



WELCOME

TO THE REAL WORLD

I HAVE NO IDEA



WHAT I'M DOING

**THE MOMENT WHEN
YOUR CODE WORKS**

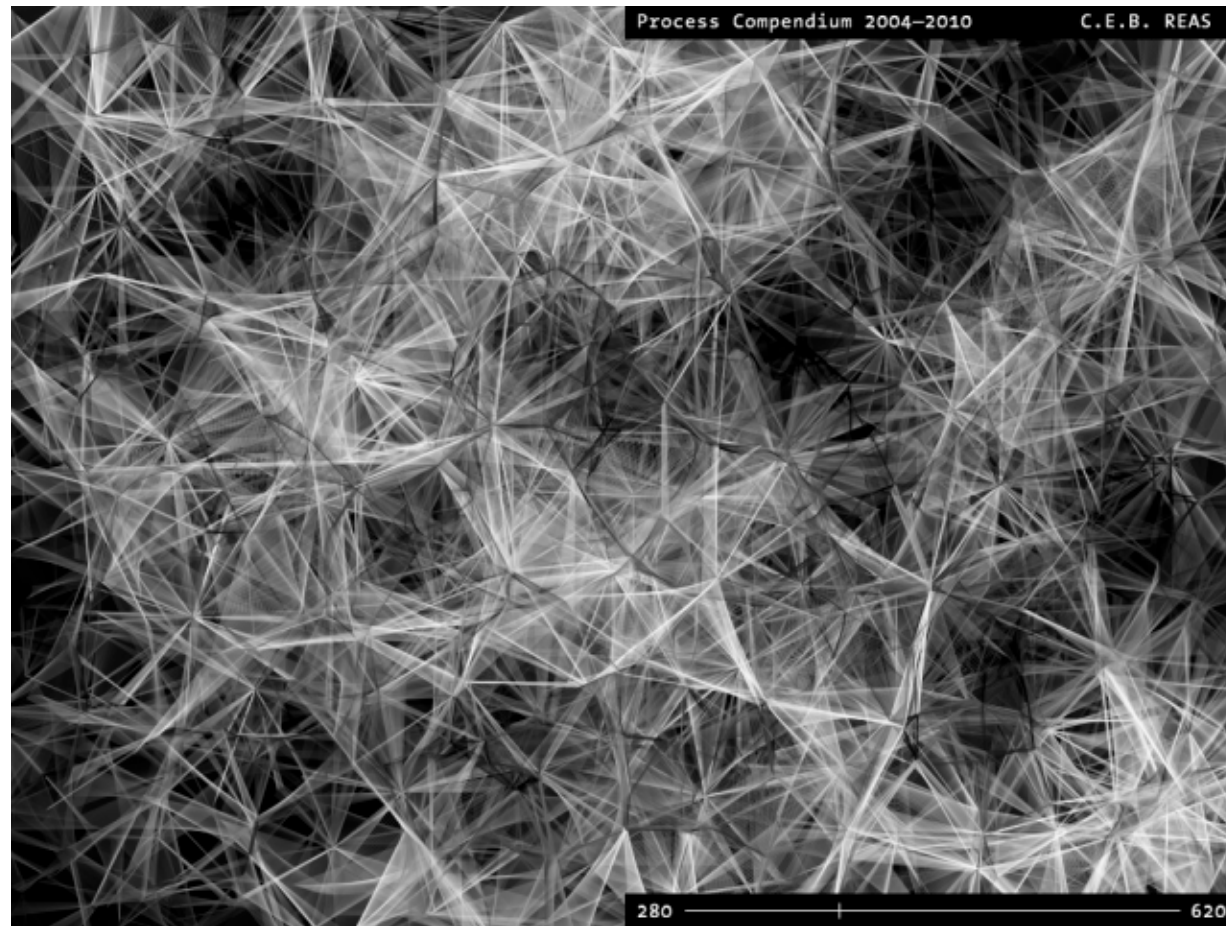


FUCK YEAH

PROCESSING

Processing an open source programming language built for the electronic arts, new media art, and visual design communities with the purpose of teaching the fundamentals of computer programming in a visual context

