

Arduino, the Maker Movement The Change of a Paradigm



#arduino #officineArduino #makers #fablabTo #T0mff
@vongomben



OFFICINE
ARDUINO
TORINO



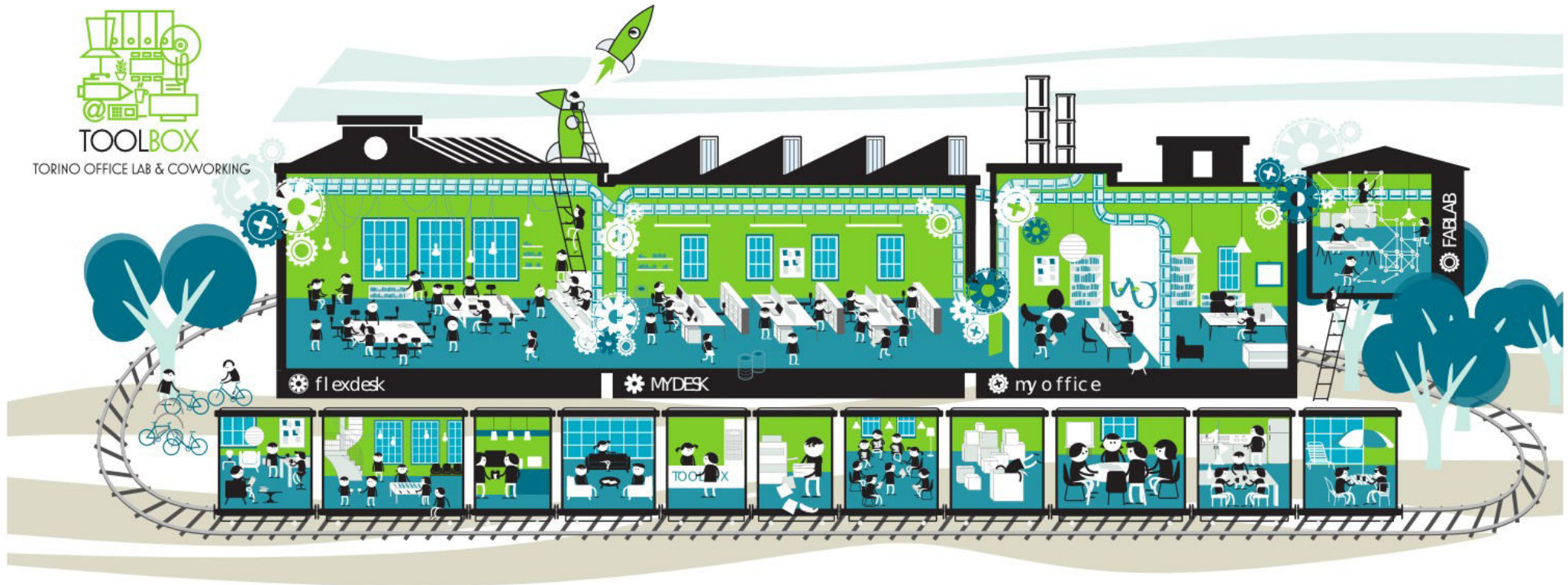
FABLAB TORINO



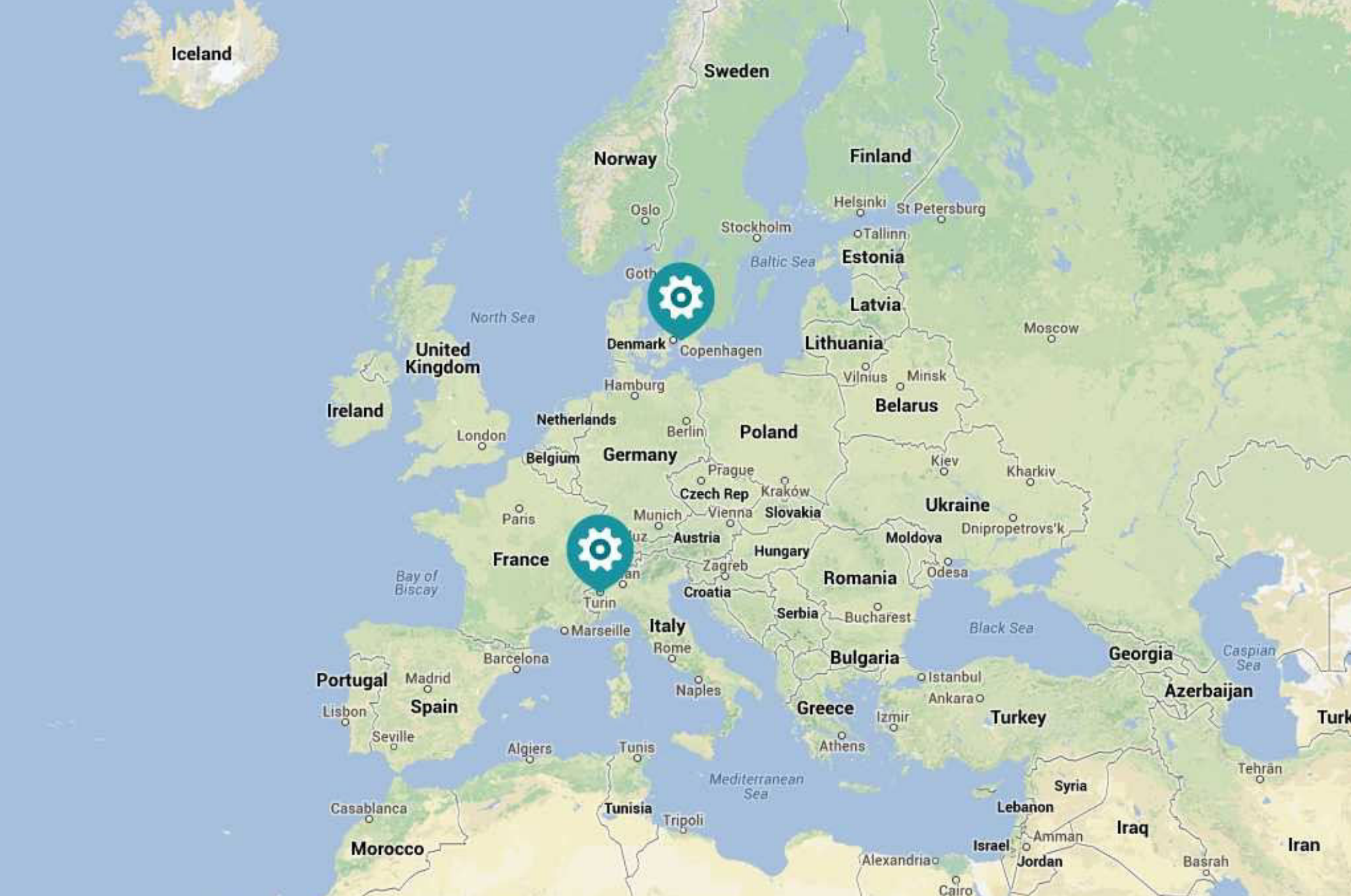
Officine Arduino | Fablab Torino



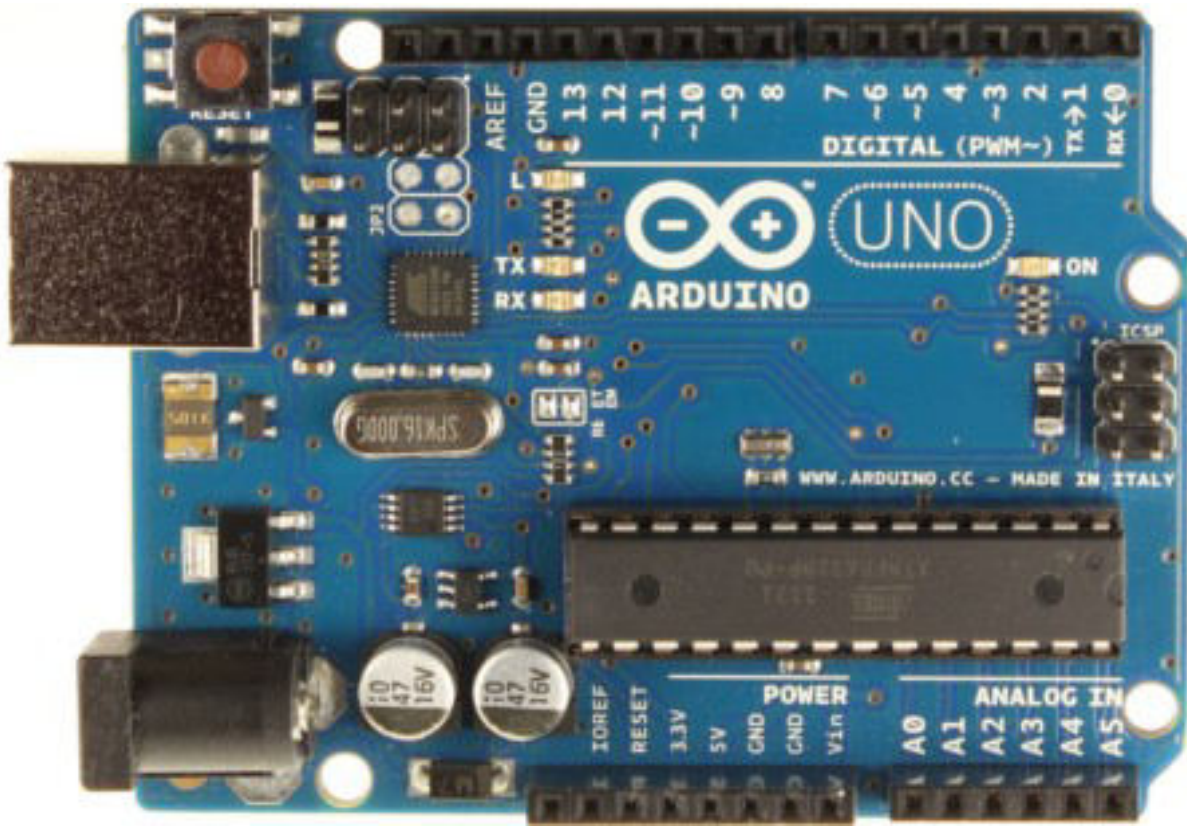
TOOLBOX
TORINO OFFICE LAB & COWORKING



Toolbox Torino @tlbxtorino



more #officineArduino around



ARDUINO UNO

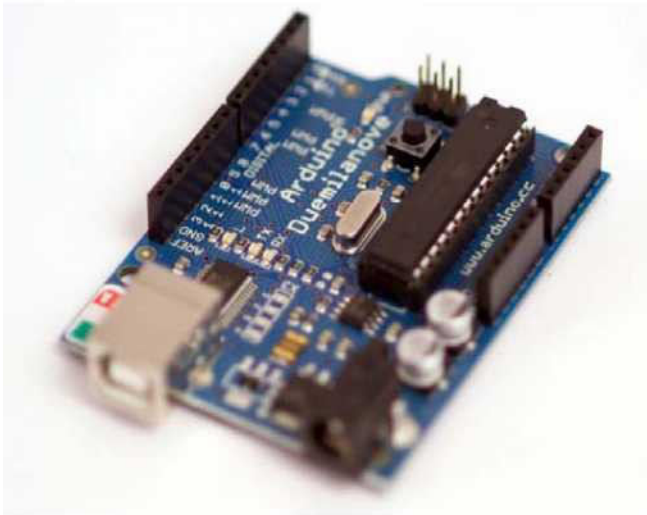
DIGITAL (PWM ~) TX → 1 RX ← 0

POWER
IOREF
RESET
3.3V
5V
GND
GND
V_{in}

ANALOG IN
A0
A1
A2
A3
A4
A5

WWW.ARDUINO.CC - MADE IN ITALY

What is Arduino?



a piece of
Hardware

```
Arduino IDE
File Edit Sketch Tools Help
Sketch
// LED connected to digital pin 13
int ledPin = 13; // LED connected to digital pin 13

// The setup() method runs once, when the sketch starts

void setup() {
  // Initialize the digital pin as an output:
  pinMode(ledPin, OUTPUT);
}

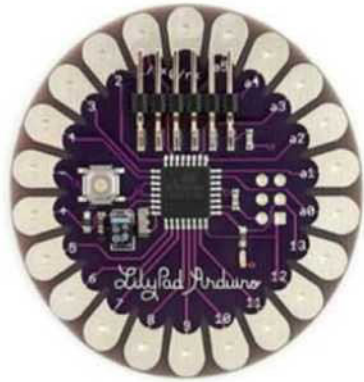
// the loop() method runs over and over again,
// as long as the Arduino has power

void loop() {
  digitalWrite(ledPin, HIGH); // set the LED on
  delay(1000);                // wait for a second
  digitalWrite(ledPin, LOW); // set the LED off
  delay(1000);                // wait for a second
}
```

