

Creative Coding

How do computers work?, P5JS Setup, Hello World

COD 207 - Week 02 Class →



Overview

Terminology

P5JS sketch

openProcessing

Terminology

Why terminology matters?

"Whenever the speech is corrupted so is the mind"

- *Lucius Annaeus Seneca*

Speech is made of words, and the words have meaning. These are grouped together to form thoughts or ideas and to move them from one person to another. If you can corrupt the speech, by banning words or concepts, everything else is corrupted as well.



Computers

Runs instructions by humans

Power supply

Processor

Memory (RAM)

Hard drive (Harddisk)

Video Card (GPU)

Peripherals (IO, Keyboard, mouse)

Programming

> _ <

Programming is the process of creating a set of **instructions** that tell a computer how to perform a task.

Instructions are made up of written **codes**.

Codes are written according to a specific Programming Language.

Programming Language

A system of notation (syntax) used communicate with computers and tell them what to do.

Types of Programming Language

Textual Programming Languages

E.g. Javascript, C++, Python...

Graphical Programming Languages (*a.k.a Node-based*)

E.g Scratch

Mixed-Programming Languages

E.g TouchDesigner, MAX



P5JS Overview

A dedicated creative coding framework/library for artists & designers.

Main Elements;

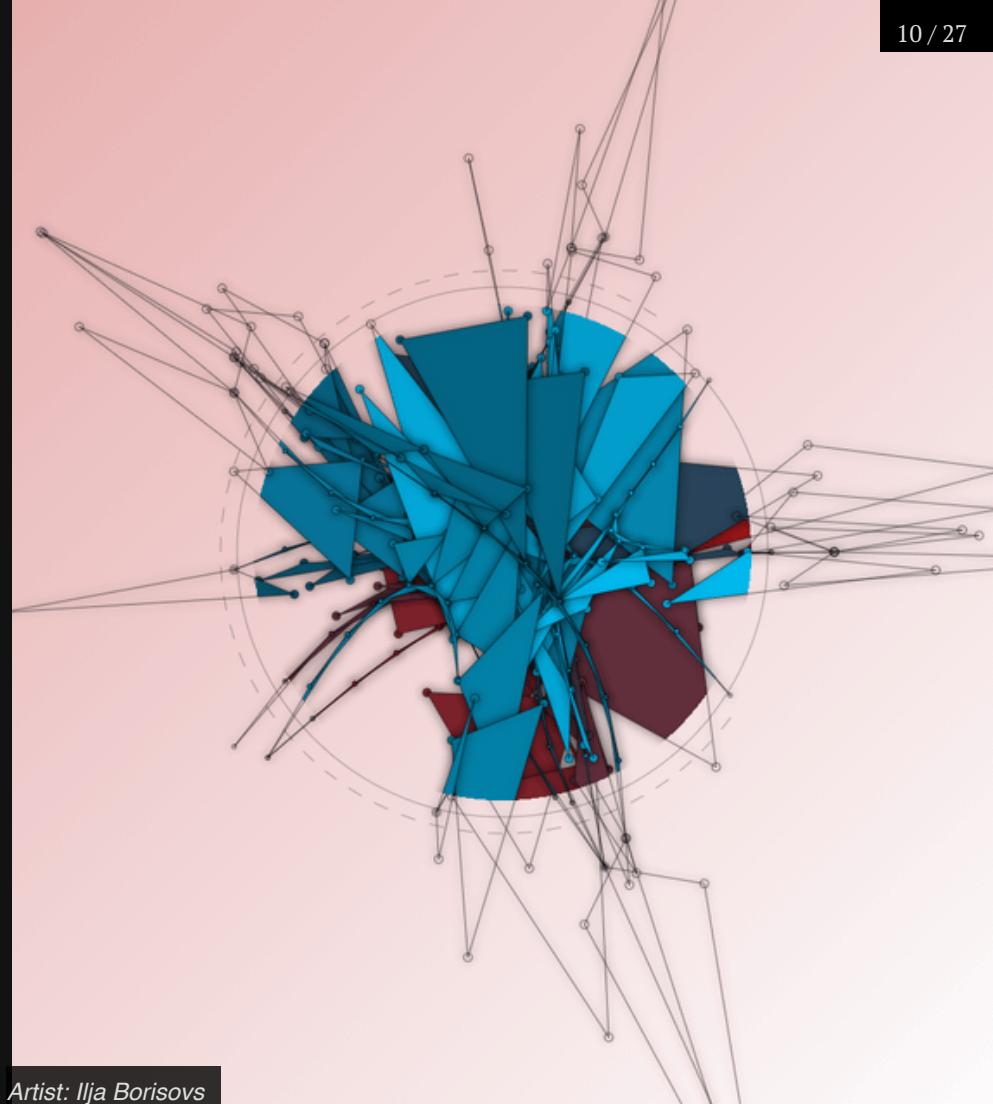
- Javascript
- Canvas
- Functions
- Libraries
- [P5JS Website](#)