Created in 2001 by Casey Reas and Benjamin Fry
Digital world



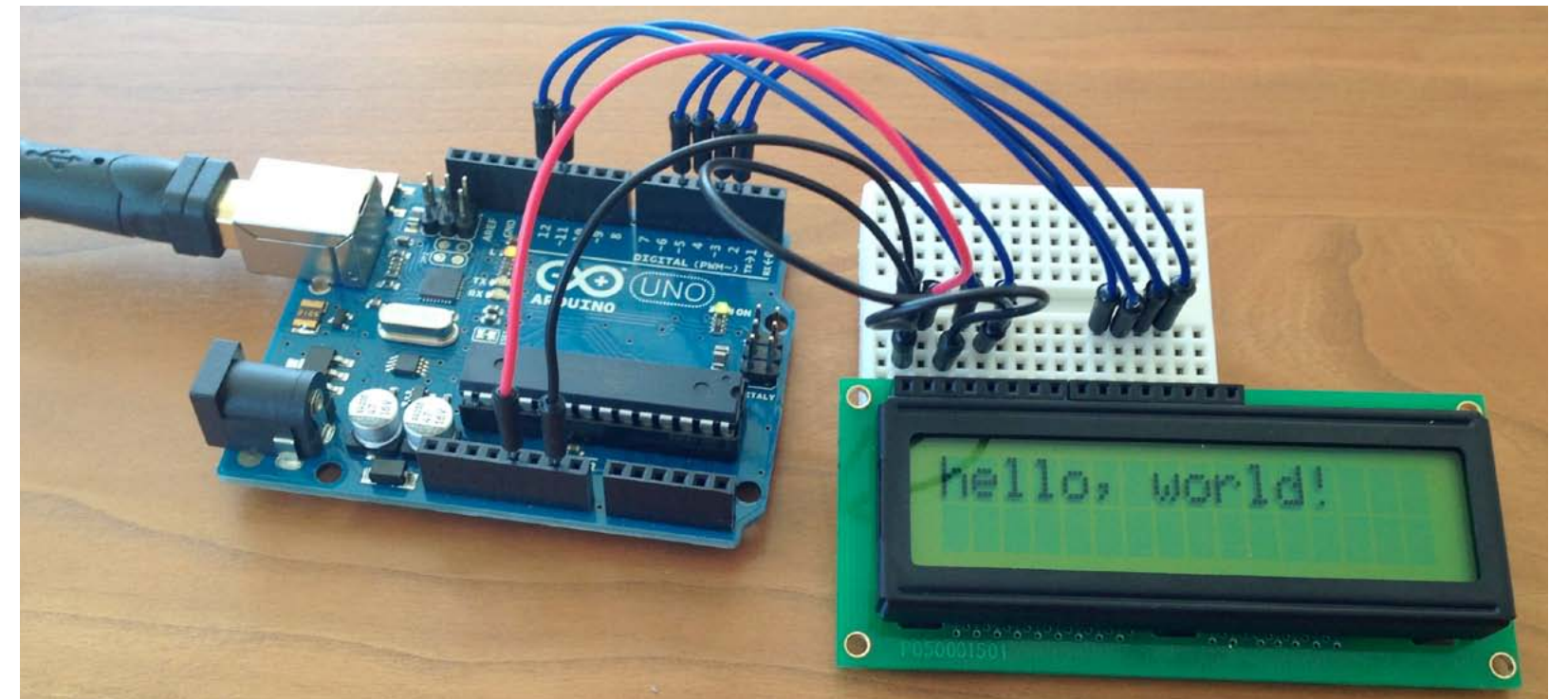
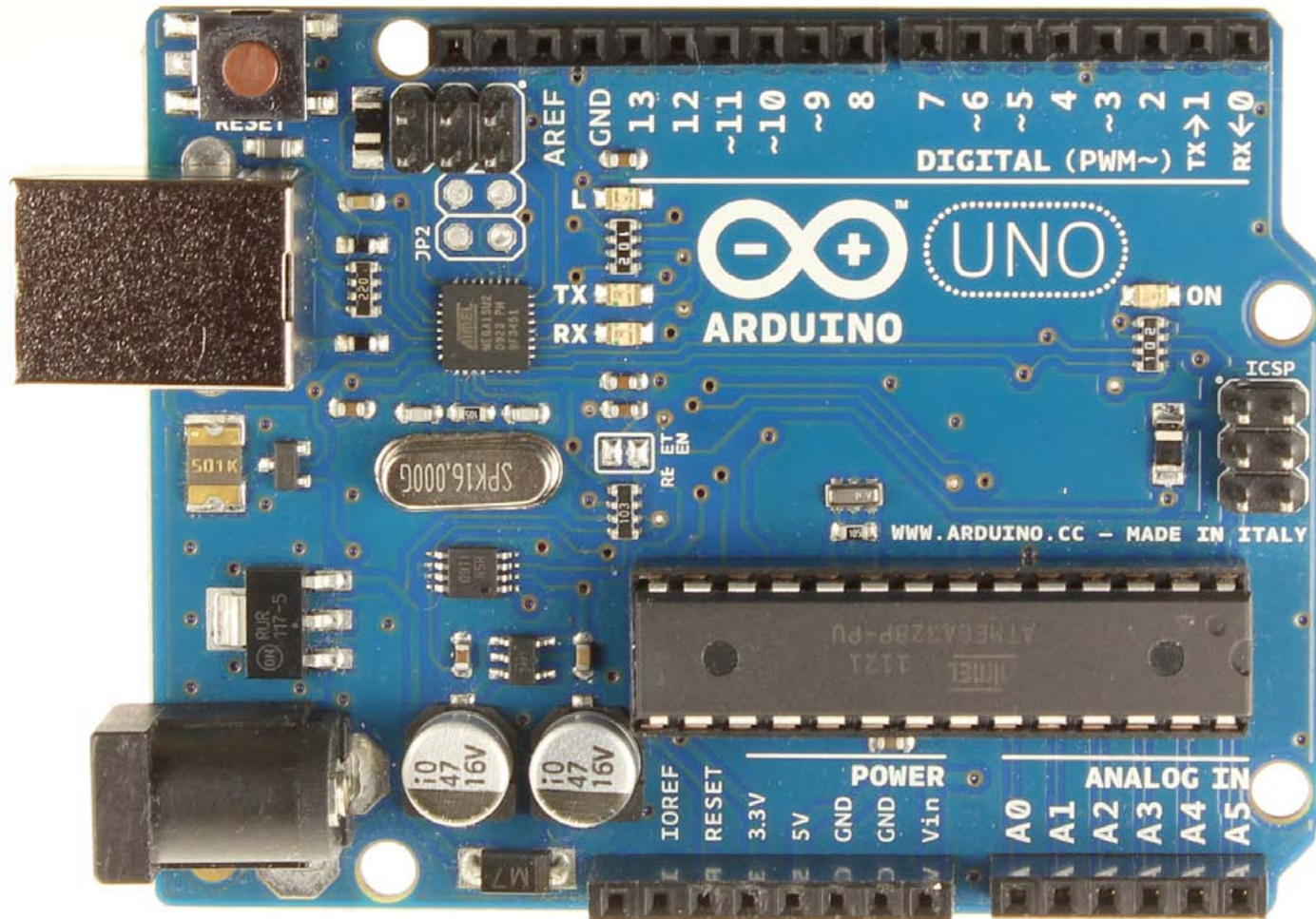
Casey Reas