a programming
Environment

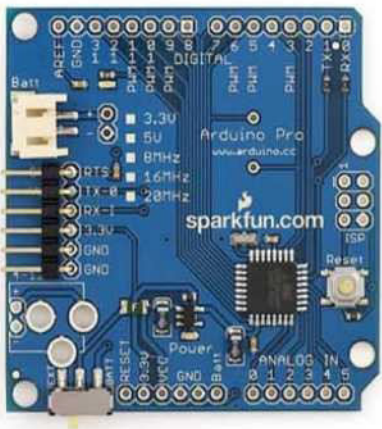


A Community



Lilypad

Arduino USB



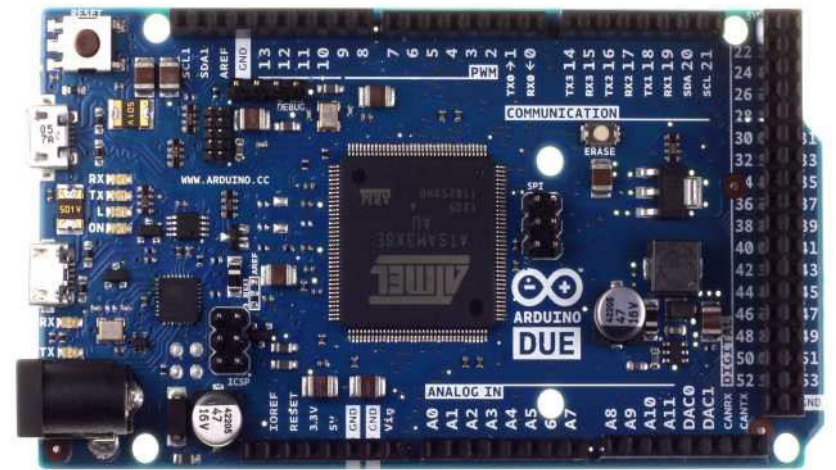
Pro



Mini



Nano



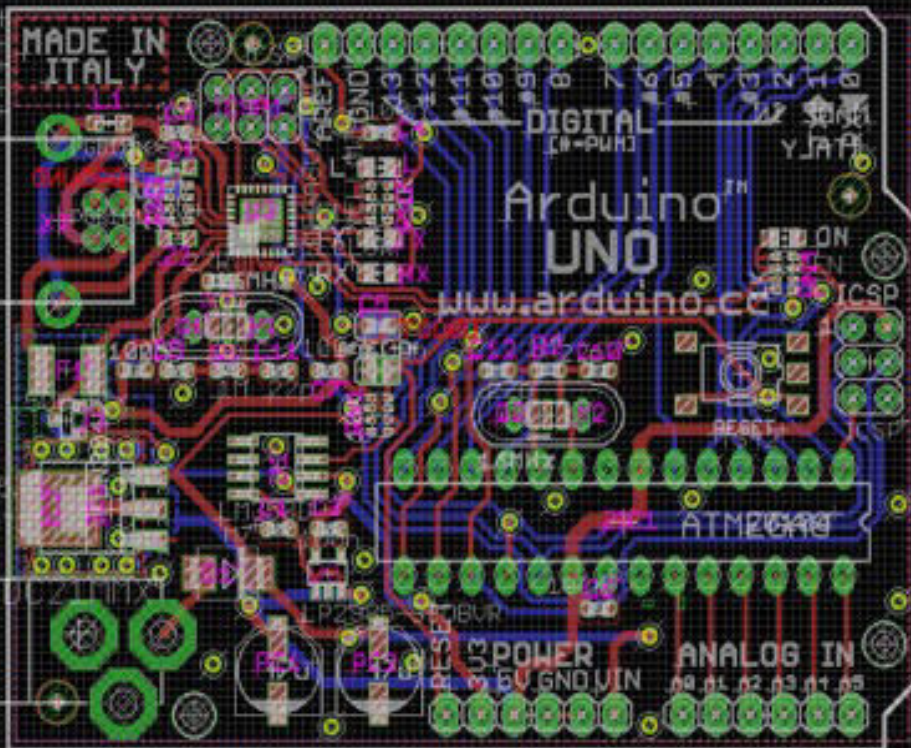
Due



0.635 mm (113.665 45.085)

Arduino™ UNO Reference Design

M.Banzi
D.Cuartielles
T.Igoe
G.Martino
D.Hellis



85CA0358

MC33269D-5.0
MC33269ST-5.0

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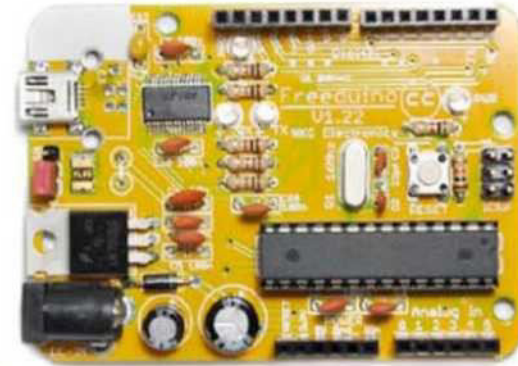
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Seeduino

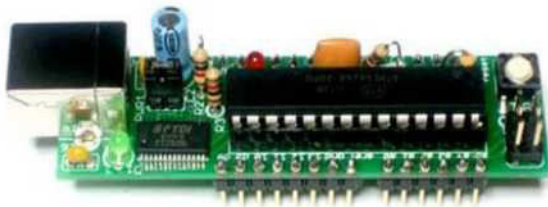


Arduino USB



Freeduino

Boarduino



Teensy





Super Awesome Silvia // sylvia.show.com/

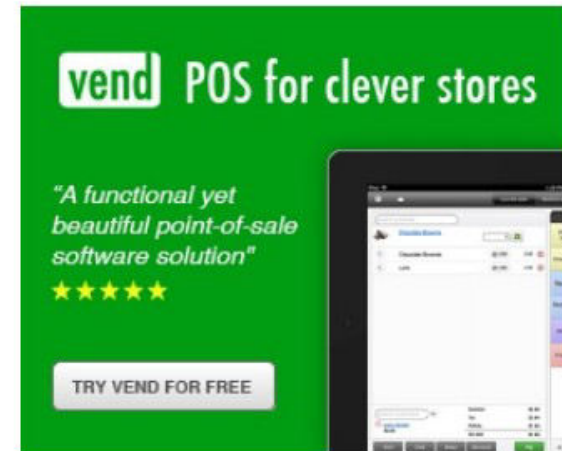
DIY Back to the future shoes – Power Laces- the Auto lacing shoe

By Phillip Torrone Posted 07/05/2010 @ 6:20 pm Category Arduino Comments 0 Comments



[Power Laces- the Auto lacing shoe](#) – awesome.

