

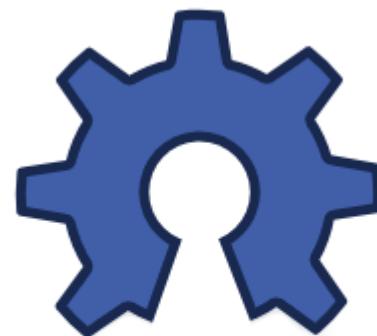


ARDUINO

Une solution open

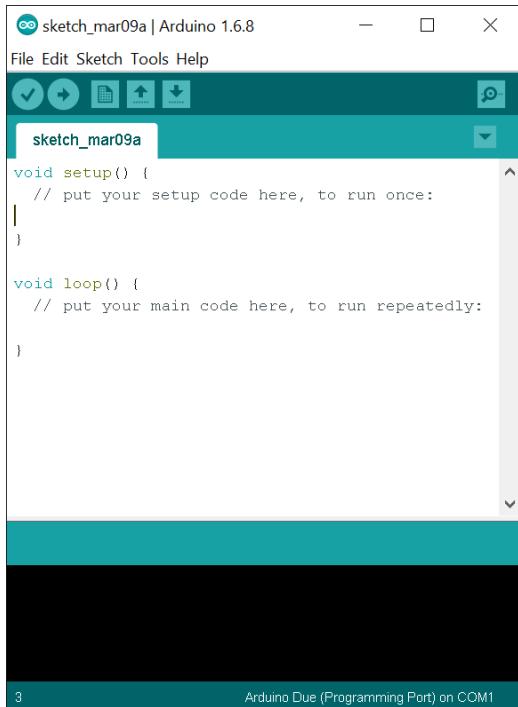


open source



open hardware

Une solution open



The image shows a screenshot of the Arduino IDE. The window title is "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. Below the menu is a toolbar with icons for back, forward, file operations, and a search function. The main area displays the code for "sketch_mar09a":

```
sketch_mar09a
void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

At the bottom of the IDE window, there is a status bar with the number "3" and the text "Arduino Due (Programming Port) on COM1".



Bref historique

Interaction Design Institute Ivrea

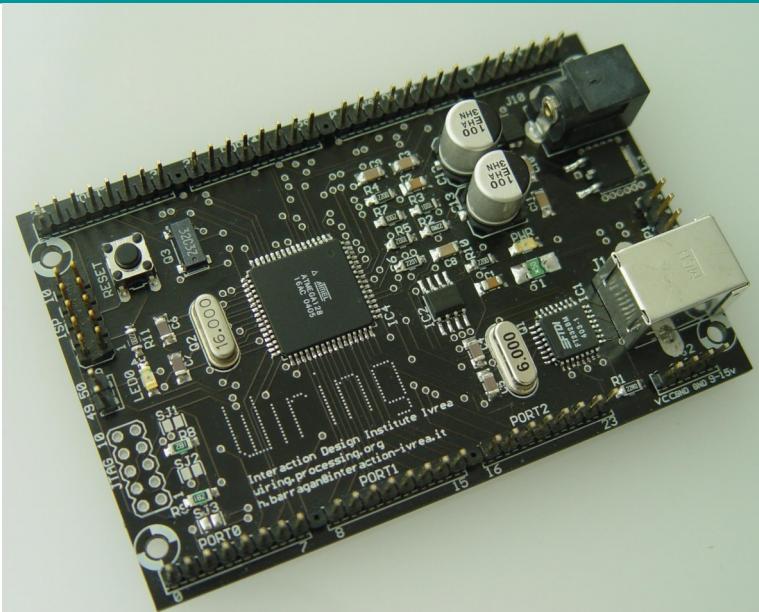
2003: Wiring

By Hernando Barragán

(+ Massimo Banzi & Casey Reas)

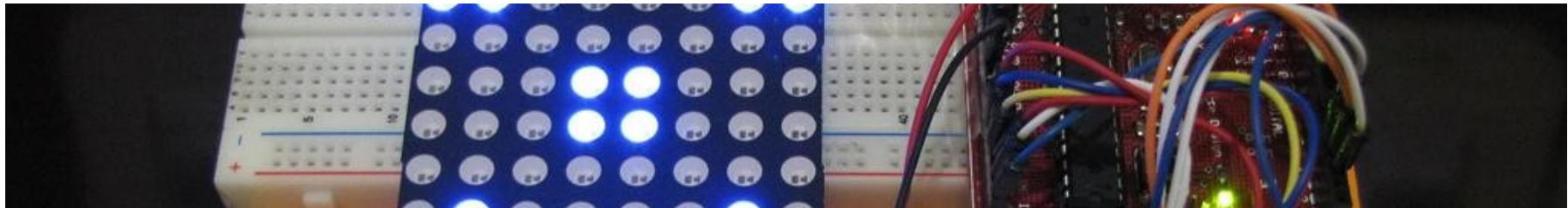
2005: Arduino

Massimo Banzi, David Mellis, Tom Igoe...



Hardware Interface

Interface entre composants électroniques et micro-contrôleurs

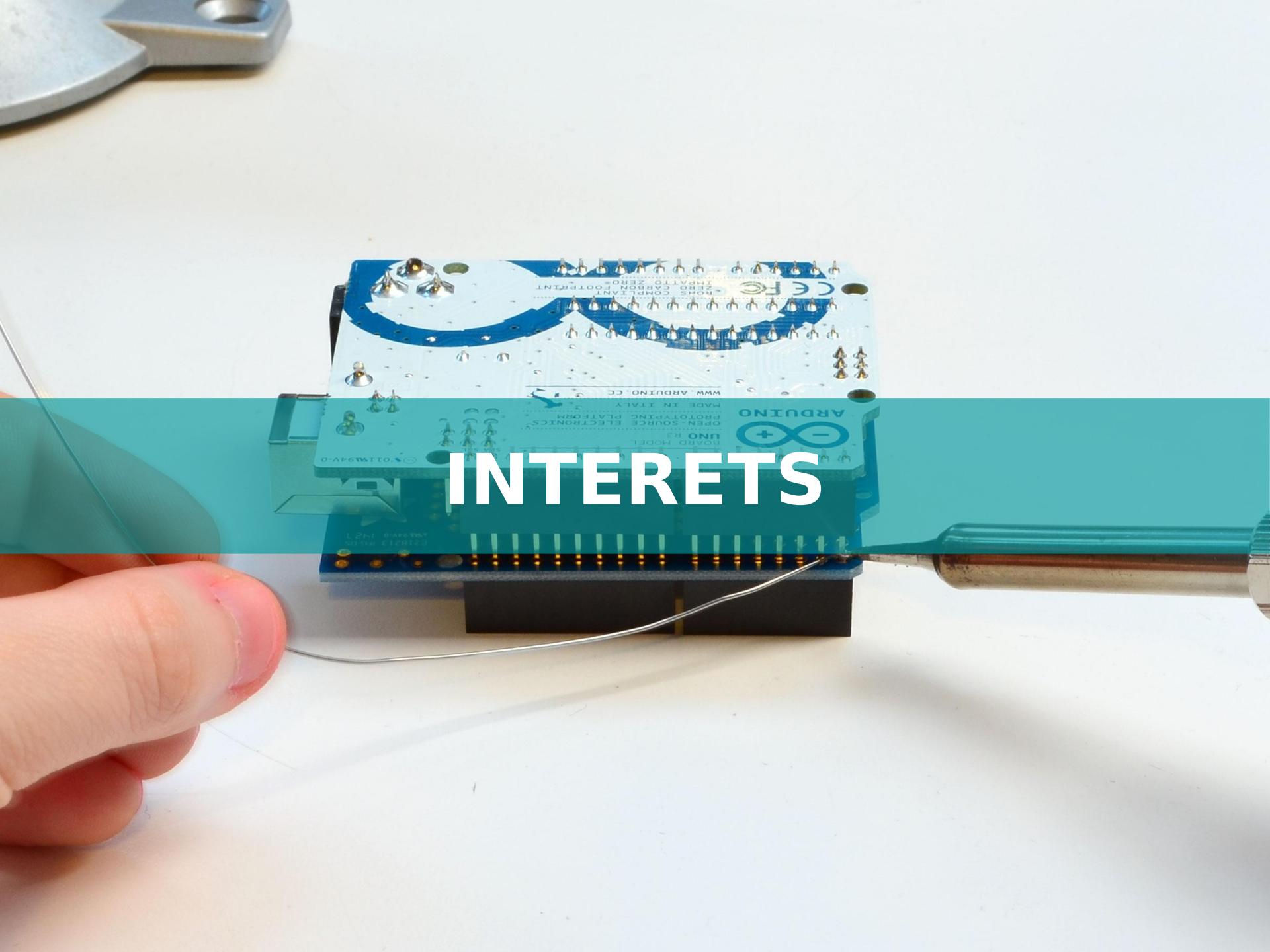


Interface entre la carte électronique et l'ordinateur



USB pour communiquer avec d'autres programmes





INTERETS

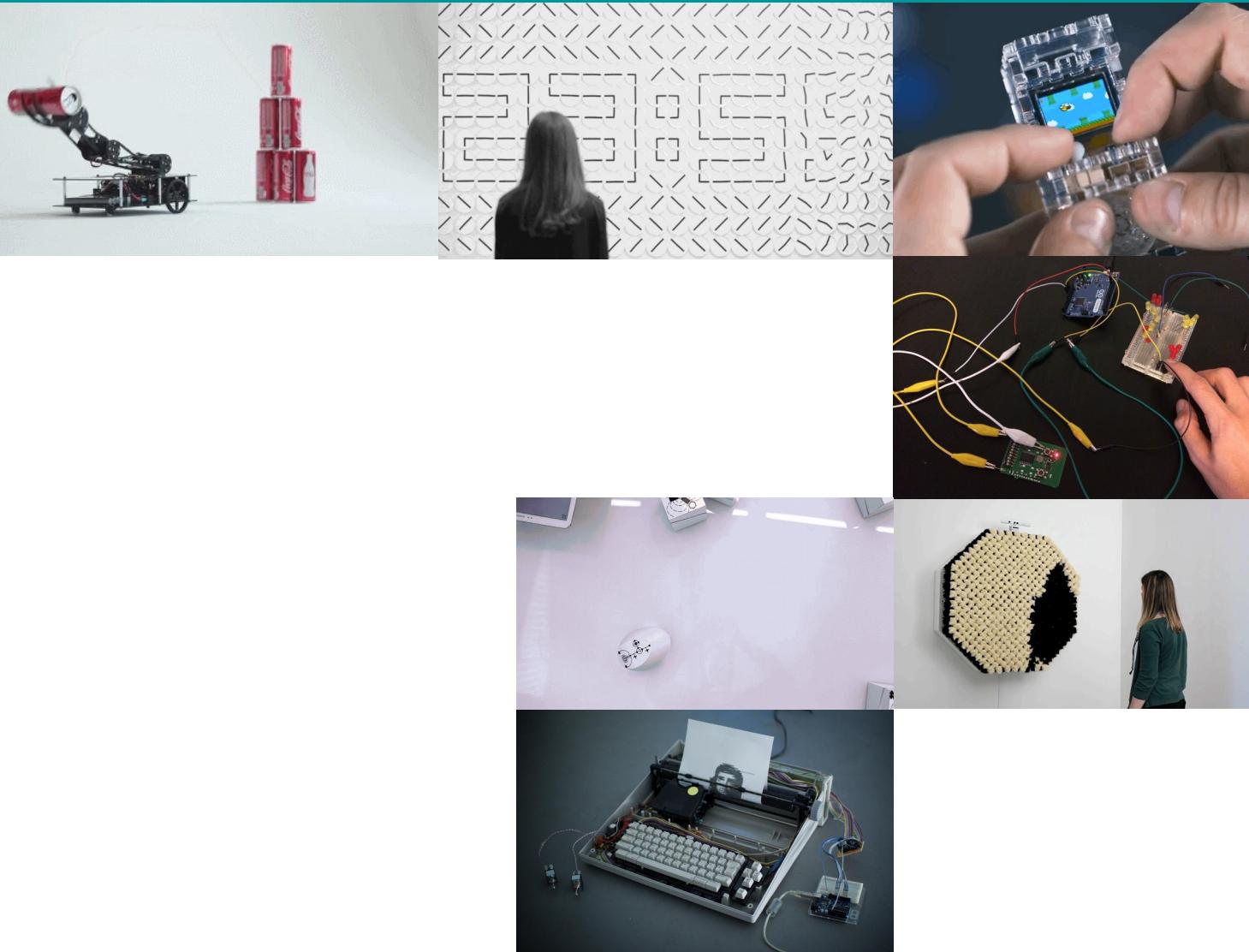
Pour qui/quoi ?

- Artists
- Etudiants
- Hackers
- Prototypage
- Robotique
- Industriels
- ...

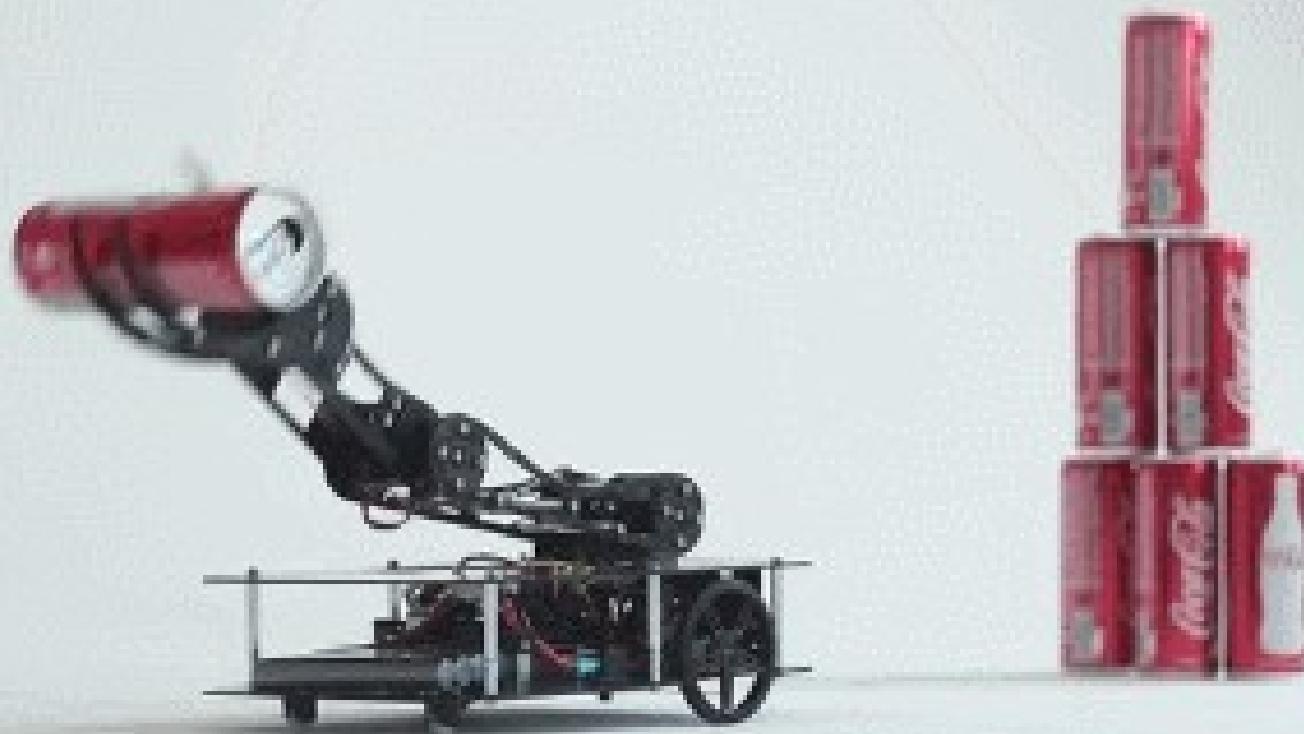
Pourquoi ?

1. Facile d'utilisation
2. Vaste communauté
3. Compatible avec une large gamme de composants
4. Connexion avec l'ordinateur
- 5. Autonomie !**

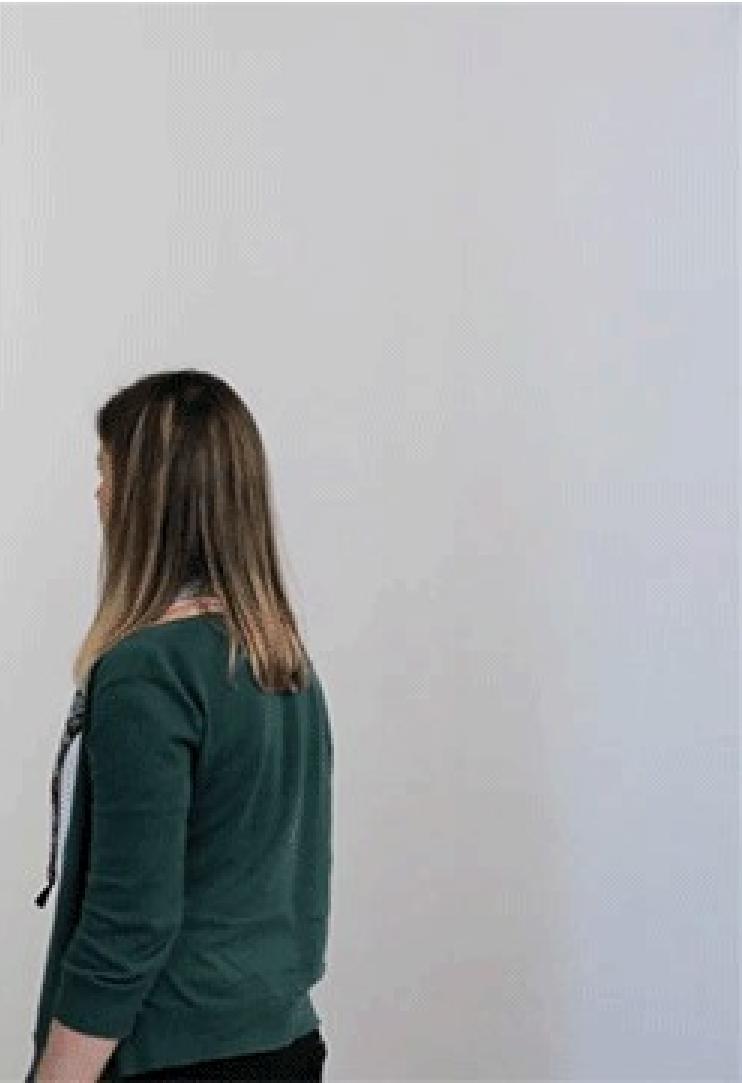
Projects



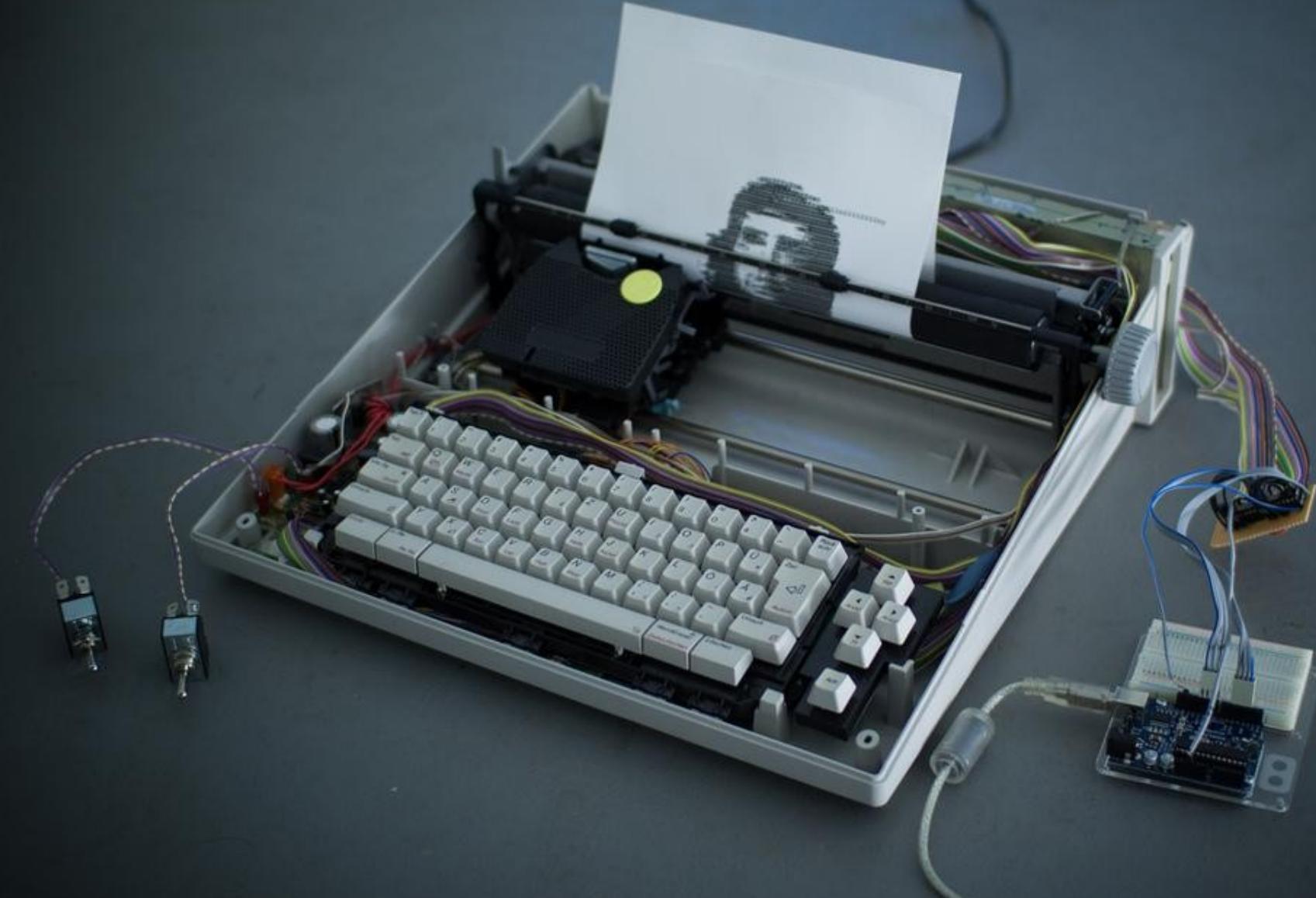
Robotique



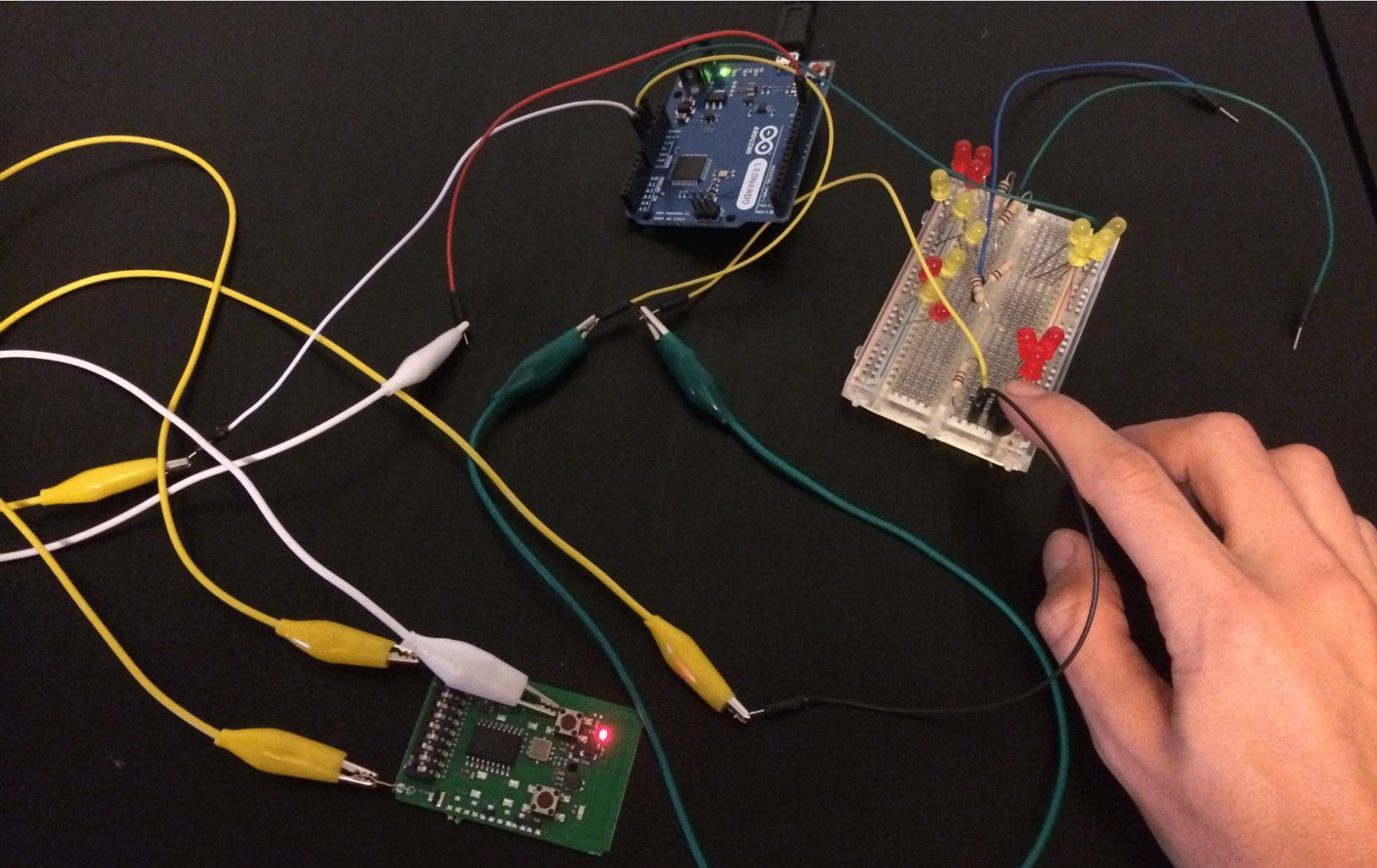
Art



Hack



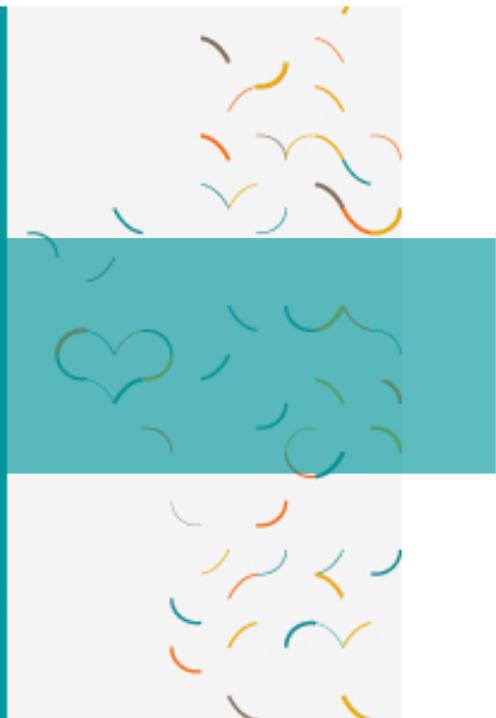
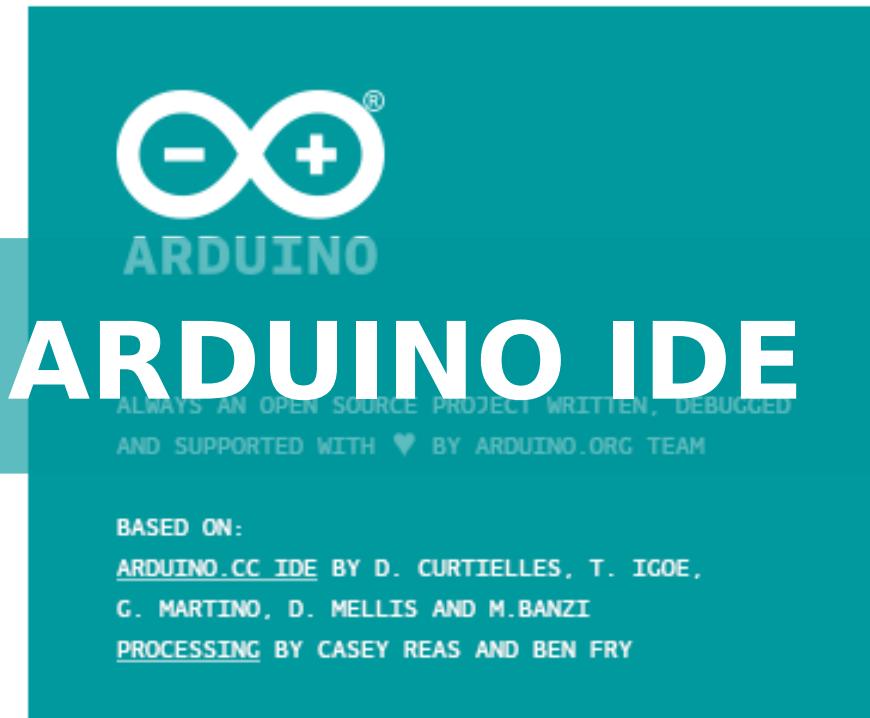
Prototypage



Fun !



- drivers
- examples
- hardware
- java
- lib
- libraries
- reference
- tools
- arduino.exe
- arduino.l4j.ini
- arduino_debug.exe
- arduino_debug.l4j.ini
- libusb0.dll