Ben Fry

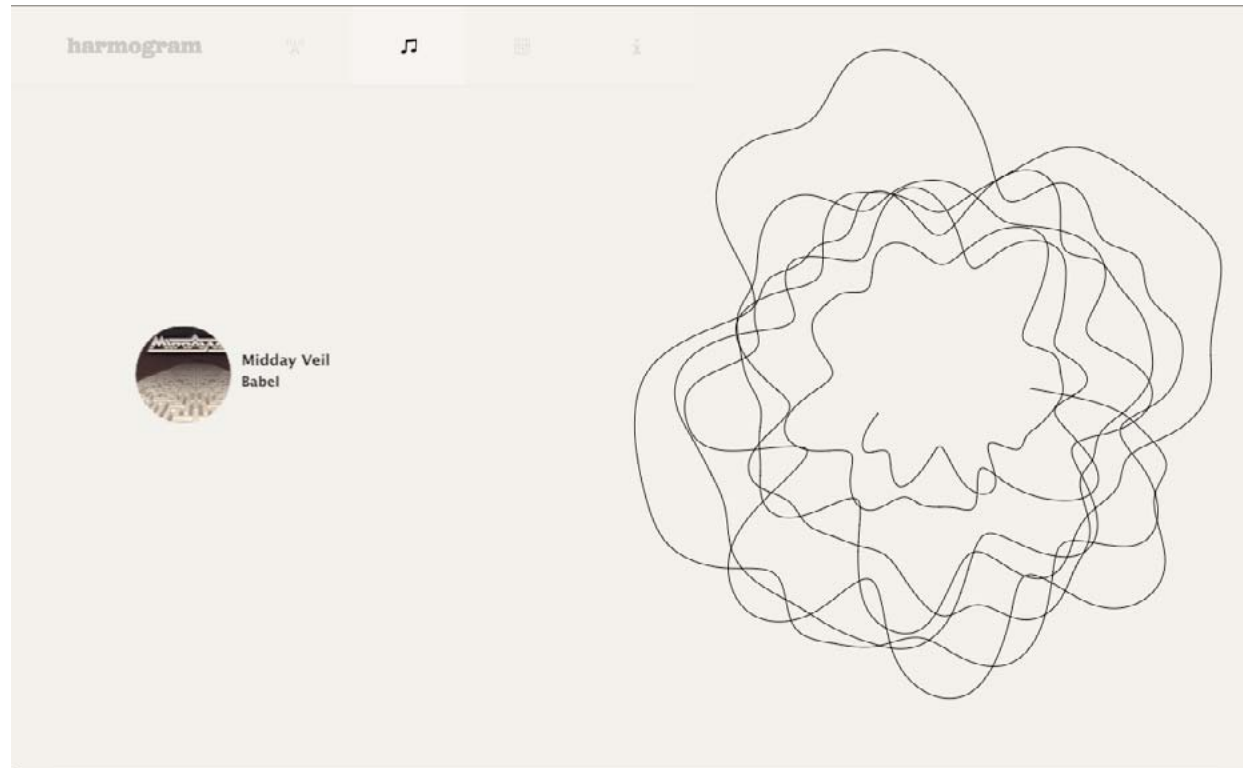
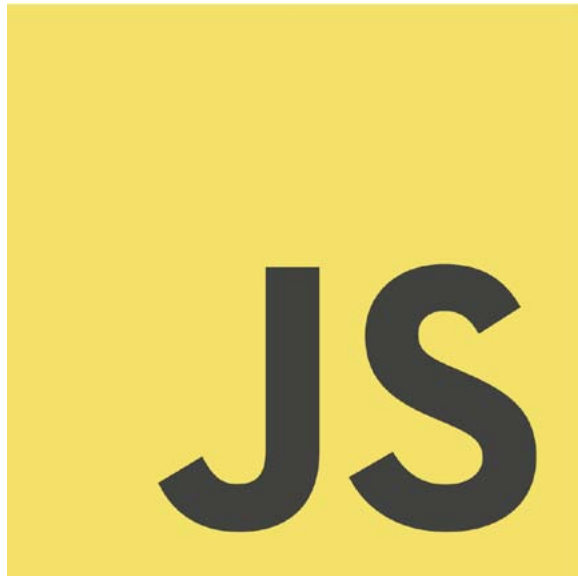
ARDUINO

Open source prototyping platform to built interactive electronic objects.
Physical world.

