



Anool

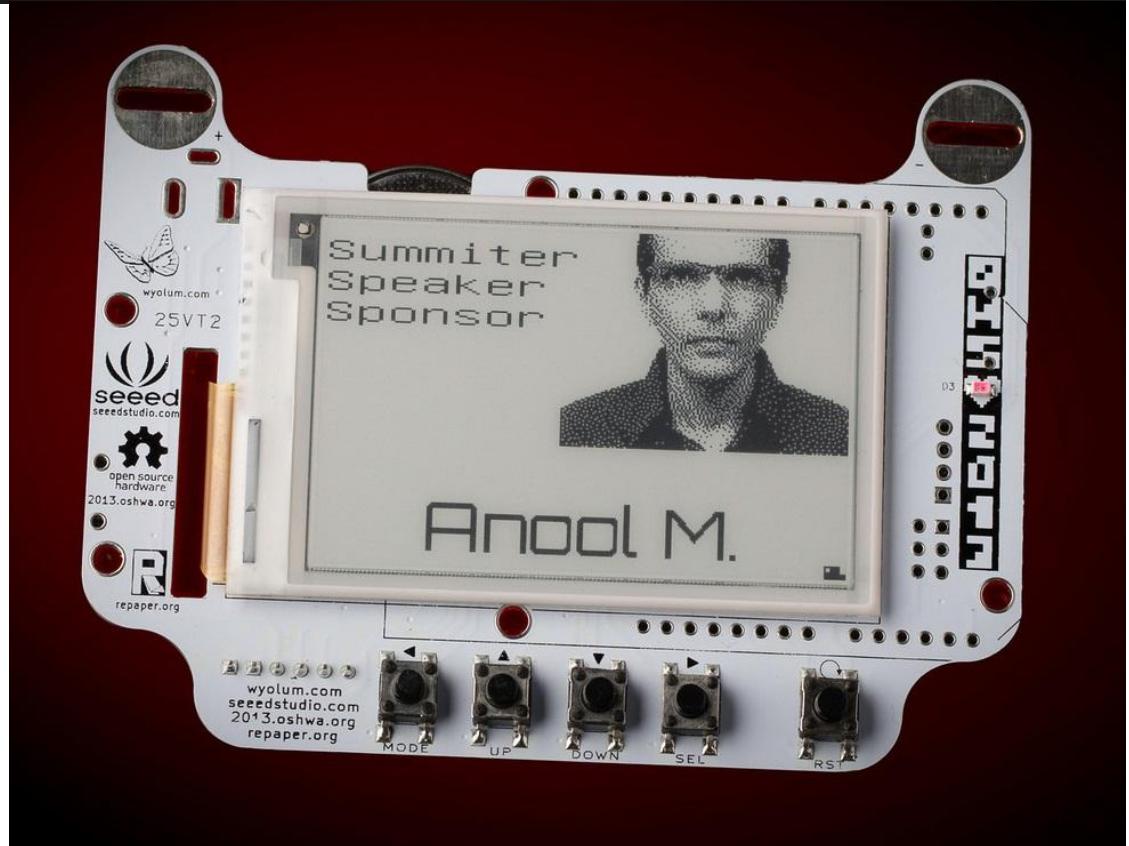
BADGEr: E-Paper for the rest of us

We're WyoLum Emergents

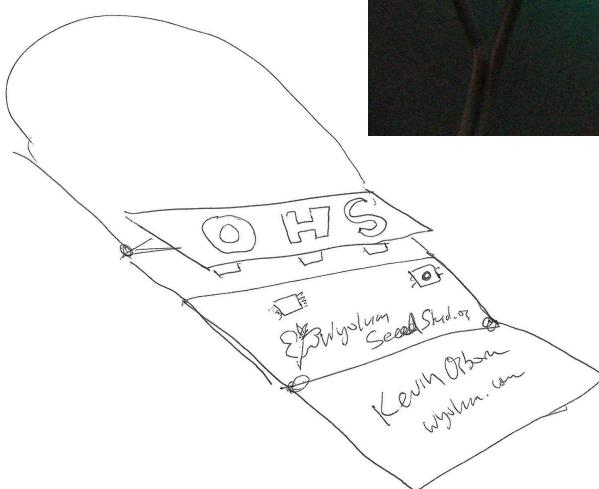
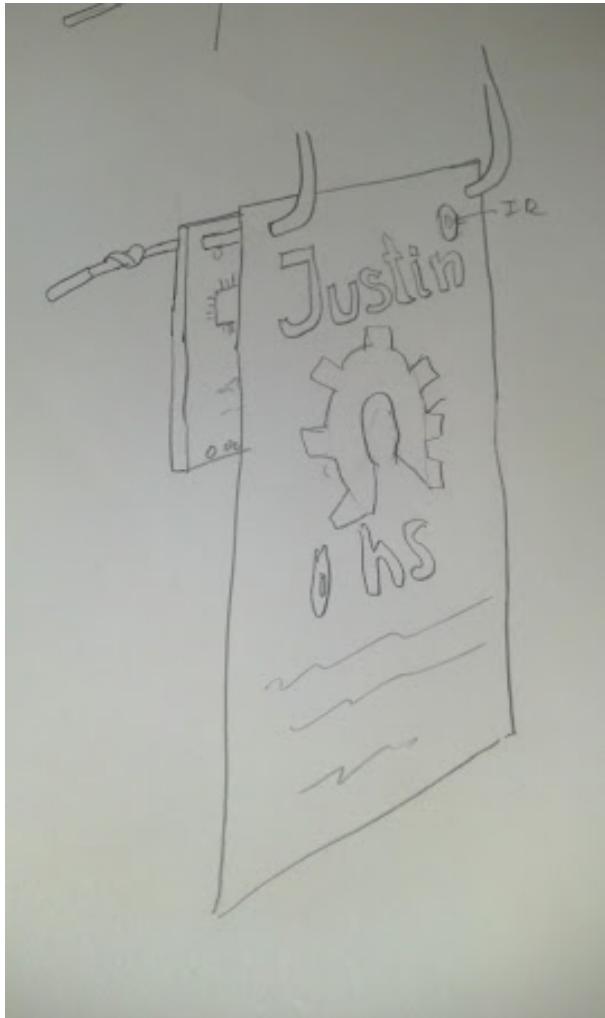


Introducing BADGEr

1. Hardware
