

# Blender: Basic BGE and Flappy

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By Mary Steffin Avila P

# What are the main components of a BGE?

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## Logic Editor:

1. **Sensors** - Mode of input
2. **Controllers** - Your logic (usually a set of code)
3. **Actuators** - What should be affected

# Basic BGE with just 3 scripts

## 1 | Bullet Script

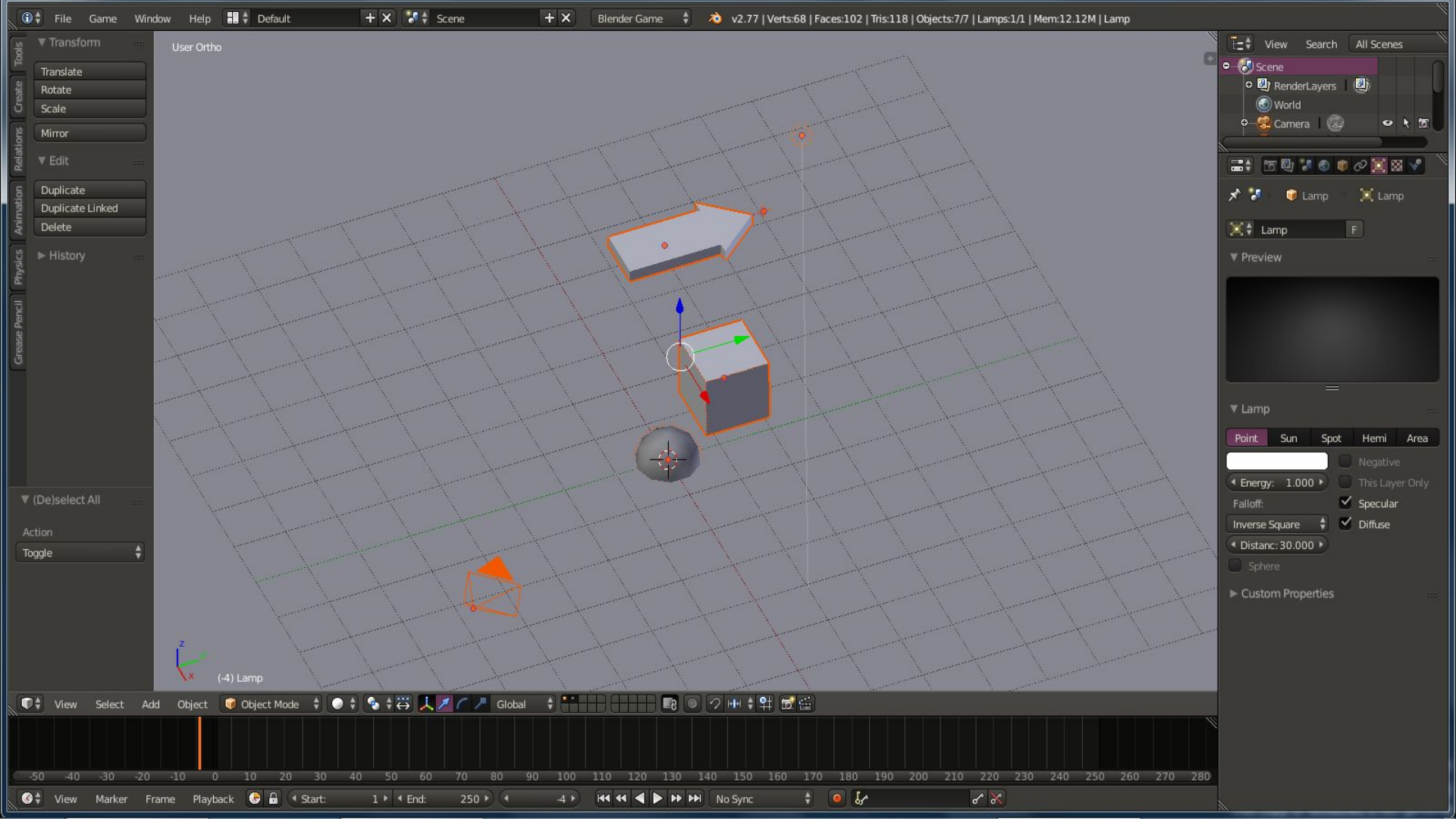
- When should it appear?
- What should the bullet do?
- Any Bullet specific property?

