

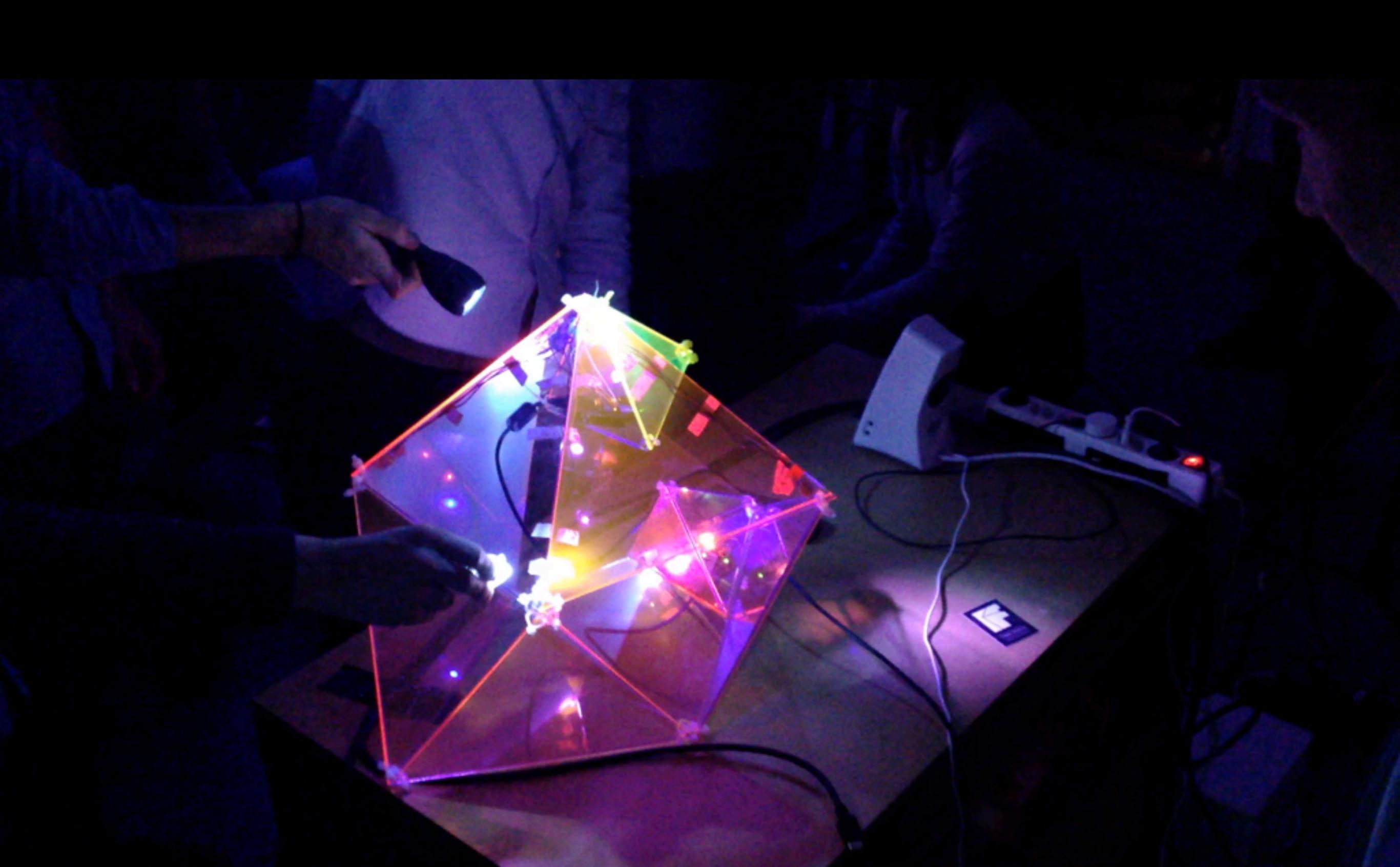
A photograph showing a stack of several cardboard boxes in what appears to be a workshop or storage area. The boxes are light-colored and stacked haphazardly. In the background, there are various items like a roll of blue tape, some cables, and a small black device. The lighting is somewhat dim, creating shadows on the boxes.

PHOENIX PERRY

@PHOENIXPERRY









the
CODE LIBERATION FOUNDATION



EXIT



BOSSSED UP JAM



HIGH SCHOOL CLASSES



CLF x BLACK GIRLS CODE



GAME DEVELOPMENT CLASSES



CIBELLE

PRISM SHELL

プリズムシェール

TAP to play





SLAM CITY ORACLES

STELLAR
SMOOCH



**There was a soul
with a great dream...**



Why Nikola Tesla was the greatest geek who ever lived.

The Oatmeal <http://theoatmeal.com>

Geeks stay up all night disassembling the world
so that they can put it back together with new features.



They **tinker** and fix things that aren't broken.

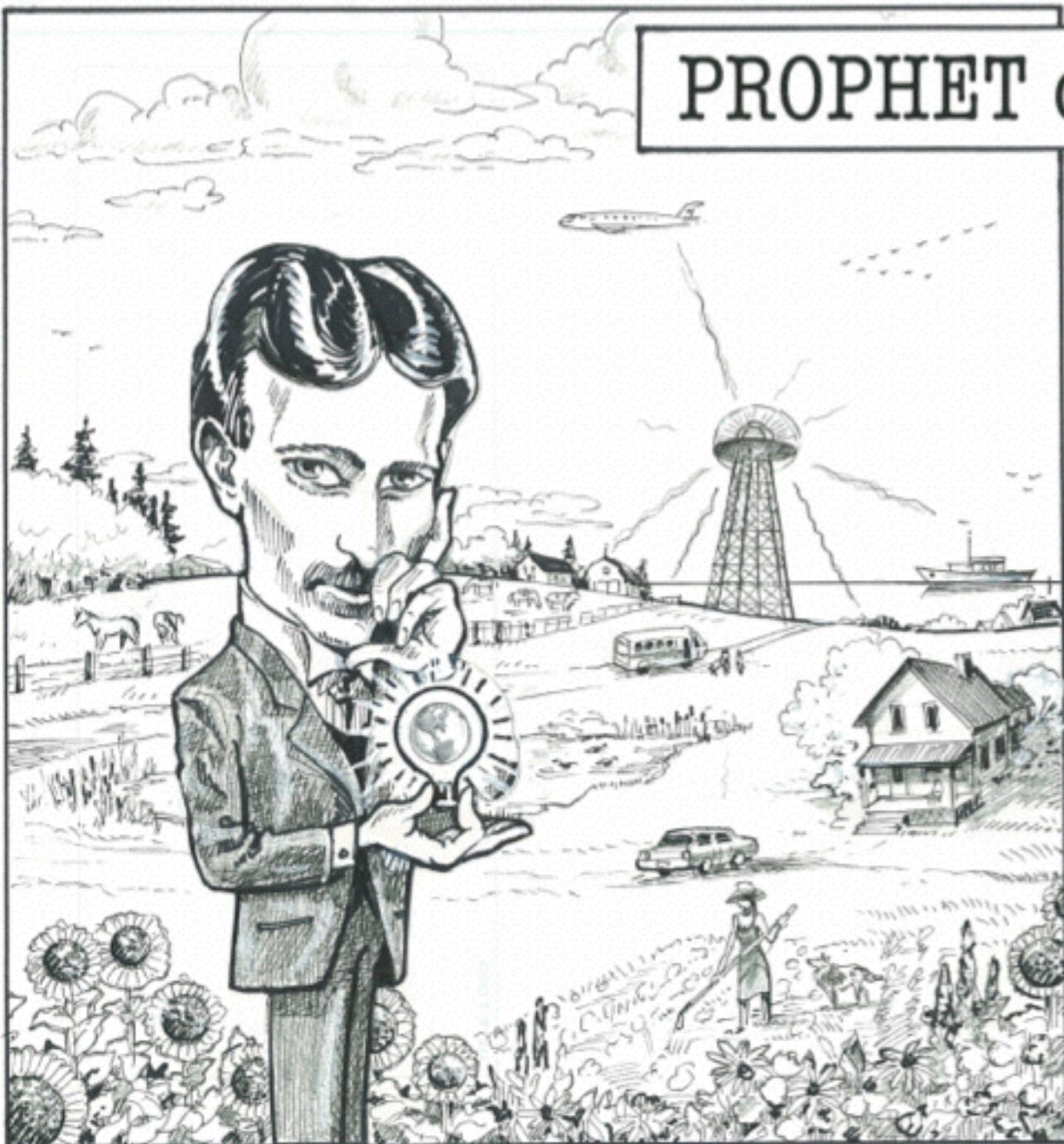


Geeks abandon the world around them
because they're busy soldering together a new one.



