

## 1 - Alterar as skins via painel de propriedades

```
4  var bodies = [  
5      "res://sprites/tankBody_bigRed.png",  
6      "res://sprites/tankBody_blue.png",  
7      "res://sprites/tankBody_dark.png",  
8      "res://sprites/tankBody_darkLarge.png",  
9      "res://sprites/tankBody_green.png",  
10     "res://sprites/tankBody_huge.png",  
11     "res://sprites/tankBody_red.png",  
12     "res://sprites/tankBody_sand.png"  
13 ]  
14  
  
15  var barrels = [  
16     "res://sprites/tankBlue_barrel1.png",  
17     "res://sprites/tankBlue_barrel2.png",  
18     "res://sprites/tankBlue_barrel2.png",  
19     "res://sprites/tankDark_barrel2.png",  
20     "res://sprites/tankGreen_barrel1.png",  
21     "res://sprites/tankGreen_barrel2.png",  
22     "res://sprites/tankRed_barrel1.png",  
23     "res://sprites/tankRed_barrel2.png",  
24     "res://sprites/tankSand_barrel1.png",
```

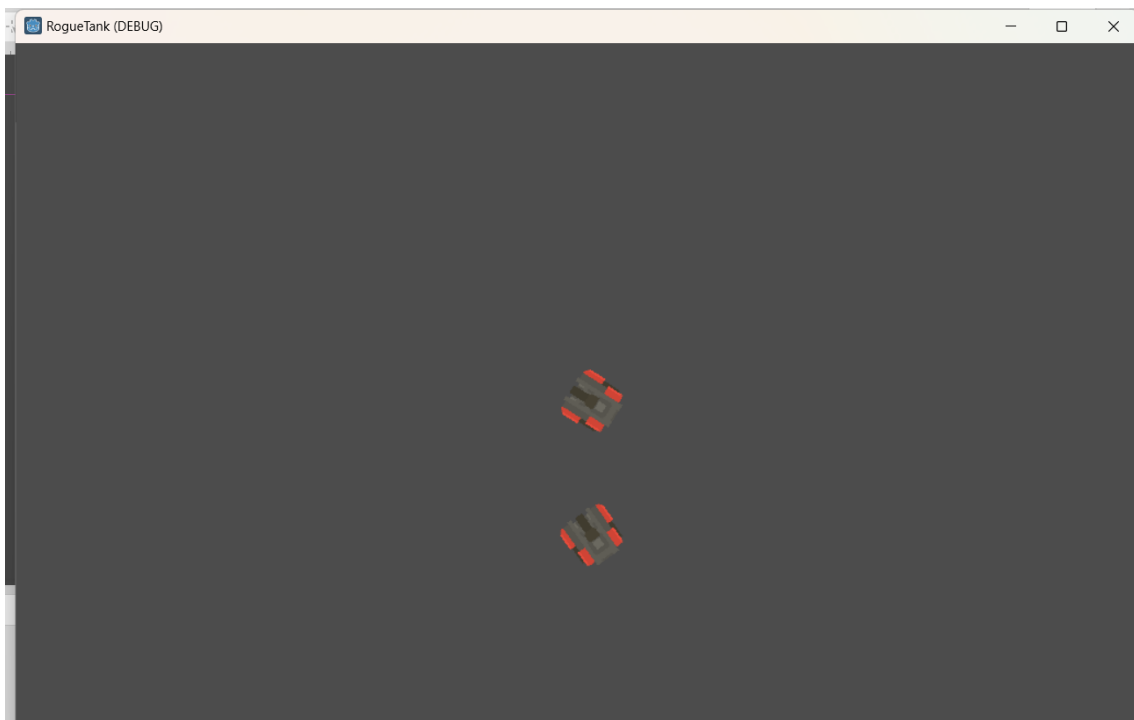
## 2 - Adicione as variáveis:

```
4  
5  #Export variables:  
6  var bodyType = 0  
7  var barrelType = 5  
8  
9  var bodies = [  
10     "res://sprites/tankBody_bigRed.png",  
11     "res://sprites/tankBody_blue.png",  
12     "res://sprites/tankBody_dark.png",  
13     "res://sprites/tankBody_darkLarge.png",  
14     "res://sprites/tankBody_green.png",  
15     "res://sprites/tankBody_huge.png",  
16     "res://sprites/tankBody_red.png",  
17     "res://sprites/tankBody_sand.png"
```