Why wait until 2015? Inspired by 'Back to The Future II', this project is less 'Practical' than 'Proof of Concept', but hopefully it'll tide you over until Nike



Trending

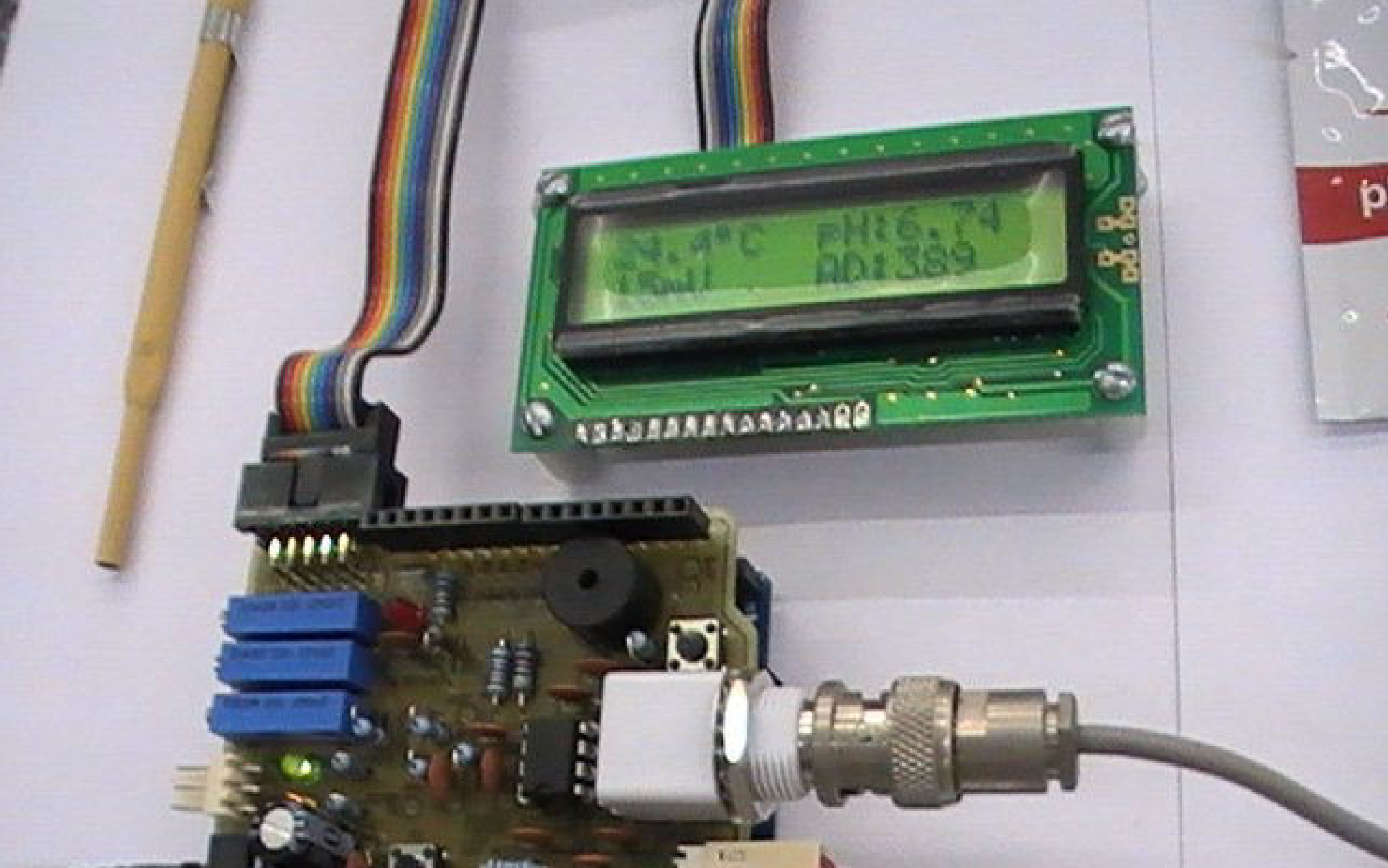
Shared

Commented

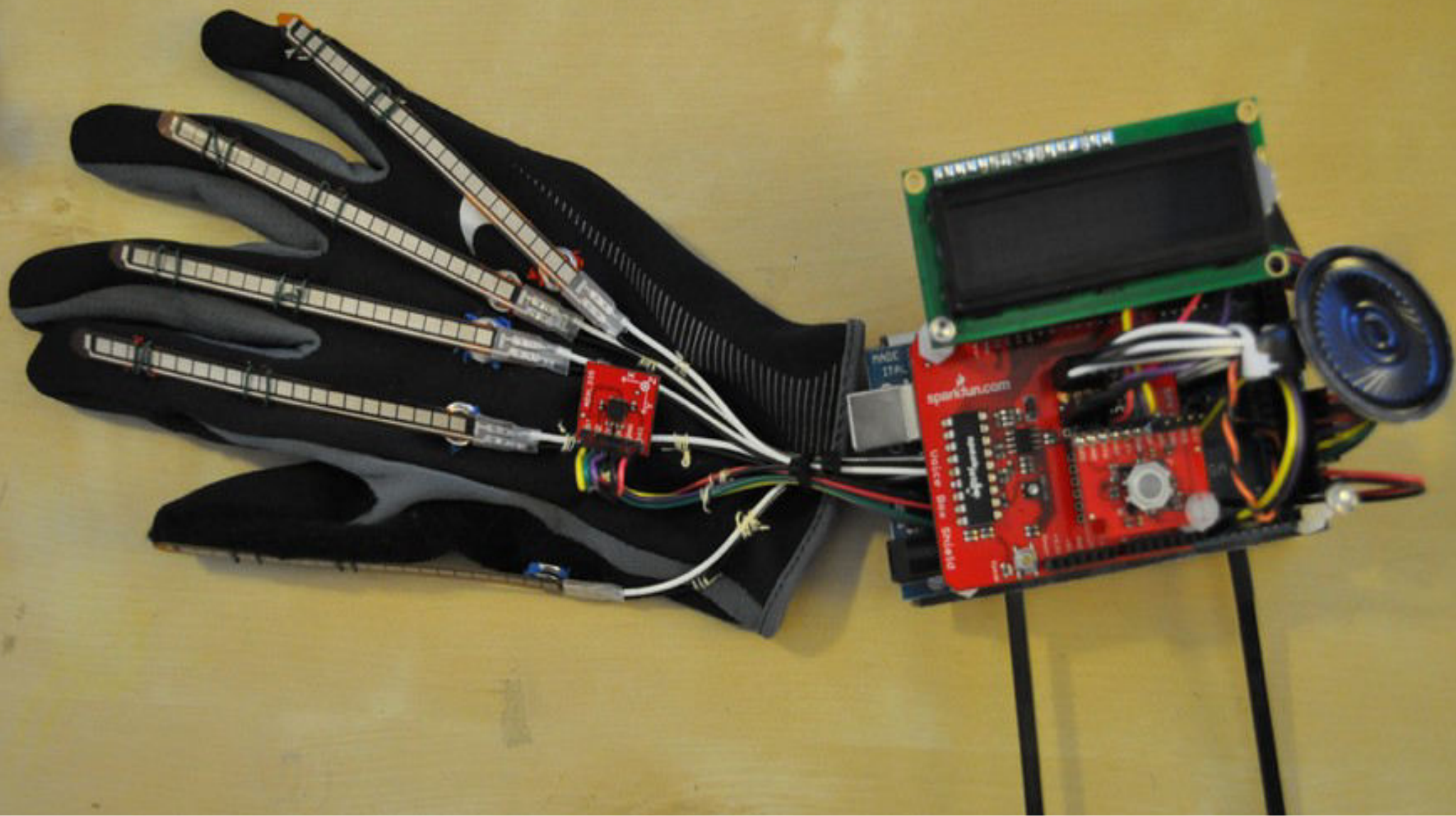