2. Software
3. Programming
4. What's next

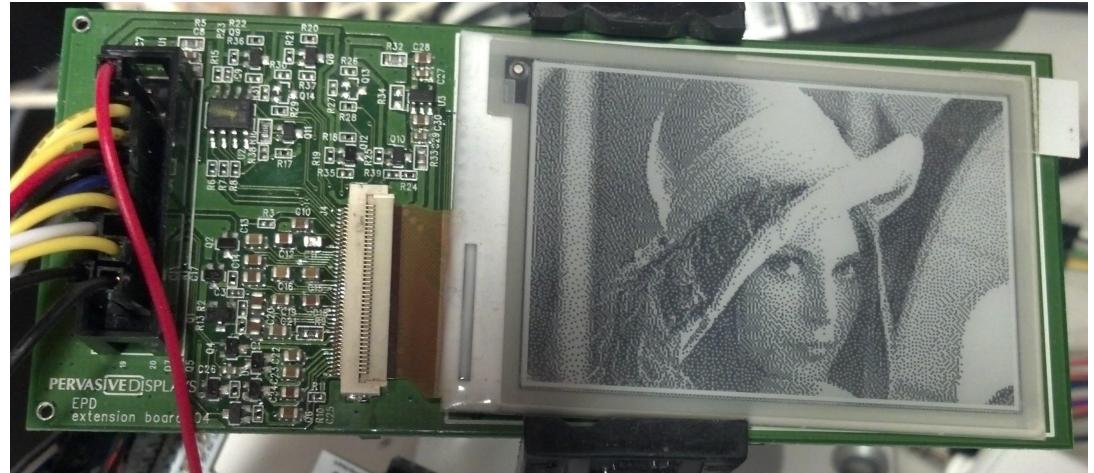


Initial concepts



Final selection

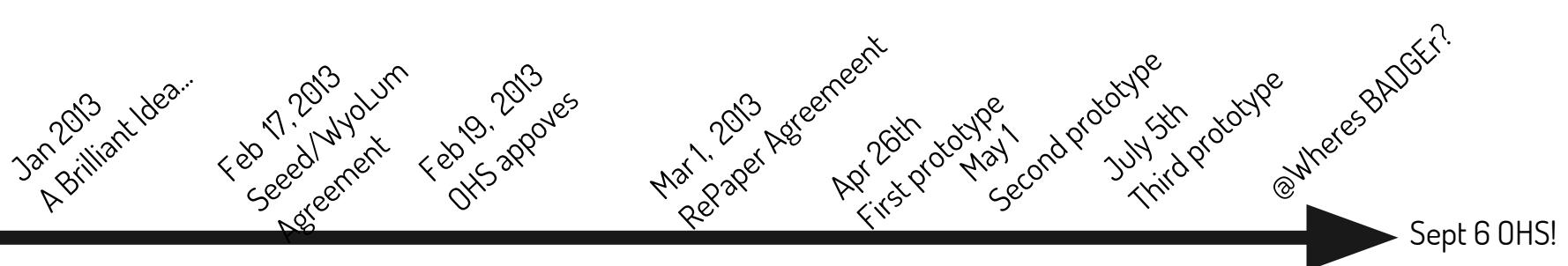
Early prototypes used the development board from rePaper.org.