- msvcp100.dll
- msvcr100.dll
- revisions.txt





Download the Arduino IDE



ARDUINO 1.8.1

The open-source Arduino Software (IDE) makes it easy to write code and upload it to the board. It runs on Windows, Mac OS X, and Linux. The environment is written in Java and based on Processing and other open-source software.

This software can be used with any Arduino board. Refer to the [Getting Started](#) page for installation instructions.

Windows Installer

[Windows ZIP file for non admin install](#)

Windows app

[Mac OS X 10.7 Lion or newer](#)

[Linux 32 bits](#)

[Linux 64 bits](#)

[Linux ARM](#)

[Release Notes](#)

[Source Code](#)

[Checksums \(sha512\)](#)

ARDUINO SOFTWARE HOURLY BUILDS

LAST UPDATE

8 March 2017 14:13:42 GMT

Download a preview of the incoming release with the most updated features and bugfixes.

[Windows](#)

[Mac OS X \(Mac OSX Lion or later\)](#)

[Linux 32 bit , Linux 64 bit , Linux ARM](#)

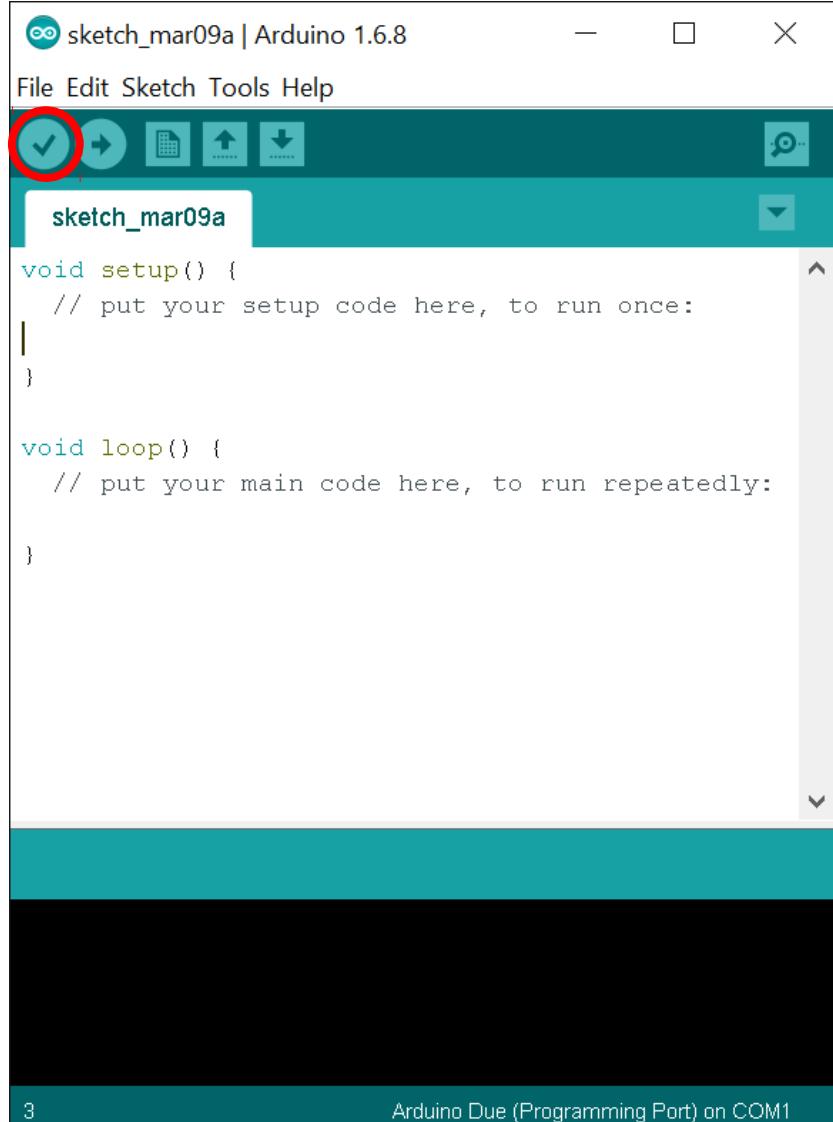
ARDUINO 1.0.6 / 1.5.x / 1.6.x PREVIOUS RELEASES

Download the [previous version of the current release](#), the classic Arduino 1.0.x, or the [Arduino 1.5.x Beta version](#).

All the [Arduino 00xx versions](#) are also available for download. The Arduino IDE can be used on Windows, Linux (both 32 and 64 bits), and Mac OS X.

What's inside

Verify : Vérifie s'il n'y a pas d'erreurs de compilation



The screenshot shows the Arduino IDE interface. The title bar reads "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. Below the menu is a toolbar with several icons, one of which is circled in red. The main area displays the code for "sketch_mar09a". The code consists of two functions: "void setup()" and "void loop()". Both functions contain a single line of code: "// put your setup code here, to run once:" and "// put your main code here, to run repeatedly:", respectively. The code area has a dark teal background with white text.