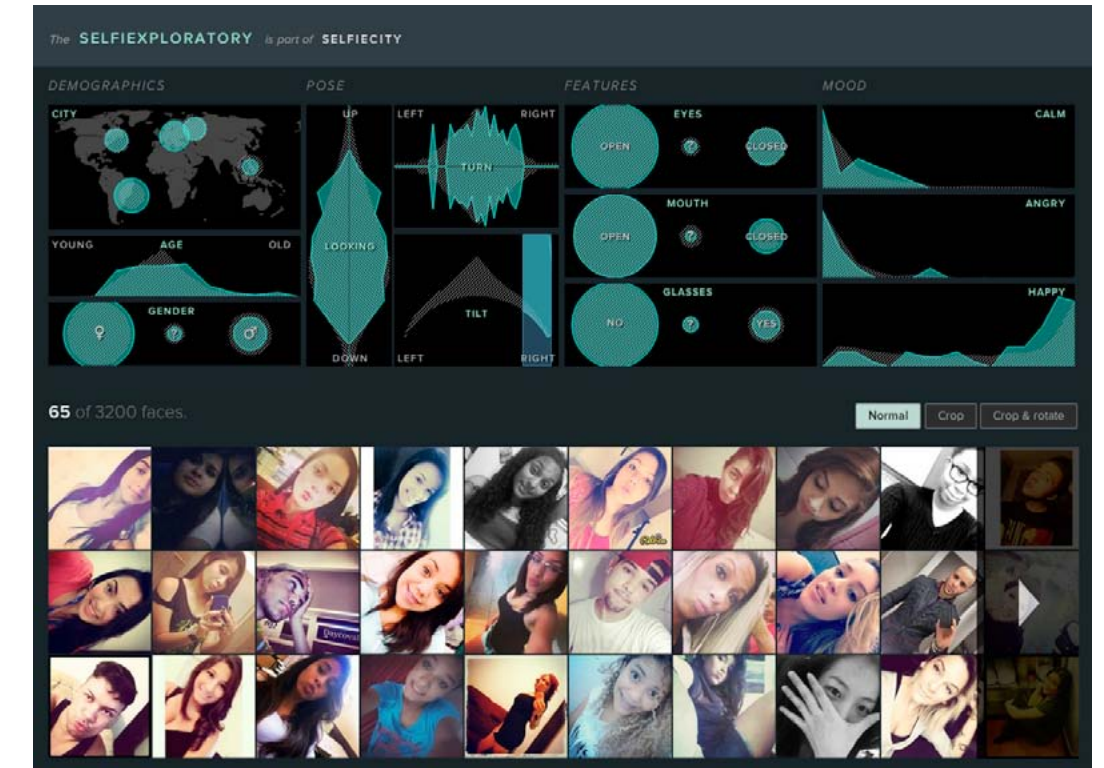


JAVASCRIPT/JQUERY

Javascript is an Open source web dynamic programming language. It use everywhere on the web for interactivity. JQuery is a library for javascript, designed to simplify it. We can use it, to make interactive, creative and generative works. Digital world



PaperJs
<http://www.harmogram.com/>



Lev Manovitch
<http://selfiecity.net/>

OPENFRAMEWORKS

openFrameworks is an open source toolkit designed for «creative coding». OpenFrameworks is written in C++.
Digital world.



PROGRAM

A program, is a sequence of instructions, written to perform a specified task on a computer.

PANCAKE RECIPE

INGREDIENTS:

2 2/3 cups sifted flour
6 tsp baking powder
1 cup of sugar
1 tsp. salt
4 eggs, beaten
2 cups of milk
4 tbs. cooking oil

DIRECTIONS

In a large bowl, whisk dry ingredients together.
In a separate smaller bowl, mix together to eggs, milk and oil.
Add the wet ingredients to the dry ingredients and stir just until moistened.
Don't over mix, the batter will be lumpy.
Bake on your griddle or stove top until golden brown on both sides.