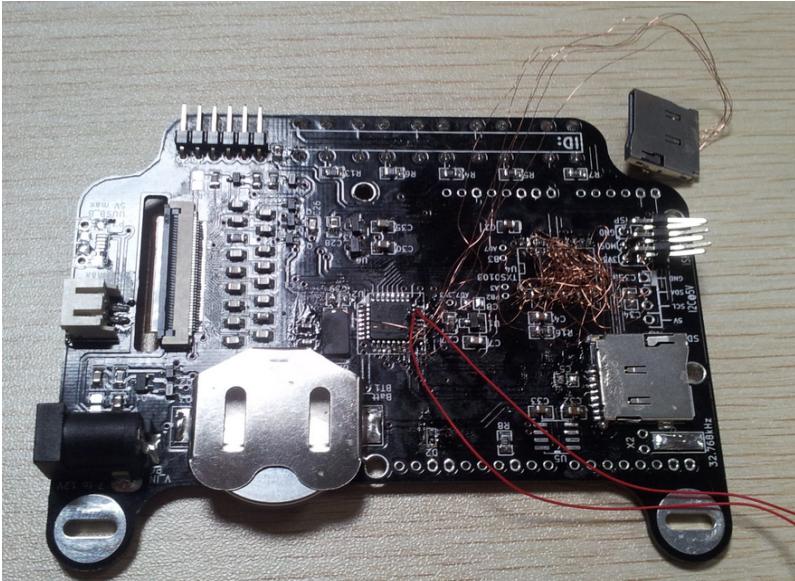
Your conference badge is a 276x164 pixel display offered by Repaper.org



Voltron Assemble!



Voltron Assemble!



Jan 2013
A Brilliant Idea...

Feb 17, 2013
Seeed/WyoLum
Agreement

Feb 19, 2013
OHS approves

Mar 1, 2013
RePaper Agreement

Apr 26th
First prototype

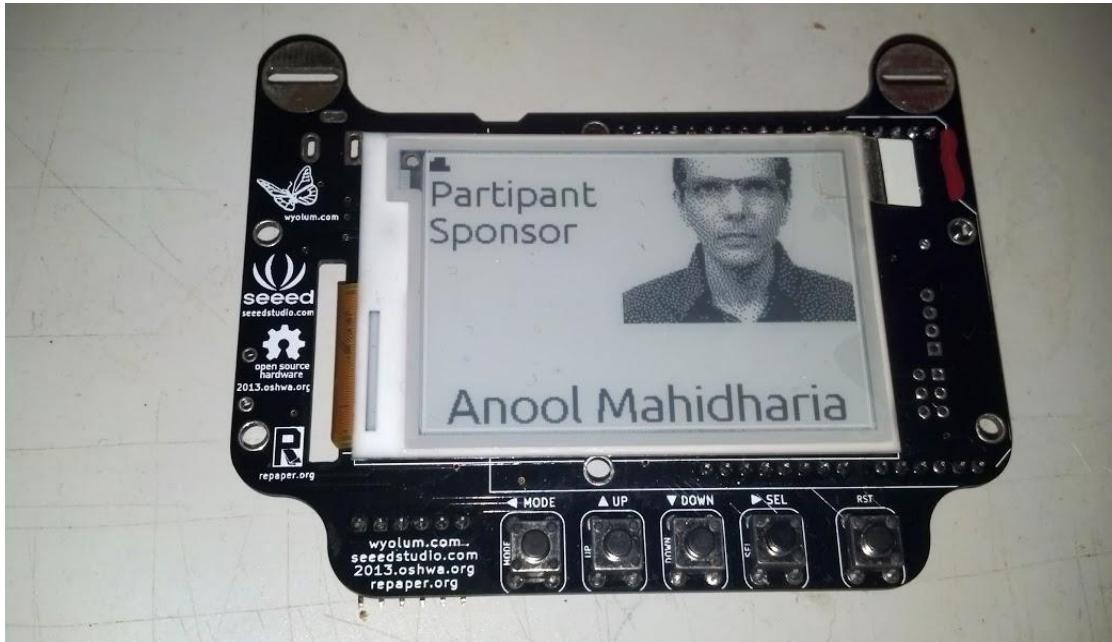
May 1
Second prototype

July 5th
Third prototype

@Wheres BADGER?
Sept 6 OHS!



Voltron Assemble!



