TYPELAB 2025
P5.JS CHEATSHEET

PROGRAM STRUCTURE

```
// instructions carried out once
function setup() {
  createCanvas(400, 400);
}

// instructions carried out repeatedly
// 30 times per second
function draw() {

}
```

SYSTEM VARIABLES

```
width // stores width of canvas
height // stores height of canvas
```

NON-VISUAL FEEDBACK

```
console.log // log data to console
// double slash to comment code
// (program skips it)
```

MODE

```
// change color settings
colorMode(MODE);
// change how rectangles are drawn
rectMode(MODE);
// change angle settings
angleMode(MODE);
```

RANDOM

```
// random number between a range
random(min, max);
```

2D PRIMITIVES

```
line(x1, y1, x2, y2);
ellipse(x, y, width, height);
circle(x, y, diameter);
rect(x, y, width, height);
square(x, y, width, size);
```

SETTING

```
// set the background color
background(color);
// set the fill color
fill(color);
// disable fill
noFill();
// set the stroke color
stroke(color);
// set the stroke's width in pixels
strokeWeight(weight);
// disable stroke
noStroke();
// change how rectangles are drawn
rectMode(MODE);
```

TEXT

```
// draw text
text("string", x, y);
// set text font
textFont("fontName");
// set text size
textSize(pixels);
```

COLOR

```
fill(120); // gray: 0-255
fill(100, 125, 255); // r, g, b: 0-255
fill(255, 0, 0, 50); // r, g, b, alpha
fill("red"); // color string
fill("#ccc"); // 3-digit hex
fill("#222222"); // 6-digit hex
```

MAPPING VALUES TO A NEW RANGE

```
map(value, low1, high1, low2, high2);
```

CREATING AN OSCILLATING MOVEMENT

```
sin(linearValue / speed);
```

HOW TO READ THIS CHEATSHEET

Function names and system variables are in green.

Parameters or variables that you'll need to replace are in *blue italics*.