

# Hepilepsy

CREATED BY: ROBERT HALLER & SAMANTHA NOGGLE

# Introduction

When it comes to visually and mechanically creative, video game design is the right way to go. But before one can make a video game, they must understand how to morph and change codes of their own to fit their liking. In this tutorial, we will be teaching you how to take a simple, wave-particle code and turn into something extravagant. Not much is required of you beside basic reading and writing skills, the ability to use a computer, and a medium-to-high tolerance level.

During the span of the tutorial, please keep in mind that the pictures on each step may vary in color, due to a change made during Step 1.

Also, be prepared for– ***The snarky blue text that voices out everything wrong with this tutorial!***

## Set-Up

To begin, please download the appropriate file below.

**This is a zip file**

Don't forget to unzip and open it in both notepad, AND any internet browser of choice (Google Chrome recommended)

## Step 1: COLOR!

- Find THREE.SpriteCanvasMaterial( { color: 0xffffffff,
- Change 0xffffffff to Math.random() \* 0xffffffff
- What should result, is the particles turning into random colors that change each time you reset

```
THREE.SpriteCanvasMaterial( {  
                                color:  
0xffffffff,
```



```
THREE.SpriteCanvasMaterial( {  
                                color:  
Math.random() * 0xffffffff,
```

*Why can't you settle on blue? Blue is good.*

## Step 2: Epilepsy

- Find
  - `( Math.sin( ( iy + count ) * 0.5 ) + 1 ) * 4; }`
- Change **0.5** and **4** to **50**
- This should make the particles blink super fast, as well as bloat them up.

```
( Math.sin( ( iy + count ) * 0.5 ) + 1 ) * 4;
```



```
( Math.sin( ( iy + count ) * 50 ) + 1 ) * 50;
```

***Congratulations Sam, Robert, you have officially killed the programmer's eyes.***

## Step 3: Split, Change, Flip

- Find

- var i = 0
- var ix = 0; ix < AMOUNTX;
- var iy = 0; iy < AMOUNTY;

- Change

- var i = 24
- var ix = 20; ix < AMOUNTX;
- var iy = 8; iy < AMOUNTY;

- (You have to do them all at once or it doesn't show) The end result should change the amount of particles, how far they go over the x-axis, and make the waves more violent.

```
var i = 0;
for ( var ix = 0; ix < AMOUNTX; ix ++ ) {
    for ( var iy = 0; iy < AMOUNTY; iy ++ ) {
```



```
var i = 24;
for ( var ix = 20; ix < AMOUNTX; ix ++ ) {
    for ( var iy = 8; iy < AMOUNTY; iy ++ ) {
```

*Getting a little heavy on the contrast. are we?*

## Step 4: Half of What It Used To Be

- Find Array(); var PI2 = Math.PI \* 2
- Change 2 to 1
- What SHOULD happen, (because we can't control your program) is that the particles get cut in half.

```
particles = new Array();  
var PI2 =  
Math.PI * 2;
```



```
particles = new Array();  
var PI2 =  
Math.PI * 1;
```

*Why did you HALF to do this?  
Hehe. get it? Huh? No? Shut up...*

## Step 5: Ready For a Close Up

- Find `Camera.position.z = 1000`

```
1000;
```

```
camera.position.z =  
scene
```

- Change `1000` to `10`

- This change should make the camera much zoomed in and changes how the camera movement appears to react to the mouse

```
10;
```

```
camera.position.z =  
scene
```

***Yay! Zoom in, so they can see all your mistakes!***

## Step 6: V and H Zoom

- Find camera = new THREE.PerspectiveCamera( 75, window.innerWidth / window.innerHeight, 1, 10000 );
- Change 75 to 100 and 1 to 100.
- This should zoom out everything even more

```
camera = new THREE.PerspectiveCamera(
75, window.innerWidth /
window.innerHeight, 1, 10000 );
```



```
camera = new THREE.PerspectiveCamera(
100, window.innerWidth /
window.innerHeight, 100, 10000 );
```

*Why did you get a close up only to zoom out?!*

## Step 7: Separation

- Find SEPARATION = 100,  
AMOUNTX = 50, AMOUNTY = 50;
- Change 100 to 1000
- This should spread out all of the particles. Although it may seem like the unmoving particles are gone, they are still there. Just really small.

```
SEPARATION = 100, AMOUNTX = 50,  
AMOUNTY = 50; var
```



```
SEPARATION = 1000, AMOUNTX = 50,  
AMOUNTY = 50; var
```

*Now they're all lonely you jerks!*

# Conclusion

So, after 11 different changes, how well did your program fair? Does it look like the tutorial? ***They don't need more questions...***

Besides the change in color (***clearly***), it will more than likely look the same. If it didn't feel free to go back over the steps and try again, or just do your own creative twist on the program.

***Is the torture over yet?*** Sorry if this program made you blind, by the way.

***THANK GOD! IT'S OVER!!!!***

You're right... Now you don't exist

***Wait what?***