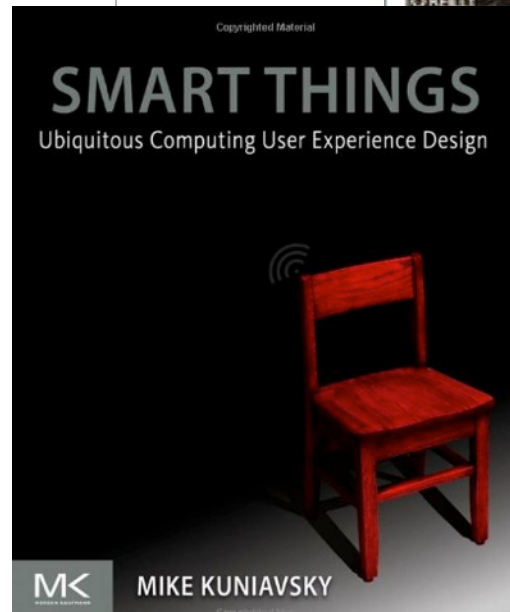
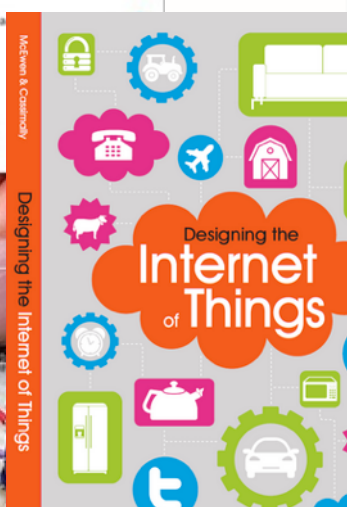
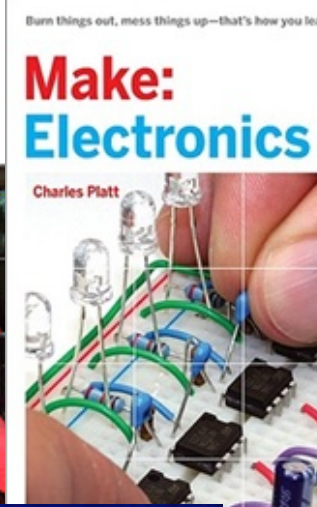
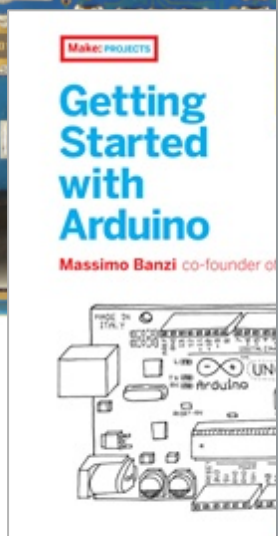
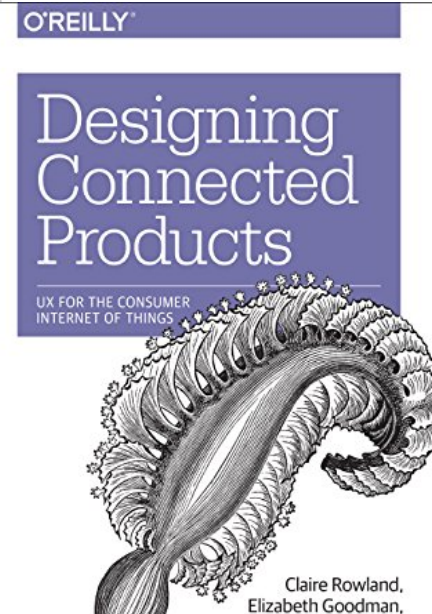
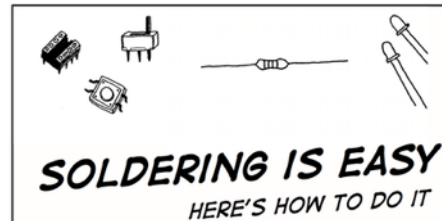
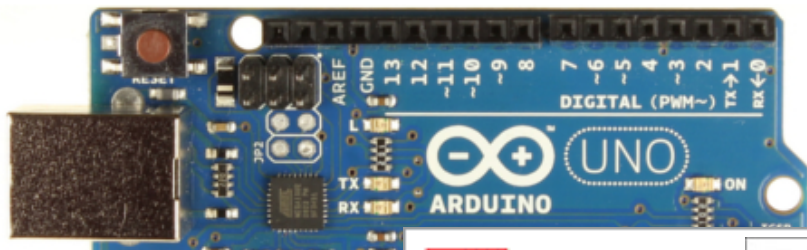
Digito ergo sum

Smartphones erreichen Menschen
4,8 Millionen Menschen in der Schweiz
verlassen sich auf ihre Smartphones als
ständige Begleiter. **Projektthese:** wenn
etwas auf dem Smartphone stattfindet,
wird es in der "Realität" oft erst



BeaconZone

20 Pioniere gestalten den Wandel
iBeacons sind die Vorboten des Internets
der Dinge oder eine Brücke vom
physischen in den digitalen Raum. 20
Geschäfte in Wiedikon verbinden sich mit
Bluetooth-Sendern und einer



Danke.

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Slides auf goo.gl/e5svt4 →