OpenProcessing

P5JS Programming interface

Features;

- Text Editor
- Online IDE (Integrated Development Environment)
- OpenProcessing Editor



Artist: Ilja Borisovs



alptugan

sociotechnology, algorithmic art, live coding

Turkey

alptugan.com

Activity

88 Sketches

61 Hearts

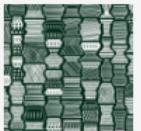
2 Curations

Edit Profile

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New sketch submitted to 3 colors #WCCChallenge

[Color Print](#)

New sketch submitted to 3 colors #WCCChallenge

[Vases](#)

New sketch submitted to 3 colors #WCCChallenge

[Battery Tessellation](#)

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BREAK

10 mins.



SAVE

13 / 27

mySketch

```
1 function setup() {  
2     createCanvas(windowWidth, windowHeight);  
3     background(100);  
4 }  
5  
6 function draw() {  
7     circle(mouseX, mouseY, 20);  
8 }
```

SKETCH

FILES

EDITOR



MODE

P5js

HTML/CSS/JS Pjs

Select mode or a template

TUTORIAL MODE

Write step-by-step tutorials. [Learn more](#)

SHOWCASE SKETCH



Centers sketch and matches the background color.

LOOP PROTECTION



Prevents infinite loops that may freeze the sketch.

LIBRARIES - SHOW ALL



p5.sound



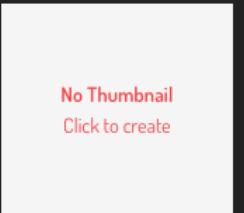
OP Configurator 3000

Join Plus+ for private sketches, version history,
and more!