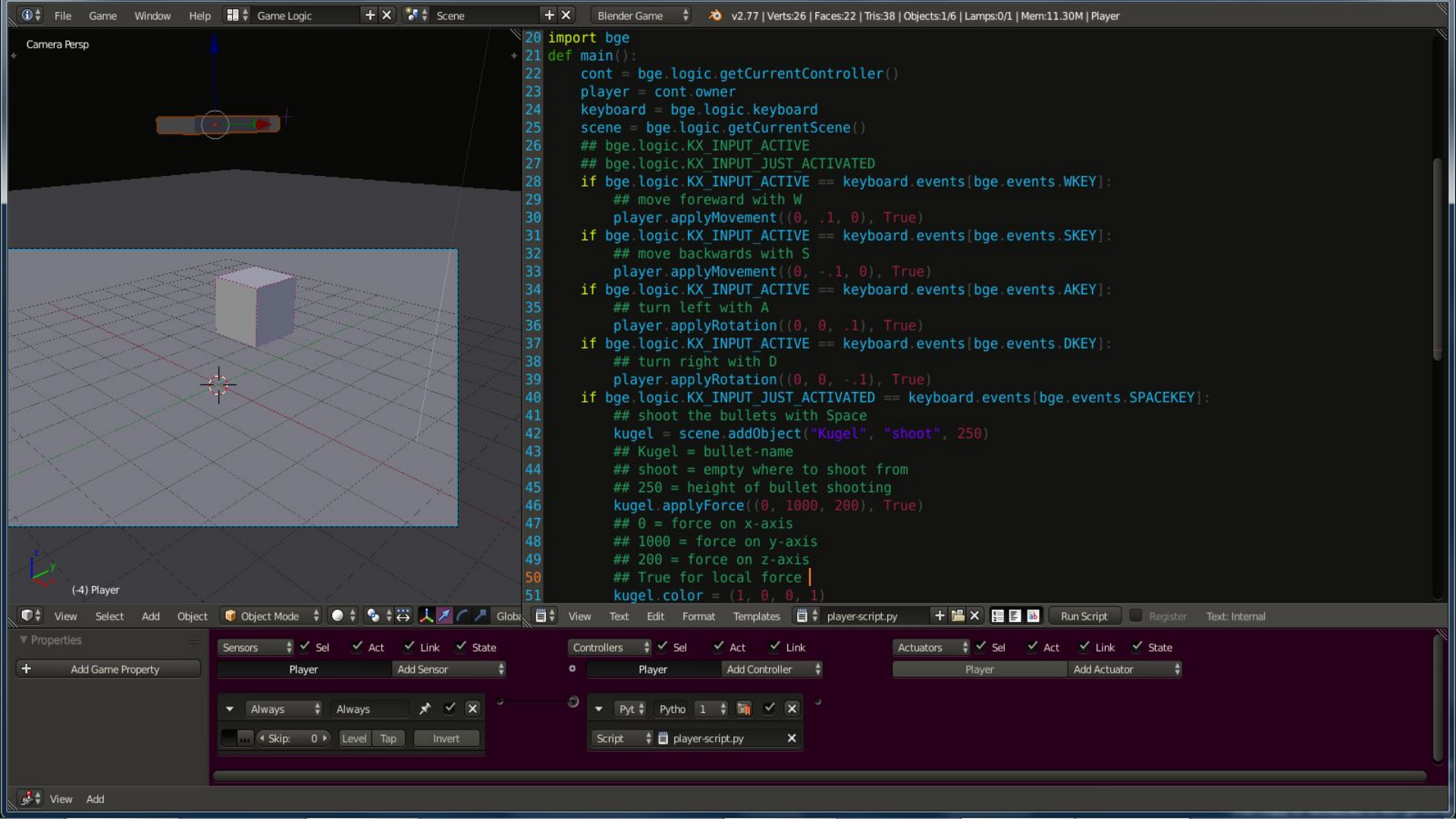
## 2 | Player Script

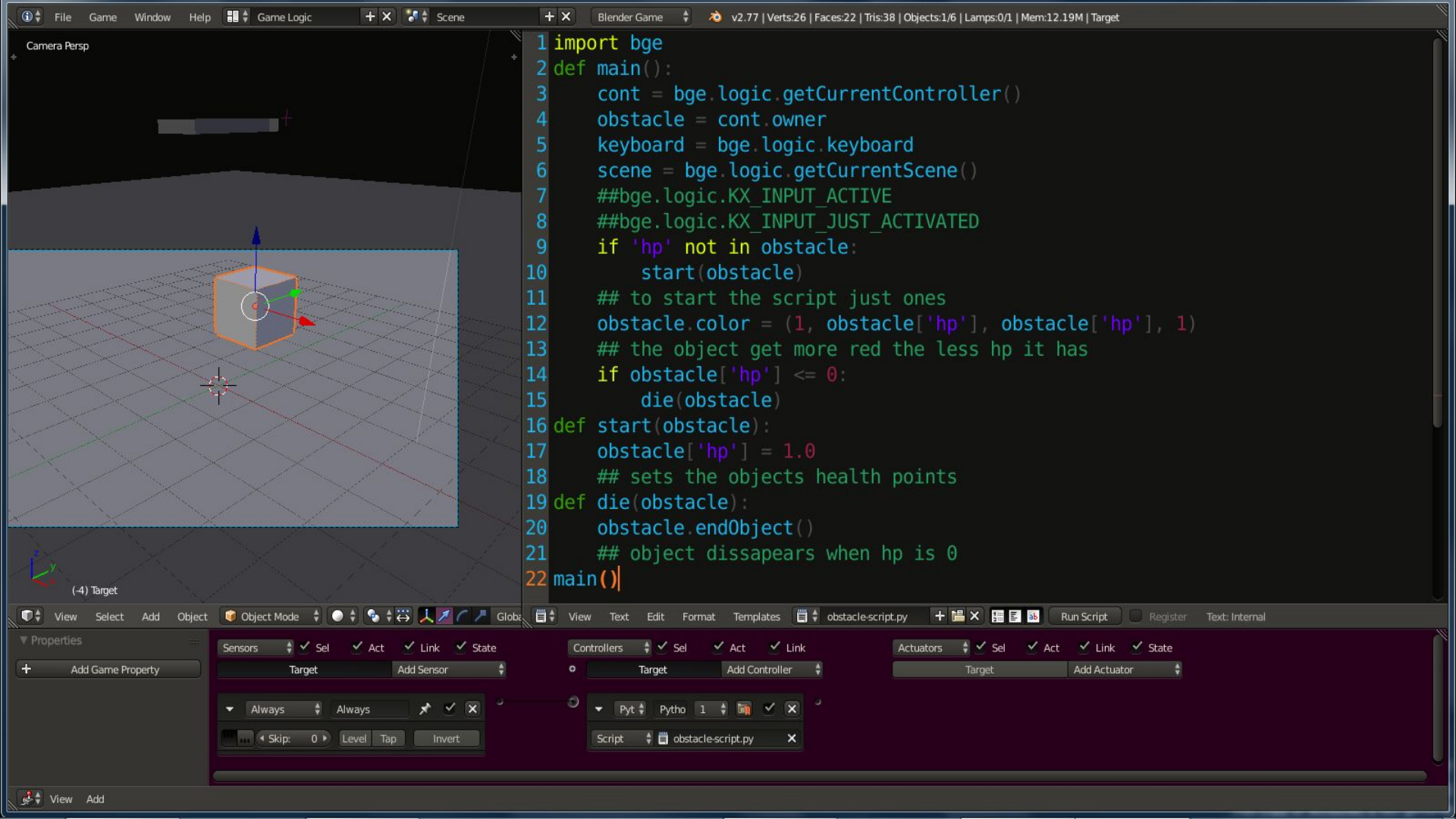
- How is the motion controlled?
- How is collision manipulated?
- How often can it shoot in what projectile?

## 3 | Obstacle Script

- What is its life expectancy?
- How is collision with the player/bullet manipulated?
- How does it disappear?

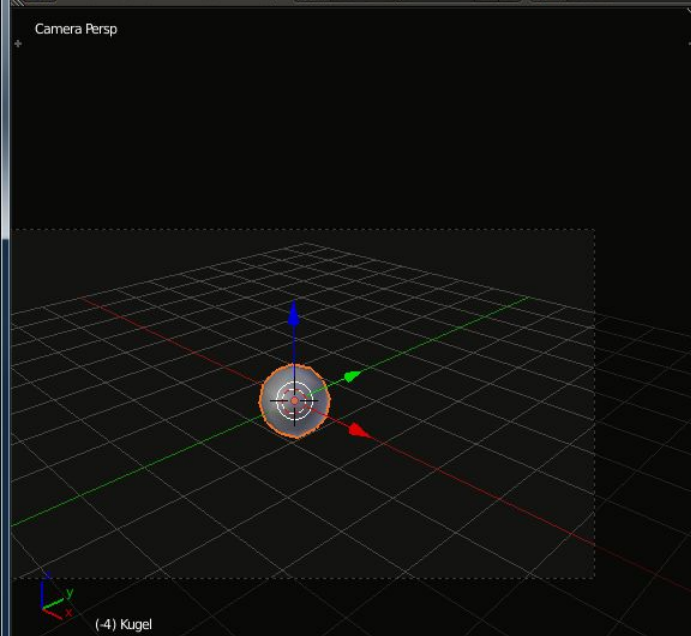






```
1 import bge
2 def main():
3     cont = bge.logic.getCurrentController()
4     obstacle = cont.owner
5     keyboard = bge.logic.keyboard
6     scene = bge.logic.getCurrentScene()
7     ##bge.logic.KX_INPUT_ACTIVE
8     ##bge.logic.KX_INPUT_JUST_ACTIVATED
9     if 'hp' not in obstacle:
10         start(obstacle)
11     ## to start the script just ones
12     obstacle.color = (1, obstacle['hp'], obstacle['hp'], 1)
13     ## the object get more red the less hp it has
14     if obstacle['hp'] <= 0:
15         die(obstacle)
16 def start(obstacle):
17     obstacle['hp'] = 1.0
18     ## sets the objects health points
19 def die(obstacle):
20     obstacle.endObject()
21     ## object dissapears when hp is 0
22 main()
```





```

1 import bge
2 def main():
3     cont = bge.logic.getCurrentController()
4     kugel = cont.owner
5     keyboard = bge.logic.keyboard
6     scene = bge.logic.getCurrentScene()
7     touch = cont.sensors['Touch']
8     hit = touch.positive
9     ## bge.logic.KX_INPUT_ACTIVE
10    ## bge.logic.KX_INPUT_JUST_ACTIVATED
11    if 'active' not in kugel:
12        start(kugel)
13    ## to start the script just ones
14    if hit and kugel['active'] == True:
15        kugel['active'] = False
16        ## so that the bullet damages just ones
17        kugel.color = (1, 1, 1, 1)
18        ## changes the color of the bullet, when it hits something
19        touch.hitObject['hp'] -= 0.1
20        ## damages a object with the value 'hp'
21    def start(kugel):
22        kugel['active'] = True
23    main()
    
```