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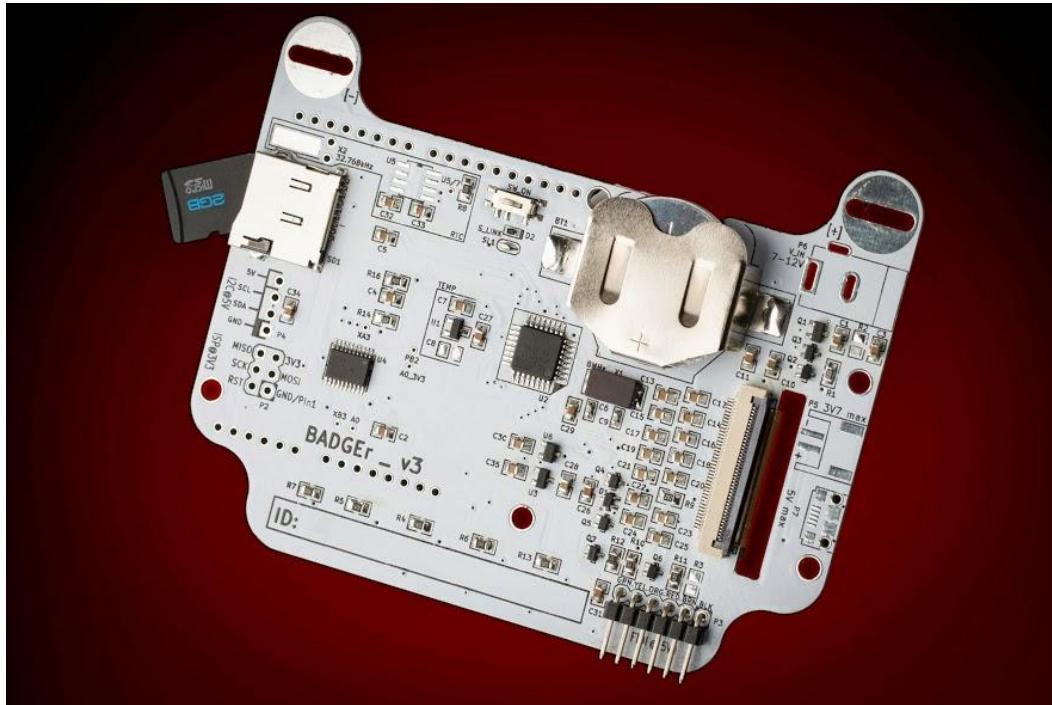
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Sept 6 OHS!



WyoLum

seeed studio
An Open Hardware Facilitation Company



Manufacture



Voltron Assemble!



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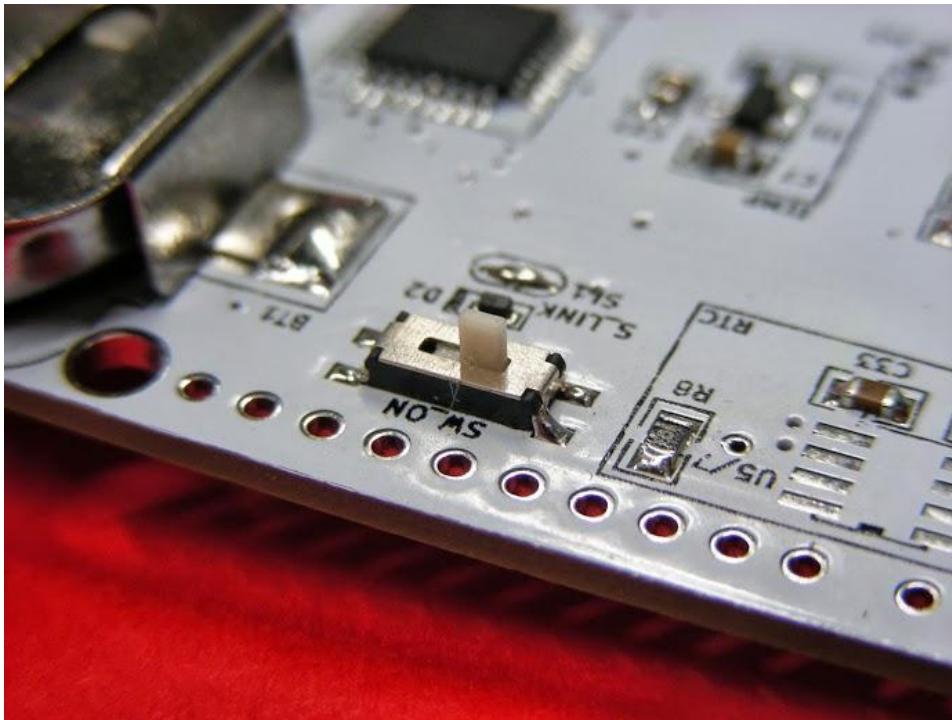
July 5th