SUBMIT

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week02_assignment01

TITLE**DESCRIPTION****HOW TO
INTERACT WITH
IT**

e.g., mouse, keyboard

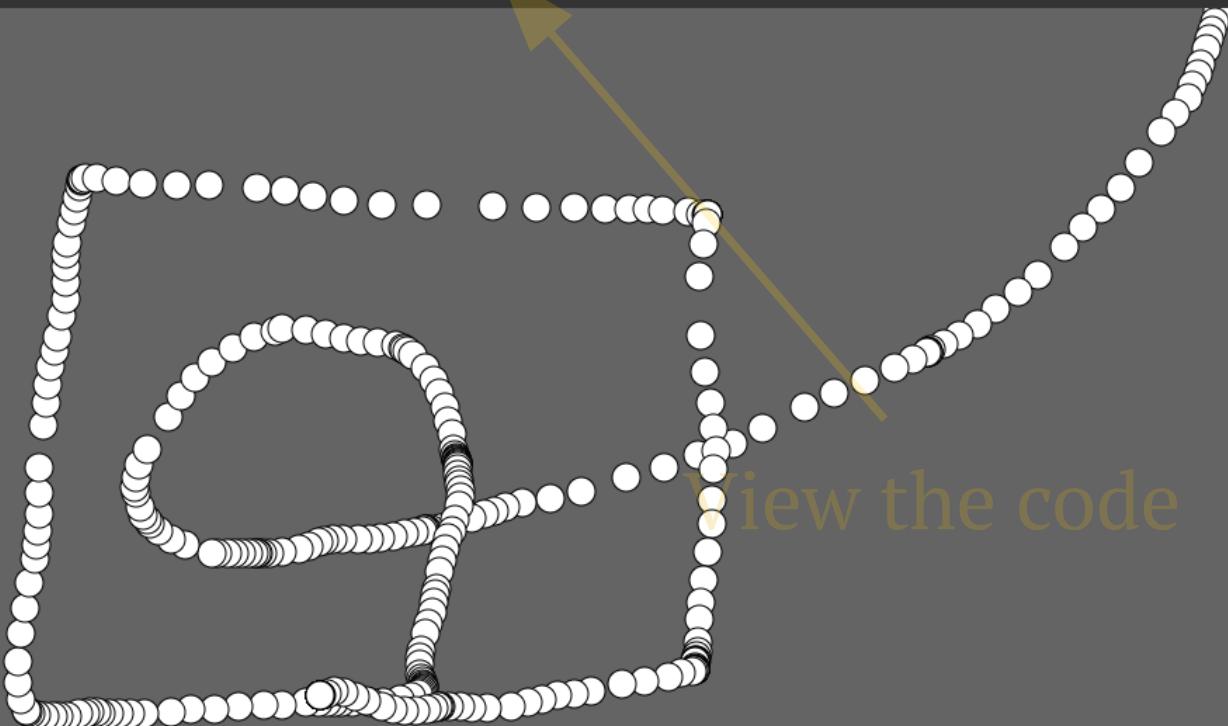
TAGS

e.g., visualization, fractal, mouse

LICENSE

Attribution NonCommercial ShareA... ▾

Learn more about [Creative Commons](#)**DRAFT****ADD TO MY TEMPLATES**





mySketch

```
1 function setup() {  
2     createCanvas(windowWidth, windowHeight);  
3     background(100);  
4 }  
5  
6 function draw() {  
7     circle(mouseX, mouseY, 20);  
8 }
```

Change Layout





mySketch



```
1 function setup() {  
2     createCanvas(windowWidth, windowHeight);  
3     background(100);  
4 }  
5  
6 function draw() {  
7     circle(mouseX, mouseY, 20);  
8 }
```

Share Your Sketch





mySketch

```
1 function setup() {  
2     createCanvas(windowWidth, windowHeight);  
3     background(100);  
4 }  
5  
6 function draw() {  
7     circle(mouseX, mouseY, 20);  
8 }
```

Download Your Sketch



Fullscreen

Record

Share

DOWNLOAD

sketch2037505.zip

ADD TO CURATION

Select ▾

PRIVATE URL

opp.org/s/XXXXXXX

Join Plus+ to share your sketch with private URL

</> EMBED

<iframe src="https://openprocessing.org/sketch/2037505" ...>

Get Plus+ to access embedding options ⓘ

ATTRIBUTE

"week02_assignment01" by alptugan
<http://openprocessing.org/sketch/2037505>
License CreativeCommons Attribution
<https://creativecommons.org/licenses/by/>