```
void setup() {
  // put your setup code here, to run once:
}

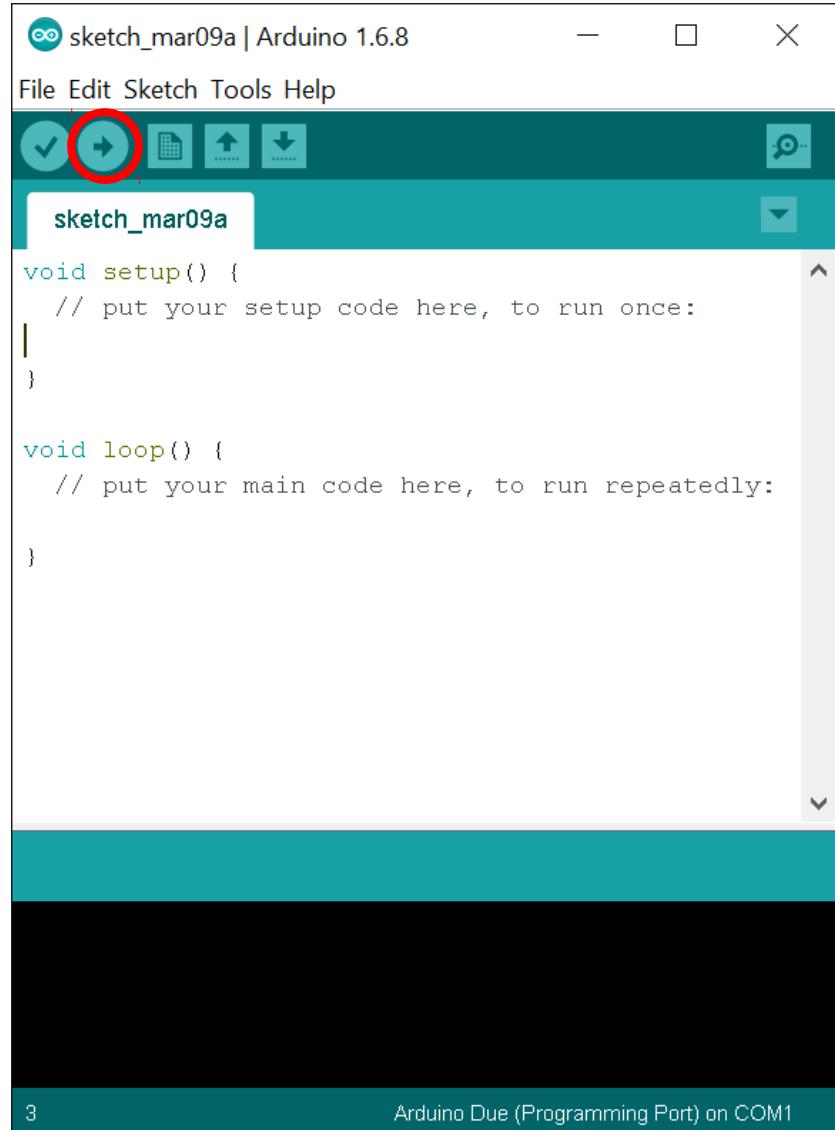
void loop() {
  // put your main code here, to run repeatedly:
}
```

3 Arduino Due (Programming Port) on COM1

What's inside

Verify : Vérifie s'il n'y a pas d'erreurs de compilation

Upload: Envoyer un programme vers Arduino



The screenshot shows the Arduino IDE interface. The title bar reads "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. Below the menu is a toolbar with several icons, including a checkmark, a red circle with a white arrow (highlighted with a red circle), a file folder, an upload symbol, and a download symbol. The main workspace is titled "sketch_mar09a" and contains the following code:

```
void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

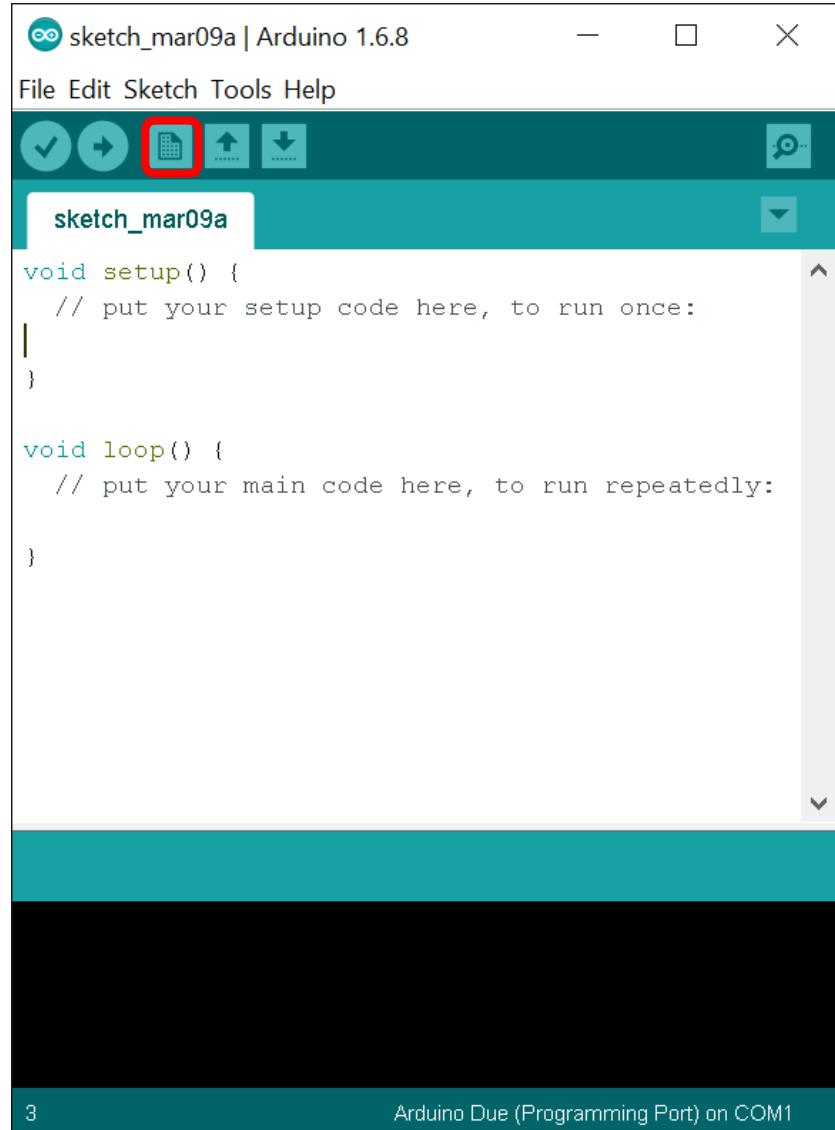
At the bottom of the screen, there is a status bar with the number "3" on the left and the text "Arduino Due (Programming Port) on COM1" on the right.

What's inside

Verify : Vérifie s'il n'y a pas d'erreurs de compilation

Upload: Envoyer un programme vers Arduino

New Sketch: Crée un nouveau document



The screenshot shows the Arduino IDE interface. The title bar reads "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. Below the menu is a toolbar with several icons: a checkmark, a circular arrow, a square with a plus sign (highlighted with a red box), an upward arrow, a downward arrow, and a magnifying glass. The main window displays a code editor with the following sketch:

```
void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

The status bar at the bottom indicates "Arduino Due (Programming Port) on COM1".

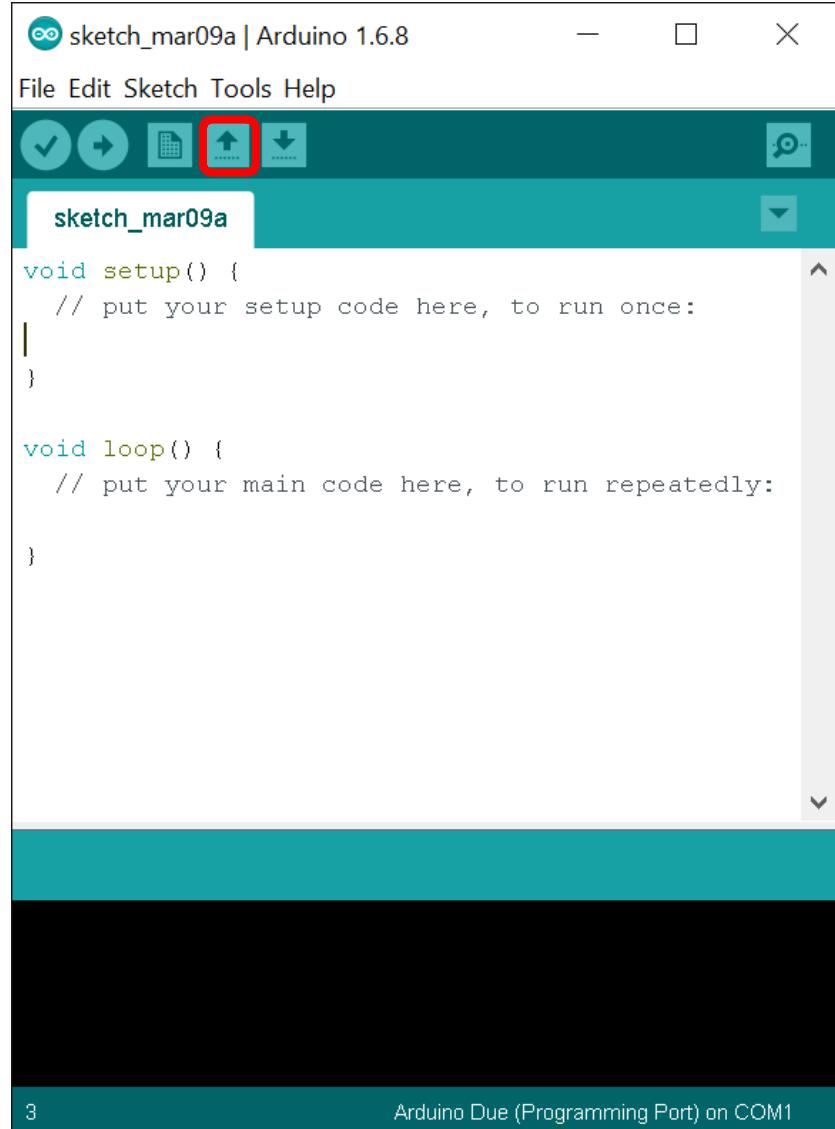
What's inside

Verify : Vérifie s'il n'y a pas d'erreurs de compilation

Upload: Envoyer un programme vers Arduino

New Sketch: Crée un nouveau document

Open: Ouvre un sketch existant



The screenshot shows the Arduino IDE interface. The title bar reads "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. Below the menu is a toolbar with several icons: a checkmark, a circular arrow, a file folder, an upload symbol (highlighted with a red box), and a download symbol. The main workspace shows a sketch named "sketch_mar09a" with the following code:

```
void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

At the bottom of the screen, there is a status bar with the text "Arduino Due (Programming Port) on COM1".