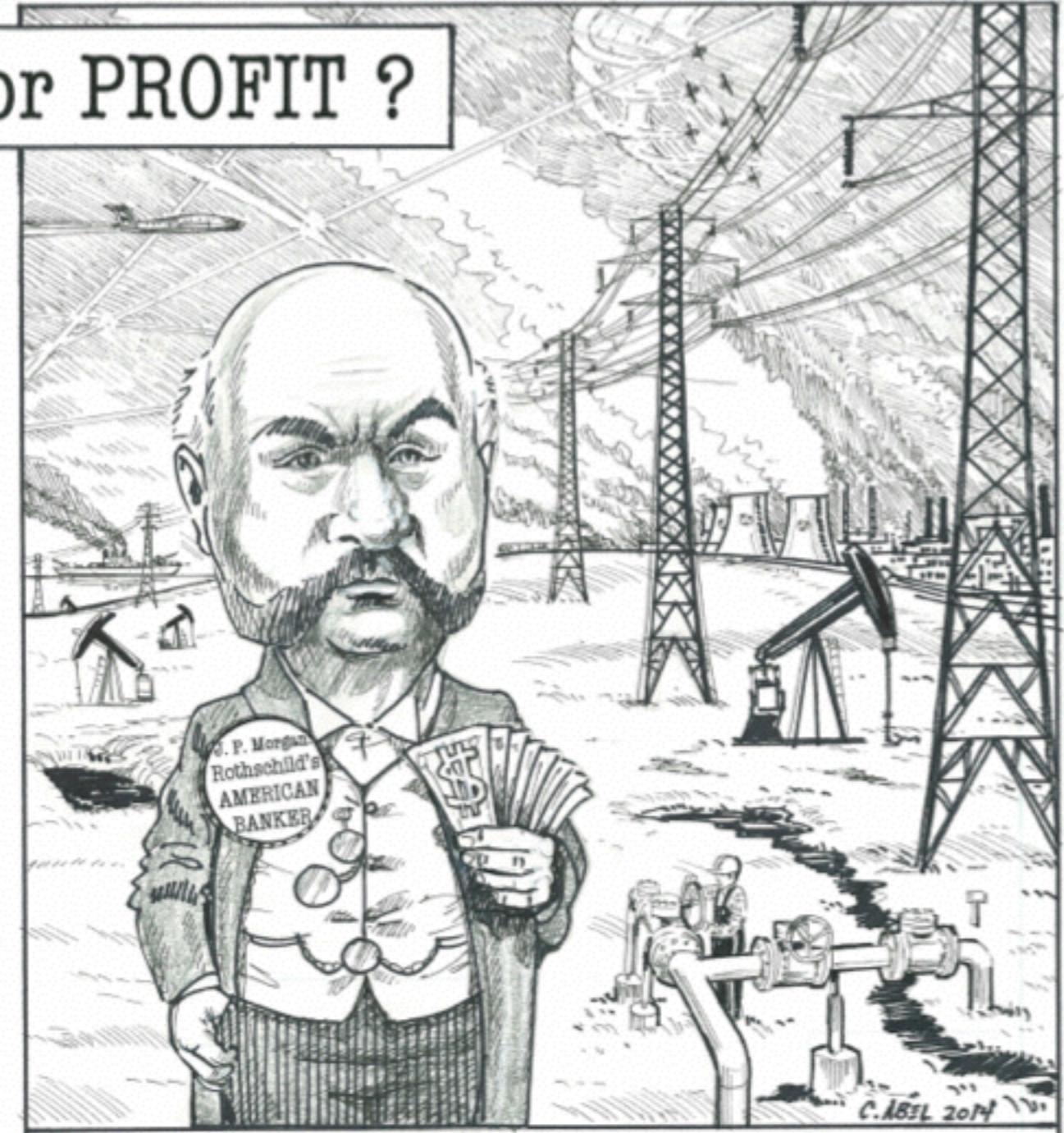
and one group with greed

PROPHET or PROFIT ?



Nikola Tesla & FREE ENERGY

Around 1900, inventor Nikola Tesla was far advanced in his quest to provide all of humanity with FREE ENERGY and unlimited wireless communications. Tesla's technology was aimed at drawing electric power from the energy naturally occurring in earth's atmosphere. The future he envisioned was one of harmonious interaction between technology, society and nature. The brilliance of Tesla's innovations made him history's leading prophet and architect of emancipatory technology. More than a century later however, humanity has not been allowed to experience the full benefits of Tesla's vision.



J. P. Morgan & COMMERCIAL ENERGY

The prospect of free energy alarmed many of America's richest plutocrats. One of them was banker J. P. Morgan, Tesla's primary financier around 1900. Discovering that he couldn't put a meter on Tesla's free energy devices and make a profit, Morgan cut Tesla's funding. Moreover, Morgan was unrelenting in blocking other investors from supporting Tesla's innovations. The halting of Tesla's research and development deprived humanity from enjoying the full potential of his genius. Instead, the world was subjected to the ecological degradation of the fossil fuel and nuclear power industries. Insult was added to injury when, after his death in 1943, the FBI seized Tesla's papers to deploy his ideas in top-secret military technology.

WHO IS TESLA?

The fundamental drive to
improve life vs the fundamental
drive to **profit** from life.

Technology as
limitless resource

Today at odds with each other are these same forces and one is exceptionally good at co-opting, corrupting and shutting down the other...

Even though we lost in terms of
battle for free power, there's
never stopped being a *resistance*.



the greatest hacker
group in Europe.



RADICAL
OPENNESS

TRANSMUTATION

Transducers

mechanical work = **motor**

radiated energy = **lamps, transmitters**

stored energy = **battery, capacitors, inductors**

open source software

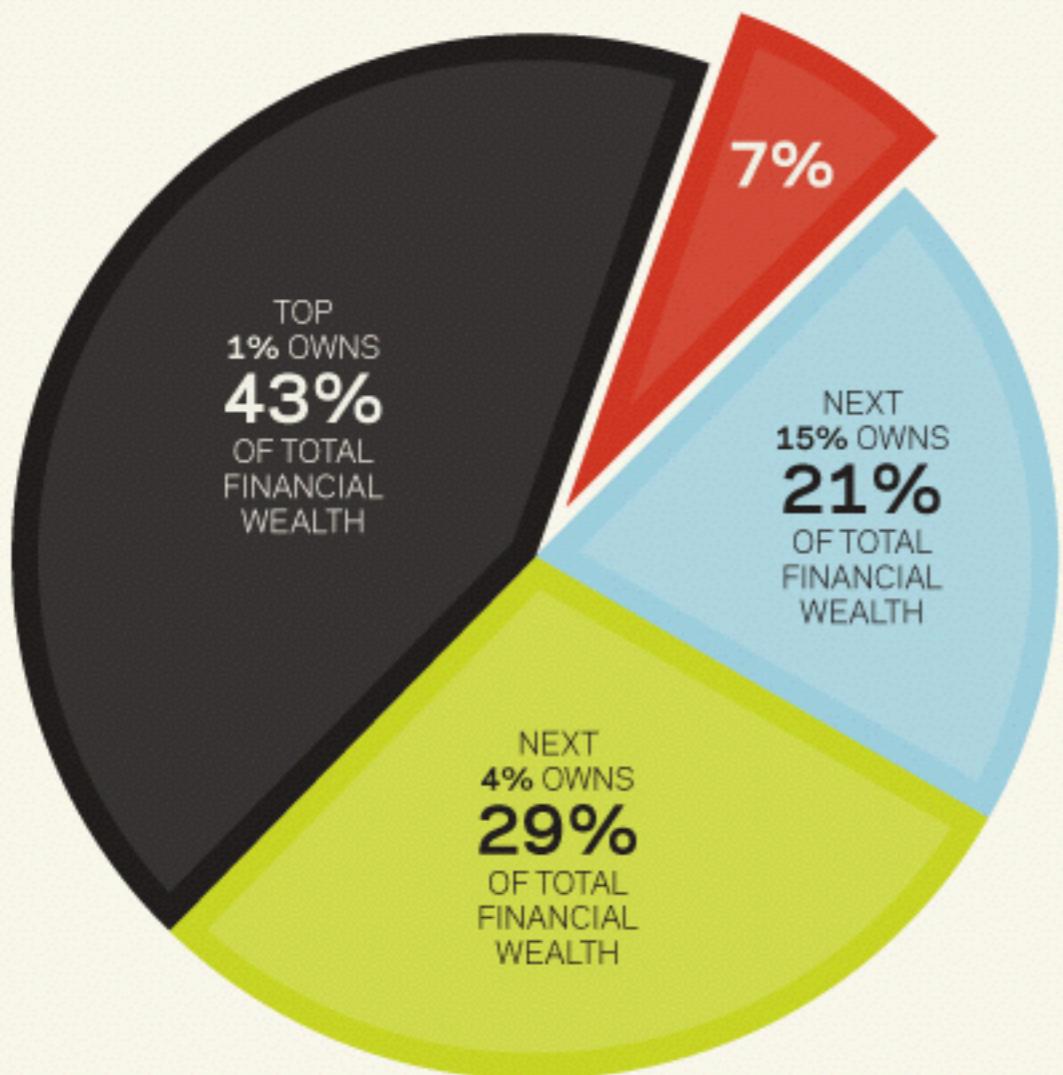
Open-source software (OSS) is computer software with its source code made available with a license in which the copyright holder provides the rights to study, change, and distribute the software to anyone and for any purpose.

open source hardware

Open-source hardware (OSH) consists of physical artifacts of technology designed and offered by the open design movement. Both free and open-source software (FOSS) as well as open-source hardware is created by this open-source culture movement and applies a like concept to a variety of components. It is sometimes, thus, referred to as FOSH (free and open source hardware). The term usually means that information about the hardware is easily discerned so that others can make it - coupling it closely to the maker movement.[1]



**80% OF AMERICANS SHARE ONLY 7% OF
ALL THE MONEY IN AMERICA**



THIS IS **NOT** WHAT DEMOCRACY LOOKS LIKE
DISTRIBUTION OF FINANCIAL WEALTH IN THE UNITED STATES

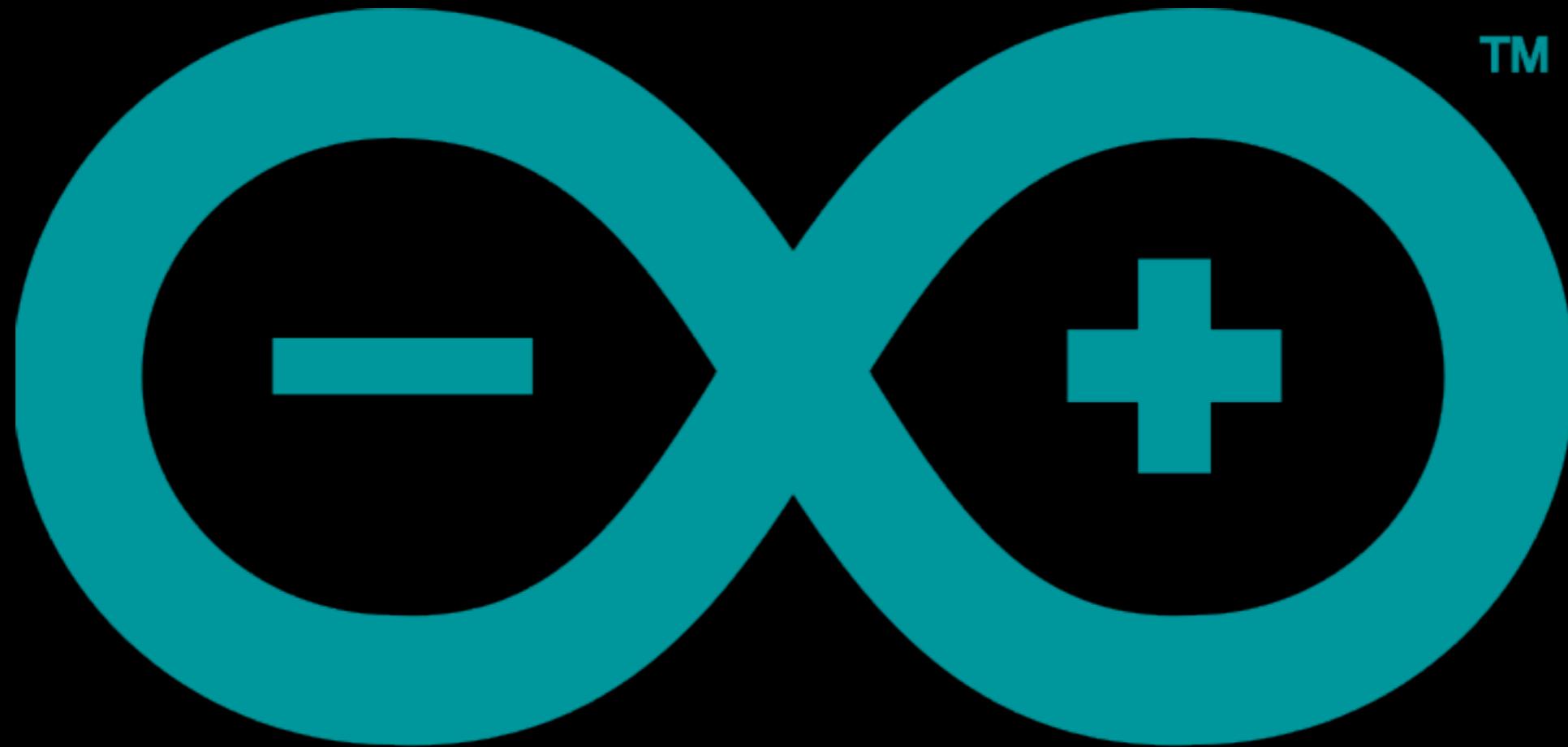
<http://sociology.ucsc.edu/whorulesamerica/power/wealth.html>

THE SHAPE OF POWER



THE SHAPE OF COMMUNITY

WHY CARE?