REPORT SKETCH

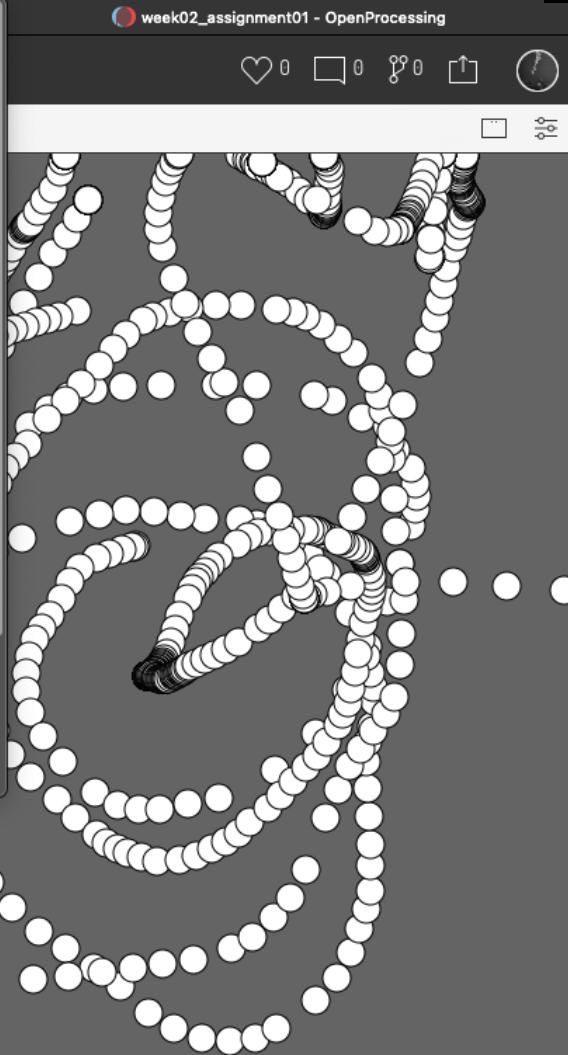
Week 02 - - Sliderv

week02_assignment01
by alptugan

mySketch

```
function setup() {
  createCanvas(windowWidth,
  background(100);
}

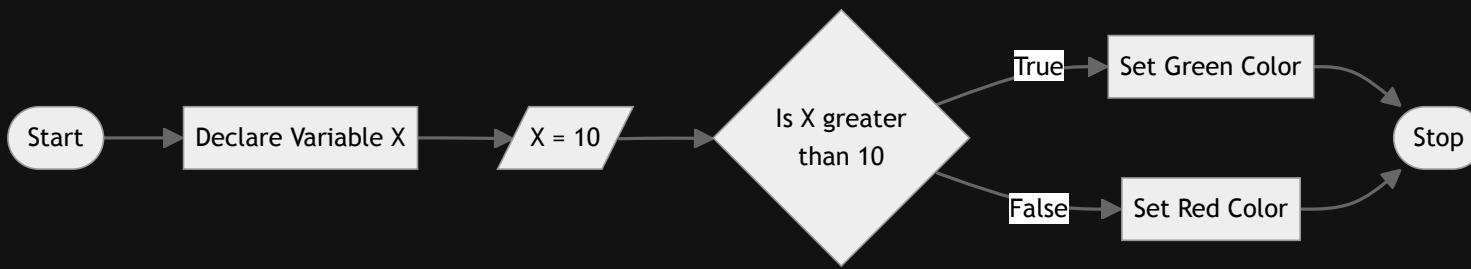
function draw() {
  circle(mouseX, mouseY, 20
}
```



Submit the Link & your sketch to LMS



Diagrams in Programming



Cartesian Coordinate System

- Horizontal Axis X starts from 0
- Vertical Axis Y starts from 0
- To move objects to right  & left  , increase-decrease the X value
- To move objects to down  & up  , increase-decrease the Y value

Preview



02 Coordinate System and Given Functions - p5.js

Paylaş

 (120, 20) (180, 70) (200, 100)İzlemek için:  YouTube



Processing

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The digital copy of the Processing Community Catalog is OUT, check out this nearly 1000 page art+tech book that celebrates the Processing and art+tech community!

archive.org/details/proces...
[#ProcessingCommunityCatalog](#)

The media could not be played.

[Reload](#)



zach lieberman

@zachlieberman · [Follow](#)



computer generated pictures / Howard Wise 1965



The public relations people at Bell Labs were enthusiastic about the show. However, AT&T was not and tried to stop the show. AT&T was concerned that local regulators would see the creation of art at Bell Labs as a superfluous waste of telephone charges by the monopoly. Wise threatened to sue, as he had already scheduled and announced the show. Julesz and I were told by AT&T to avoid mentioning Bell Labs and to limit any publicity. We were told to copyright all the works in our own names to that end. Accordingly, Julesz and I signed the front of each work with a copyright symbol and our initials and the year 1965 on the back. The copyright date was the year the work was first displayed and offered for sale: namely, 1965. However, many of the works had been created a few years earlier. It is relevant that neither Bell Labs

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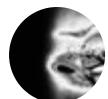
Reply

Copy link

[Read 3 replies](#)

Learn More

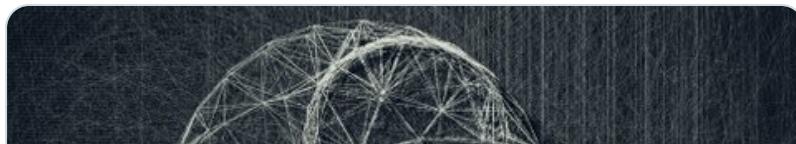
P5JS Video Tutorial Series



Haxen Fan
@wunhanfan · [Follow](#)

Circles

#generativeart #p5js



Raphaël de Courville (he/him)

@sableRaph · [Follow](#)



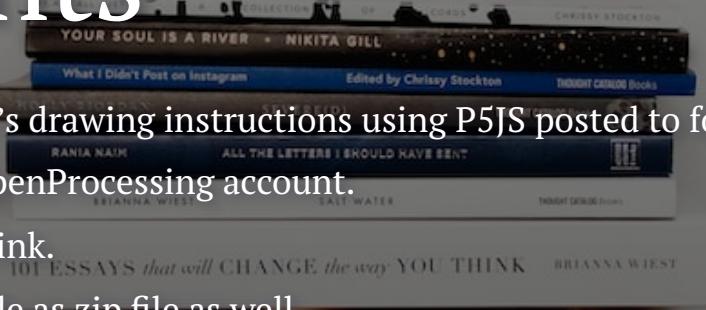
I believe that successful [#generativeArt](#) collectors will be the ones who understand the history of computer art 😊 Here are some good reads / coffee table conversation starters to get you started. A thread



Sources

[Other Presentations](#) · [alptugan](#) · [RandomSeed](#)

Assignments

- 
1. Implement one of your peer's drawing instructions using P5JS posted to forum.
 2. Upload the sketch to your openProcessing account.
 3. Submit the openprocessing link.
 4. Submit the sketch source code as zip file as well.
 5. Read the sections Cartesian Coordinates and Color from the book.