▼ Properties

+ Add Game Property

Sensors ☒ Sel ☒ Act ☒ Link ☒ State

Kugel Add Sensor

Always Always

← Skip: 0 → Level Tap Invert

Collision Touch

← Skip: 0 → Level Tap Invert

Pulse M/P Material:

Controllers ☒ Sel ☒ Act ☒ Link

Kugel Add Controller

Pyt Python 1

Script bullet-script.py

Actuators ☒ Sel ☒ Act ☒ Link ☒ State

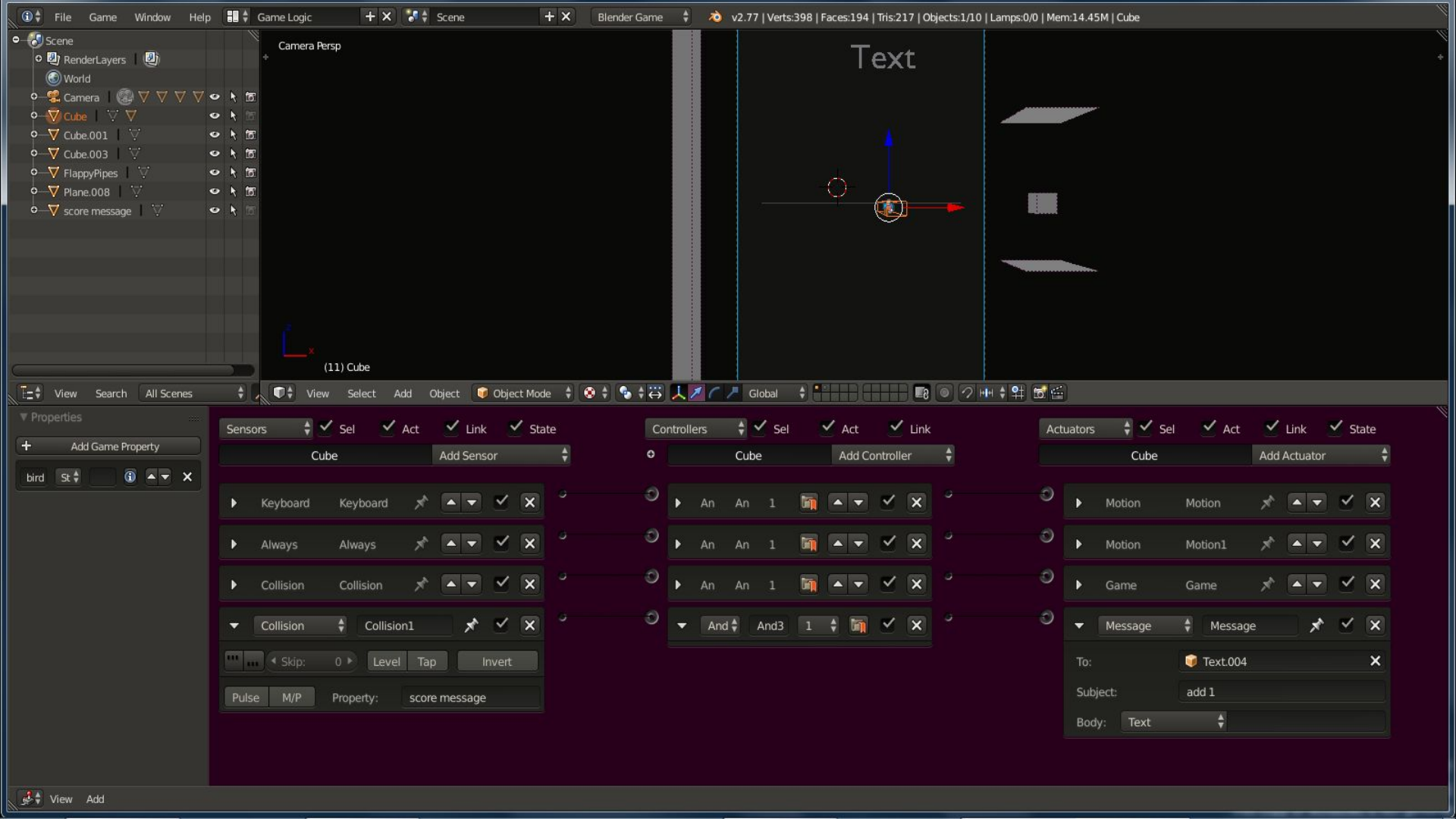
Kugel Add Actuator

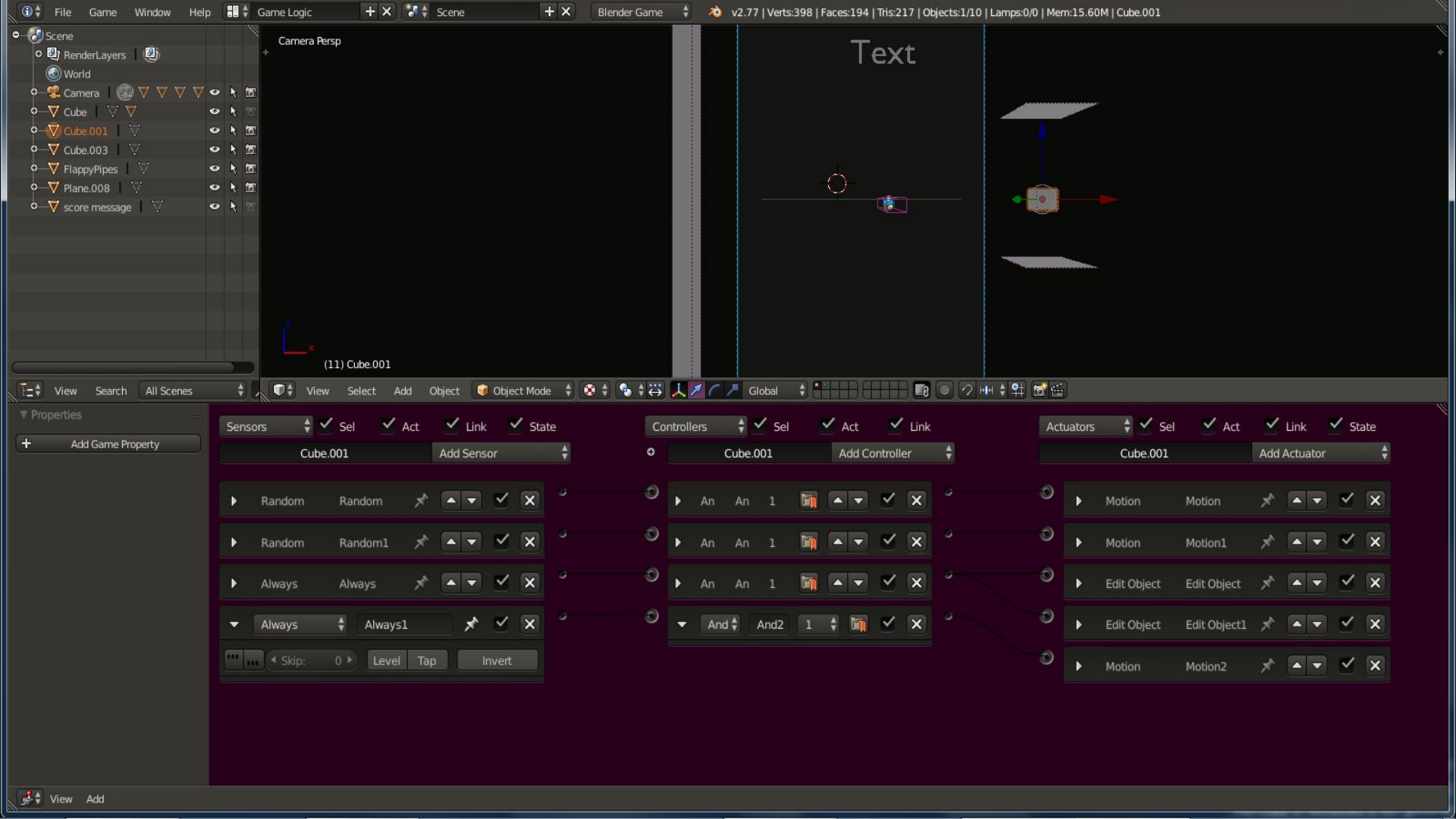
# How is Flappy made?