Third prototype

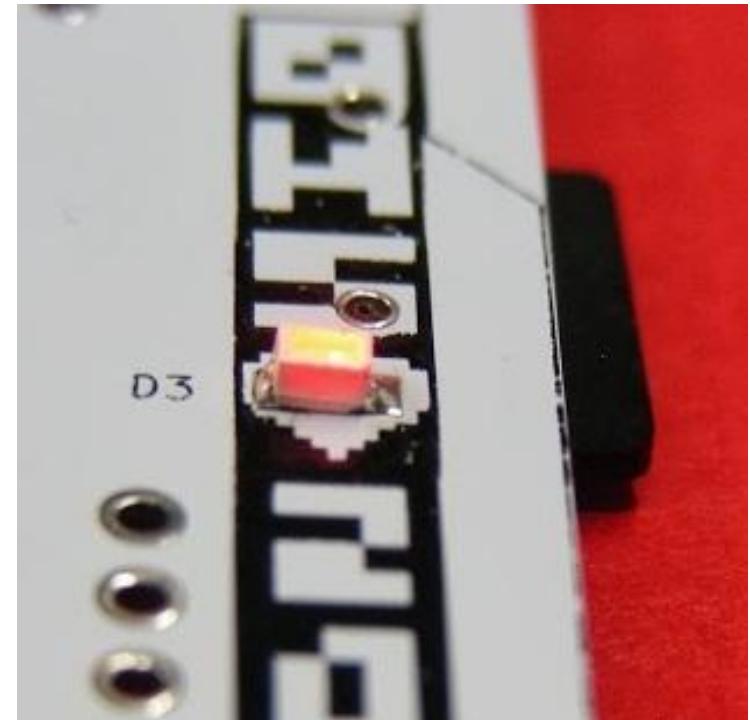
@Wheres BADGER?

Sept 6 OHS!