// WHAT'S TRENDING



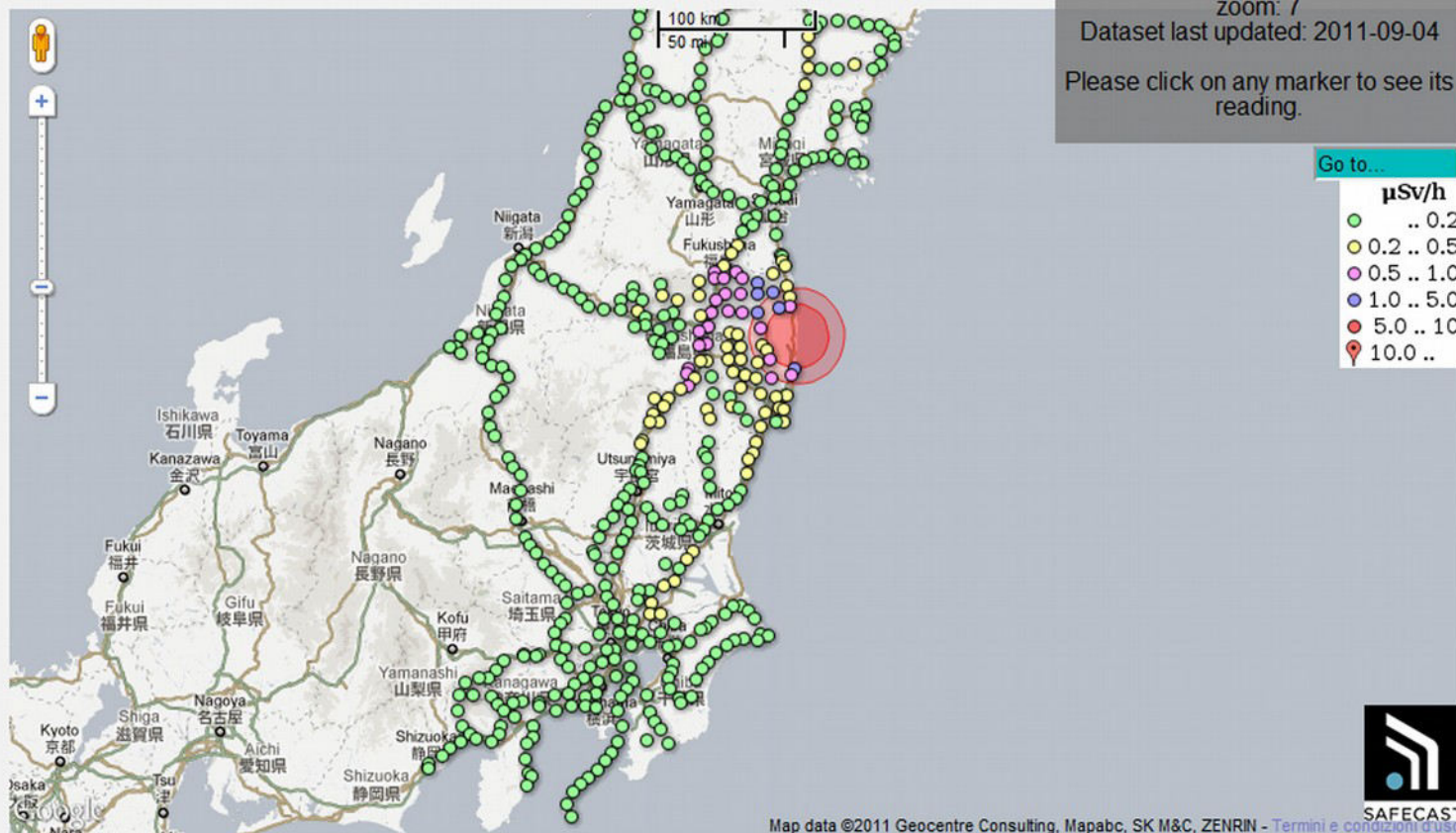
[47 Raspberry Pi Projects to Inspire Your Next Build](#)



PHDuino / Ph Probe / <http://code.google.com/p/phduino/>



sign language glove (<http://www.clocks.com/?p=8>)