What's inside

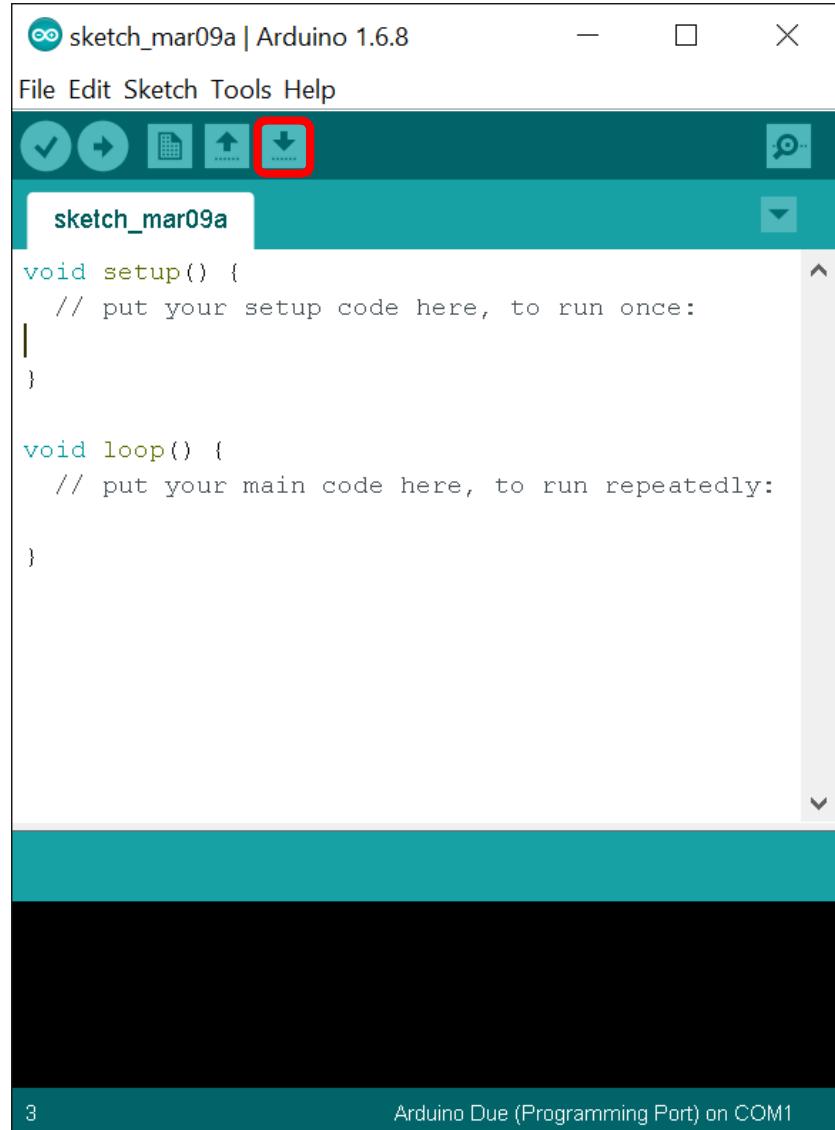
Verify : Vérifie s'il n'y a pas d'erreurs de compilation

Upload: Envoyer un programme vers Arduino

New Sketch: Crée un nouveau document

Open: Ouvre un sketch existant

Save: Sauvegarde le sketch



The screenshot shows the Arduino IDE interface. The title bar reads "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. Below the menu is a toolbar with several icons: a checkmark, a circular arrow, a file folder, an upward arrow, and a downward arrow. The downward arrow icon is highlighted with a red box. The main workspace is titled "sketch_mar09a" and contains the following code:

```
void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

At the bottom of the screen, there is a status bar with the text "3" and "Arduino Due (Programming Port) on COM1".

What's inside

Verify : Vérifie s'il n'y a pas d'erreurs de compilation

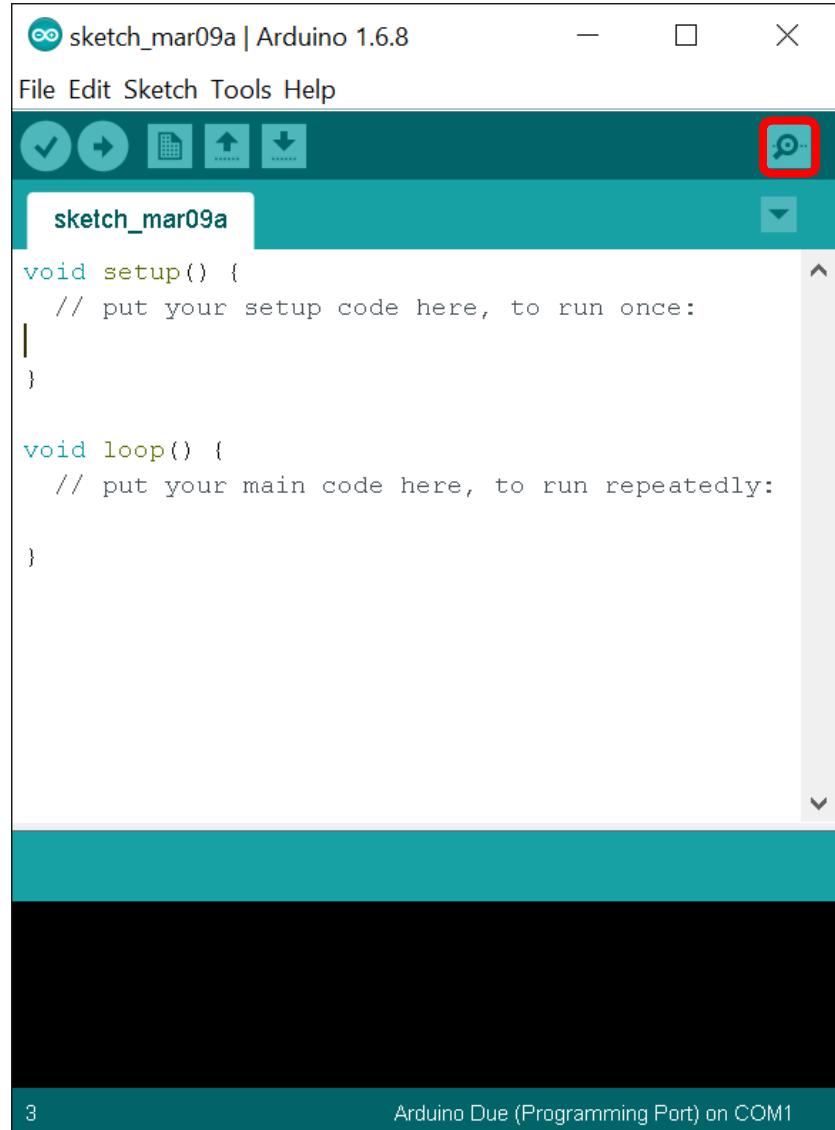
Upload: Envoyer un programme vers Arduino

New Sketch: Crée un nouveau document

Open: Ouvre un sketch existant

Save: Sauvegarde le sketch

Serial Monitor: Affiche le moniteur de communication



The screenshot shows the Arduino IDE interface. The title bar reads "sketch_mar09a | Arduino 1.6.8". The menu bar includes File, Edit, Sketch, Tools, and Help. The toolbar features icons for Verify (checkmark), Upload (arrow), Open (document), Save (disk), and Serial Monitor (magnifying glass). The main code editor window displays the following sketch:

```
void setup() {
  // put your setup code here, to run once:
}

void loop() {
  // put your main code here, to run repeatedly:
}
```

The status bar at the bottom indicates "Arduino Due (Programming Port) on COM1".

- `setup()`
- `loop()`

Control Structures

- `if`
- `if...else`
- `for`
- `switch case`
- `while`
- `do... while`
- `break`
- `continue`
- `return`
- `goto`

Further Syntax

- `;` (semicolon)
- `{}` (curly braces)
- `//` (single line comment)
- `/* */` (multi-line comment)
- `#define`
- `#include`

Constants

- `HIGH | LOW`
- `INPUT | OUTPUT | INPUT_PULLUP`
- `LED_BUILTIN`
- `true | false`
- `integer constants`
- `floating point constants`

Data Types

- `void`
- `char`
- `signed char`
- `byte`

- `int`
- `unsigned int`
- `word`
- `long`
- `unsigned long`
- `short`
- `float`
- `double`

Digital I/O

- `pinMode()`
- `digitalWrite()`
- `digitalRead()`

Analog I/O

- `analogReference()`
- `analogRead()`
- `analogWrite() - PWM`

Advanced I/O

- `tone()`
- `noTone()`
- `shiftOut()`
- `shiftIn()`
- `pulseIn()`

Time

- `millis()`

PROGRAMMATION: FONCTIONS SPECIFIQUES

File Edit Sketch Tools Help

New Ctrl+N

Open... Ctrl+O

Sketchbook ▾

Examples ▾

Close Ctrl+W

Save Ctrl+S

Save As... Ctrl+Shift+S

Upload Ctrl+U

Upload Using Programmer Ctrl+Shift+U

Page Setup Ctrl+Shift+P

Print Ctrl+P

Preferences Ctrl+Comma

Quit Ctrl+Q

LIBRARIES

01.Basics ▾

02.Digital ▾

03.Analog ▾

04.Communication ▾

05.Control ▾

06.Sensor ▾

07.Display ▾

08.Strings ▾

09.USB ▾

10.StarterKit ▾

ArduinoISP

CapacitiveSensor ▾

WiFiShield ▾

CapacitiveSensor ▾

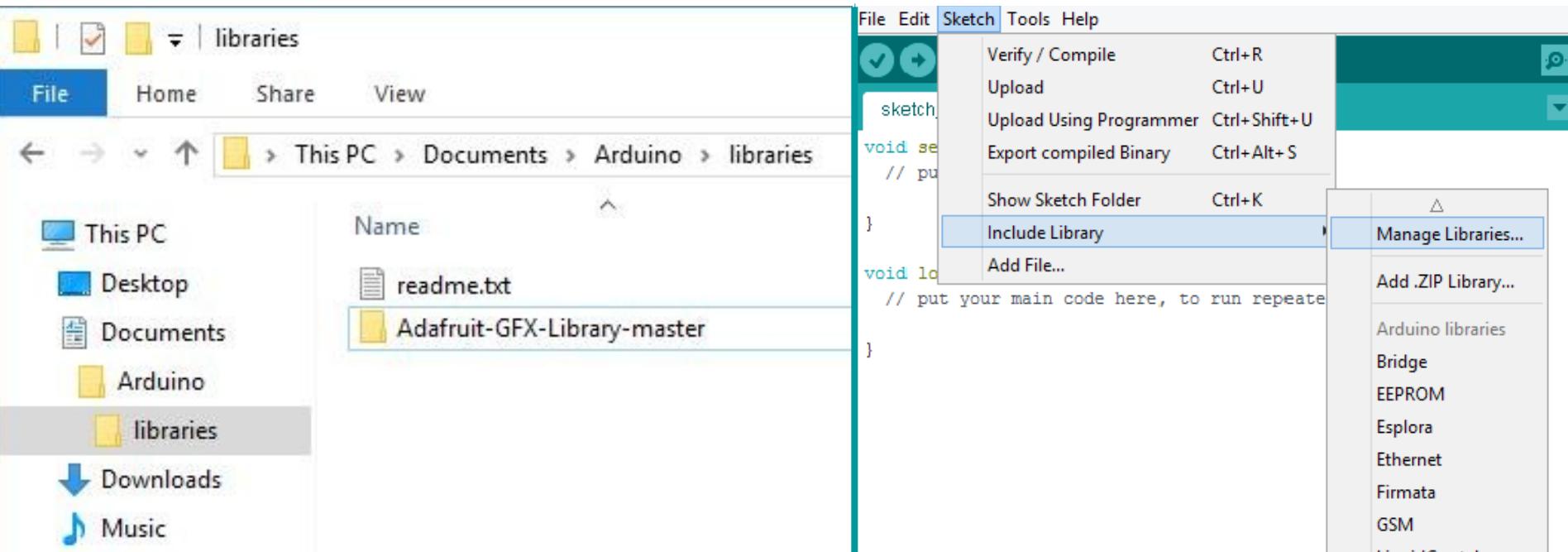
EEPROM ▾

CapacitiveSensorSketch

Add libraries

Collection of code that makes it easy for you to connect to a sensor, display, module, etc

Create your own libraries ! (in C/C++)



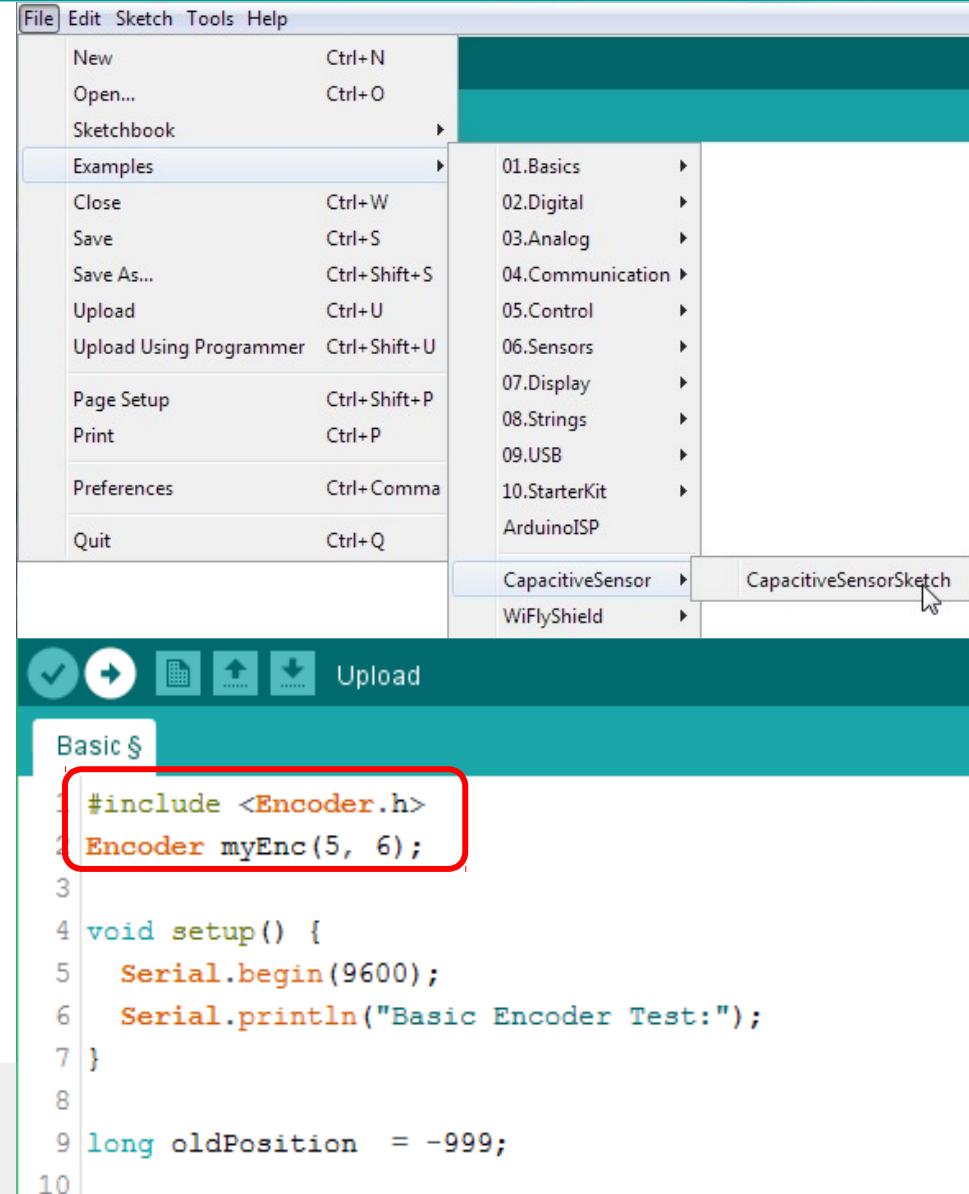
Use libraries in your code

Import the library

Each library is different : **look at the examples!**

".h" file included at the top

Some libraries are incompatibles

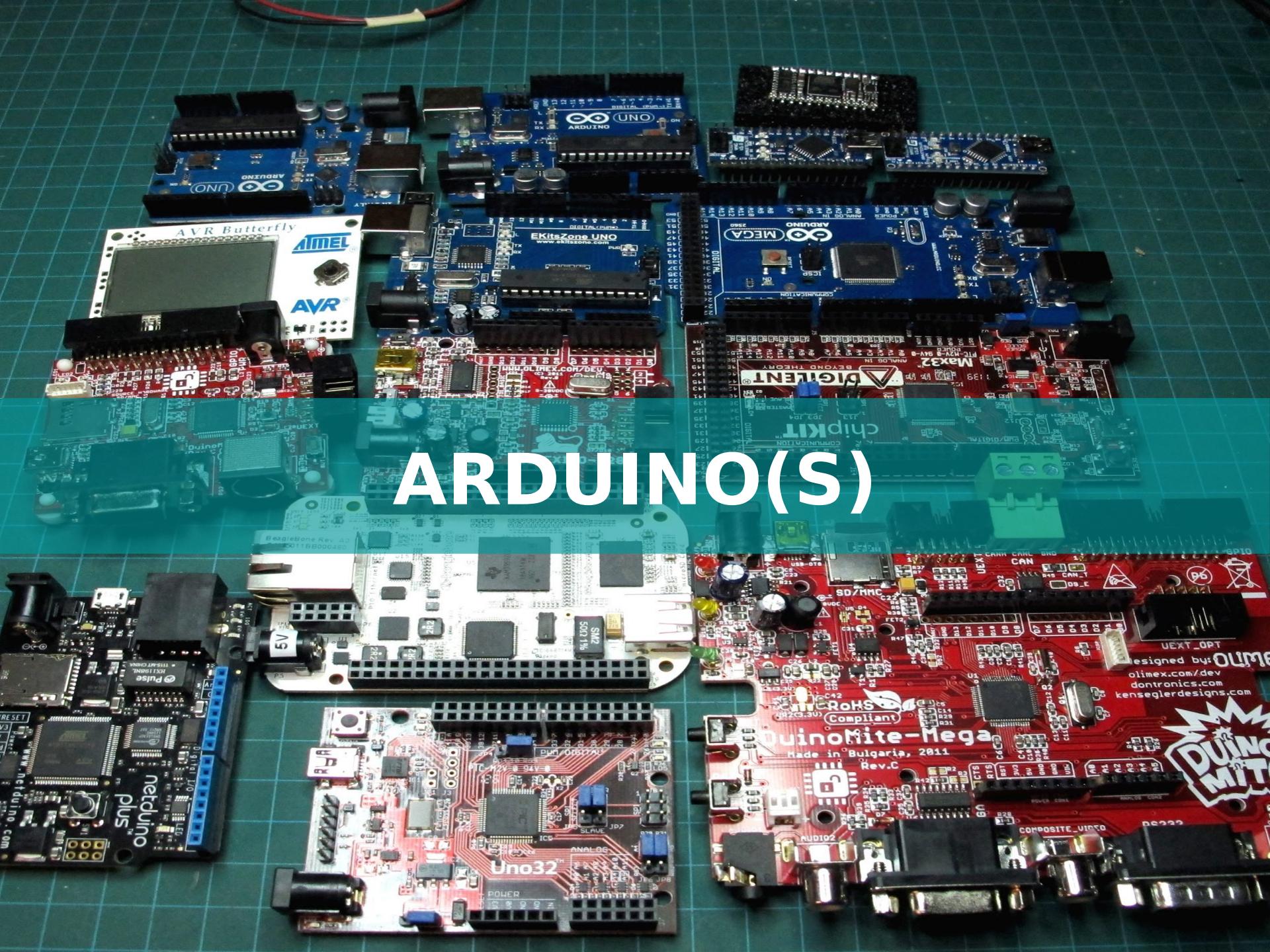


The screenshot shows the Arduino IDE interface. The top menu bar includes File, Edit, Sketch, Tools, and Help. The File menu is open, showing options like New, Open..., Sketchbook, Examples, Close, Save, Save As..., Upload, Upload Using Programmer, Page Setup, Print, Preferences, and Quit. A submenu under Examples lists categories such as 01.Basics, 02.Digital, 03.Analog, 04.Communication, 05.Control, 06.Sensors, 07.Display, 08.Strings, 09.USB, 10.StarterKit, and ArduinoISP. Below the menu bar, there are several icons: a checkmark, a circular arrow, a square, an upward arrow, a downward arrow, and an upload icon. To the right of these icons is the word "Upload". The main workspace shows a code editor with the following text:

```
1 #include <Encoder.h>
2 Encoder myEnc(5, 6);
3
4 void setup() {
5   Serial.begin(9600);
6   Serial.println("Basic Encoder Test:");
7 }
8
9 long oldPosition = -999;
```

The line "#include <Encoder.h>" is highlighted with a red rectangular box.

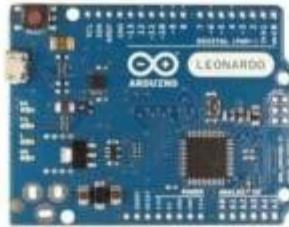
ARDUINO(S)



Different sizes and capabilities !



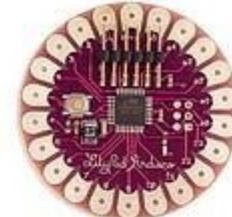
Arduino Uno



Arduino Leonardo



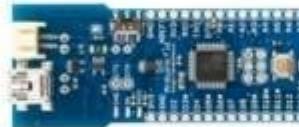
Arduino Mega 2560



Arduino LilyPad



Arduino Mega ADK



Arduino Fio



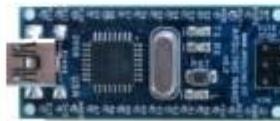
Arduino Ethernet



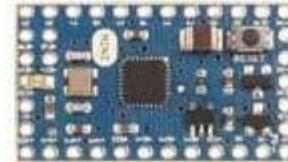
Arduino Pro



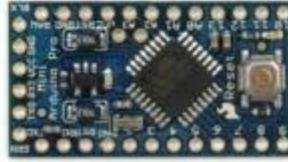
Arduino BT



Arduino Nano

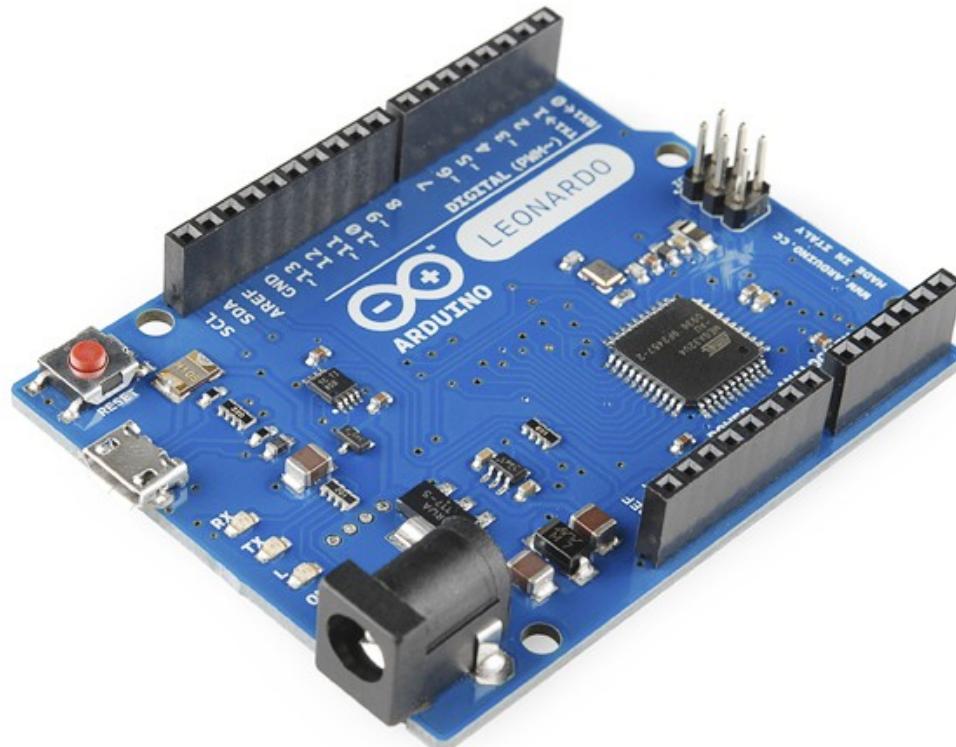


Arduino Mini



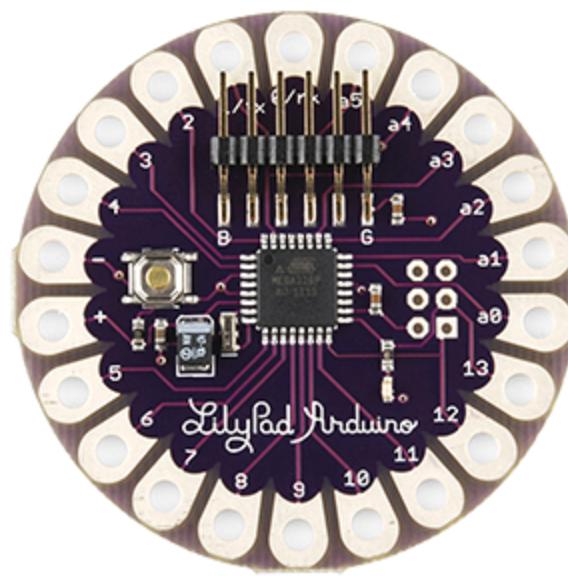
Arduino Pro Mini

Arduino Leonardo



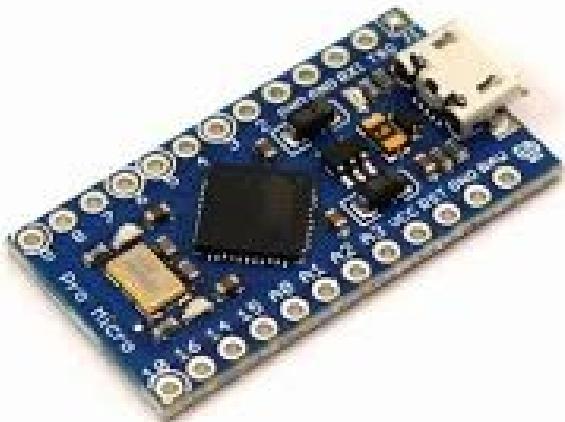
Standard

Arduino LilyPad



Design dédié aux projets wearables

Arduino Leonardo Pro Micro



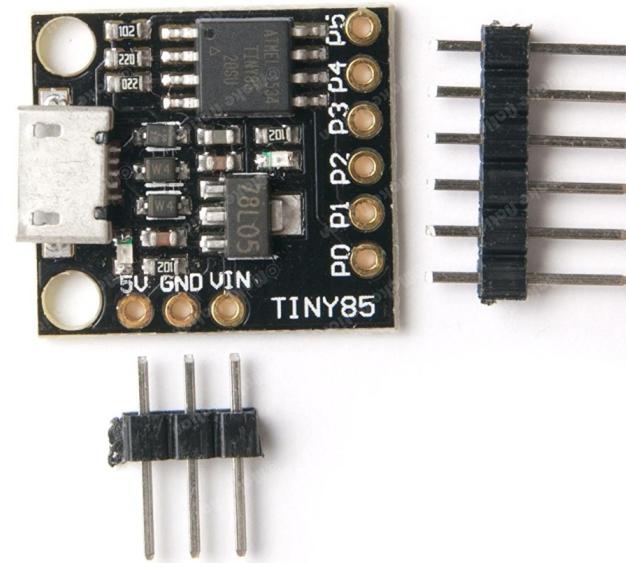
Miniaturisé

Teensy



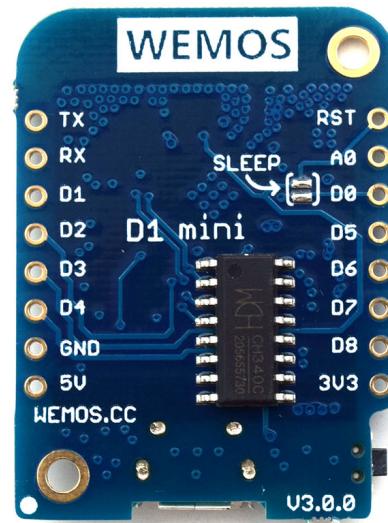
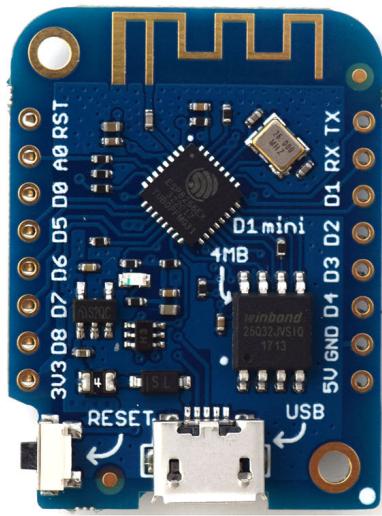
+ performant

AtTiny (digispark clone)



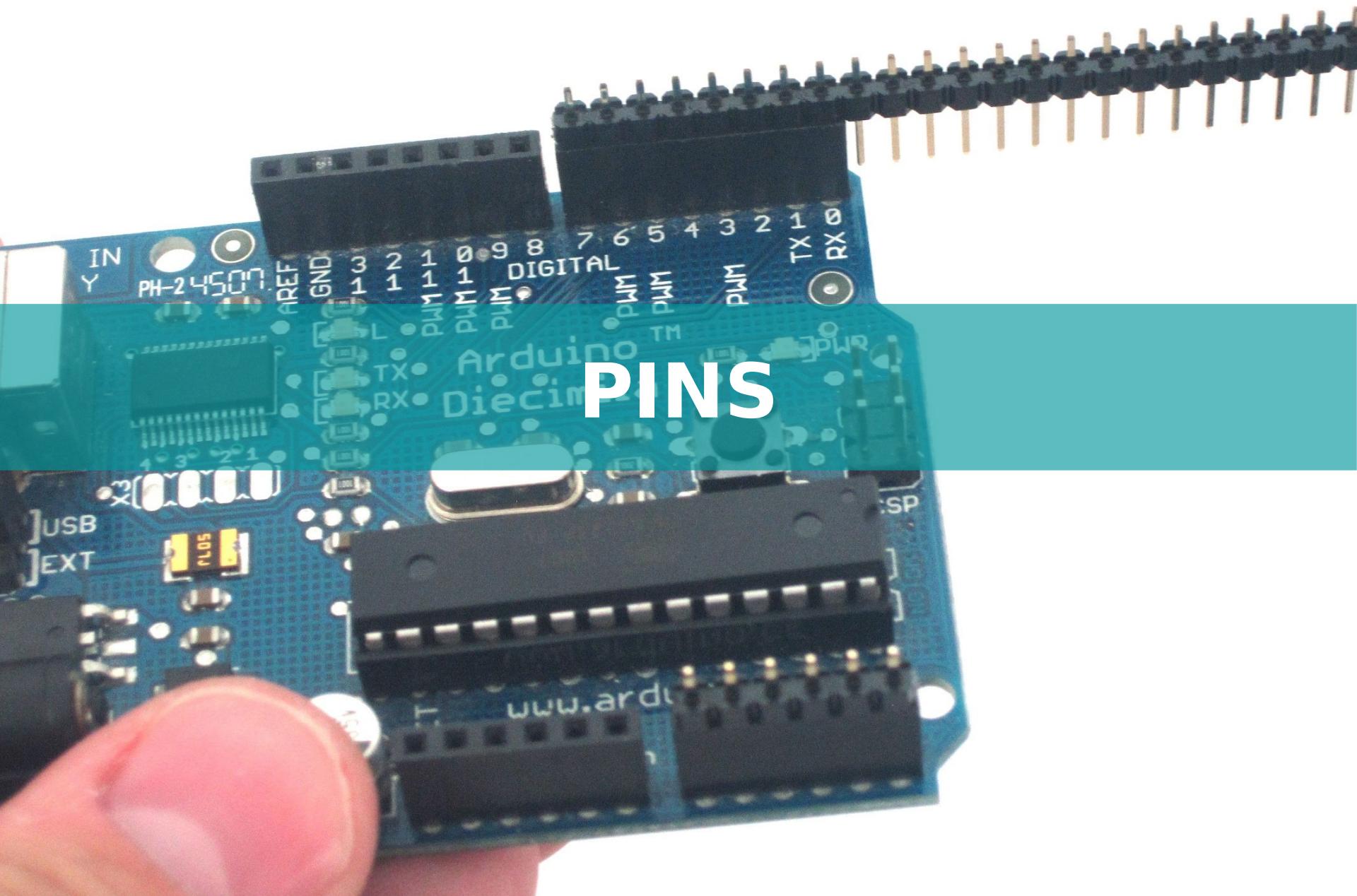
Petit et pas cher

ESP8266 - Wemos example



arduino-compatible micro **wifi** board

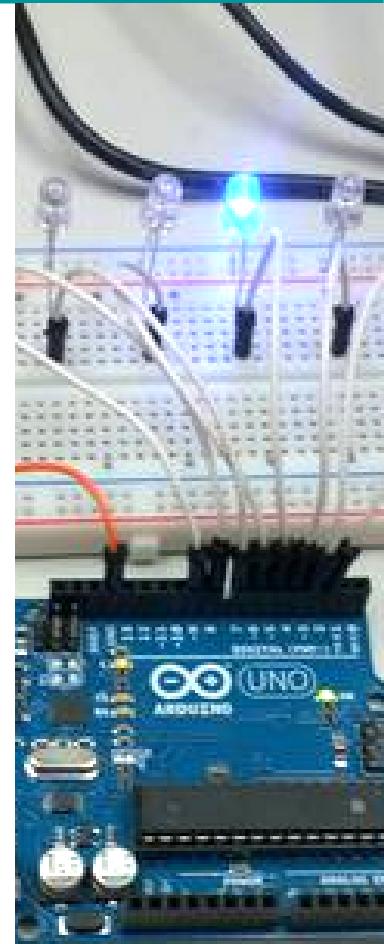
PINS



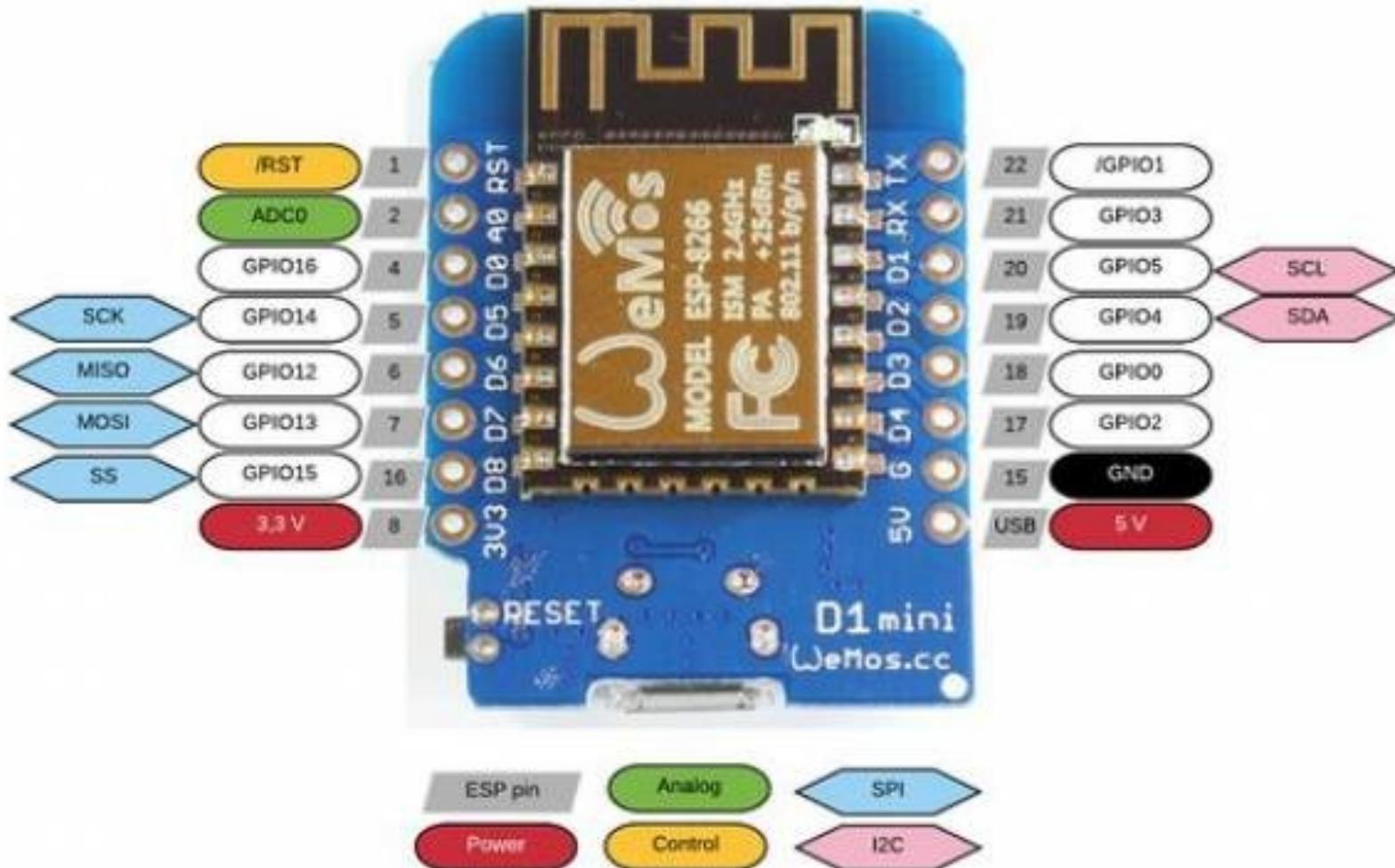
The pins

“Dupont pins”

- Sorties - Output
- Entrées - Input
- Facile à prototyper



The pins



Digital & Analog pins

Digital output

Sort **High** ou **Low**
(**5v** ou **0v**)

Analog output

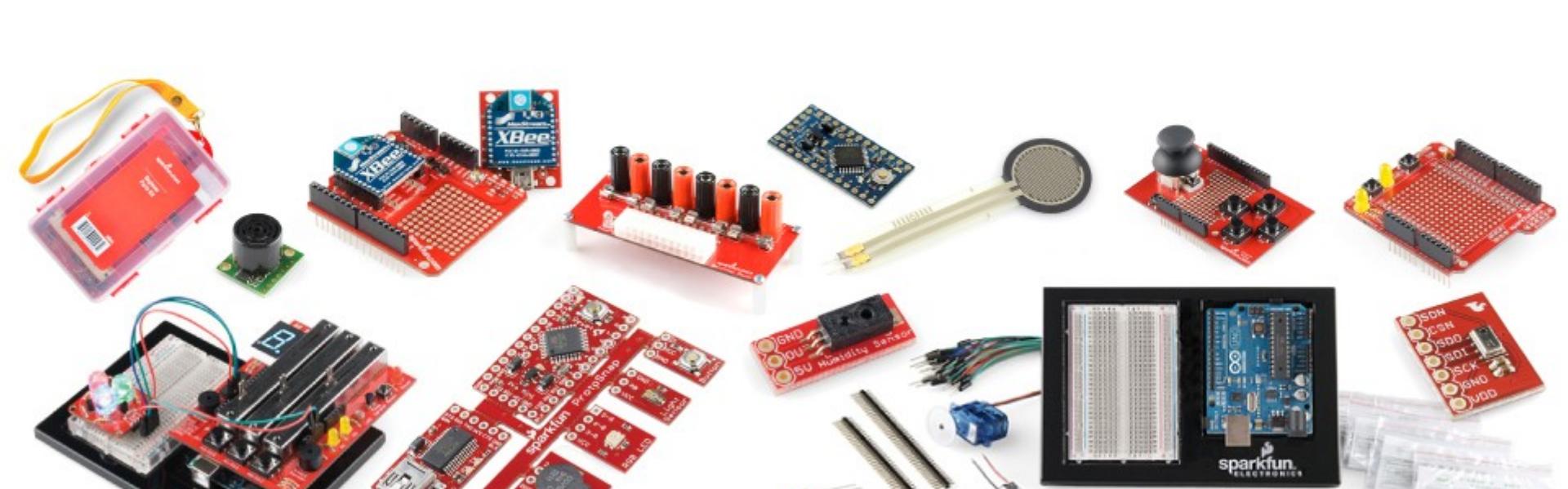
Génère un voltage:
0v, **0.02v** ... **4.98v**, **5v**
(de **0** à **255**)

Digital input

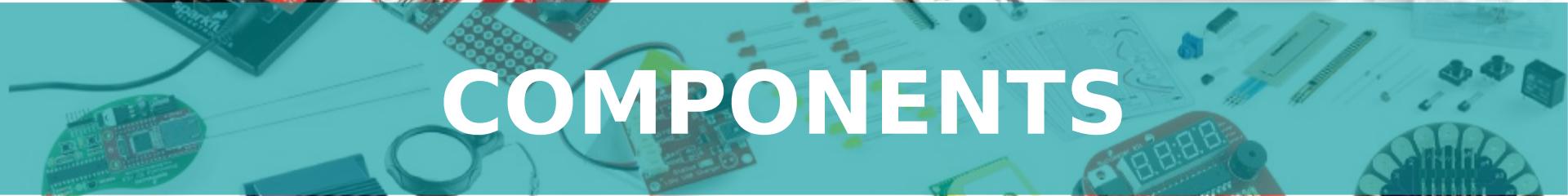
Reçoit **High** ou **Low**
(seulement **1** ou **0** !)

Analog input

Reçoit un signal
de **0** à **1024**



COMPONENTS



Bread board

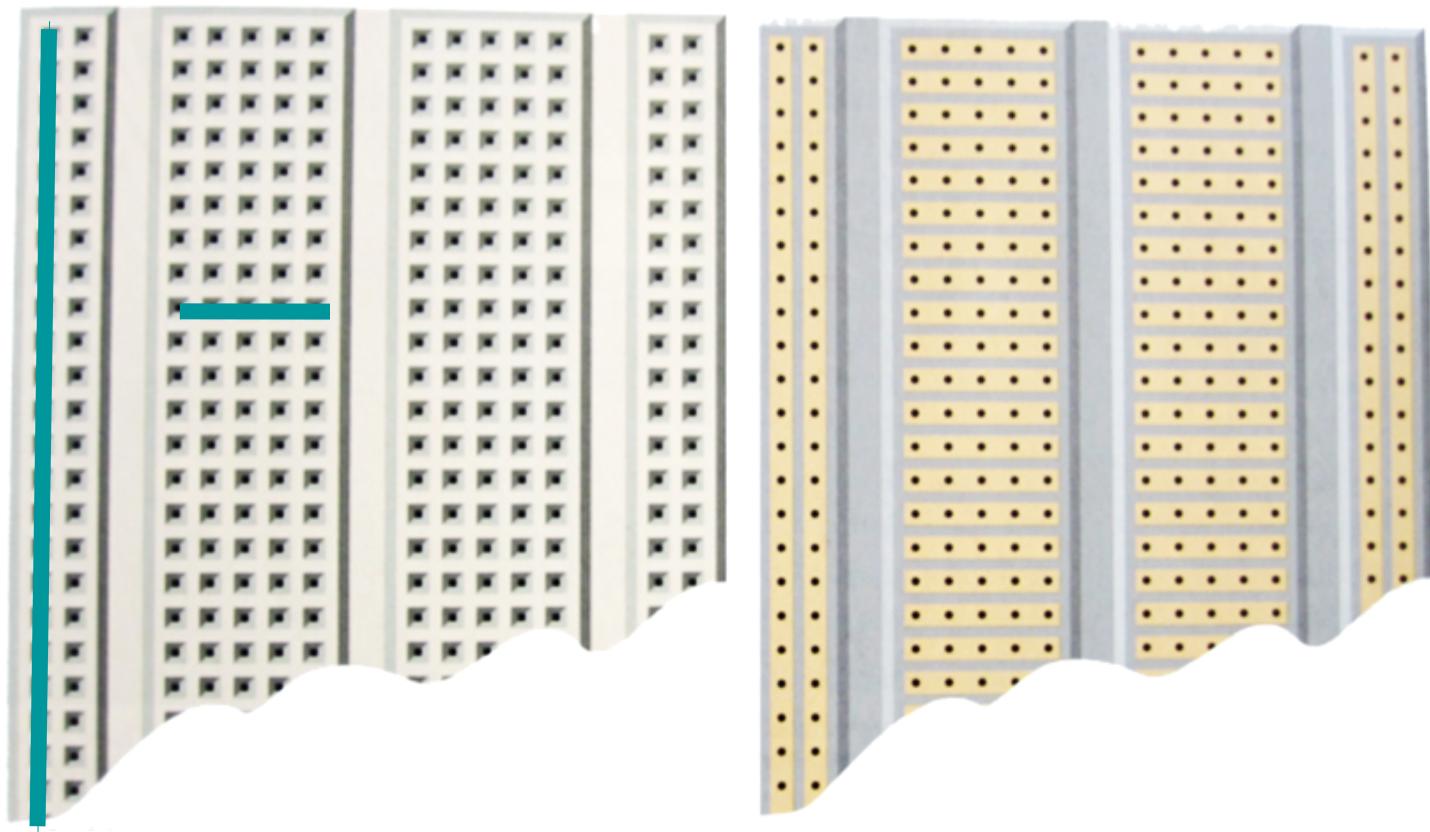
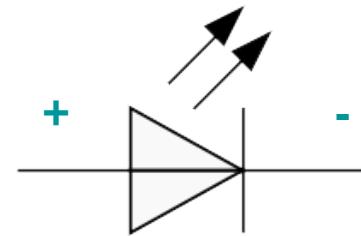


Planche de prototypage rapide, sans soudures

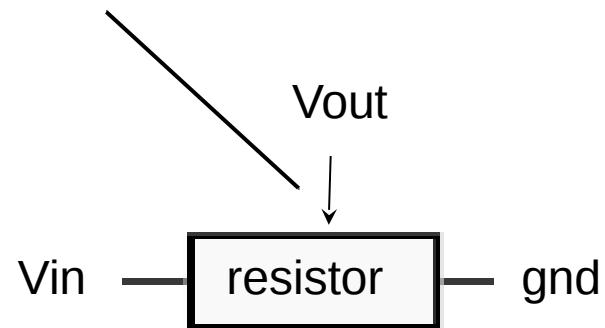
LEDs



Potentiometer

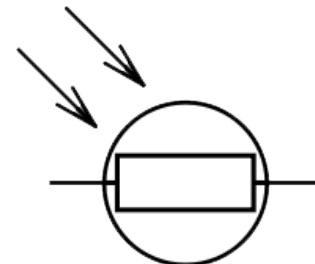


adjustable



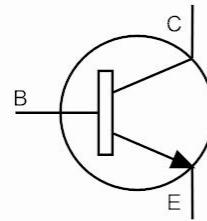
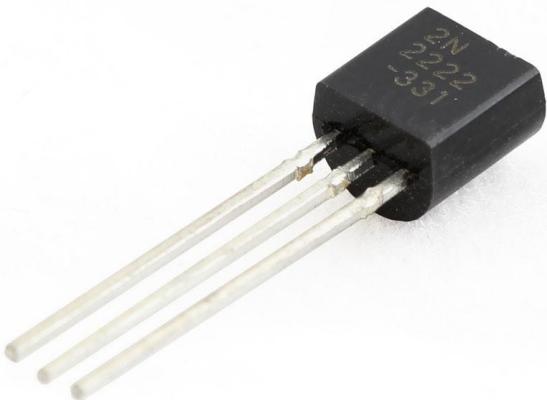
Le potentiomètre à résistance variable
ou diviseur de tension

Photoresistor

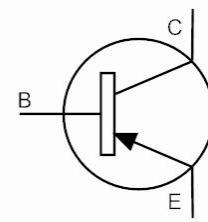


La résistance diminue quand la lumière augmente

Transistors



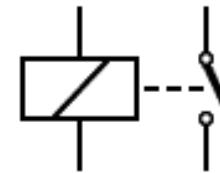
n-p-n transistor



p-n-p transistor

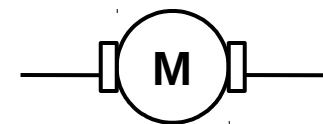
Il sert de switch ou d'amplificateur

Relays



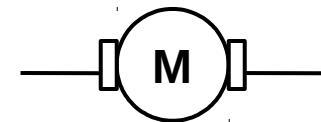
Bascule sur des voltages supérieurs

Motor



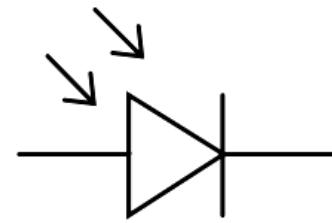
rotation continue

Servo Motor



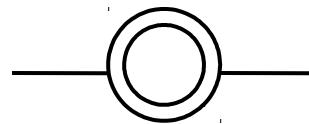
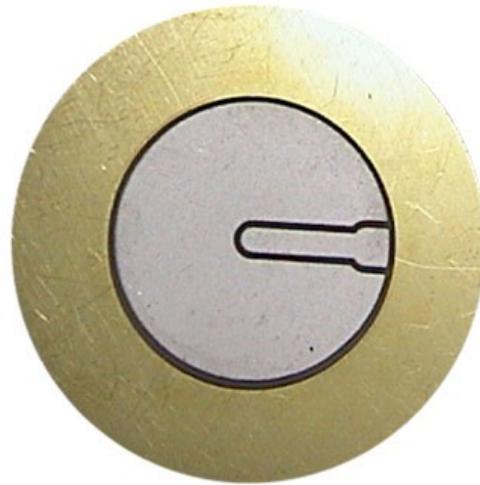
Permet de contrôler l'angle et la vitesse de rotation

Photodiode

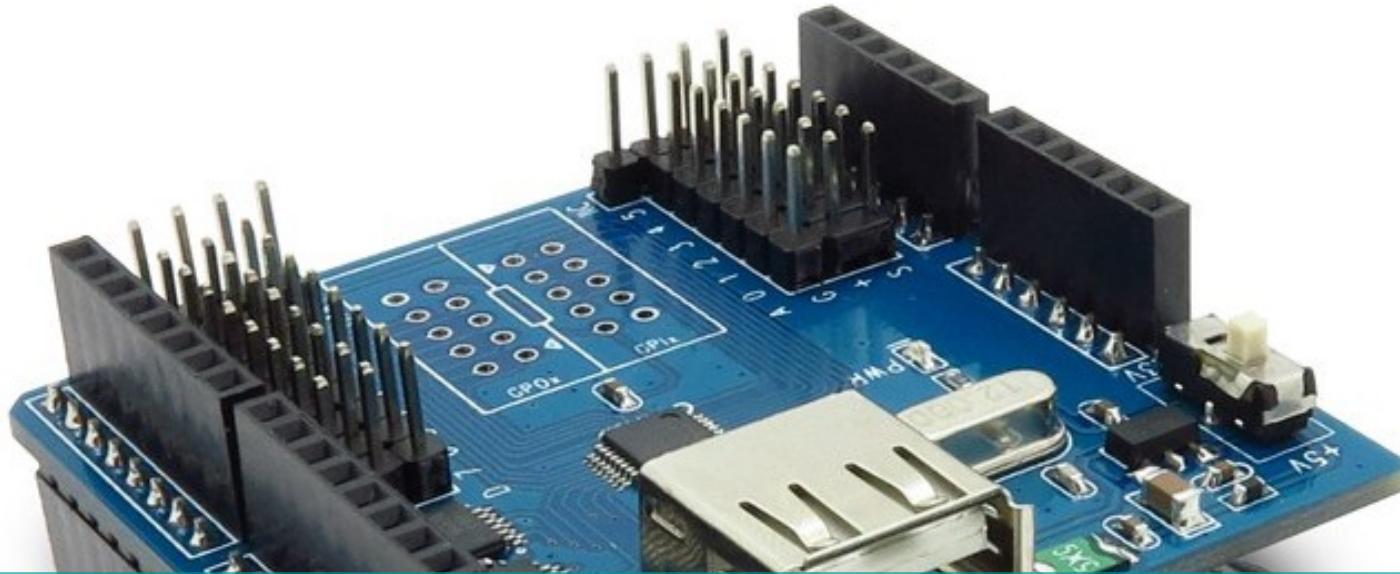


Le voltage augmente quand le luminosité augmente

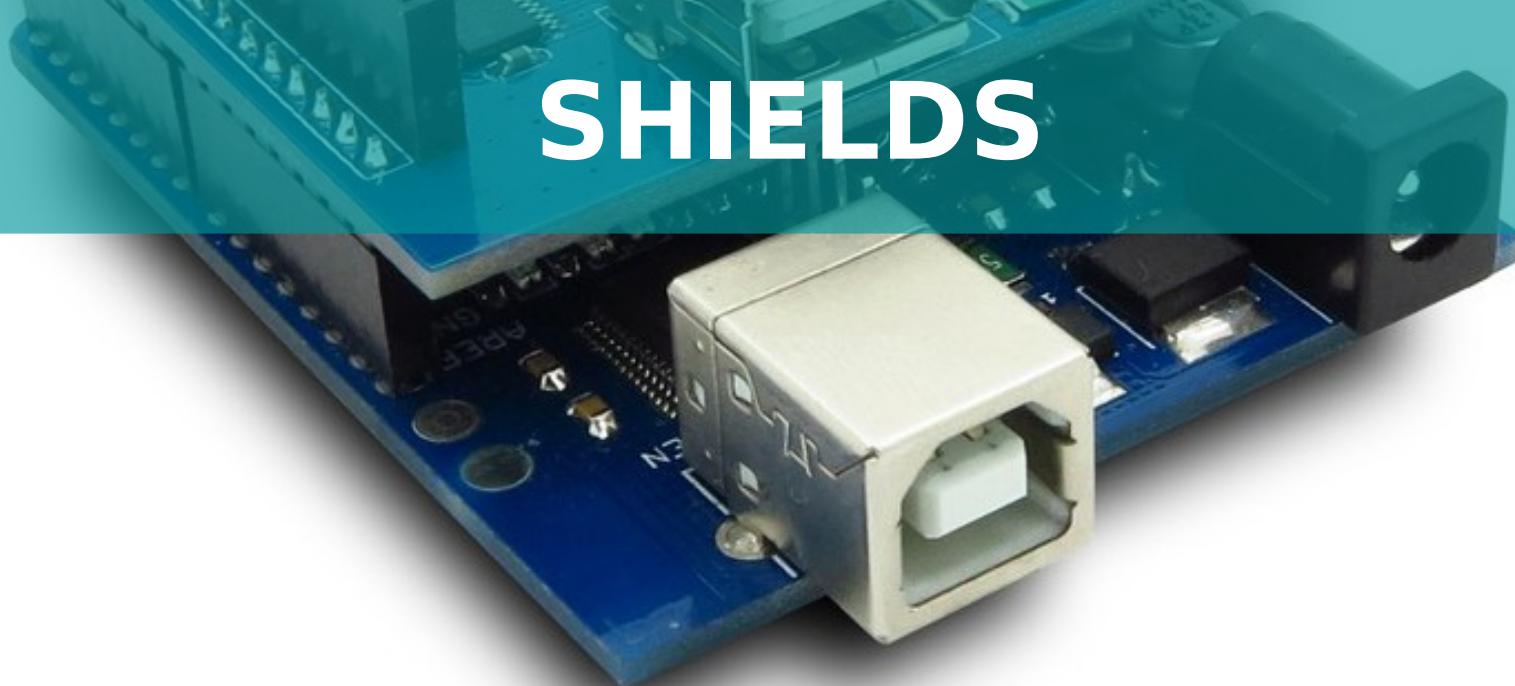
Piezo



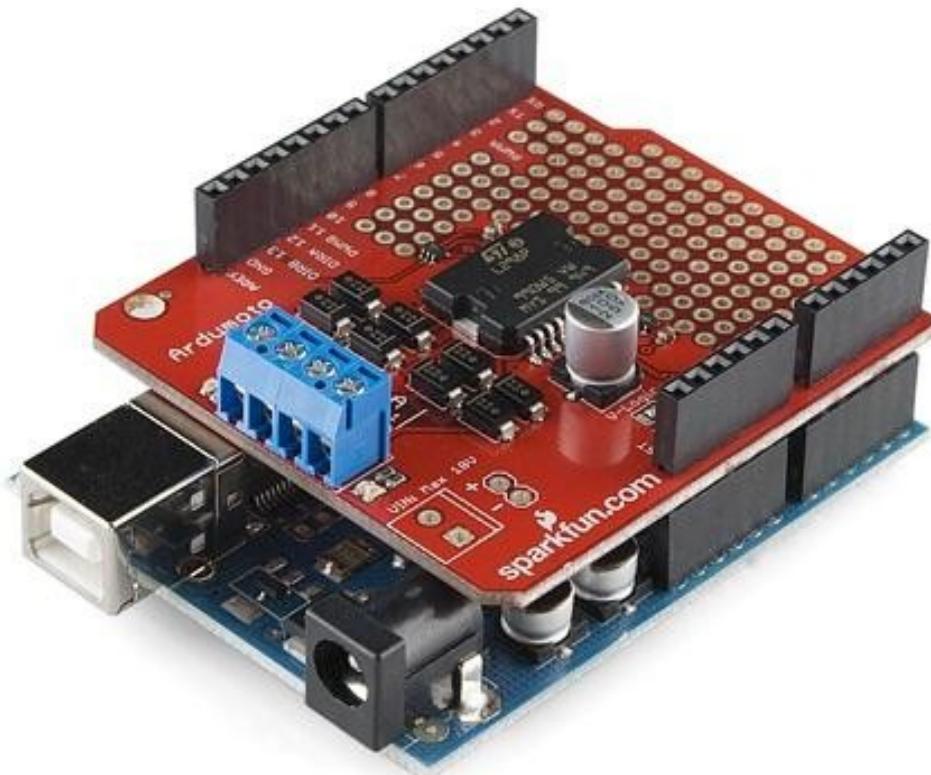
Voltage augmente quand la pression augmente



SHIELDS



Fonctionnalités supplémentaires

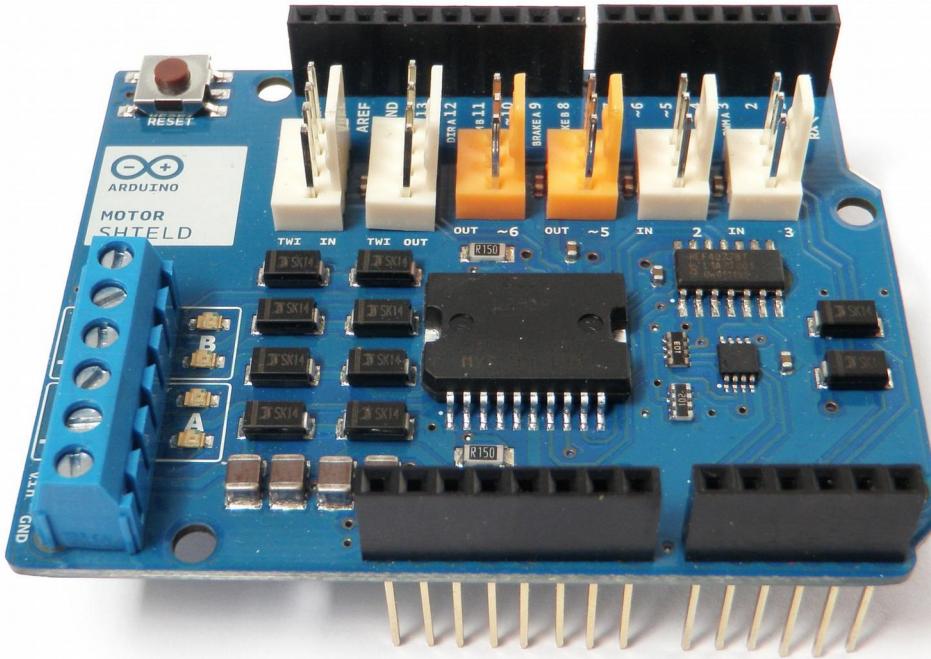


Ajouts physiques

Même forme que la PCB initiale

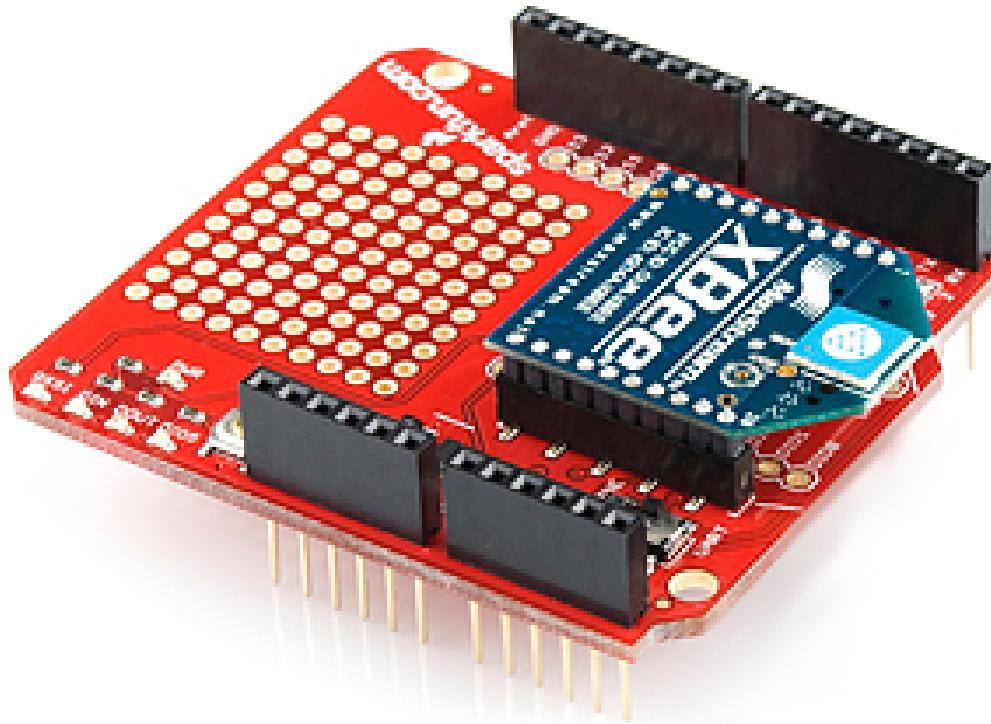
Philosophie :
Facile à ajouter,
Facile à utiliser!

Contrôle de moteurs



Contrôler plusieurs moteurs à la fois

XBee



communication sans fil

Screen



EDITOR

Sketchbook

samples

raries

ial Monitor

P

ferences

powered by
amazon
web services

Editor font size

Editor theme

Save when verifying
uploading

Enable Autosave

Always show output

ADVANCED OPTIONS

Sketchbook: Show
other formats)

Console: Show ver-



SHOP

BLOG

LEARN

sparkfun