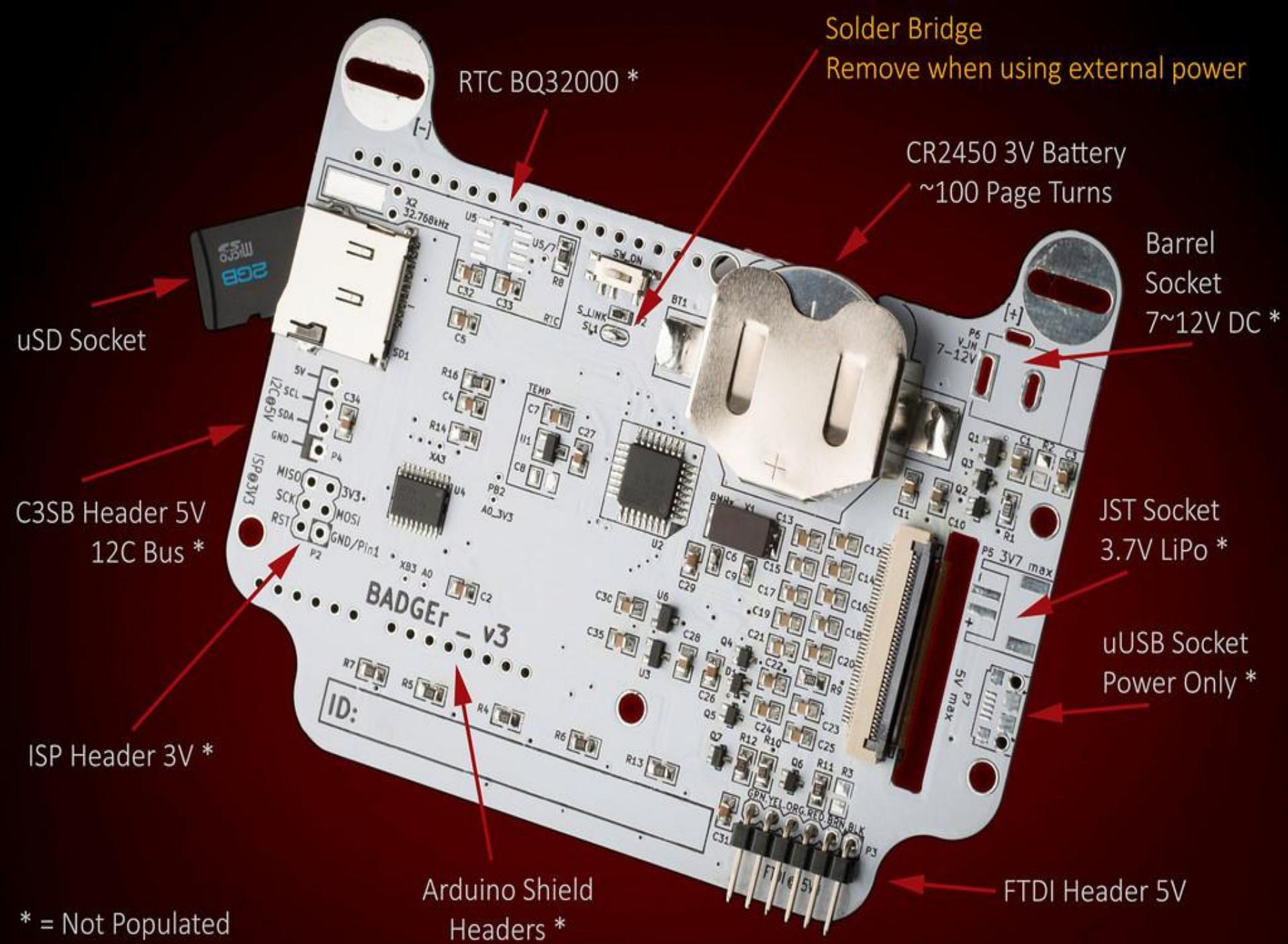
Let's have a play



Power switch on the back switches your BADGER on



The red LED on the front indicates when power is on



Album.ino Badge Map

ALBUM/

Your personal information

A/

OSHWA 2013

Speaker
Sponsor
Volunteer
Demo
Poster
HYOLUM



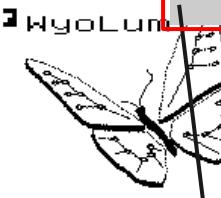
OSHWA 2013

Speaker
Sponsor
Volunteer
Demo
Poster
HYOLUM



OSHWA 2013 HYOLUM

Speaker
Sponsor
Volunteer
Demo
Poster
HYOLUM



What's this?

Kevin Osborn

Kevin Osborn

Kevin Osborn

A.WIF

B.WIF

C.WIF

Sponsors

B/



Concieve . Design . Implement
Fabricate



Open Hardware
Facilitator



ELECTRONICS



...
supplyframe



SWITCHSCIENCE



littleBits

Make:

adafruit . Viscence . Dangerous
Prototypes . Tine Circuits
Artisan's ASYLUM . Blinkverse
MITERS . Phenoptix . Element14
Lasersaur . The Cypress . The Amp
Hour . circuitco . beagleboard
minnowboard . Axiom . cooking
hacks . Cliva . bomfire
Engineer by night . Multilogica
SOLARBOTICS . OSH Stencils
DA VANTURES

A.WIF

B.WIF

C.WIF

...

Schedule

C/

8:00 Doors Open. Registration. Breakfast.
Posters and demo set up.
9:10 Opening Remarks: Robbie Waagenknecht
9:15 Keynote: Eben Upton + Community
Plenary Session
11:00 Break with snacks and refreshments
11:30 Collective Innovations and Open
Ecologies Plenary Session
1:00 PM Lunch (Included); Poster and demo
areas. Demos open.
2:00 Democratizing Knowledge Plenary
Session
4:00 Break with snacks and refreshments
4:15 Panel: Implications of Open Source
Business: Forking and Attribution +
Audience Questions
5:30 Closing Remarks
6:00 Hotel Outlets. Demos and Posters Open.
Food, desserts, and drinks.

Innovation and Revolution
Jeffrey Heaton. Building a community one kit
at a time
Marcin Jakubowski. The Open Source Industrial
Revolution
Phoebe Poetry. Embodied play design and
building a female developer community
Harris Kyriakou, Steven Englehardt, and
Jeffrey J. Nickerson. Traces of Innovation
in Thingiverse
Charles Gracey and David Carrier. Developing
a processor with open source hardware
Bilal Ghribi? What is it?
Andreas Olsson. Parallella Democratizing
access to supercomputing through open
hardware
Paulo Blikstein and Arnan Sirisikiat. How
open hardware can revolutionize education
(or how we might fail miserably)

Democratizing Knowledge
Julian Shain, Michael Mahadaria and Kevin
Osborn. BADGER: E-Paper for the rest of us
Ryan Fobel. DromBot: an open-source platform
for IoT automation
J. Simpson. Export Controls and Open Source
Hardware
Julius Baxter. Open Chip Development: What
there is to gain, and is it possible?
Ben Storn. Wearable at the intersection
of electronics and craft
Josef Prusa. State of the RepRap
Stefan Hechenberger. The Lasersaur Project,
What's next?

Collective Innovations
Michael Weinberg. Open Hardware Licenses
Doesn't Matter
Alice King. Open Source Funding
Andrea Witz. Collective Innovation #A&I Enjoy
The Mess
Ken Burns. Launching an Open Source Hardware
Business with Crowdfunding
Mathilde Berchon. The State of Open Hardware
Entrepreneurship in 2013
Tom Hayes. The State of (the Internet of)
Things
Pablo Garcia and Golan Levin. NeoLucida
Jean-Luc Winzter. Desafio: 100km Iliter Open
Hardware car race