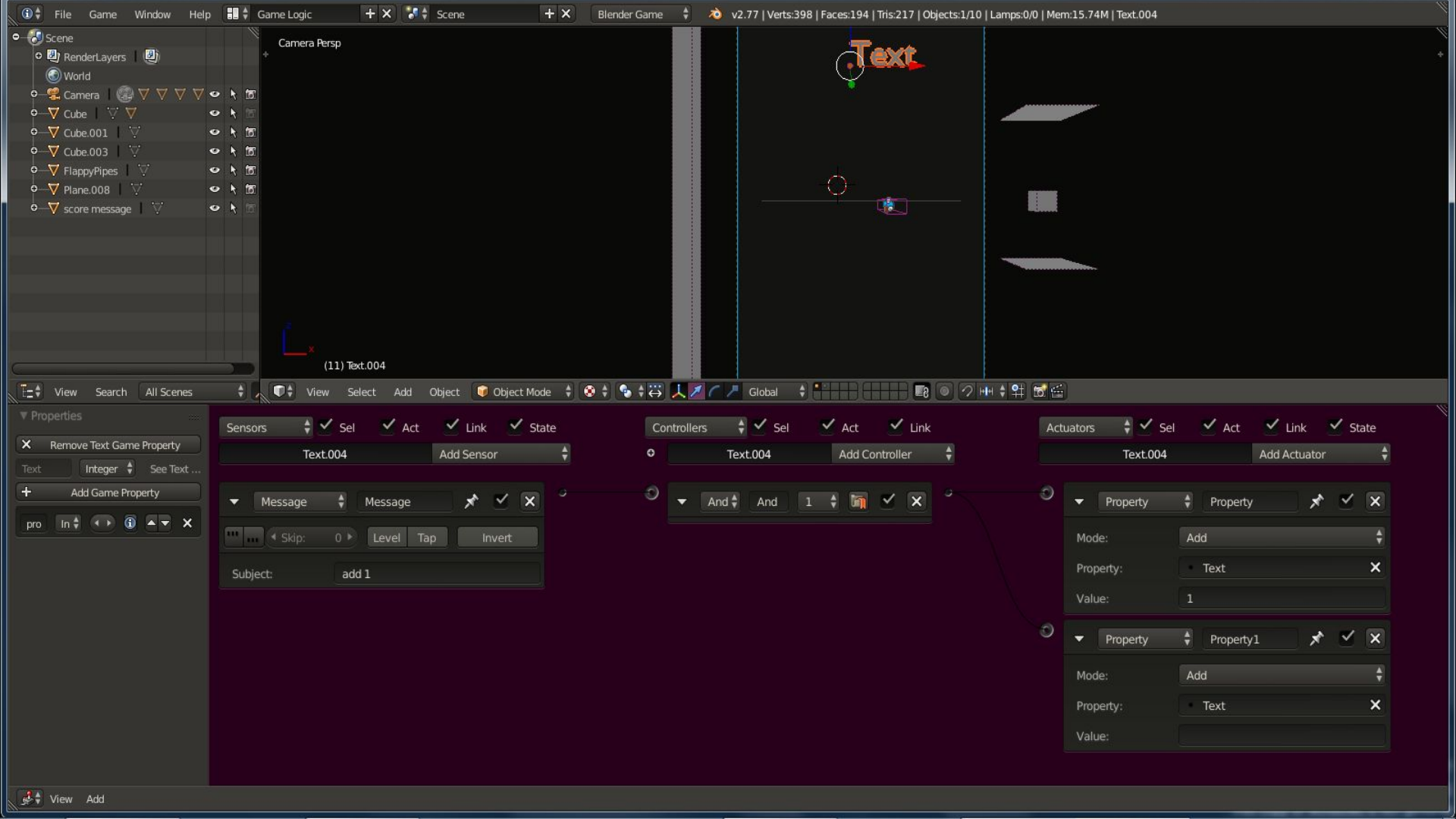
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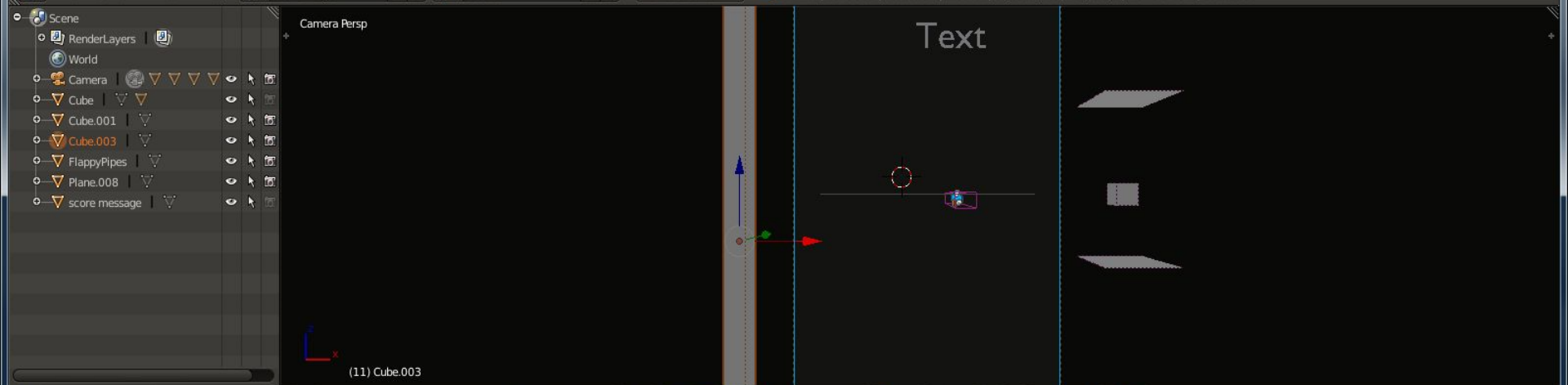
1. This is a scriptless endless randomly generated holed walls, where a textured 3D object (the Flappy bird) is controlled using the keyboard (space bar) to pass through the hole in wall.
2. The logic for the game is applied using the Blender Game Physics through the mainly through Logic Editor (Controller, Actuator and Sensor).
3. Particle Physics is also applied to the **Bird** and **Hole** object.