3 - Altere a função `_ready`

```
37 func _ready():  
38     $sprite.texture = load(bodies[bodyType])  
39     $Barrel/sprite.texture = load(barrels[barrelType])  
40  
41
```

Na área de teste coloque outro tanque

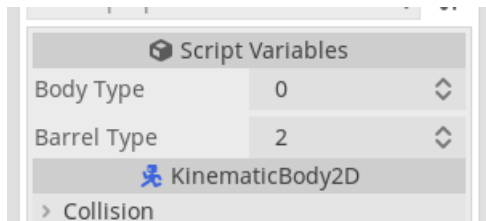


Os tanques são iguais

4 - Agora transforme a variável em uma variável de exportação:

```
.  
5 #Export variables:  
6 export var bodyType = 0  
7 export var barrelType = 2  
8
```

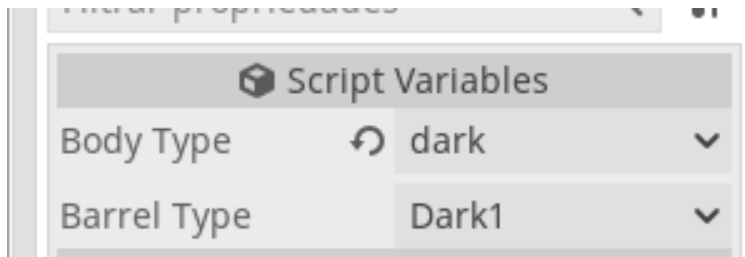
5 - Com isso podemos alterar as skins dos tanques individualmente:



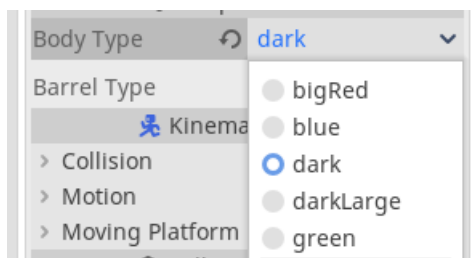
6 - Vamos trocar os números por textos. Vai ficar mais fácil de lembrar o que nós escolhemos?

```
5 #Export variables:
6 export(int, "bigRed", "blue", "dark", "darkLarge", "green",
7 export(int, "Blue1", "Blue2", "Dark1", "Dark2", "Green1",
8
```

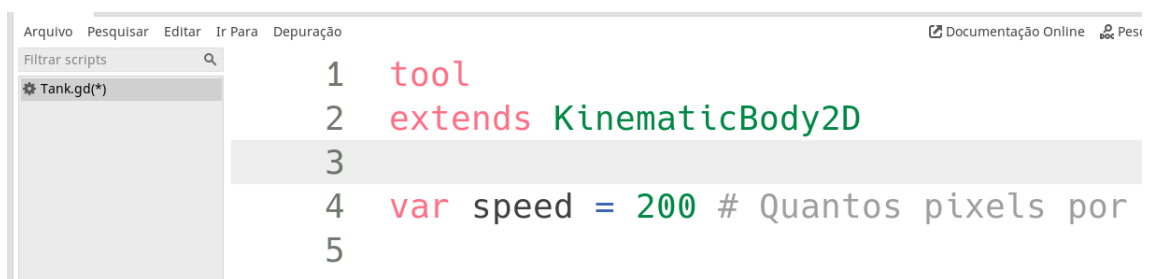
Desta forma mapeamos os valores com os nomes das cores



Selecioneando:



7 -Visualizando a troca da skin durante a edição do game. Adicione a palavra tool na primeira linha do script



8 - Adicione o setget para as variáveis bodyType e barrelType

```
~
6
7  reen", "huge", "red", "sand") var bodyType = 0 setget set_body
8  een1", "Green2", "Red1", "Red2", "Sand1", "Sand2") var barrelTy
9
```

9 – Adicione a função draw da própria Engine. E altere os conteúdos da função \_ready e draw como na imagem abaixo:

```
38 ~ func _ready():
39  >| pass|
40
41 ~ func _draw():
42  >| $sprite.texture = load(bodies[bodyType])
43  >| $Barrel/sprite.texture = load(barrels[barrelType])
44  >|
```