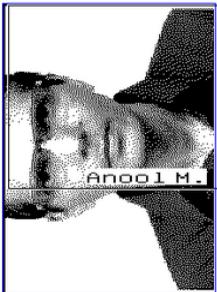
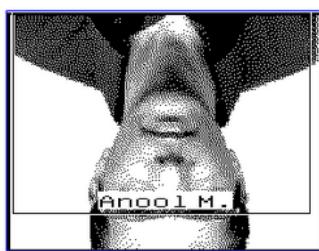
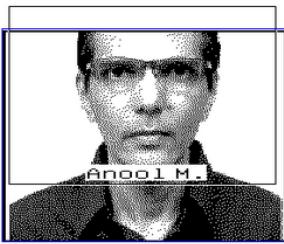
A.WIF

B.WIF

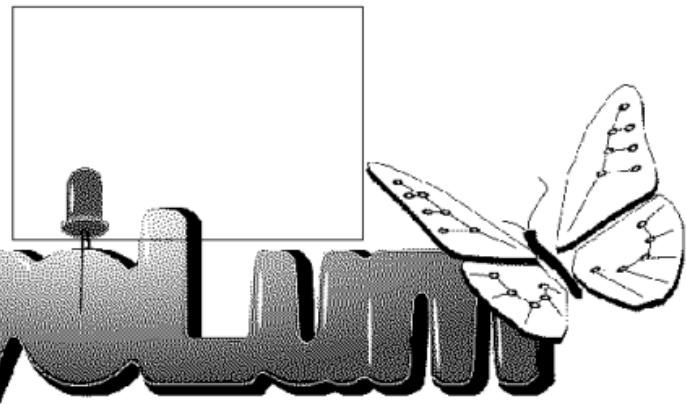
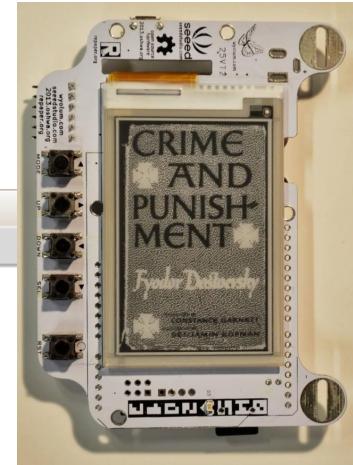
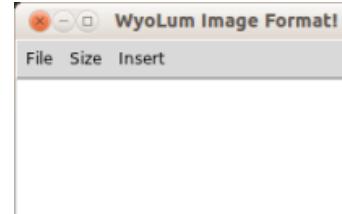
C.WIF

...

Image Hacking



我們愛種子工作室 !



<http://wyolum.com/installing-wifit-py-on-linux/>
<http://wyolum.com/installing-wifit-py-on-windows/>

Prefer Mac? We need your help.