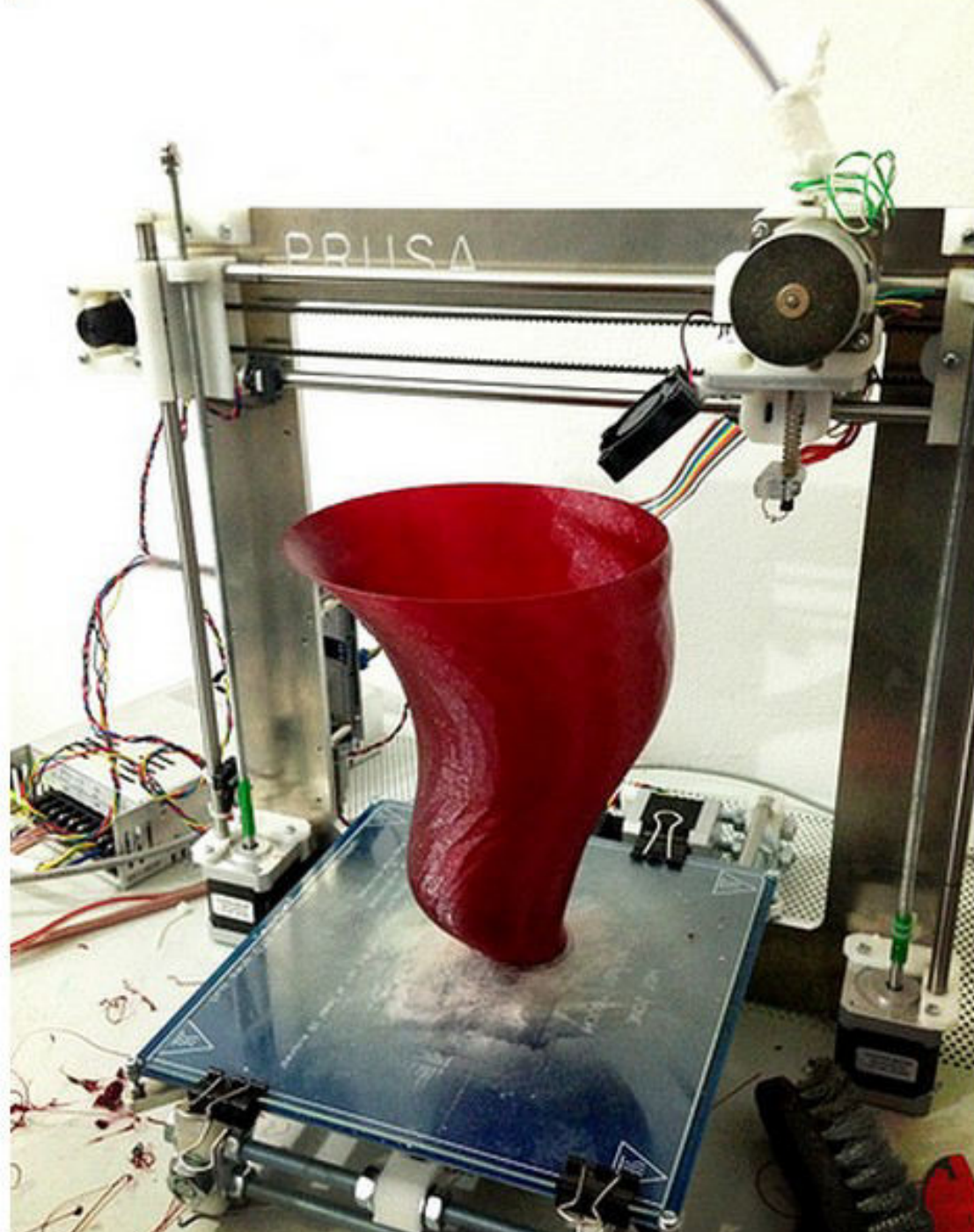


Contact

GENERAL 全般: info@safecast.org
JAPAN 日本: japan@safecast.org
PRESS プレス: press@safecast.org
VOLUNTEER: Interested in helping?
ボランティア: ボランティアに興味をお持ちですか?

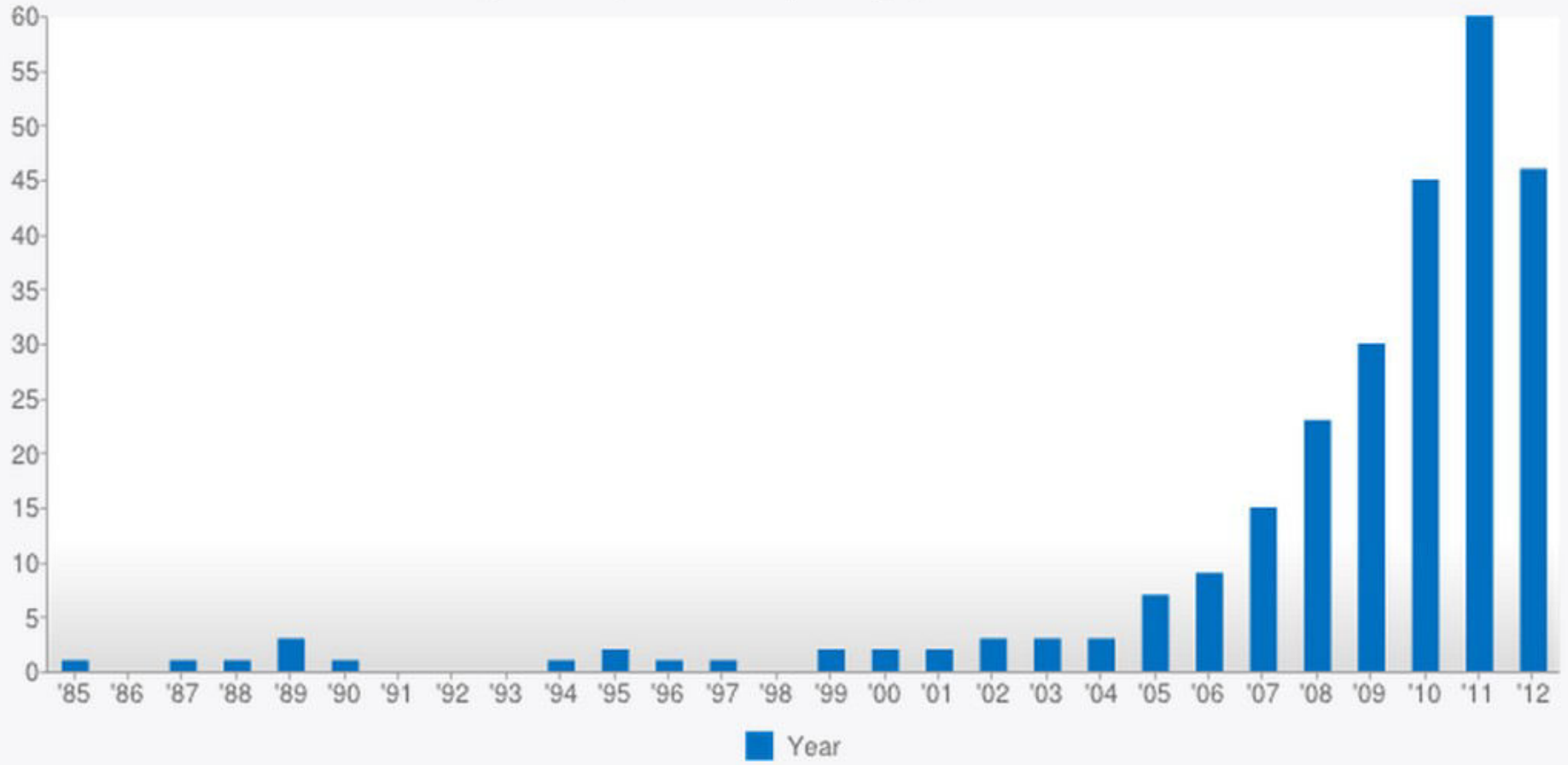
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[@safecastjapan](https://twitter.com/safecastjapan)
● Safecast on Flickr
Discussion mailing list



#reprap #prusa 3D printer // @josefprusa

Which year did you use 3D printing / printer the first time?



Show/Hide Table Data

Figure 10. Which year did you use 3D printing / printer the first time?

