

P5js Online Coding Workshop

with Robbie Lynn Hunsinger

Your P5js online editor is here
<https://editor.p5js.org/>

sign up for a free account to save your work!

All about Pixels

Pixels are the tiny dots of color that create our screens.

These same pixels form our P5js canvas.

```
function setup() {  
  createCanvas(400 pixels wide, 400  
    pixels tall);  
}
```

We code pixels to make a sketch, create a background and make shapes.

If you look at a tv, phone or laptop screen under a microscope, you would see individual

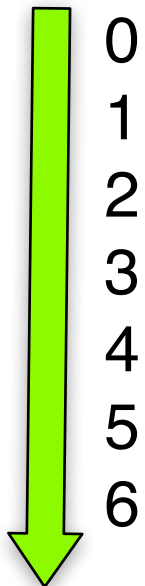
Red, Green and Blue pixels - the same pixels we code to make our colors in P5js.

Computer/tablet x-axis coordinates go from left to right. 0 is on the left.



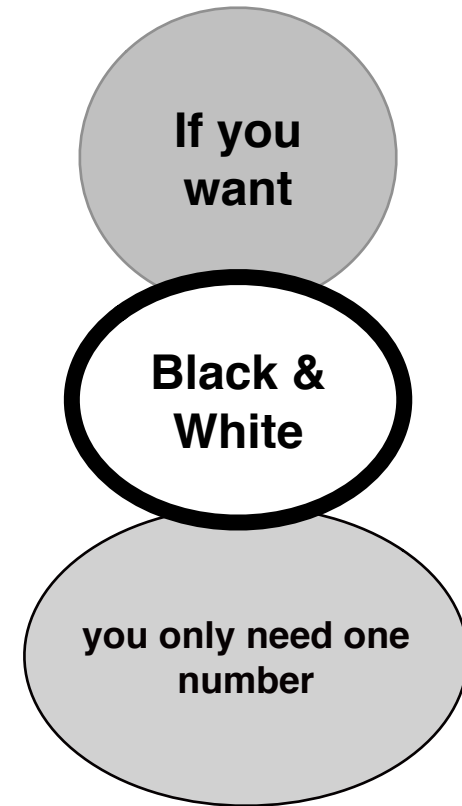
0 1 2 3 4 5 6

The y-axis starts at the top of the screen and increases as you go towards the bottom



0
1
2
3
4
5
6

The units we are counting are pixels.



Grayscale Examples

background(0);
makes a black background

fill(255);
makes a white shape

*The parentheses around the (number) and semicolon; are required punctuation in P5js

If you
want

RGB
Color

you will need 3
numbers:
one for Red,
one for Green,
and one for Blue!

RGB Color Examples

```
background(Red number, Green number, Blue number);
```

```
fill(0, 255, 0);  
makes bright green
```

```
background(40, 0, 40);  
this creates dark purple
```

Coding shapes

use pixel size and
placement numbers to
fit your canvas size

If they are bigger than
your canvas, shapes will
run off the screen

```
ellipse(x coordinate, y coordinate, shape width,  
shape height );
```

```
rect(x coordinate, y coordinate, width, height);
```

```
point (x coordinate, y coordinate);
```

```
line( (x coordinate, y coordinate, connecting 2nd x  
coordinate, 2nd y coordinate);
```

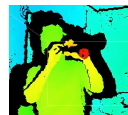
`fill()`; and `background()`;
are functions already programmed into P5js.

They read the numbers in parentheses to
produce either grayscale or RGB color mixes for
individual shapes and the canvas background.

The higher the numbers, the lighter the color,
and the lower the numbers the darker the color.

0 means none of that color will be added.

`background(0,0,0)`; makes black
`background(255,255,255)`; makes white



Robbie Lynn Hunsinger

- oboist & multi-instrumentalist
- new music and multimedia composer
- technologist & programmer
- improviser
- experiential installation artist
- teacher

I would love to see more instrumentalists
and composers explore the fascinating worlds
of interactive media, code and technology.
If you need help please feel free to reach out.

I welcome collaborations, commissions and
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I am currently based in Nashville,
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