10 - Escreva as funções set\_bodyType e set\_barrelType

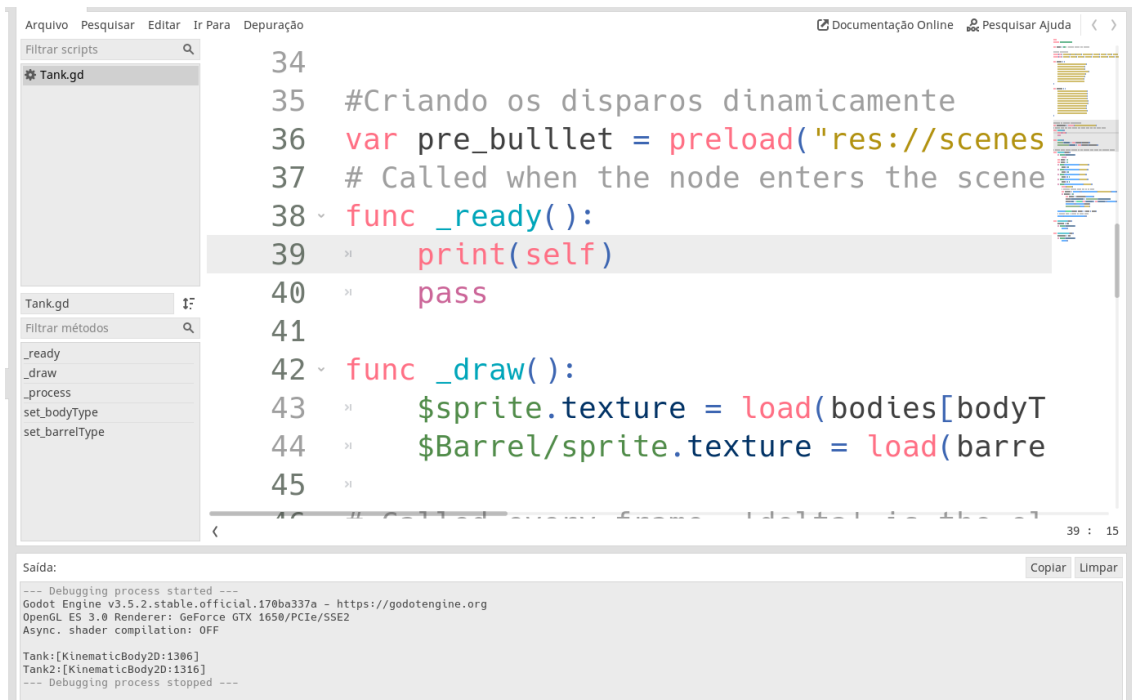
```
73
74 ~ func set_bodyType(val):
75  >| bodyType = val
76 ~ >| if Engine.editor_hint:
77  >| >| update( )
78  >|
```

11 - Bloquee outros comandos no modo de edição adicionando um verificação na função process

```
46 ~ func _process(delta):
47 ~ >| if Engine.editor_hint:
48  >| >| return
49 ~ >| var dir_x = 0|
50  >| var dir_y = 0
51 ~ >| if Input.is_action_pressed("ui_righ
52  >| >| dir_x +=1
```

12 - Adicionando balas ao grupo de cada tanque. Comece verificando o nome da Instancia do do tanque.

O resultado aparece no output:



13 - Altere o seguinte código:

```
62     # Contando quantos tiros tem em um grupo
63     var counter = get_tree().get_nodes_in_group("cannon_bul
64     if counter < 8:
65         var bullet = pre_bullet.instance()
66         bullet.global_position = $Barrel/Muzzle.global_posi
67         bullet.dir = Vector2(cos(rotation), sin(rotation)).
68         get_parent().add_child(bullet)
69         $Barrel/Animation.play("fire")
70
```

14 - Adicione a variável groupName

```
47     _process(delta):
48     if Engine.editor_hint:
49         return
50     var groupName = "bullet-"+str(self)
51     var dir_x = 0
52     var dir_y = 0
```