History of 3D printing 1984 – 2014

Compare Data: RepRap explosion and first time print

<http://surveys.peerproduction.net/2012/05/manufacturing-in-motion/3/>



PREVIOUS STORY

Children of US immigrants are dying younger than their parents, studies show

NEXT STORY

NewsBlur, flush with Google Reader refugees, rolls out redesign

SCIENCE

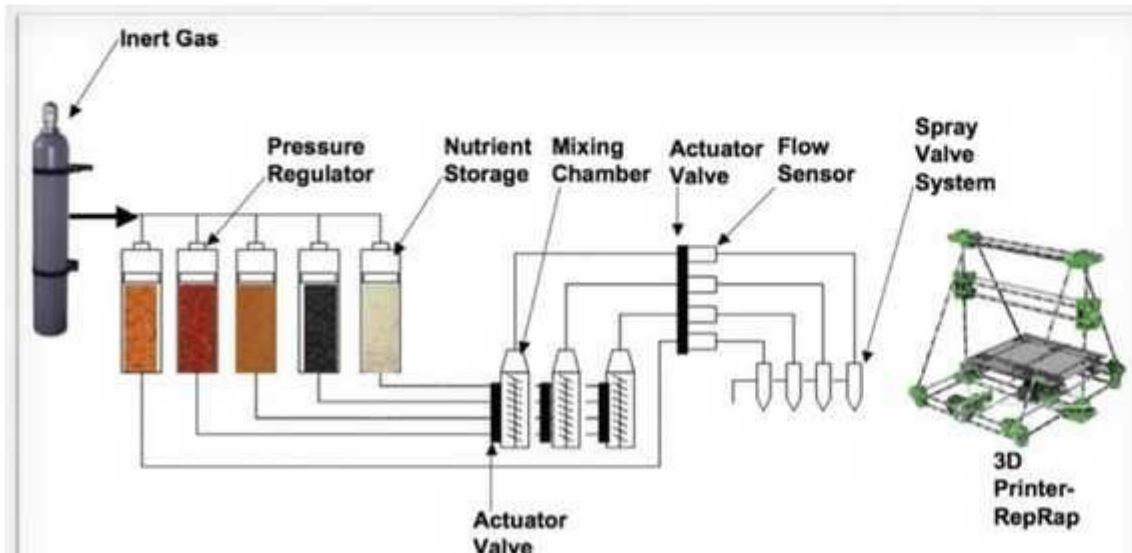
54

COMMENTS

NASA is funding a 3D food printer, and it'll start with pizza

By [Aaron Souppouris](#) on May 21, 2013 07:24 am [Email](#) [@AaronIsSocial](#)

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THE LATEST HEADLINES

Source: the Verge.com <http://bit.ly/11cxnxC> @verge



Angelo Raffaele Meo

http://it.wikipedia.org/wiki/Angelo_Raffaele_Meo

« A twenty five years term of patent is nowadays dated.

At the beginning of the 19th century, such long terms allowed producers to pay back the investment. Today, they hamper innovation. Twenty years in the 19th century correspond to 6 months of today »

« I 25 anni di durata di un brevetto sono oggi anacronistici. Ad inizio '800 garantivano al produttore di ritornare dell'investimento fatto, oggi bloccano l'innovazione. Vent'anni dell'800 corrispondono a 6 mesi di oggi»

The Global Village Construction Set

40

Industrial
Machines



Open Source Ecology

CONTROLLINO PLC (ARDUINO compatible)

by SG-TRONIC INC

Home Updates **9** Backers **191** Comments **61**

Sunnyvale, CA DIY Electronics

Funded! This project was successfully funded on November 7.



191

Backers

\$65,829

pledged of \$50,000 goal

0

seconds to go



Project by

SG-TRONIC INC
Sunnyvale, CA

K 2 created · 0 backed

f Has not connected Facebook

globe controllino.cc

Open Source Hardware and PLC: Arduino in the Factory?

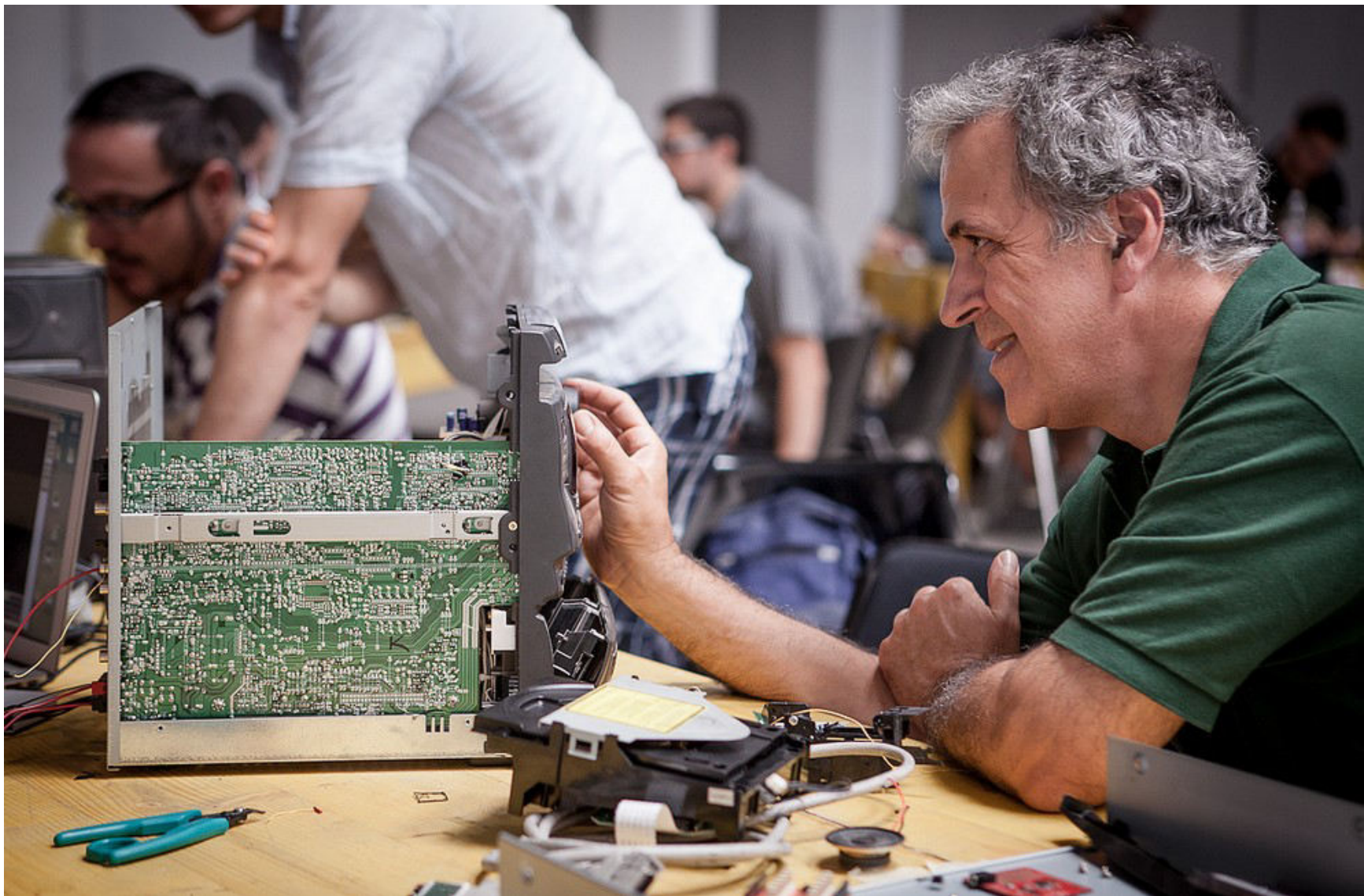
<https://www.kickstarter.com/projects/24519005/controllino-plc-arduino-compatible>