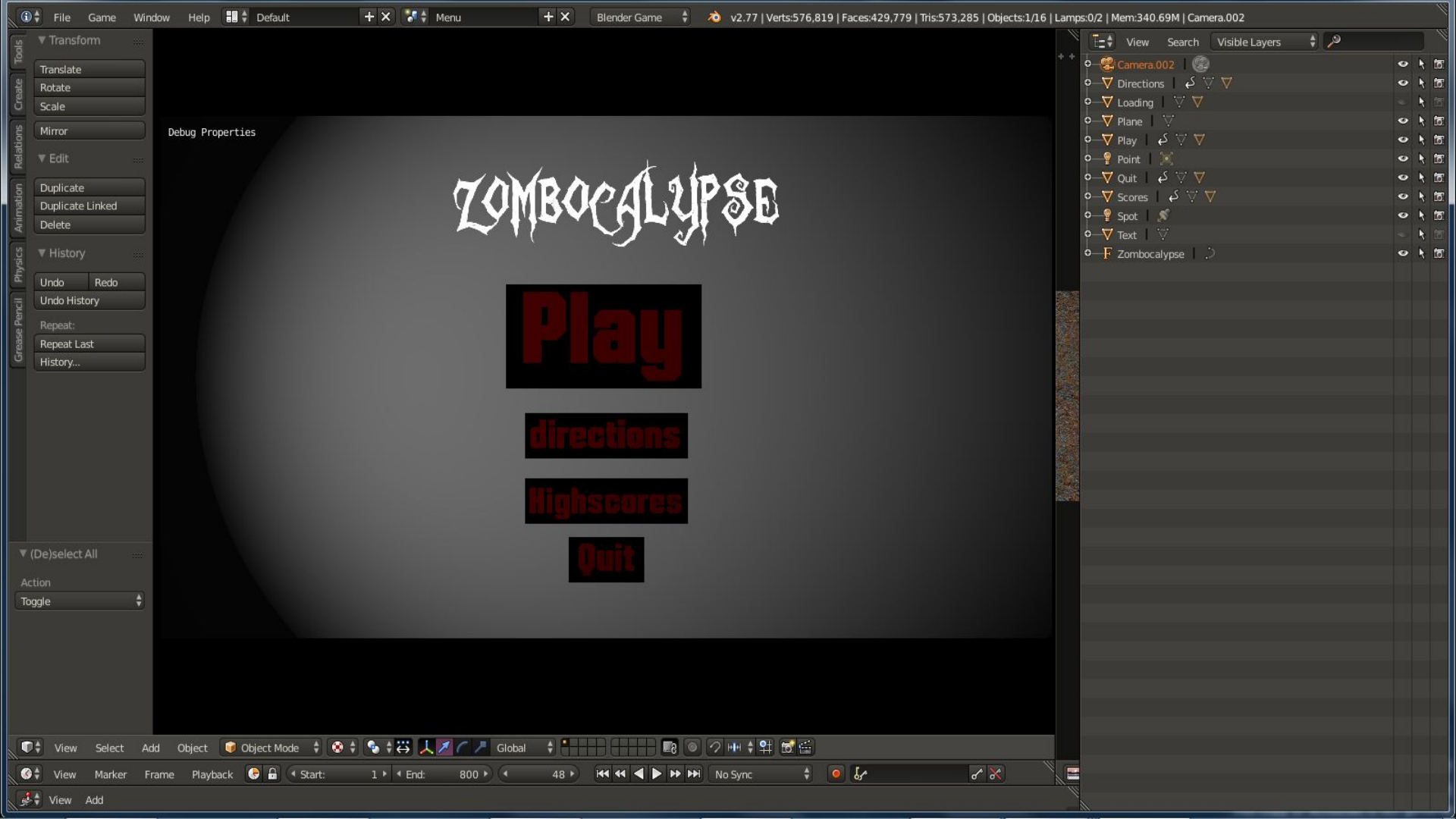
# Zombocalypse

A 3D first person shooting game!