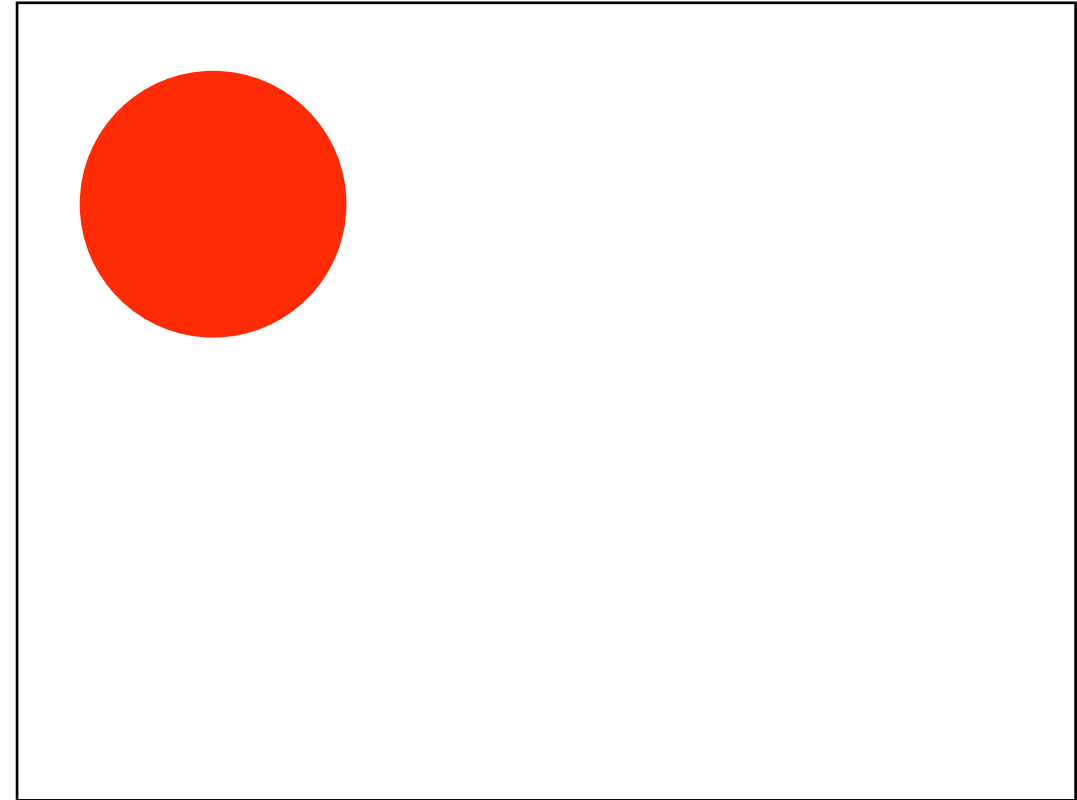


It is like a recipe. It contains a list of ingredients (called variables) and a list of directions (called statements) that tell the computer what to do with the variables.

PROGRAM

Example of a program

- Create a blank space of 300px x 300px
- Draw a circle of 100px of diameter
- Put the circle 20px from the top and 20px from the left
- Color the circle in red

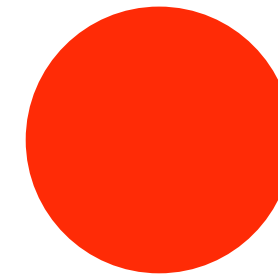


VARIABLES

Variables are sort of symbols which associate a name (an id) to a value. This value can be any type of data (numeric, text, image, boolean). The name you give to your variable is unique. In dynamic languages, the value of the variable can change during the execution of the program.

```
width = 300px  
height = 300px  
diameter = 100px
```

- Create a blank space of `width` x `height`
- Draw a circle of `diameter` of diameter
- Put the circle 20px from the top and 20px from the left
- Color the circle in red

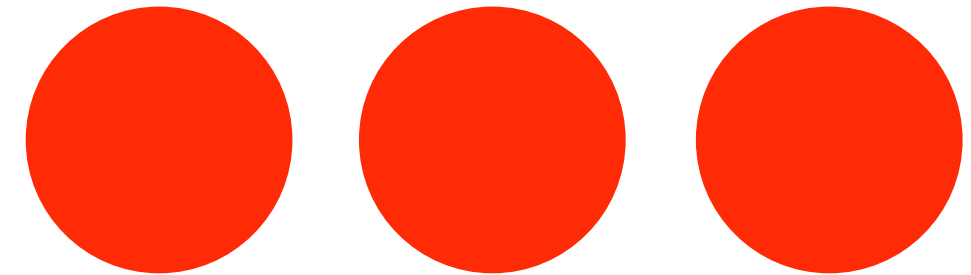


LOOPS

A loop is a sequence of statements which is specified once but which may be carried out several times in succession. The code «inside» the loop is obeyed a specified number of times, or once for each of a collection of items, or until some condition is met, or indefinitely.

```
width = 300px  
height = 300px  
diameter = 100px  
xPosition = 20px  
yPosition = 20px
```

- Create a blank space of `width` x `height`
- Repeat the code below 3 times
 - Draw a circle of `diameter` of diameter
 - Put the circle `xPosition` from the top and `yPosition` from the left
 - Color the circle in red
 - `xPosition = xPosition + width + 20px`