**IF YOU CAN'T
OPEN IT,
YOU DON'T OWN IT**

makezine.com

THE MAKER'S BILL OF RIGHTS

- Meaningful and specific parts lists shall be included.
- Cases shall be easy to open. ■ Batteries shall be replaceable. ■ Special tools are allowed only for darn good reasons. ■ Profiting by selling expensive special tools is wrong, and not making special tools available is even worse. ■ Torx is OK; tamperproof is rarely OK.
- Components, not entire subassemblies, shall be replaceable. ■ Consumables, like fuses and filters, shall be easy to access. ■ Circuit boards shall be commented.
- Power from USB is good; power from proprietary power adapters is bad. ■ Standard connectors shall have pinouts defined. ■ If it snaps shut, it shall snap open. ■ Screws better than glues. ■ Docs and drivers



Maker Movement is making our relationship with technology shift from a consumer to a citizen perspective



Fablab in Europe (2014) = 239

Source: <http://www.fabfoundation.org/fab-labs/>



all

photos

step by step

video

ebooks

guides

answers

contests

All

Food

Living

Outside

Play

Technology

3D Printing

Apple

Arduino

Art

Assistive Tech

Audio

Cell Phones

Clocks

editors' picks | [popular](#) | [recent](#) | [rating](#) | [views](#) | [zeitgeist](#) | [uncommented](#) | [random](#)



AC Arduino dimming circuit
by gabriellalevine



Honey Bee Counter
by hydronics



Gas detector / indicator (USB powered) with arduino



Online and Makerspace based learning
@instructables



Online and Makerspace based learning
[@udacity](#) [@codecademy](#) [@Khanacademy](#)

January 8, 2012

'Badges' Earned Online Pose Challenge to Traditional College Diplomas



Photo illustration by Bob McGrath for The Chronicle

[Enlarge Image](#)

By Jeffrey R. Young

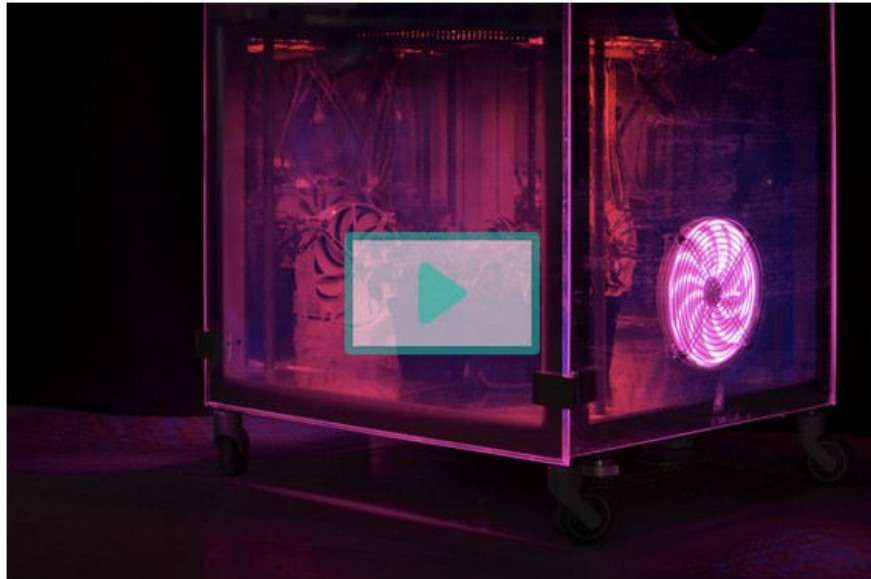
The spread of a seemingly playful alternative to traditional diplomas, inspired by Boy Scout achievement patches and video-game power-ups, suggests that the standard certification system no longer works in today's fast-changing job market.

Educational upstarts across the Web are adopting systems of "badges" to certify skills and abilities. If scouting focuses on outdoorsy skills like tying knots, these badges denote

areas employers might look for, like mentorship or digital video editing. Many of the new digital badges are easy to attain—intentionally so—to keep students motivated, while others signal mastery of fine-grained skills that are not formally recognized in a traditional classroom.

At the free online-education provider Khan Academy, for instance, students get a "Great Listener" badge for watching 30 minutes of videos from its collection of thousands of short educational clips. With enough of those badges, paired with badges earned for passing standardized tests administered on the site, users can earn the distinction of "Master of Algebra" or other "Challenge

Online and Makerspace based learning



MEG, Micro Experimental Growing

MEG, open source greenhouse // #TOMmf

 **GRAND PRIZE**

 **4.13 / 5**

RATING

 **2**

FOLLOWERS

Voting took place 9 June - 11 July 2014.

[Learn more.](#)

FOLLOW PROJECT

PROJECT FUNDING GOAL

€50,000

YRADIA

MILAN, ITALY

May 2015

10:00 - 18:00

Toolbox Coworking Torino

@TOMakerfaire

Meet the Maker: Fabrizio Alessio e TwoWheels

Posted on 01/04/2014 by [davide gomba](#) | [Leave a comment](#)

**Torino Mini
Maker Faire®**

May 2015

10:00 – 18:00

Toolbox Coworking Torino

@TOMakerfaire



Fabrizio Alessio and its wheelchair

Siamo andati a incontrare Fabrizio Alessio, un designer che ha sviluppato una

TooWheels, open source wheelshair // #TOMmf

reperimento e dal costo contenuto:

My priority for the urban social innovation agenda:

According to my experience, the agenda of European cities should include this priority:

Foster STEM-oriented MOOC and peer-to-peer based learning paradigms paying a special attention to the empowerment of non formal, city-distributed spaces (Coworkings, Fablabs, Makerspaces, Hackerspaces) aimed to the promotion of an acknowledged, open-source, shared approach towards Technology.

Arduino, the Maker Movement

The Change of a Paradigm

Thanks for the Attention!

#arduino #officineArduino #makers #fablabTo #T0mff
@vongomben

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