Programming BADGEr

Load new images onto SD card

Photobooth

wifit.py

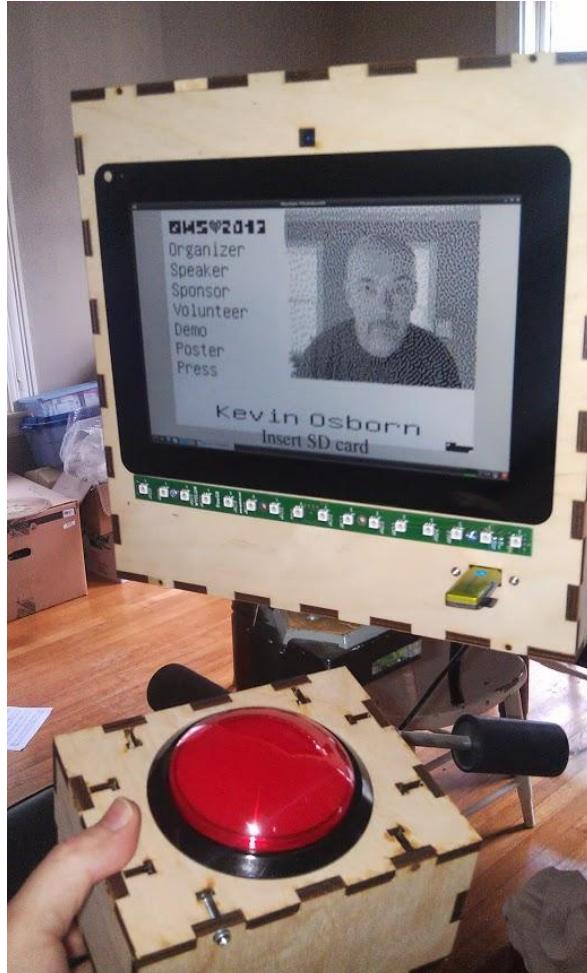
Program via FTDI header, or ISP

EReader Arduino library

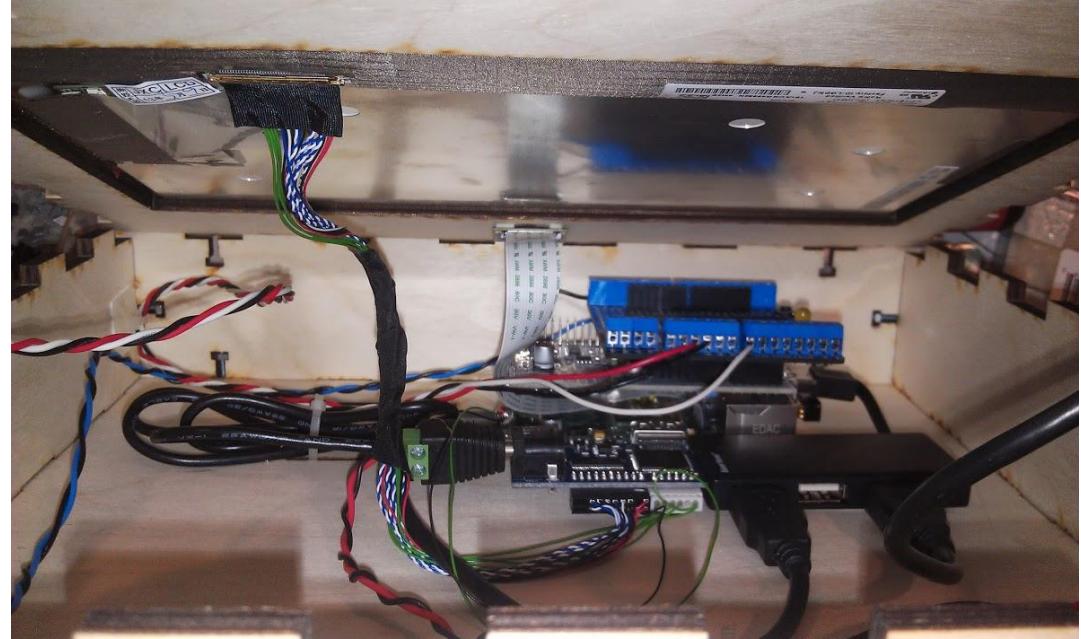
<http://wyolum.com/downloads/ereader.zip>

Arduino Headers

OHS Photobooth



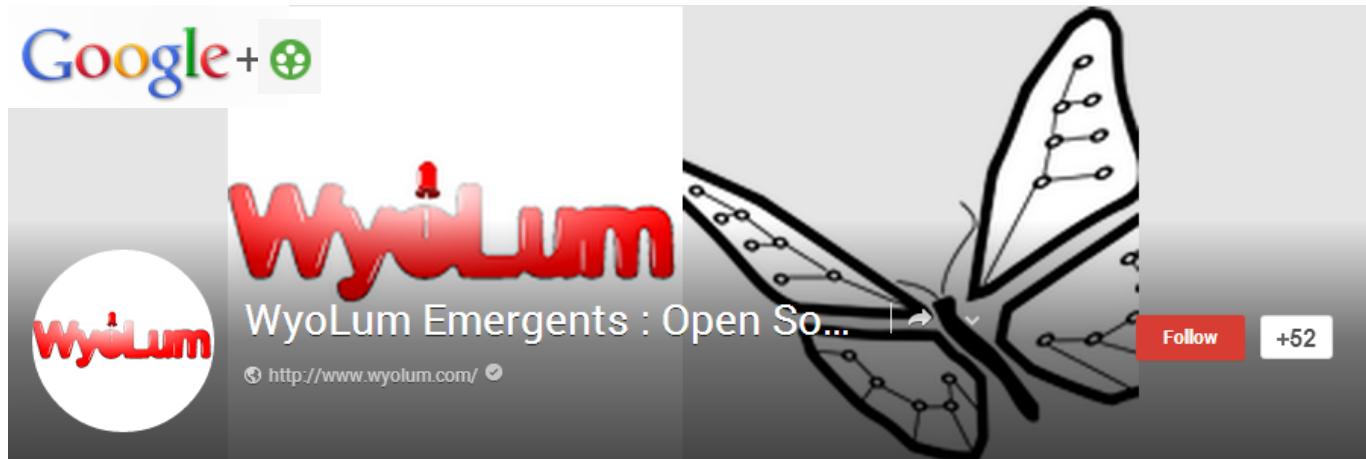
Personal Details merged
from/ALBUM/A/person.csv



Raspberry Pi, Raspberry Pi camera, Alamode, Chalk-elec display, USB hub,
RowGB LED strip, Big red button

Share your hacks!

WyoLum Emergents → BADGEr Hacks



WyoLum on Facebook/Twitter

What's next?

SD Ram for faster page updates

5V, 16 MHz

Offer complete conference solution

Thanks to our sponsors



Justin Shaw
Anool Mahidharia
Kevin Osborn
Brian Krontz
David Pincus



Sean Moss-Pultz
Charming Su



Nana Chou 周秦娜
Eric Pan
Jin Shiqin 陈世勤

OHS2014 Badges?