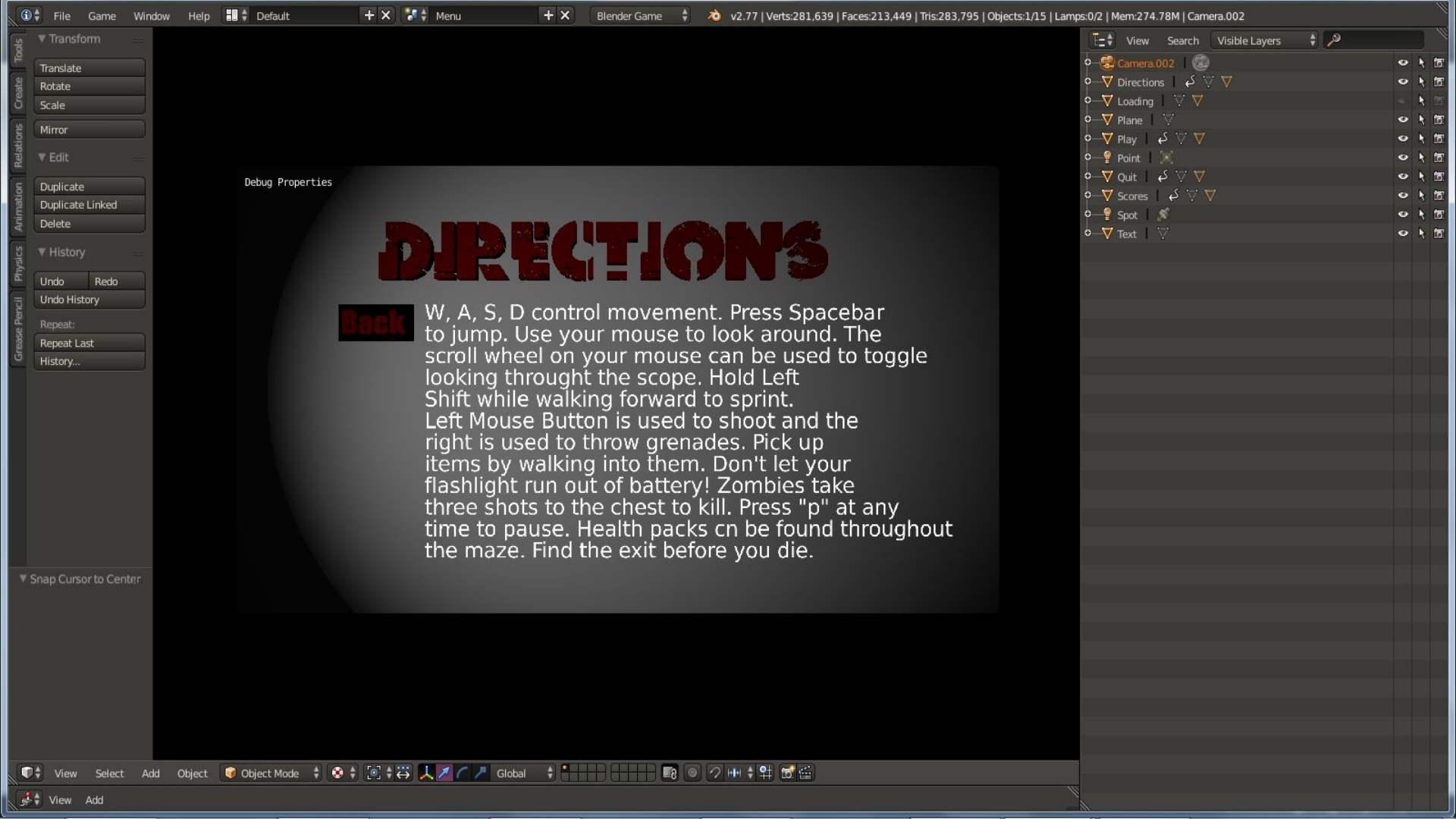


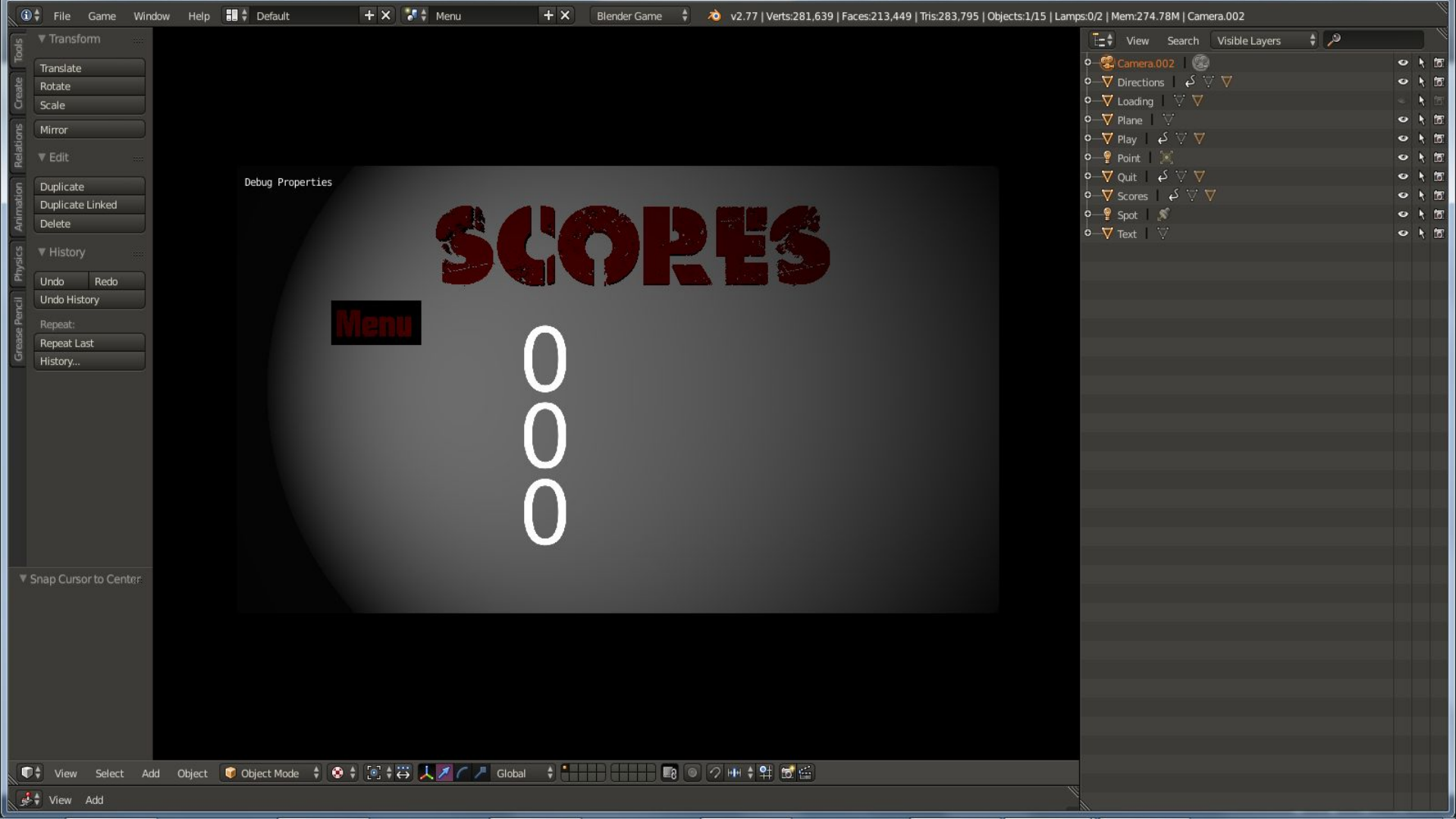
KEEP  
CALM  
AND WAIT

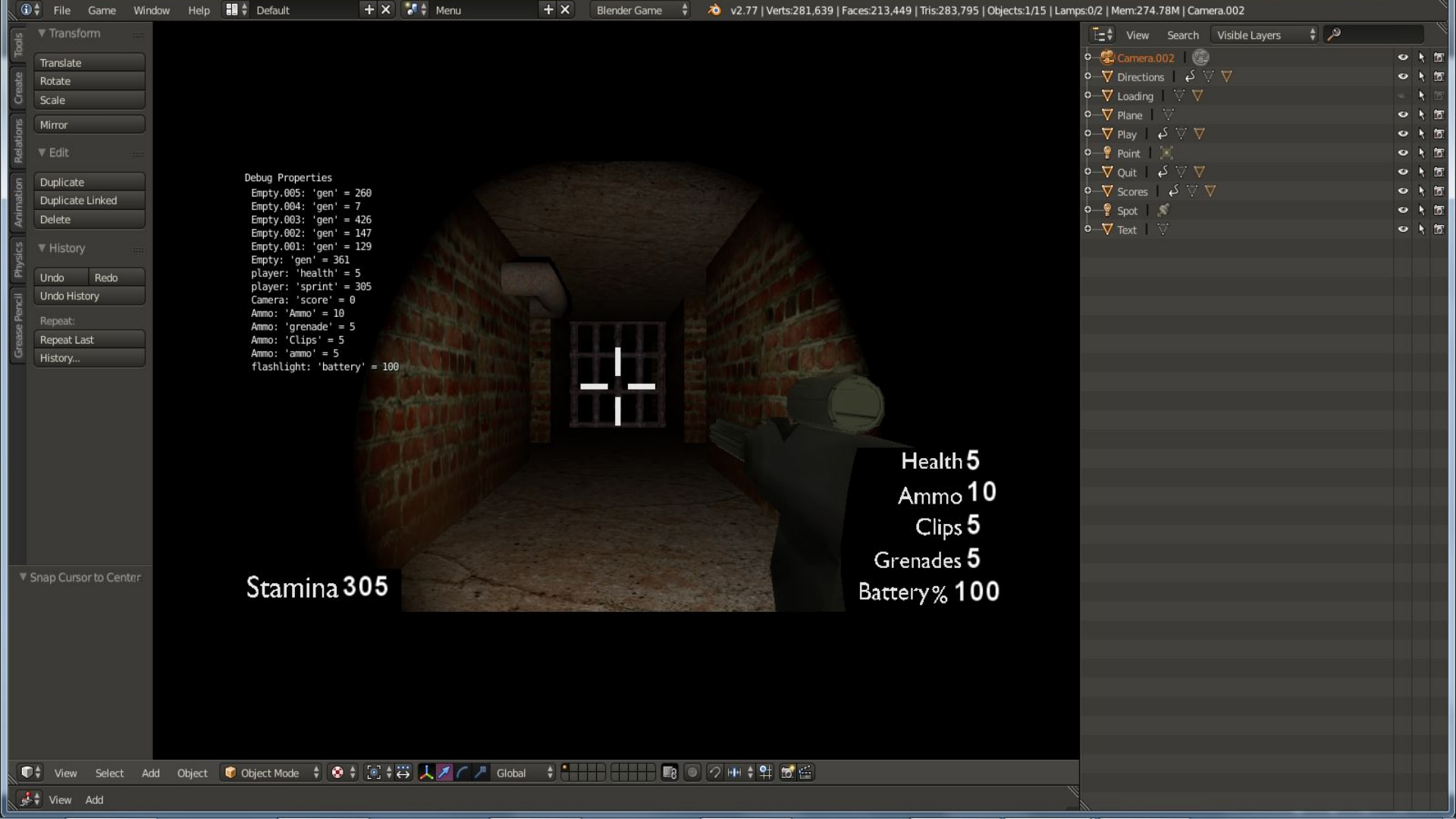
FOR ZOMBIE  
APOCALYPSE









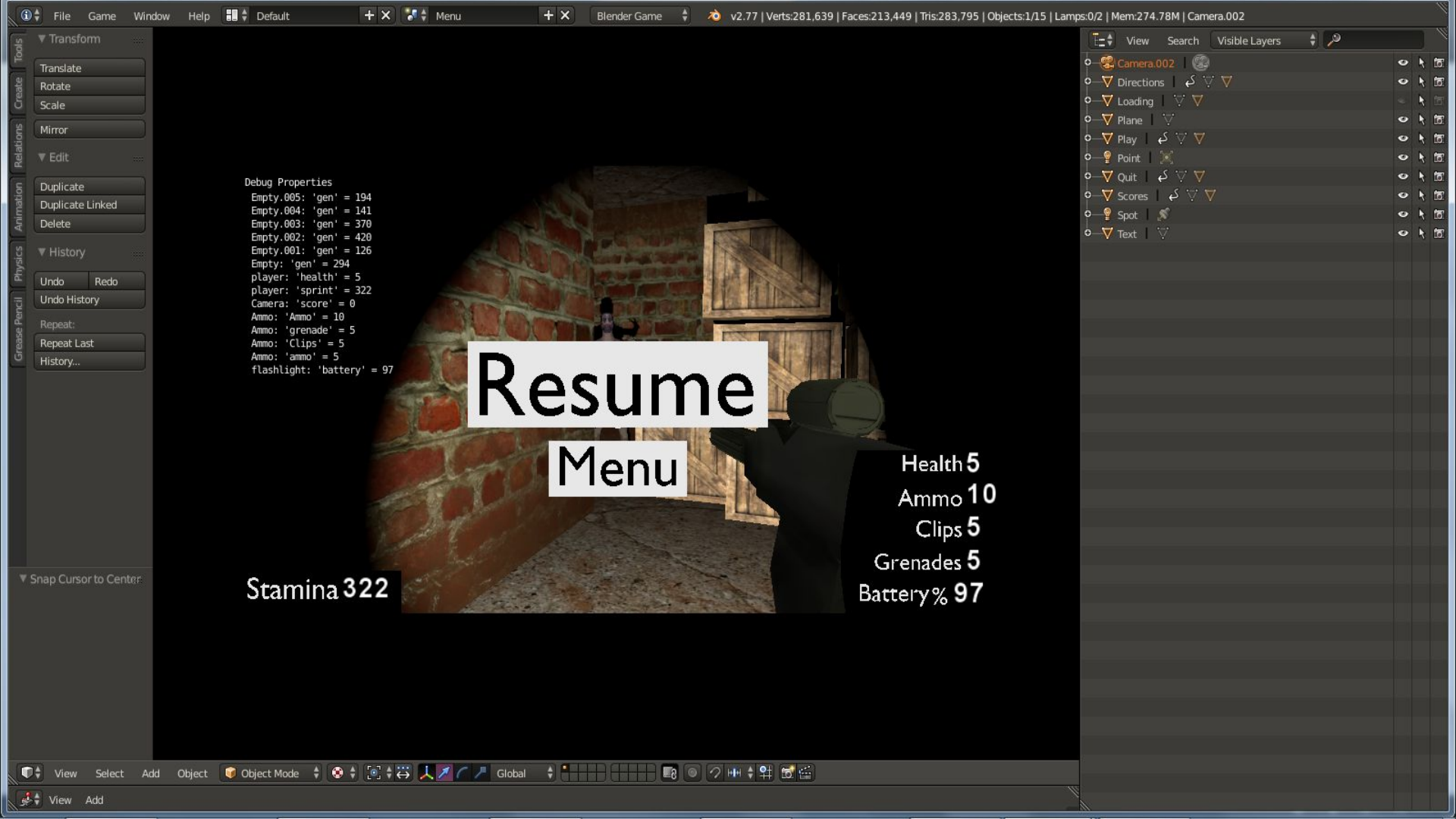


Debug Properties

Empty.005: 'gen' = 260  
Empty.004: 'gen' = 7  
Empty.003: 'gen' = 426  
Empty.002: 'gen' = 147  
Empty.001: 'gen' = 129  
Empty: 'gen' = 361  
player: 'health' = 5  
player: 'sprint' = 305  
Camera: 'score' = 0  
Ammo: 'Ammo' = 10  
Ammo: 'grenade' = 5  
Ammo: 'Clips' = 5  
Ammo: 'ammo' = 5  
flashlight: 'battery' = 100