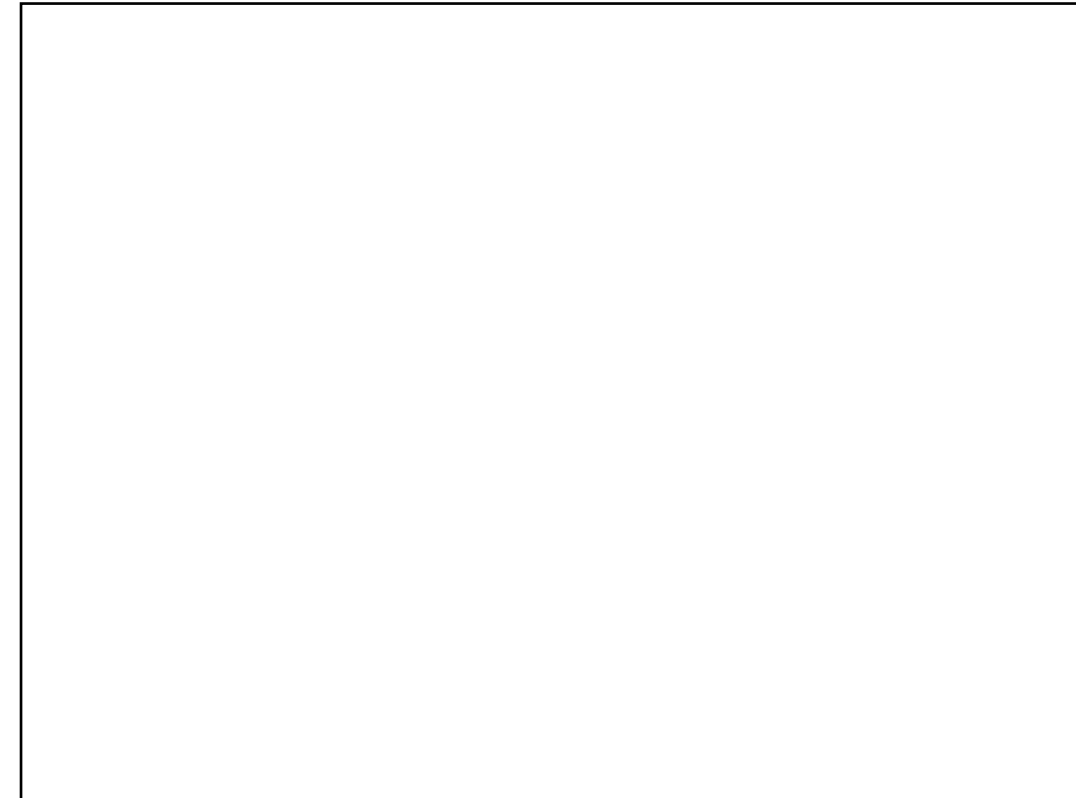


EVENTS

An event is an action detected by the program that may be handled by the program. Typical sources of events include the user (who presses a key on the keyboard, or move the mouse). With events your program become interactive.

```
width = 300px
height = 300px
diameter = 100px
xPosition = 20px
yPosition = 20px
```

- Create a blank space of `width` x `height`
- If the user click in the blank space, execute the code below (else do nothing)
 - Draw a circle of `diameter` of diameter
 - Put the circle `xPosition` from the top and `yPosition` from the left
 - Color the circle in red

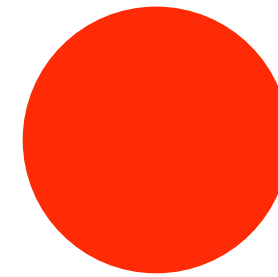


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 - Color the circle in red



PROCESSING - INTRODUCTION

Processing is a software dedicated to creative programming. With Processing, you can create images, animations, interactive stuffs, handled text, vector, and sound. Processing can do a lot of things thanks to its extensions.

It has been created by two artists Casey Reas and Ben Fry for artists. It works on the Java language, allowing it to run on three platforms: Windows, MacOS X and Linux.