START SOMETHING

SHOP

LEARN

A/C

START A PROJECT

EDU BLOG

RESOURCES



RESOURCES

FEATURED

NEW

Adafruit NeoPixel Überguide

Everything you always wanted
to know about Adafruit
NeoPixels but were afraid to ask
by Phillip Burgess



Adafruit Timer Br

Its like that
grandparent
conditioning
electronics
by lady ada



Start a Project

If you're eager to start building and learn
as you go then this will help you find the
best resources to hit the ground running.

Teach
eager to
with a va

New Tutorials



Roshamglo Hookup Guide

MARCH 13, 2017

This tutorial provides everything you need to know to get
started with the Roshamglo badge.

Learn: Arduino website



Search the Arduino Website

Home Buy Software Products ▾ Learning ▾ Forum Support ▾ Blog

LOG IN SIGN UP

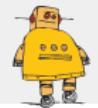


ADD FLAIR TO YOUR
TURN SIGNALS WITH
PROGRAMMABLE LEDS

MKR RELAY PROTO SHIELD,
EASILY ADD TWO



Learn: Instructable



instructables

let's make



Explore

Contests

Classes

Publish

Featured:

3D Printing Class

Arduino

Sewing



arduino

+ Follow

★ Featu



Arduino DIY Analog Thermometer
by educ8s

★ ❤ 7 ⚡ 284



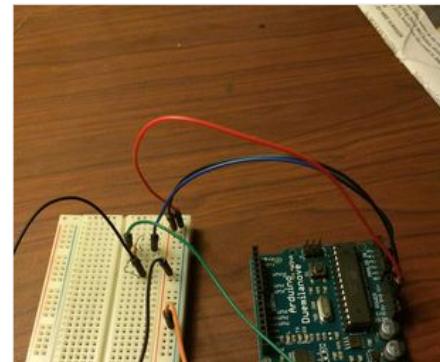
How to Make SINONING Arduino Scale
With Source Code
by SINONING

★ ❤ 2 ⚡ 140



Temperature Changing Color Cube
by SebastiaanJansen

★ ❤ 21 ⚡ 999



GSR Exposer
by farzin585

★ ❤ 9 ⚡ 468



How to Setup
NRF24L01
Wireless Module



Portable Monitor For Home Supplies

Components: Adafruit

Sign in

0 items



SHOP

BLOG

LEARN

FORUMS

VIDEOS



FEATURED

Mini Mac Pi

The smallest, and cutest Mac Classic inspired project
by Ruiz Brothers



3D Print and build your own Mac Pi for nostalgic retro fun!

FEATURED

Adafruit NeoPixel Überguide

Everything you always wanted to know about Adafruit NeoPixels but were afraid to ask by Phillip Burgess



NEW

Adafruit TPL5110 Power Timer Breakout

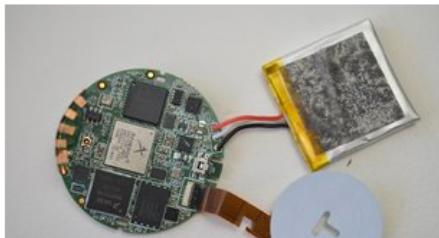
Its like that timer your grandparents had on the air-conditioning unit. But for electronics projects.
by lady ada



FEATURED

Whistle Dog Activity Monitor Teardown

Inside the Whistle
by Becky Stern



POPULAR

Adafruit Motor Shield

Control servos, steppers and DC motors with an Arduino!
by lady ada



Components: Sparkfun

Need Help? ▾

sparkfun START SOMETHING

SHOP LEARN AVC FORUM DATA

LOG IN REGISTER

START A PROJECT PRODUCTS BLOG TUTORIALS VIDEOS WISH LISTS DISTRIBUTORS SUPPORT

search...

New Products

Top Sellers

SparkFun Originals

Sale

Gift Certificates

Arduino +

Audio

Books

Breakout Boards

Cables +

Components +

Development Tools +

Dings and Dents

Educators

GPS +

Intel® Edison

IoT +

Kits

LCDs +

Prototyping +

Raspberry Pi

Robotics +

Sensors +

SparkX

It's what's inside the breadboard that counts.
(hint: it's an Arduino)

PINK WHITE BLACK



New Products

See All

PAGE 1 OF 6

 **SparkFun TeensyView**
LCD-14048
\$14.95

 **BeagleBone Black Wireless**
DEV-14162
\$69.95

 **UHF RFID Antenna (TNC)**
WRL-14131
\$34.95

 **UHF RFID Cable (TNC to RP-SMA)**
CAB-14132
\$4.95

Components: Ebay

Hi Marc! | Daily Deals | Gift Cards | Help & Contact | Your Outdoor Oasis Awaits

Sell | My eBay



Shop by category

arduino

All Categories

Search

Advanced

Related: arduino uno arduino kit arduino starter kit arduino mega raspberry pi arduino uno r3 arduino sensor arduino nano breadboa...

Include description

Categories

All

Consumer Electronics

Other Gadgets & Electronics

Other Consumer Electronics

Wholesale Lots

More ▾

Business & Industrial

Other Electronic Components

Other Component Sensors

Other Integrated Circuits

LCD Display Modules

Electronic Components

More ▾

Show more ▾

Brand

see all

Arduino (638)

Keyestudio (367)

Unbranded/Generic (3,985)

Type

see all

Condition