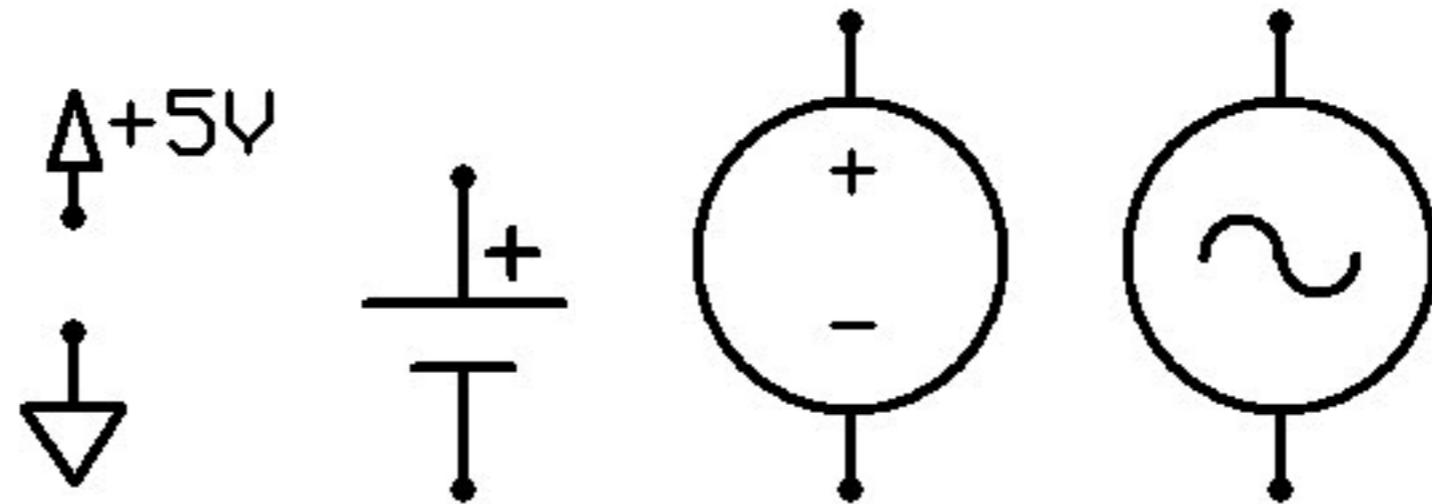


ARDUINO

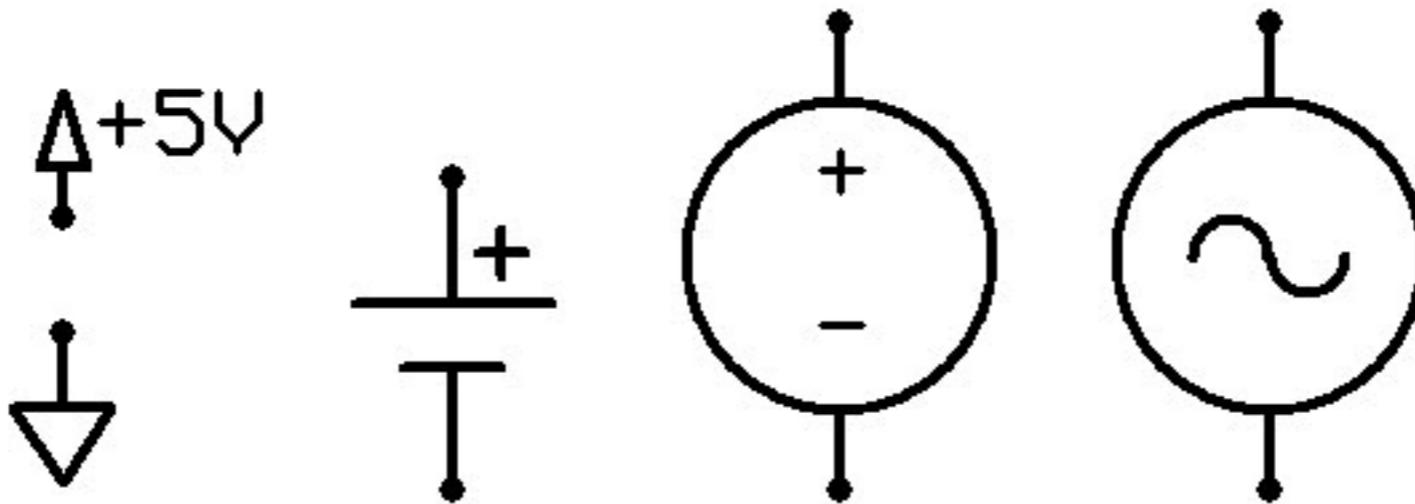
OK



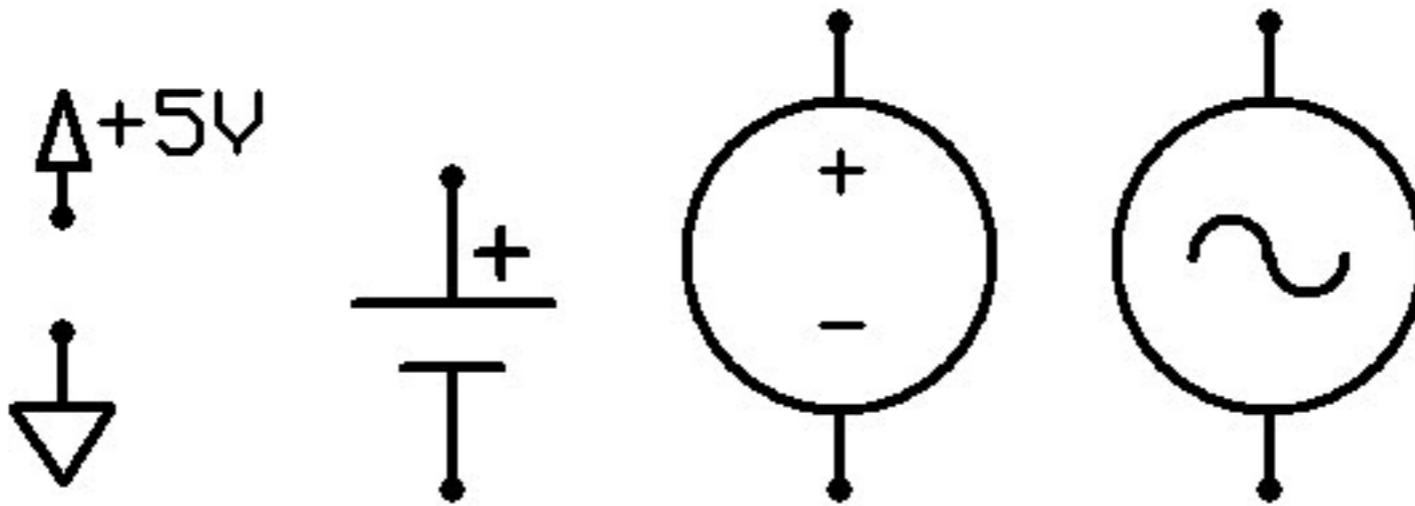
NYCRESISTOR



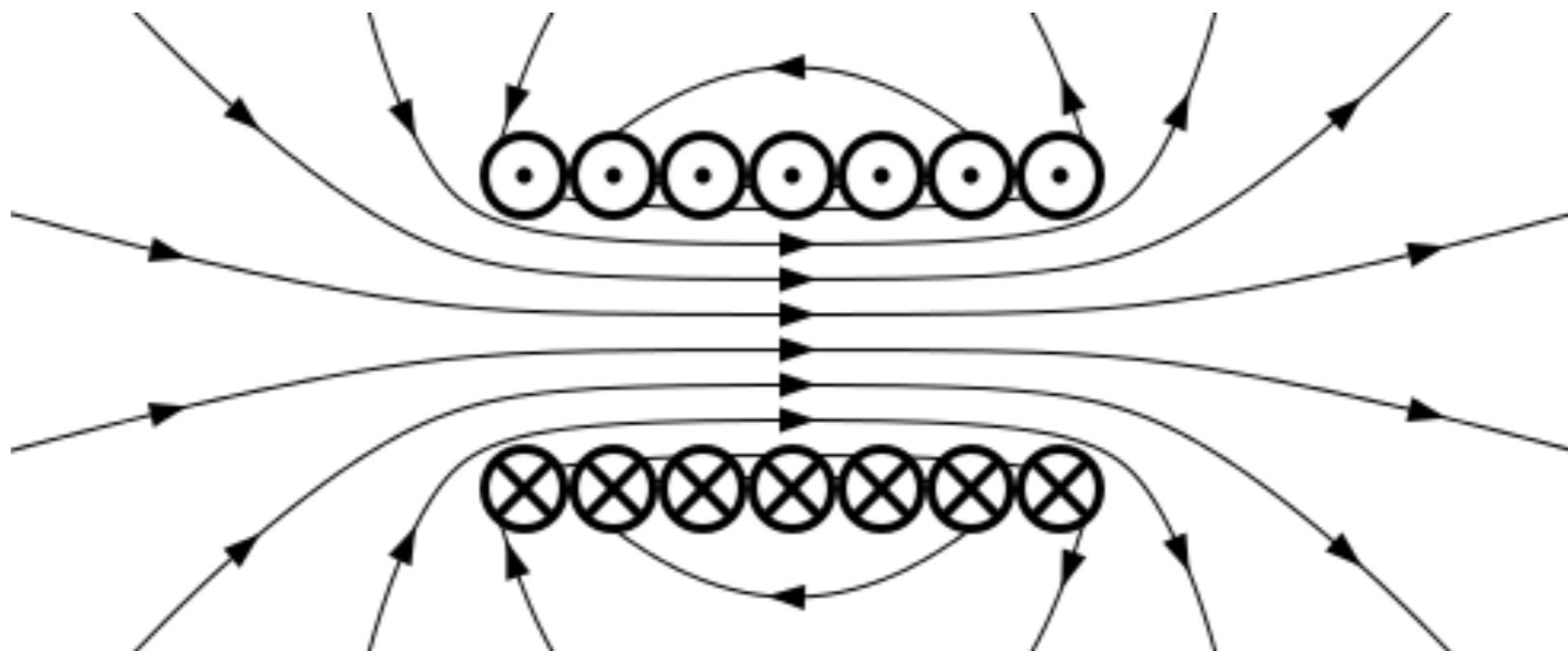
Because this class is all about
Power



and the relationship between
voltage , current and resistance.



and the relationship between
voltage , current and resistance.