Official website: <https://processing.org/>

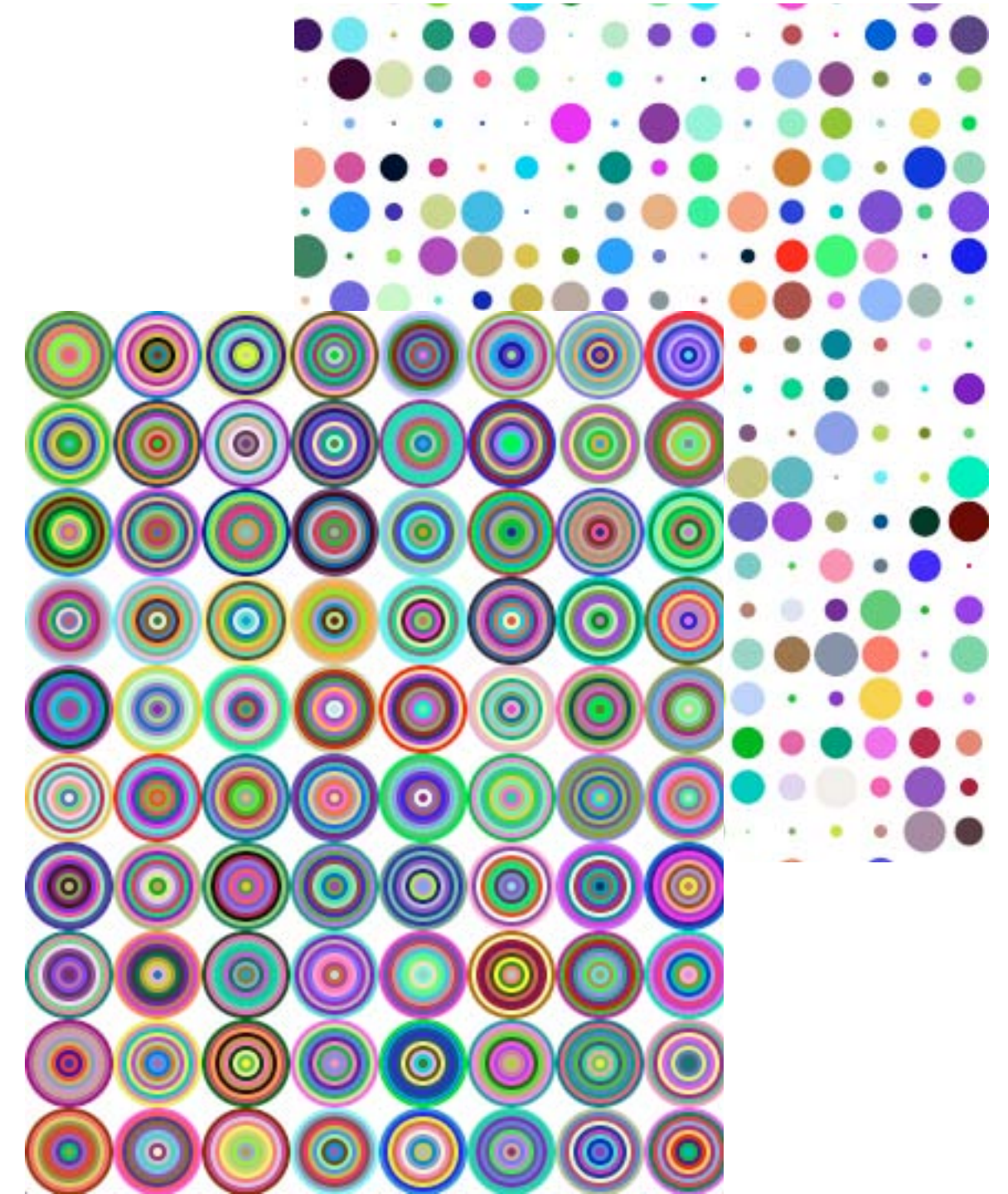
Some sketches and their source code:

<http://www.openprocessing.org/>

First step: download Processing:

<https://processing.org/download/?processing>

Now you can launch the software and we can begin to code.



READINGS / LINKS

Tools for conviviality, Ivan Illich

<https://processing.org/>

<http://www.openprocessing.org/>

Ben Fry (<http://benfry.com/projects/>)

Casey Reas (<http://reas.com/>)

Ryoji Ikeda (<http://www.ryojiikeda.com/>)

Daniel Shiffman (<http://natureofcode.com/>)

Lev Manovitch (<http://manovich.net/index.php/exhibitions>)