see all

New (75,674)

Used (325)

Not Specified (167)

Price

Under \$7.00

Find deals and best selling products for Arduino

Shop Now →

All Listings

Auction

Buy It Now

Sort:

Best Match

View:

76,166 results for arduino

Follow this search

Shop by Category

Industrial Automation &...

Semiconductors & Actives

Computers/Tablets & Networking

Industrial Connectors,...



ATmega328P CH340G UNO R3 Board + USB Cable Compatible with Arduino CP

5 product ratings

\$4.02

From Hong Kong

Buy It Now

1389 sold



Arduino Industrial Automation Sensors



Arduino General Purpose Relays



Arduino Computer Motherboard



New Ultimate UNO R3 Starter Kit for Arduino 1602 LCD Servo Motor Relay RTC LED

30+Lessons, Powerful and complete Components and Modules

Components: AliExpress



arduino 32U4



0



Wish List

Related Searches: arduino nano arduino wifi arduino due arduino mega arduino nano v3.0

Home > All Categories > "arduino 32U4" 38 Results >

Search within results.



Related Categories

Electronic Components & Supplies

Integrated Circuits

Consumer Electronics

Replacement Parts

Computer & Office

Demo Board

See all 6 Categories

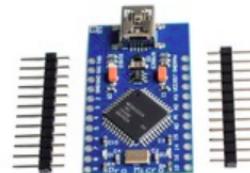
Brands: dlymore

Price: min - max

 Free Shipping ★★★★☆ & Up App Only deals Domestic Returns

Sort by: Best Match Orders Newest Seller rating Price

Ship from

ATmega32U4 5V 16MHz Module
Pro Micro Usb Controller BoardMini USB ATmega32U4 Pro Micro
5V 16MHz Board Module ForMini USB ATmega32U4 Pro Micro
5V 16MHz Board Module ForMini USB ATmega32U4 5V 16MHz Board
Module For

US \$3.60 / piece

US \$3.86 / piece

US \$3.88 / piece

US \$3.88 / piece

Free Shipping

Shipping: US \$0.22 / lot via Yanwen
Economic Air MailShipping: US \$0.22 / lot via Yanwen
Economic Air MailShipping: US \$0.21 /
Economic A

★★★★★ (1) | Orders (33)

★★★★★ (11) | Orders (41)

★★★★★ (45) | Orders (145)

★★★★★ (19) |



Scan or click to download

Projects: Creators

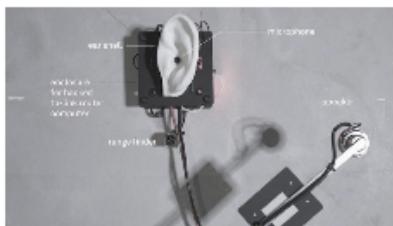


Creators

VICE ▾

Arduino

ART

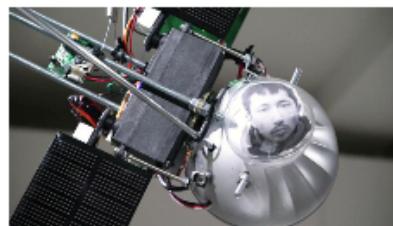


A 3D-Printed Ear Explores What It Means to Be a Machine

Multimedia artist Saurabh Datta created a networked, 3D-printed ear that generates a portrait of its own beingness using sounds it picks up.

DJ PANGBURN / 11.30.16

ART

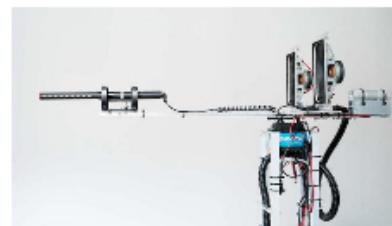


This Tiny Satellite Sculpture Is a Solar-Powered Synthesizer

Media artist ::vtol:: imagines a tiny satellite that measures the part of Earth's atmosphere altered by humans.

DJ PANGBURN / 11.17.16

ART



A Robot Is Collecting Sound Samples and Turning Them into Collages

Media artist ::vtol:: built a robot that samples a room's noises and turns them into compositions.

DJ PANGBURN / 10.22.16

DESIGN



This Gig Bag Is Actually a Playable Guitar

Interaction designer Martin Hertig's 'Zippy' is a sound-generating guitar gig bag.

DJ PANGBURN / 9.15.16

ART



ART



DESIGN



DESIGN



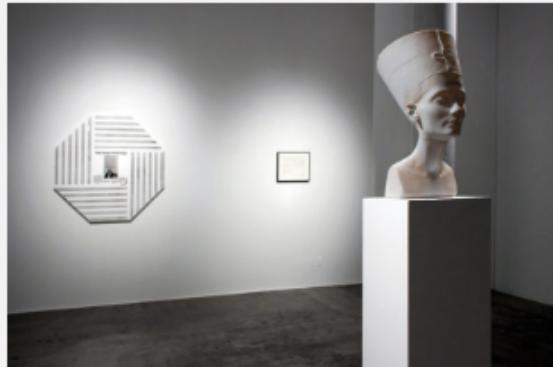
Projects: Creative Applications



CREATIVE
APPLICATIONS
NETWORK

► FILTER CONTENTS

Recent Posts



Evidentiary Realism – Revealing the aesthetics of investigation

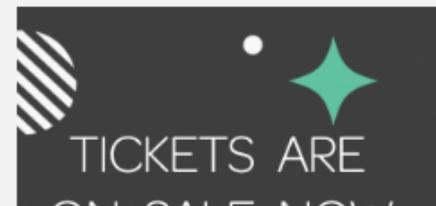
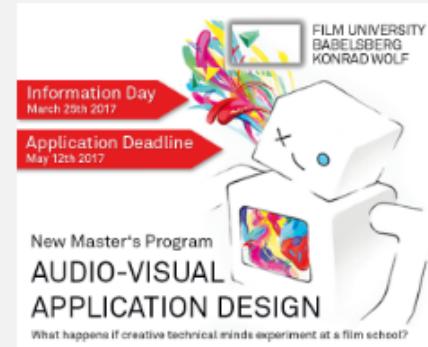
"Evidentiary Realism" is an exhibition that delves into the aesthetics of sites of inaccessibility,



border_ctrl – Internet Border Control (IBC)

Created by Saurabh Datta, border_ctrl explores future government agency, created to keep tabs of

Advertisement



Use: Online Editor

The screenshot shows the Arduino Online Editor interface. On the left, a sidebar menu includes options like EDITOR, Sketchbook, Examples, Libraries, Monitor, Help, and Preferences. The main workspace displays a sketch titled "sketch_jun10a" with the following code:

```
1 /*
2  *
3  */
4
5 void setup() {
6 }
7
8
9 void loop() {
10 }
11
12
```

Below the code editor, a message encourages users to import sketches to their online Sketchbook. The top right corner features a "SIGN IN" button.

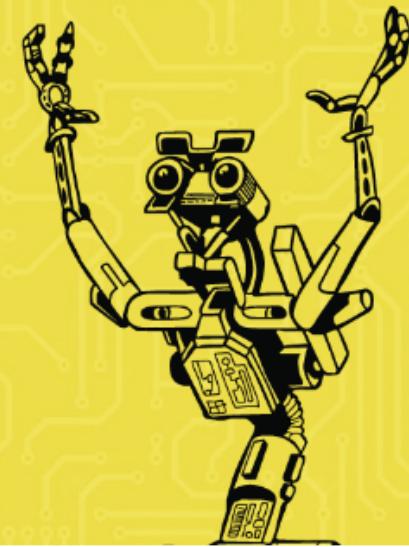
Use: NodeJS

J5

News API Examples Articles Platform Support

Johnny-Five

The JavaScript
Electric Imp
Robotics & IoT Platform



Johnny-Five is the JavaScript Robotics & IoT Platform. Released by Bocoup in 2012, Johnny-Five is maintained by a community of passionate software developers and hardware engineers. Over 75 developers have made contributions towards building a robust, extensible and composable ecosystem.

Star

7,417

Fork

1,074



Fin.