Voltage

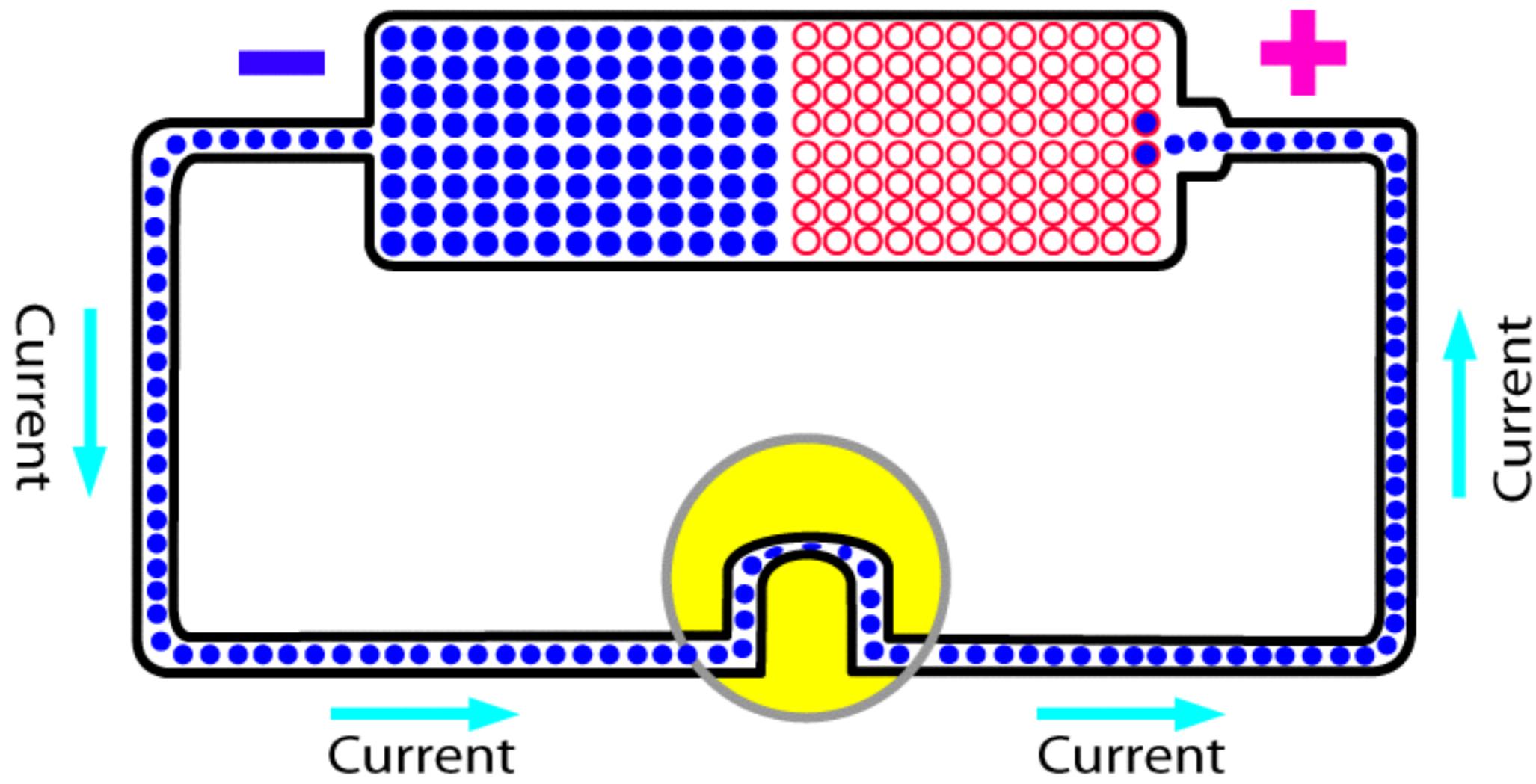
difference in electric potential energy between two points per unit electric charge.



