Processing Community Day Copenhagen 2020 - p5 workshop - cheatsheet

Workshop github page

`github.com/kwichmann/p5workshop`

Basic graphics

Canvas

`createCanvas(width, height)` ..... Create
`background(r, g, b)` ..... Background color

Points and lines

`point(x, y)` ..... Point at (x, y)
`line(x1, y1, x2, y2)` . From (x_1, y_1) to (x_2, y_2)

Style of points, lines, and outlines

`strokeWeight(size)` ..... Size/width
`stroke(r, g, b)` ..... Color
`noStroke()` ..... Disable

Geometric shapes

`rect(x, y, width, height)` Rectangle at (x, y)
`ellipse(x, y, radius)` . Circle with center(x, y)
`ellipse(x, y, width, height)` ..... Ellipse
`triangle(x1, y1, x2, y2, x3, y3)` ... Triangle

Style of fill

`fill(r, g, b)` ..... Color
`noFill()` ..... Disable

Color arguments

`···(r, g, b)` ..... Red, green, and blue, 0-255
`···(brightness)` .. Grayscale: 0 black, 255 white

Alpha: 0 fully transparent, 255 fully opaque
`···(r, g, b, a)` .... Red, green, blue with alpha
`···(brightness, a)` ..... Grayscale with alpha

Comments

`// Comment` ..... Note to self. Is not executed

Built-in variables

`width` and `height` ..... Canvas size
`mouseX` and `mouseY` ..... Current mouse position
`pmouseX` and `pmouseY` ... Previous mouse position
`key` ..... Last key pressed

Events

`function mousePressed() {...}` ... Mouse click
`function keyPressed() {...}` . Keyboard input
`function preload() {...}` .. Done before setup

Variables and constants

`let a` ..... Declare variable a
`let b = 5` ..... Declare and assign variable b
`const c = 42` ..... Assign constant c
`d = 3 * a + d` ..... Reassign value to variable d
`n += 3` ..... Add 3 to variable n
`m -= 5` ..... Subtract 4 from variable m
`x *= 2` ..... Multiply variable x by 2
`y /= 7` ..... Divide variable y by 7
`i++` ..... Add 1 to variable i
`j++` ..... Subtract 1 from variable j

The console

`console.log(x)` . Write the value of x in console

Conditionals

`if (a == 4) {...}` ..... Do if a is exactly 4
`if (b < 60) {...}` ..... Do if b is less than 60
`if (c > -3) {...}` ..... Do if c is more than -3

Else: Do something else when not true
`if (condition) {...} else {...}`

Images

`img = loadImage(path)` ..... Assign to variable
`image(img, x, y)` ..... Show image at (x, y)
`image(img, x, y, height, width)` .... Set size
`tint(r, g, b)` ..... Color images
`noTint()` ..... Undo image coloring
`imageMode(MODE)` ..... Change display mode
`filter(FILTER)` ..... Use image filter

Webcam

`webcam = createCapture(VIDEO)` .... Show cam
`webcam.hide()` ..... Hide cam

Sound

`mp3 = loadSound(path)` ..... Assign to variable
`mp3.play()` ..... Play
`mp3.stop()` ..... Stop
`mp3.setVolume(v)` ..... v ranges from 0 to 1
`mp3.pan(p)` ... p ranges from -1 to 1. 0 is center.

Created by Kristian Gårdhus Wichmann, 2020

Based on `www.latextemplates.com/template/cheatsheet`