## 15 - E altere este trecho

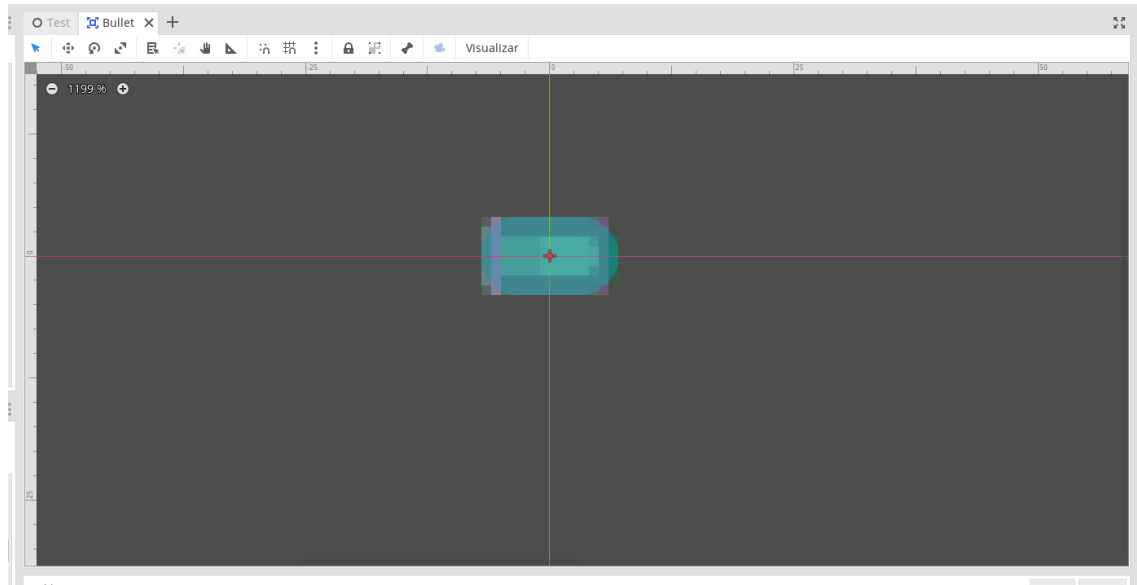
```
64     var counter = get_tree().get_nodes_in_group(groupName).size()
65     if counter < 8:
66         var bullet = pre_bullet.instance()
67
68         bullet.global_position = $Barrel/Muzzle.global_position
69         bullet.dir = Vector2(cos(rotation), sin(rotation)).normal
70         bullet.add_to_group(groupName)
71         get_parent().add_child(bullet)
72         $Barrel/Animation.play("fire")
```

Para isso:

```
64     var counter = get_tree().get_nodes_in_group(groupName).size()
65     if counter < 8:
66         var bullet = pre_bullet.instance()
67
68         bullet.global_position = $Barrel/Muzzle.global_position
69         bullet.dir = Vector2(cos(rotation), sin(rotation)).normal
70         bullet.add_to_group(groupName)
71         get_parent().add_child(bullet)
72         $Barrel/Animation.play("fire")
```

16 - Fumaça usando o sistema de partículas da Godot:

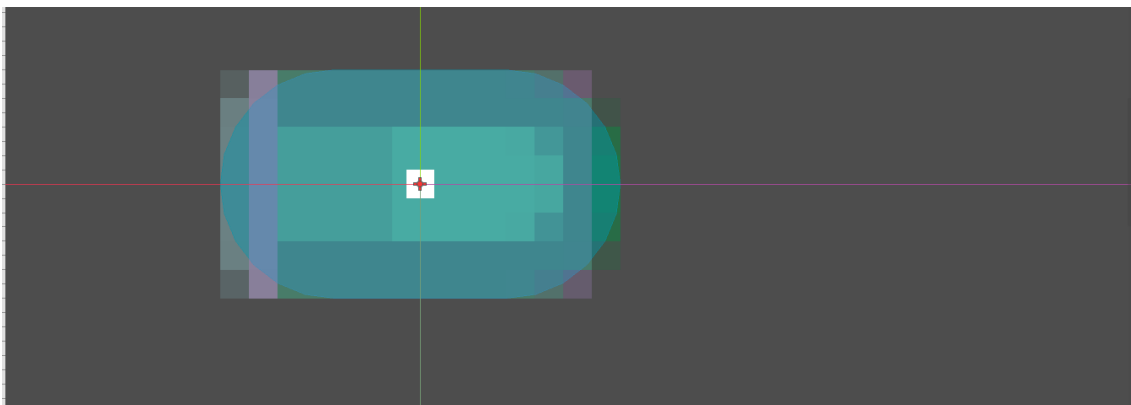
Vamos para a cena Bullet:



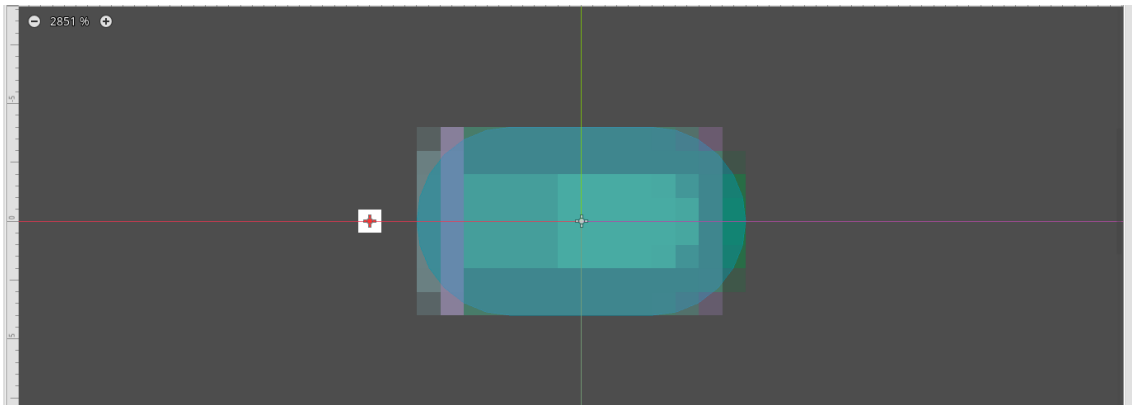
17 - Adicione um nó chamado particles 2D ao nó Bullet já existente



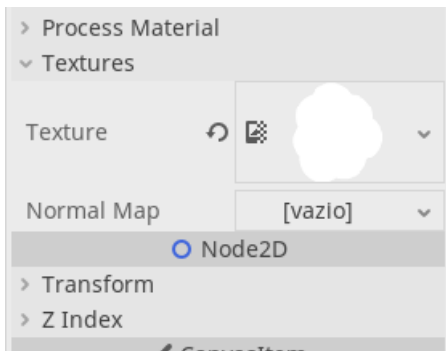
O ponto branco indica que deu certo



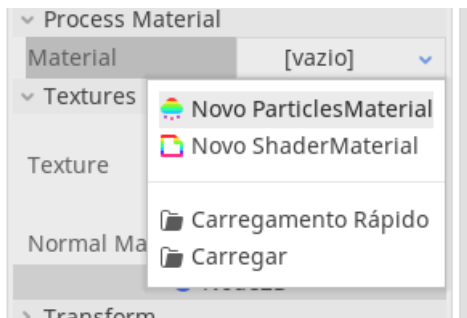
Usando a tecla alt posso mover um único objeto selecionado



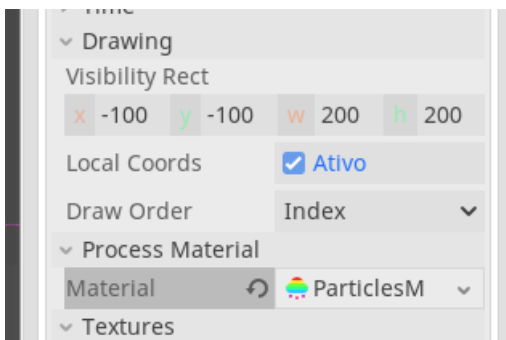
18 – Adicione a textura white smoke



19 – Em process material, adicione um novo material:

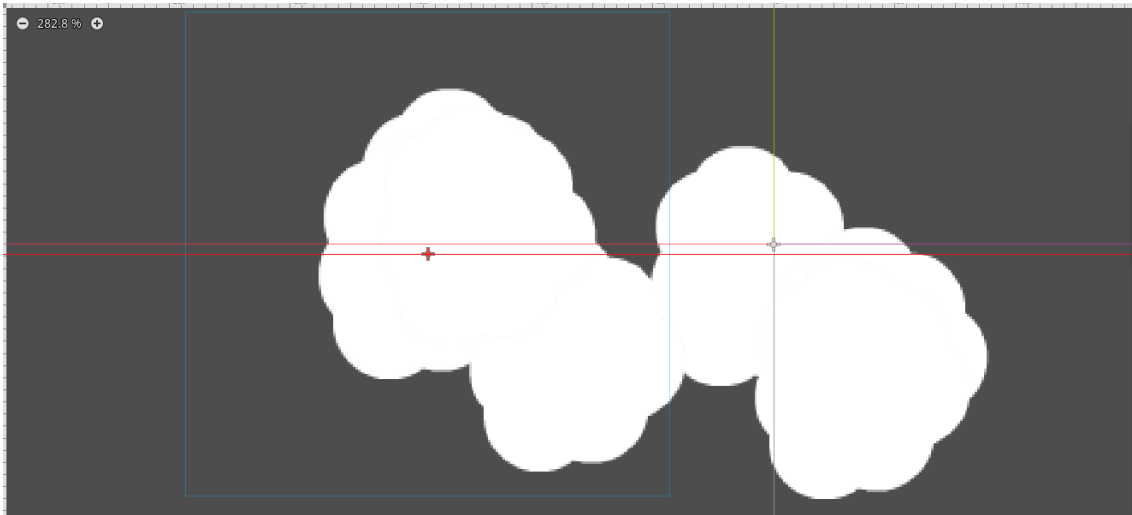


20 – Em drawing desabilite a opção local coord

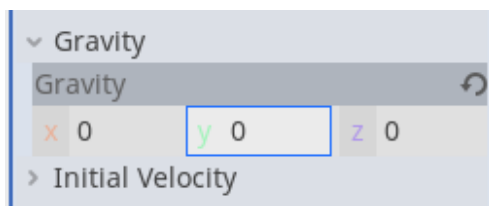
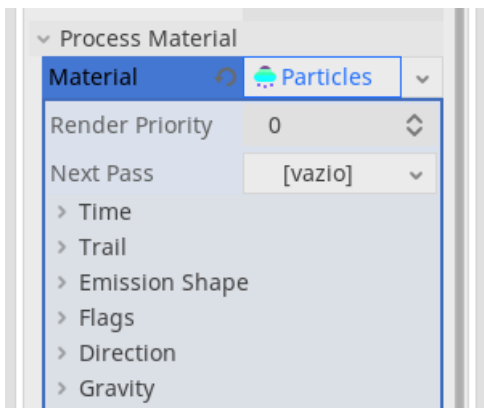




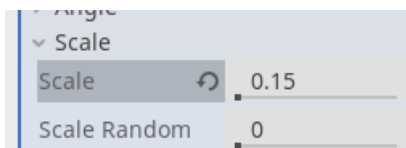
E teremos um efeito de rastro de fumaça



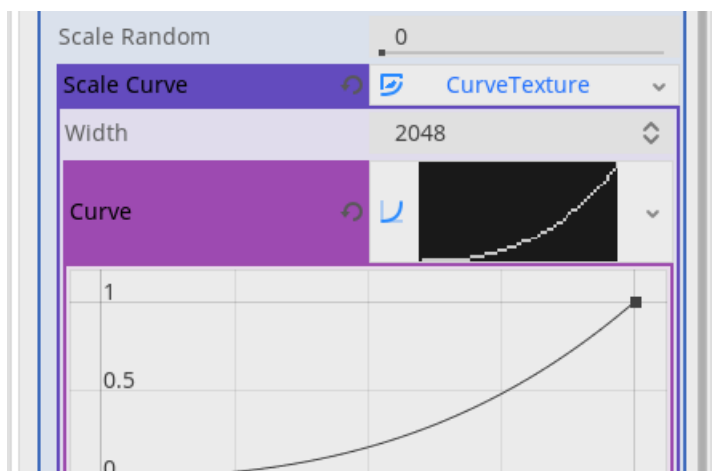
21 - Clique em cima de process material para desabilitar a gravidade:



22 -Altere a propriedade scale:



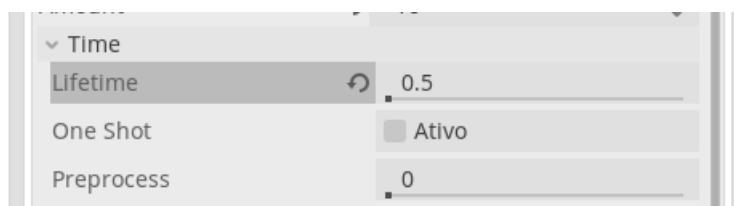
23 – Podemos criar uma curva de escala



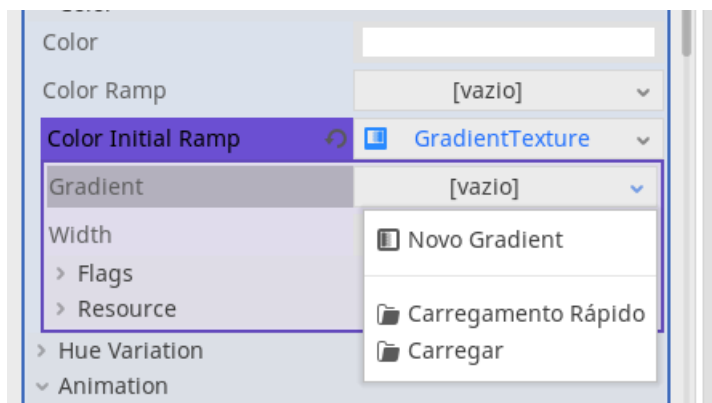
24 – Aumente a quantidade de partículas:



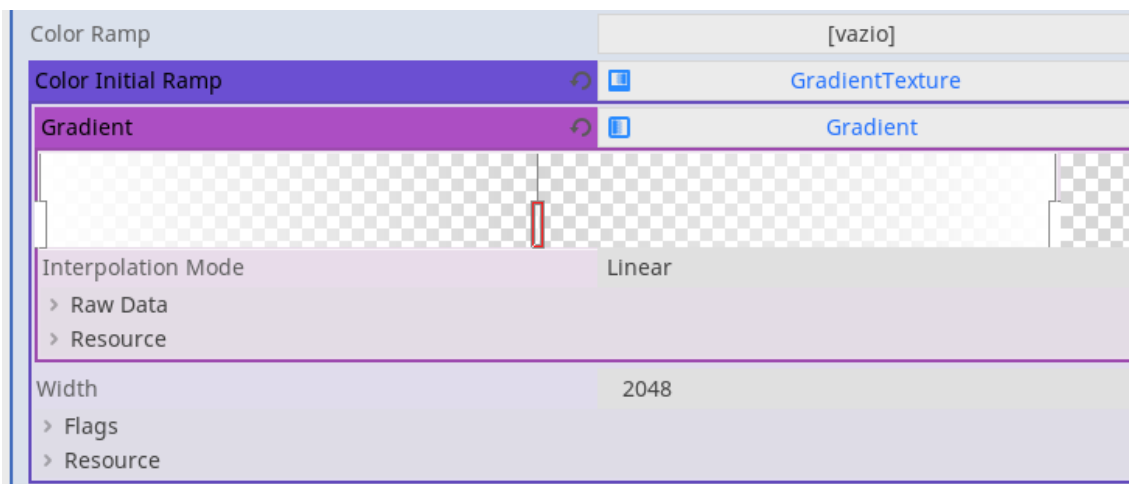
25 - Altere o tempo de duração da partícula:



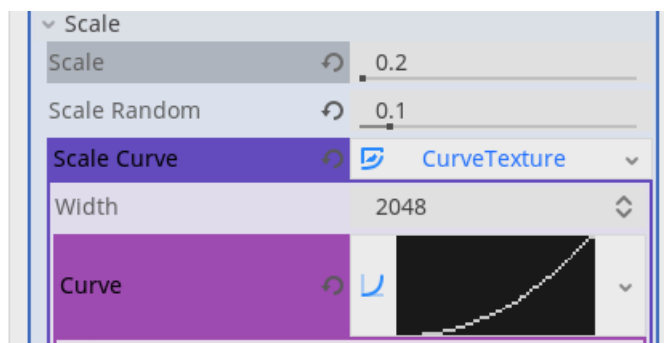
26 - Altere o gradiente:



Continuando...



27 - Altere a escala



Alterar a velocidade da bala:

```
3  var dir = Vector2(0, -1)setget
4  var vel = 420 # px/s
5
6  func _ready():
7      pass
```

Altere o Z-index do fogo