Ω

Current

How fast is the voltage flowing

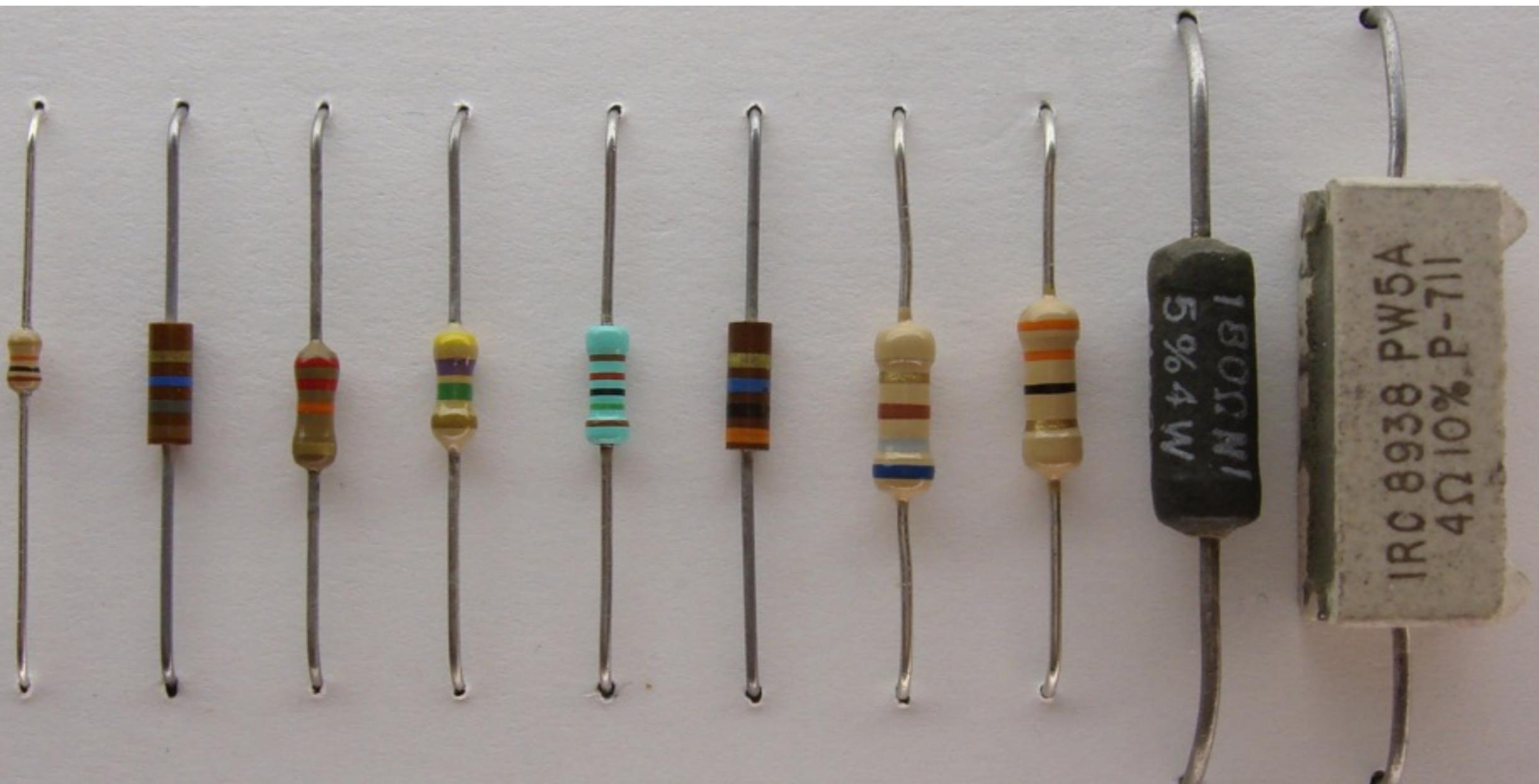


how equipment works .com



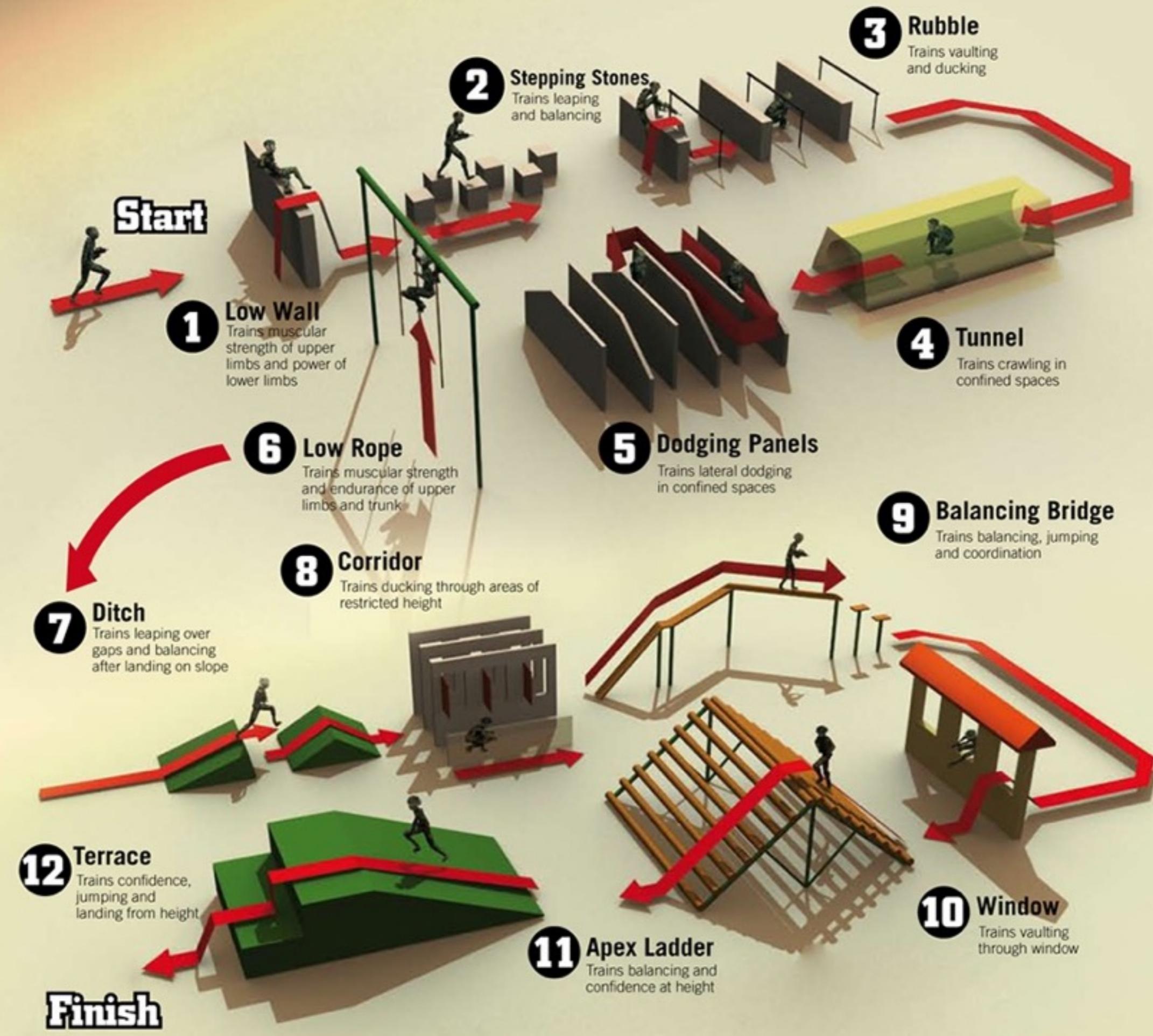
Resistance (R)

How easily can the current flow?



W 4% G
WUOB 1

IRC 8938 PW5A
4Ω 10% P-711



Really though it's all about **input**

Light sensors,

Sound sensors

Pressure sensors

Buttons

Microphones

Touch Sensors

Motion Sensor

Temperature Sensors

and **output**
heat,
cold,
light,
form & touch
sound,
vibration

and the **relationship**
between these two
things you create

THINK OF EVERYTHING IN THE WORLD AS **DATA**
YOU CAN MEASURE

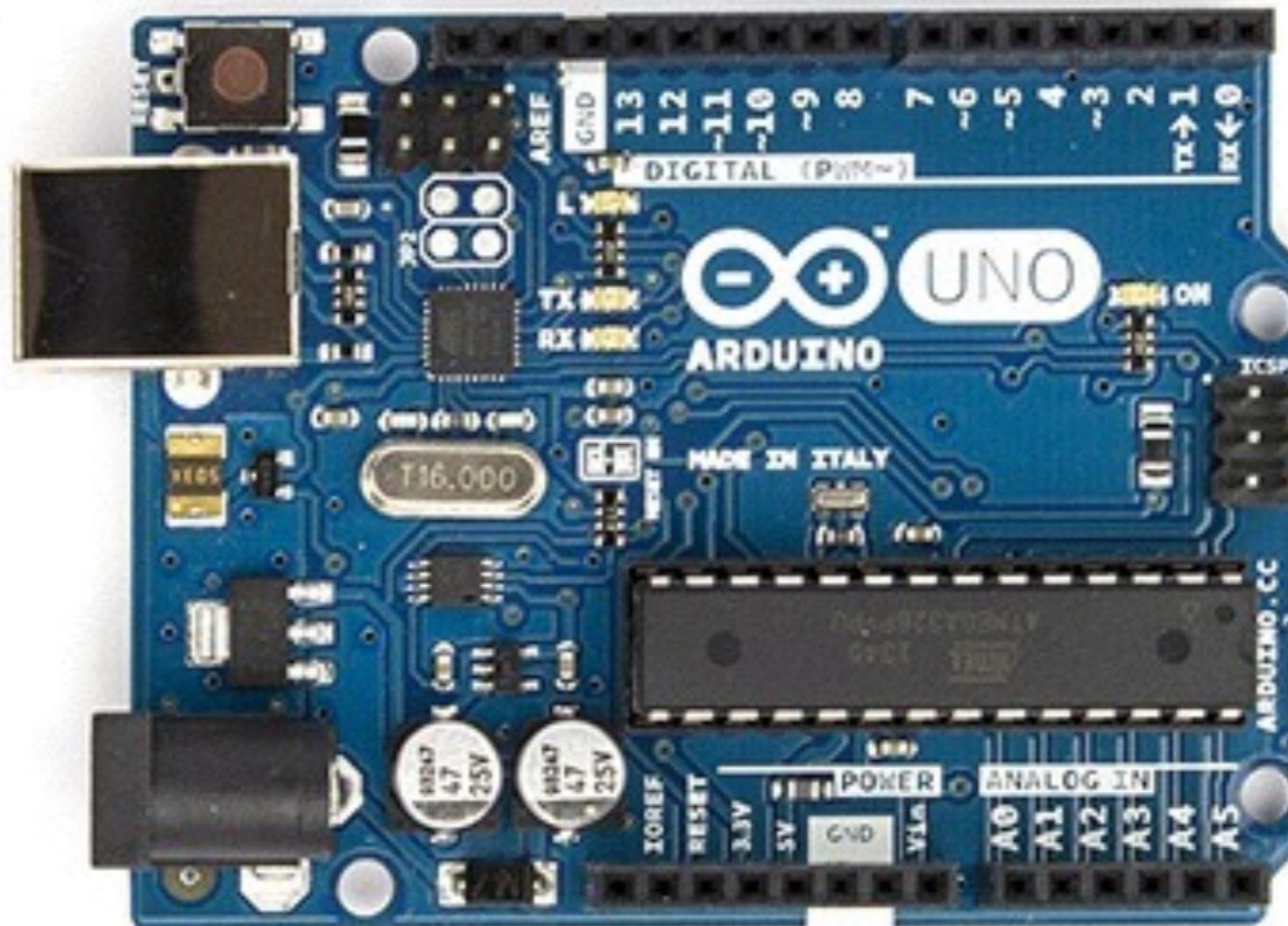
THINK OF YOUR WORLD AS AN
INTERFACE

ALL YOU NEED IS A WAY TO MEASURE THAT DATA
**AND THAT'S WHAT YOU CAN DO WITH A MICRO
CONTROLLER.**

Cons:

Huge
Big Usb Cable
Expensive

ARDUINO



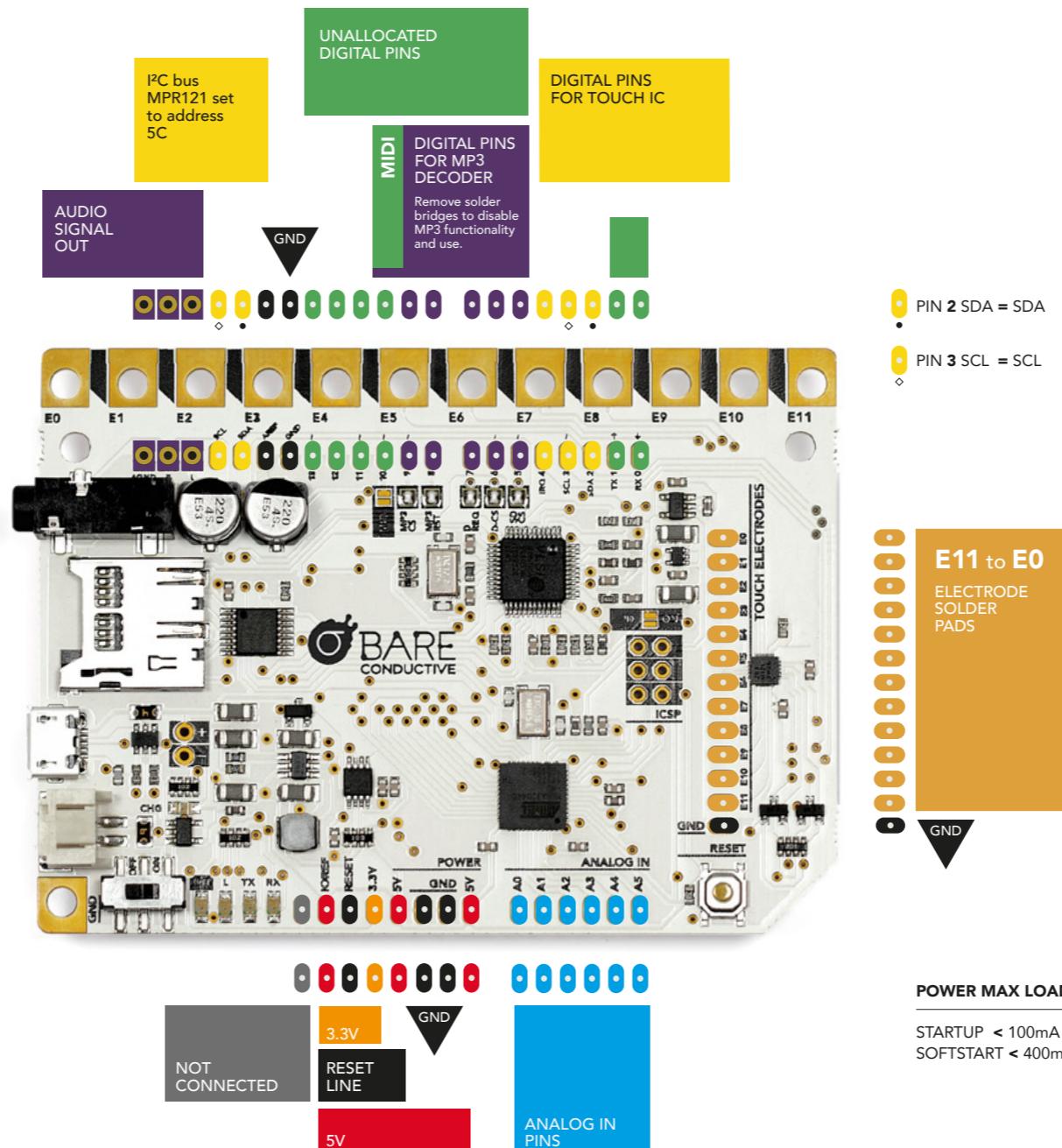
Pros:

Stable
Works with anything

Cons:
Super expensive
No forums

Pros:
Just flat out rad
Great docs
Good support

BARE BOARD

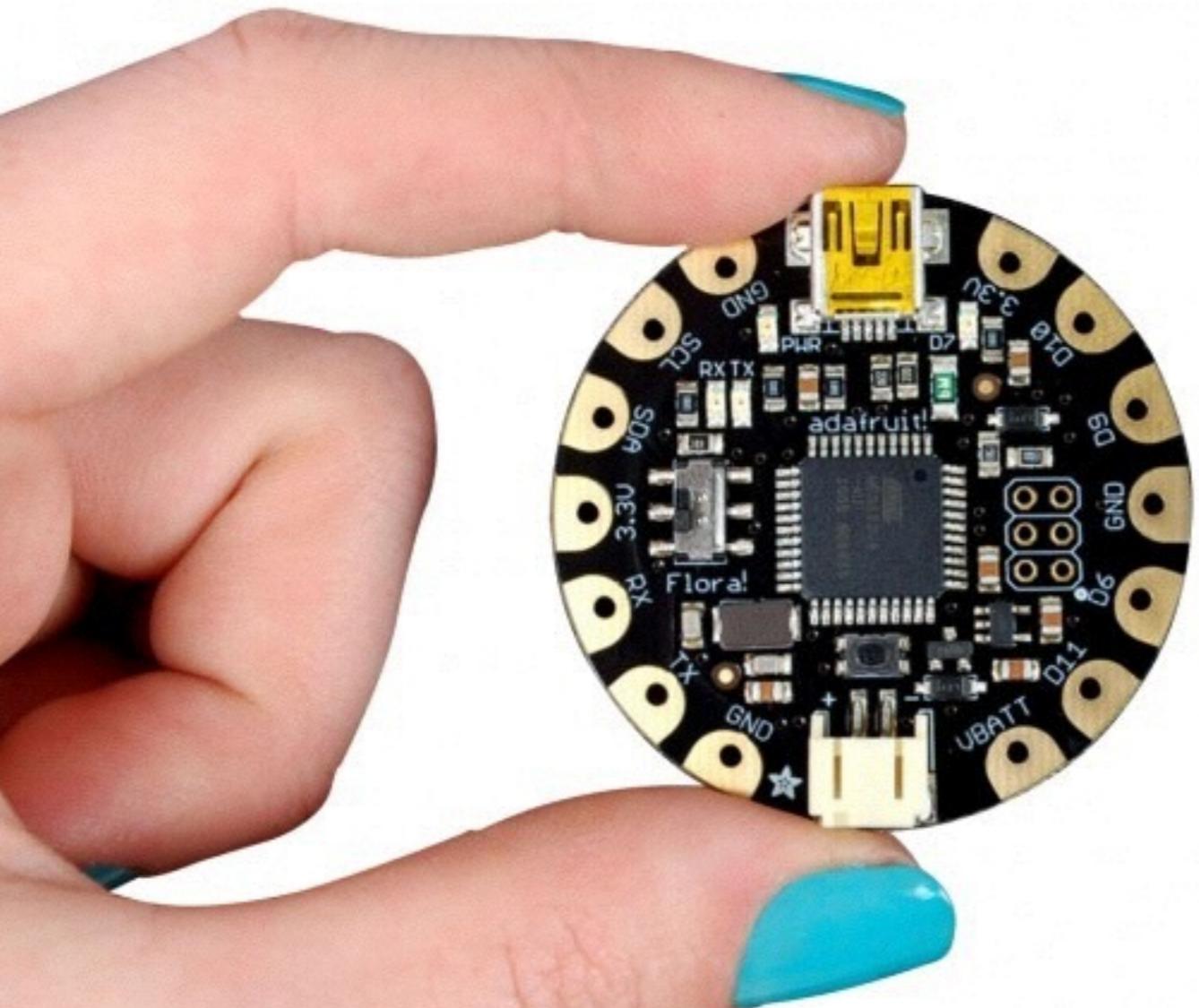


AUDIO	UNALLOCATED DIGITAL PINS	DIGITAL PINS for TOUCH	ELECTRODE SOLDER PADS	ANALOG PINS	3.3V	5V	GROUND	NOT CONNECTED
Touch Board has a special chip for MP3 decoding and MIDI function.	Use these for your project's additional features.	Touch Board uses a dedicated touch chip for touch and proximity sensing.	These map to the larger touch electrodes and are useful for permanent project installations.	0 < Value < 5V 0 < Reading < 1023 4.9mV per unit	Touch Board has a 3.3V regulator to power 3.3V logic circuits.	Touch Board runs on 5V and has a boost circuit to power up from LiPo batteries.	These are great for grounding shielded cable when used with the electrode solder pads.	This is to accommodate standard 8 pin headers.

FLORA

Cons:

Not as much Windows support



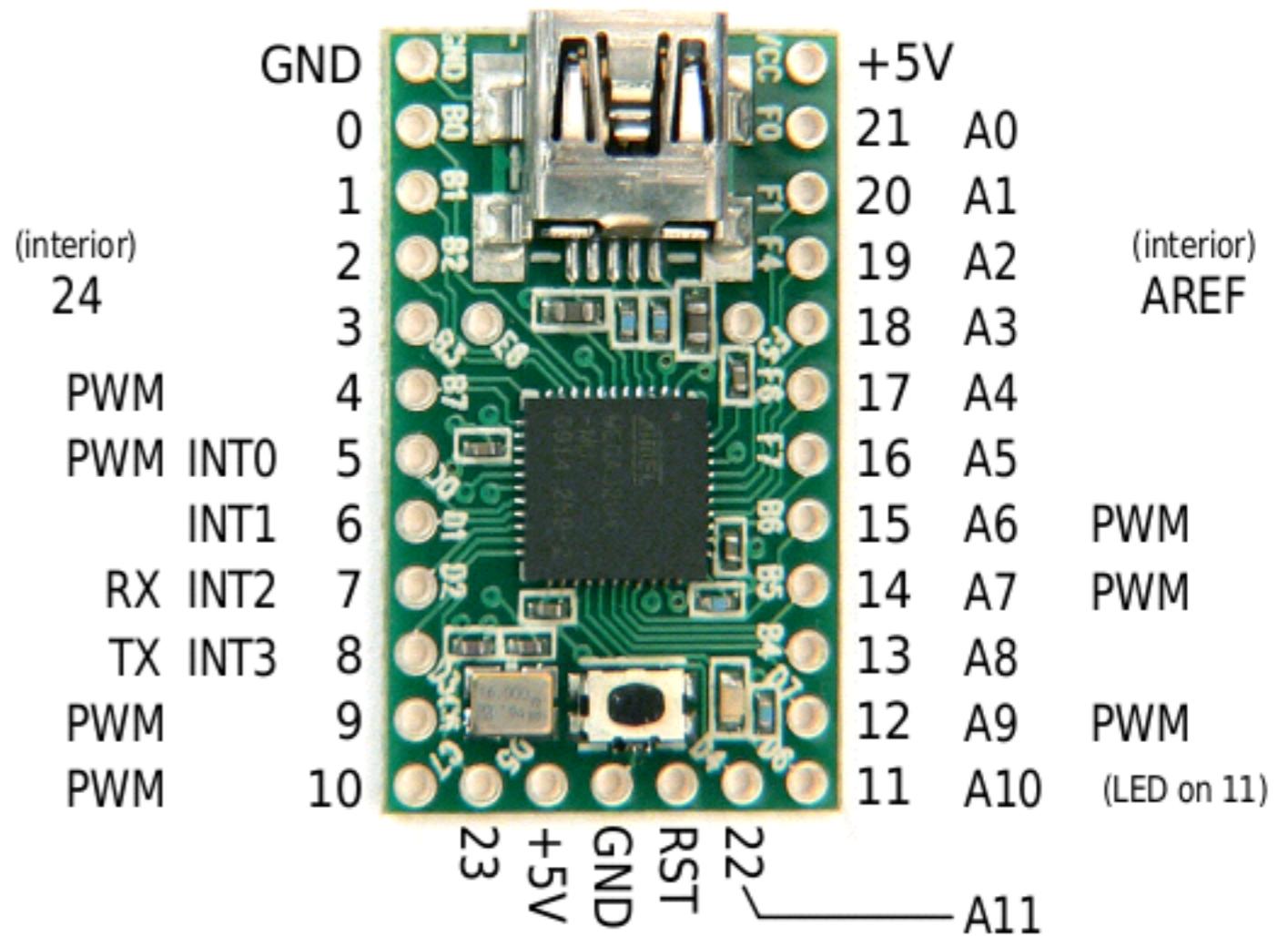
Pros:

This is the wearable platform to go for if you're going to sew your circuits
Forums are great

TEENSY

Cons:

You have to add your own header pins
The 3.1 is more robust



Pros:

Small, light, and also good for wearables
The 3.1 version works as a synth
3.1 version also has touch pads

Particle devices

Cons:

Bugs. Lots of bugs.

Lag because wifi

Super new tech

Pros:

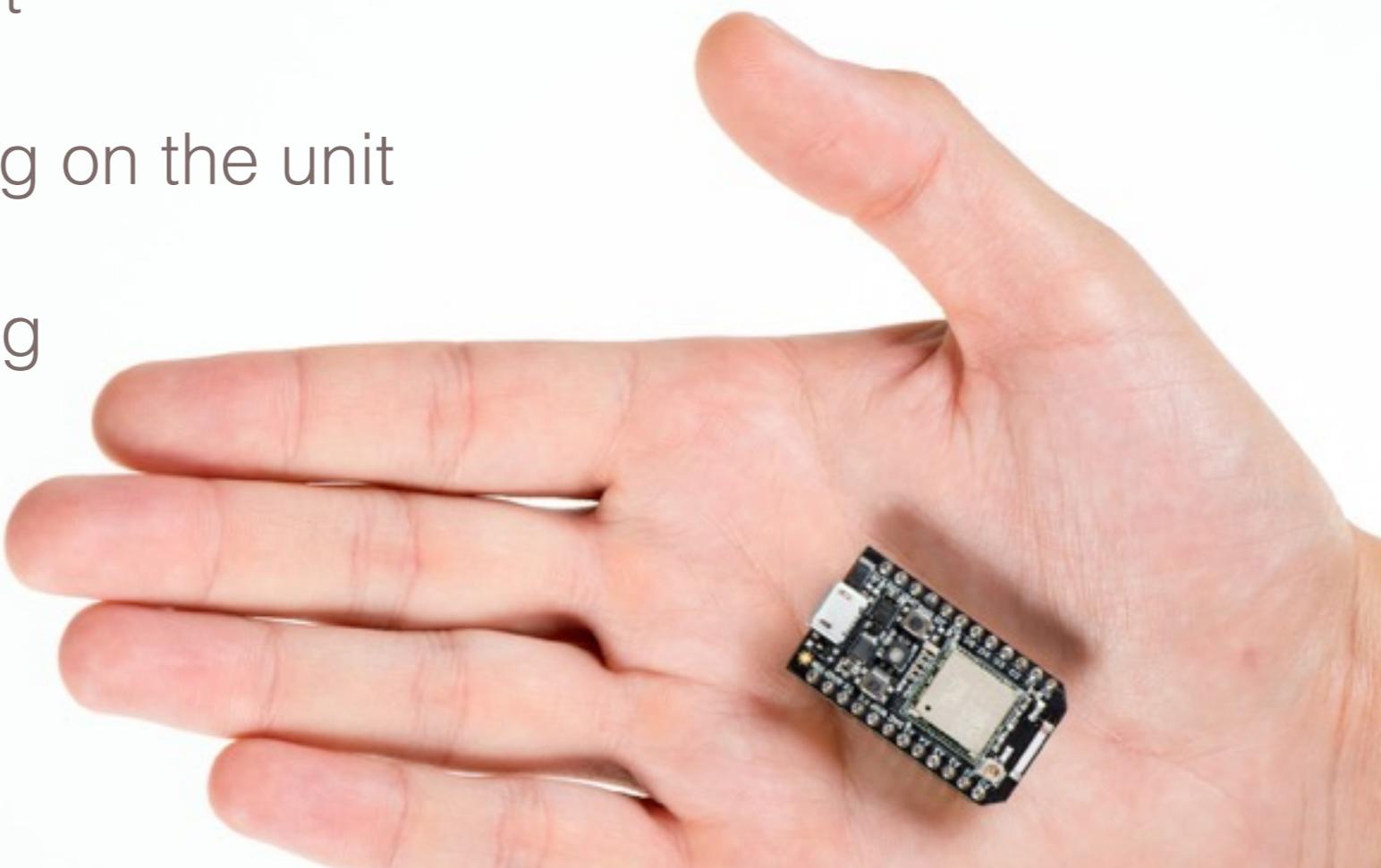
There's nothing else quite like it

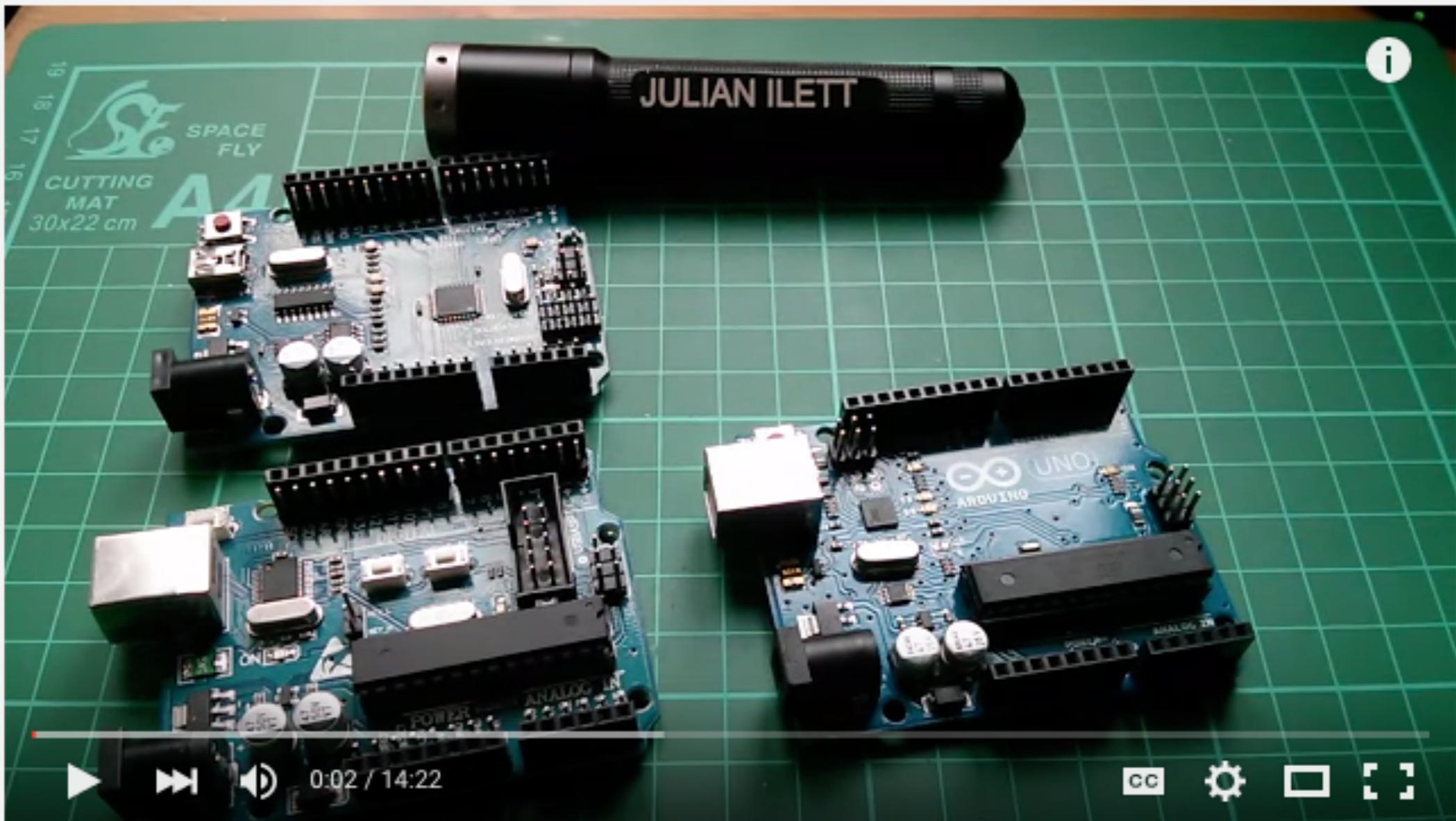
Small + good for wearables

Always on wifi or 3G depending on the unit

Rocking forums

Usually works after the suffering





1-Day Project: Build Your Own Arduino Uno for \$5



Julian Ilett



Subscribe

56,296

481,831

+ Add to

Share

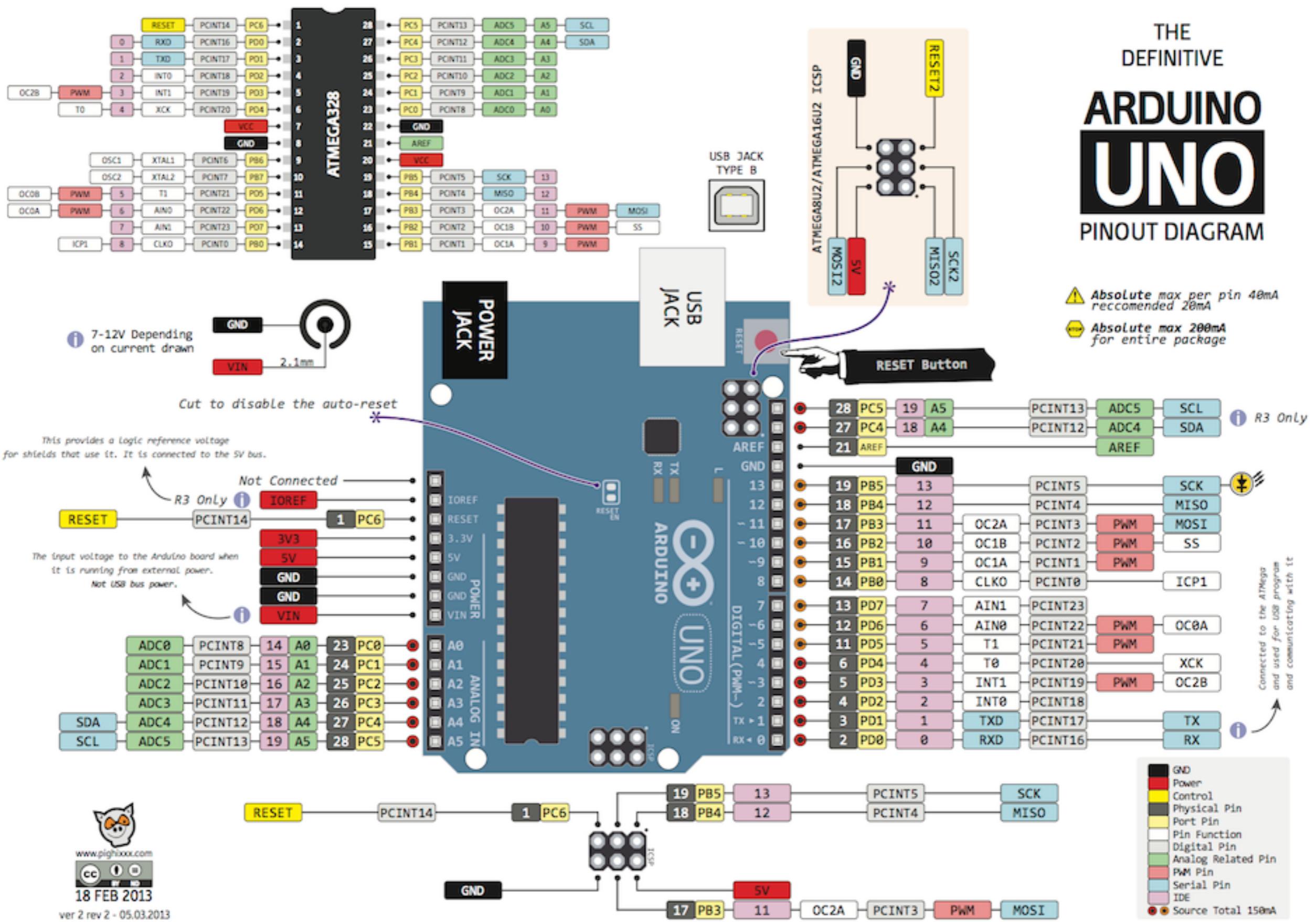
More

3,947

73

<https://www.youtube.com/watch?v=sNIMCdVOHOM>

THE DEFINITIVE **ARDUINO** **UNO** PINOUT DIAGRAM



THE TWO MOST COMMON USE OF PINS

Digital & Analog* (PWM)

Get the data in
Send the data out

DIGITAL
ON/OFF

ANALOG
0-1024

Programming IDE options:

- 1. Arduino**
- 2. Sublime with the use external editor box checked in the Arduinio preference**
- 3. Atom if you use Particle devices**

The screenshot shows the Arduino IDE interface with the title bar "Blink | Arduino 1.0". The main window displays the "Blink" sketch. The code is as follows:

```
/*
 * Blink
 * Turns on an LED on for one second, then off for one second, repeatedly.
 *
 * This example code is in the public domain.
 */

void setup() {
    // initialize the digital pin as an output.
    // Pin 13 has an LED connected on most Arduino boards:
    pinMode(13, OUTPUT);
}

void loop() {
    digitalWrite(13, HIGH);      // set the LED on
    delay(1000);                // wait for a second
    digitalWrite(13, LOW);       // set the LED off
    delay(1000);                // wait for a second
}
```

The status bar at the bottom indicates "1" and "Arduino Uno on /dev/tty.usbmodemfd131".

Sublime Text File Edit Selection Find View Goto Tools Project Window Help Arduino

New Sketch

Sketchbook

Examples

Import Library

Show Sketch Folder

Extra Flags

Verify/Compile

Upload

Upload by Using Programmer

Arduino AVR Boards

Arduino ARM (32-bits) Boards

Programmer

Burn Bootloader

Serial Port

Serial Monitor

Auto Format

Archive Sketch

Preferences

✓ Global Setting

Bare GCC Build (No Arduino code-munging)

✓ Full Compilation

Show Verbose Output

Verify Code after Upload

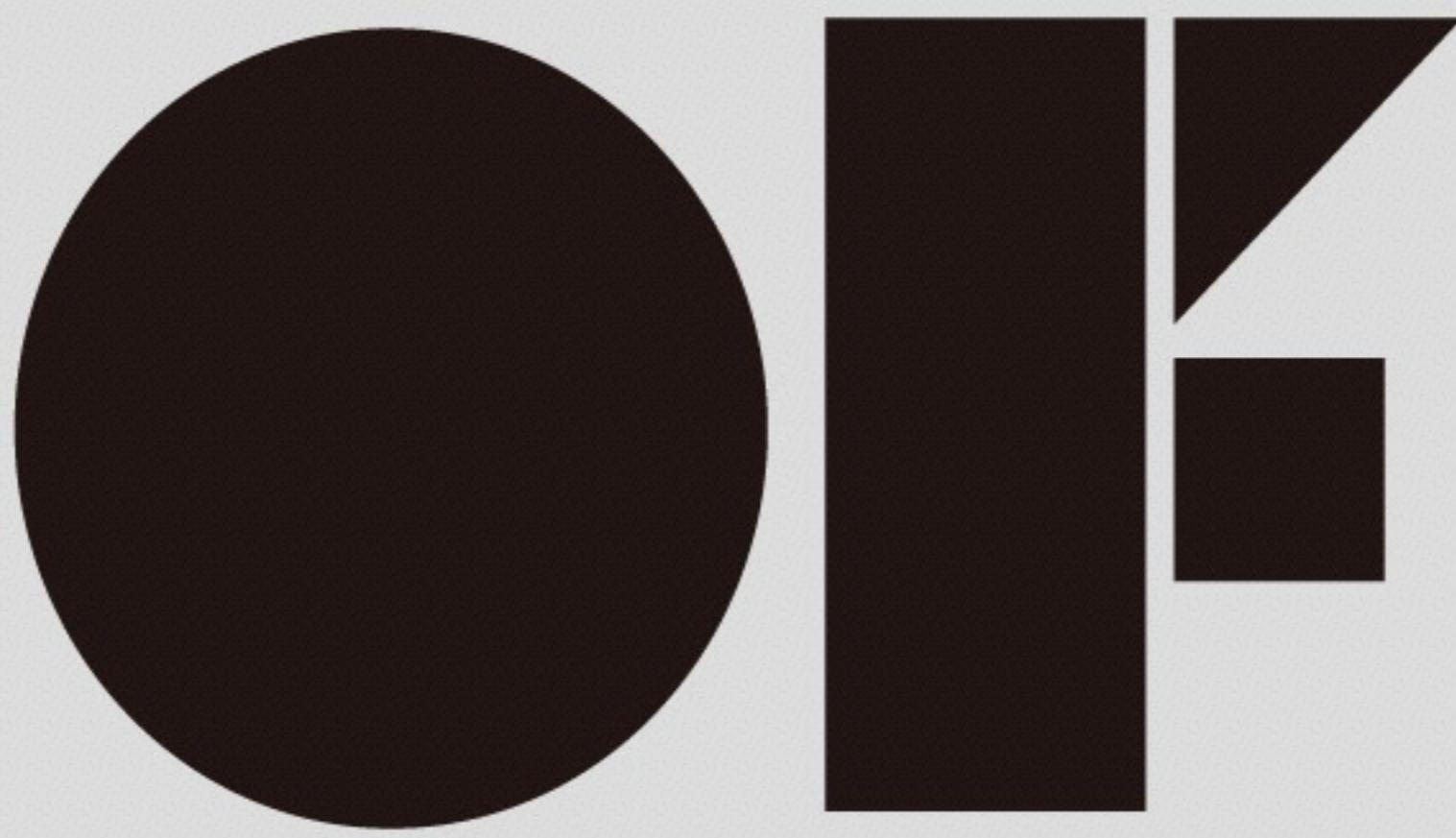
References

About Stino

Languages C or C++
It's malloc or pointer

The background features a complex, abstract geometric pattern composed of numerous thin, white lines forming a network of triangles and hexagons. Interspersed among these lines are several solid, semi-transparent blue spheres of varying sizes, some partially obscured by the line work. The overall effect is one of depth and a futuristic, technological aesthetic.

Processing



Standard Firmata vs Serial data

Why build your own
interface?

If you go with what's out there
you get a **screen and buttons**





You get **limits** and someone else defining what colors are in the crayon box of your creative practice.

So what happens if you
control the **metal**?

you control the
possibility space

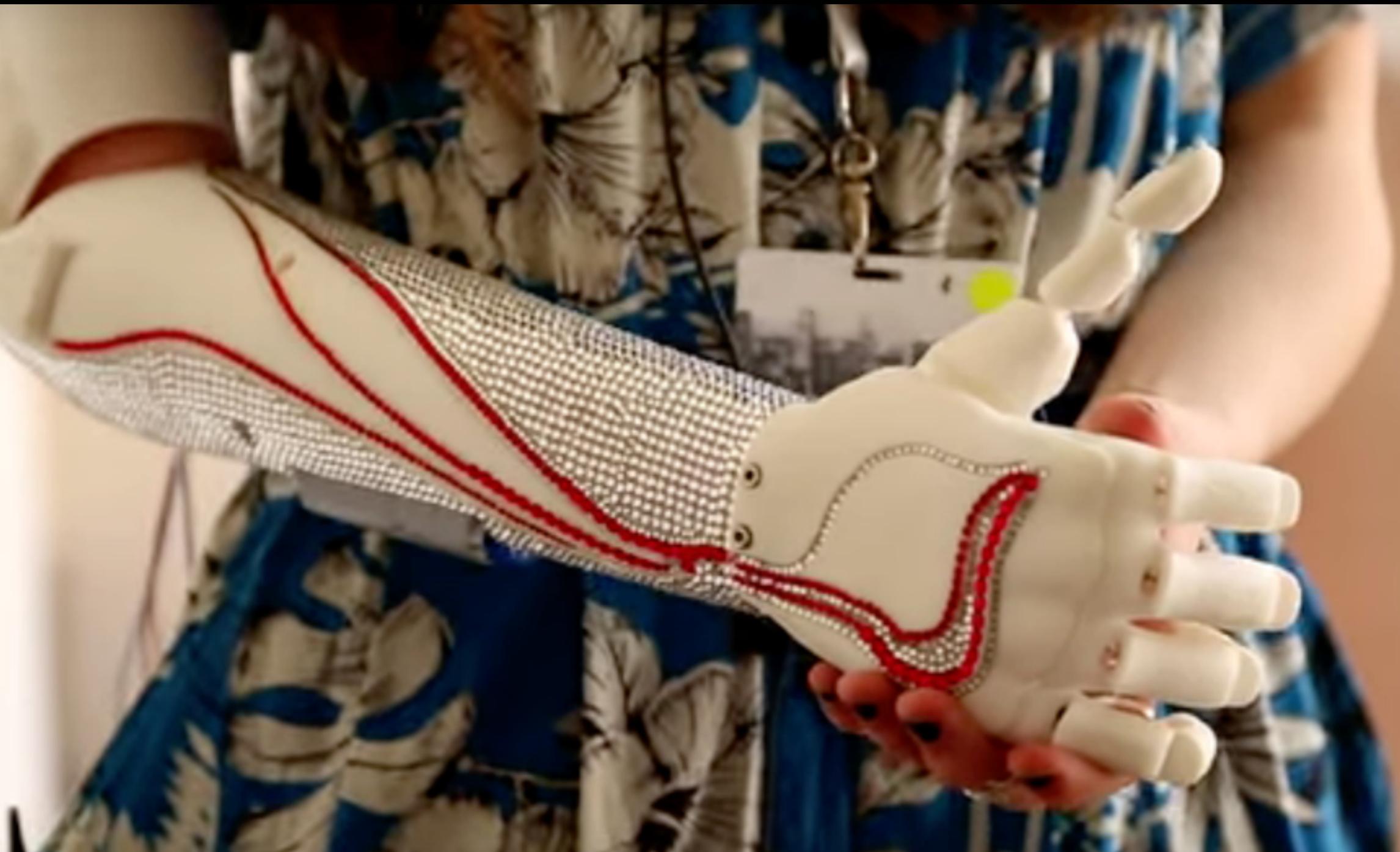
with every new design you
introduce a new way of
thinking

with every new design you
empower a new way of
being

What can happen when
you build the **hardware**?



21 BALANÇOIRES (21 SWINGS)
Design: Daily tous les jours



open bionics

<https://www.youtube.com/watch?v=CkNeVBaRjag>



noodle
Kyle McDonald and Lauren McCarthy



hit me
Kaho Abe



Deep Sea
Robin Arnot

you can go from passive
consumer

to active **agent**

You are **responsible** for the future
of technology.
Not a government.
Not google.
Not a pharmaceutical company.

Yes, you.

**TOGETHER WE
KNOW MORE**

Anyone can *create*

Create interesting
interventions

Remind people of our
interconnectivity

Empower others

HAVE FUN

GIVE BACK

“The present is theirs; the future, for which
I really worked, is mine.”

Nikola Tesla