Stamina 305

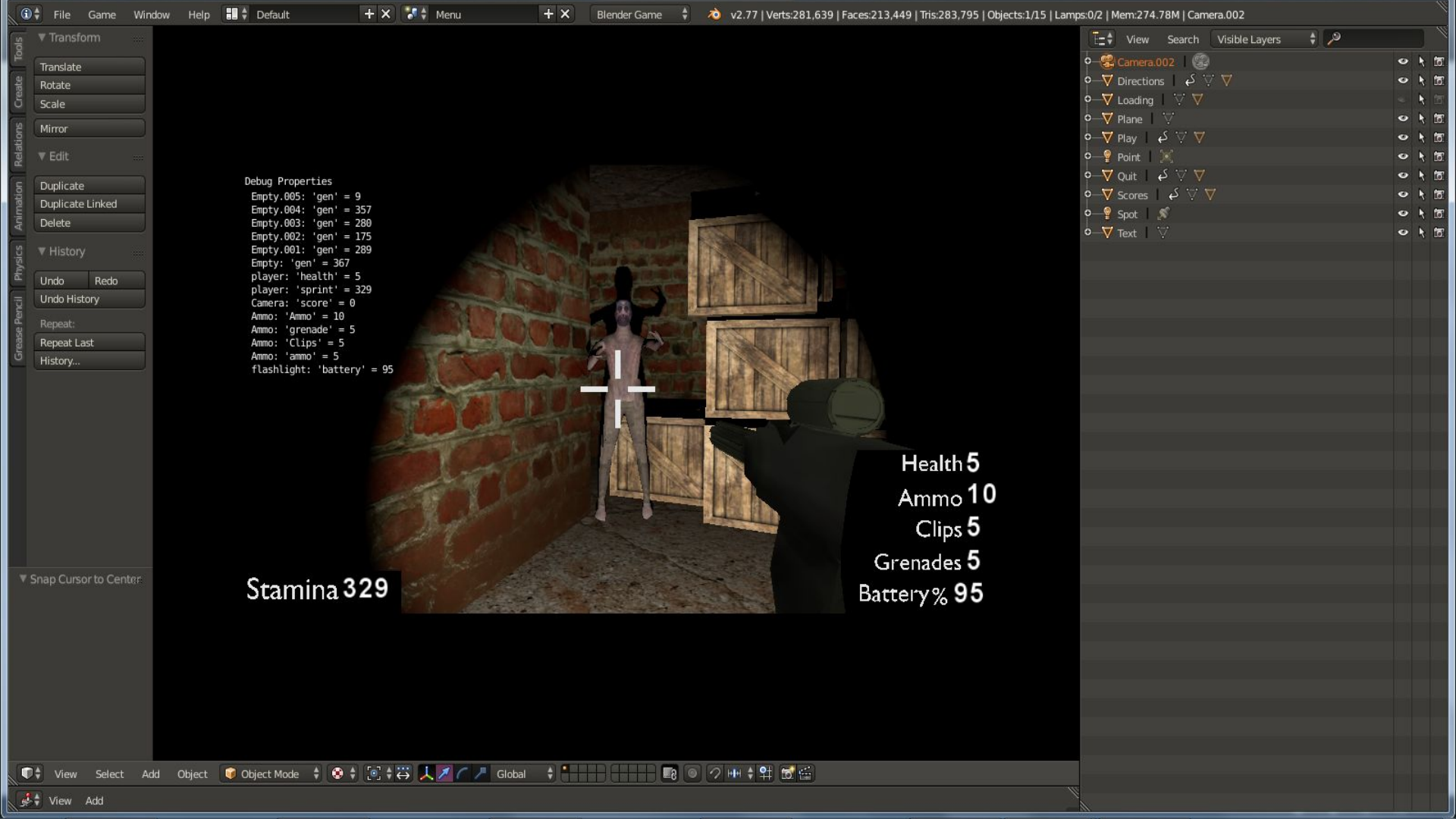
Health 5  
Ammo 10  
Clips 5  
Grenades 5  
Battery% 100



Resume  
Menu

Stamina 322

Health 5  
Ammo 10  
Clips 5  
Grenades 5  
Battery% 97

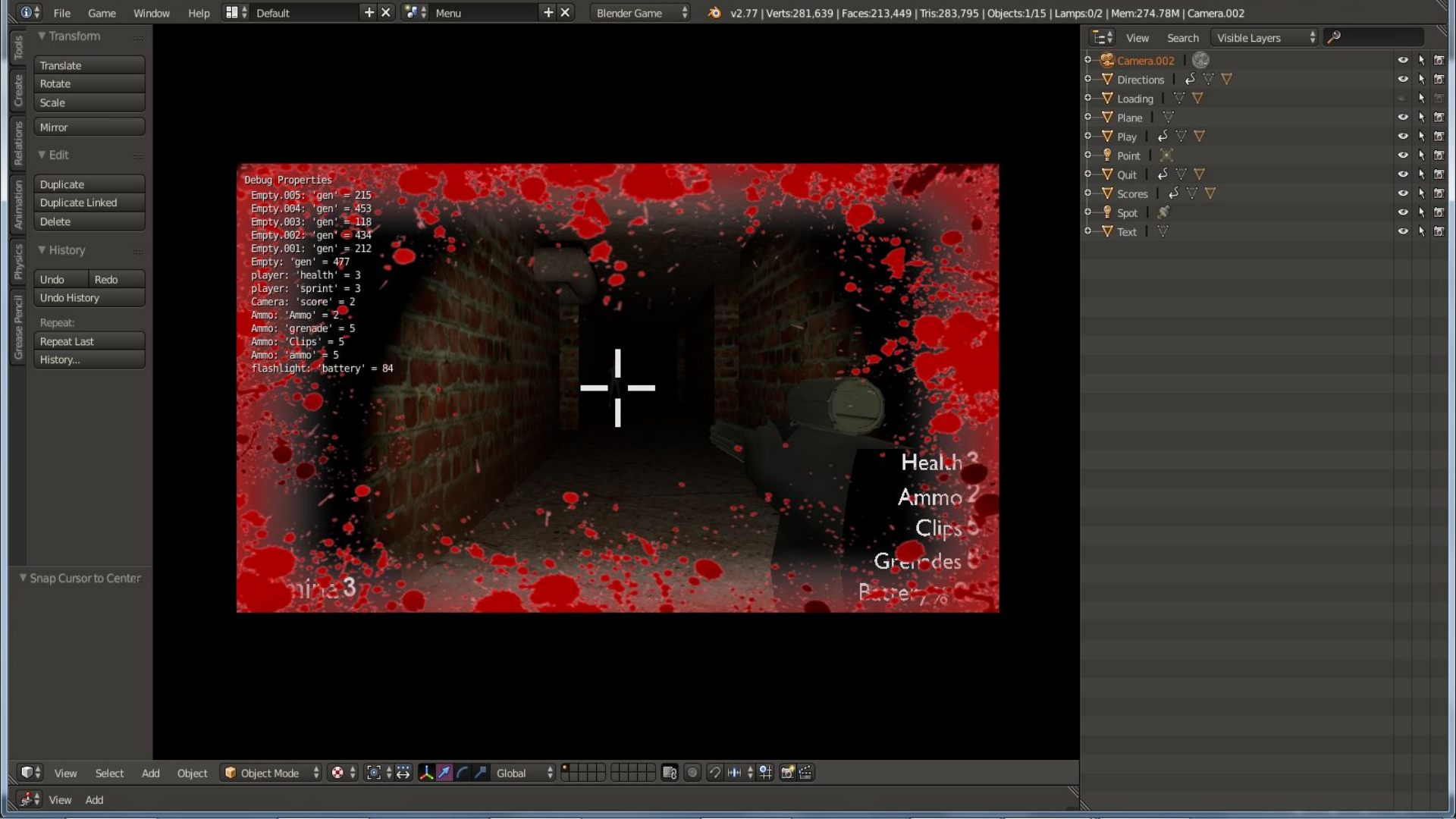


Debug Properties  
Empty.005: 'gen' = 9  
Empty.004: 'gen' = 357  
Empty.003: 'gen' = 280  
Empty.002: 'gen' = 175  
Empty.001: 'gen' = 289  
Empty: 'gen' = 367  
player: 'health' = 5  
player: 'sprint' = 329  
Camera: 'score' = 0  
Ammo: 'Ammo' = 10  
Ammo: 'grenade' = 5  
Ammo: 'Clips' = 5  
Ammo: 'ammo' = 5  
flashlight: 'battery' = 95

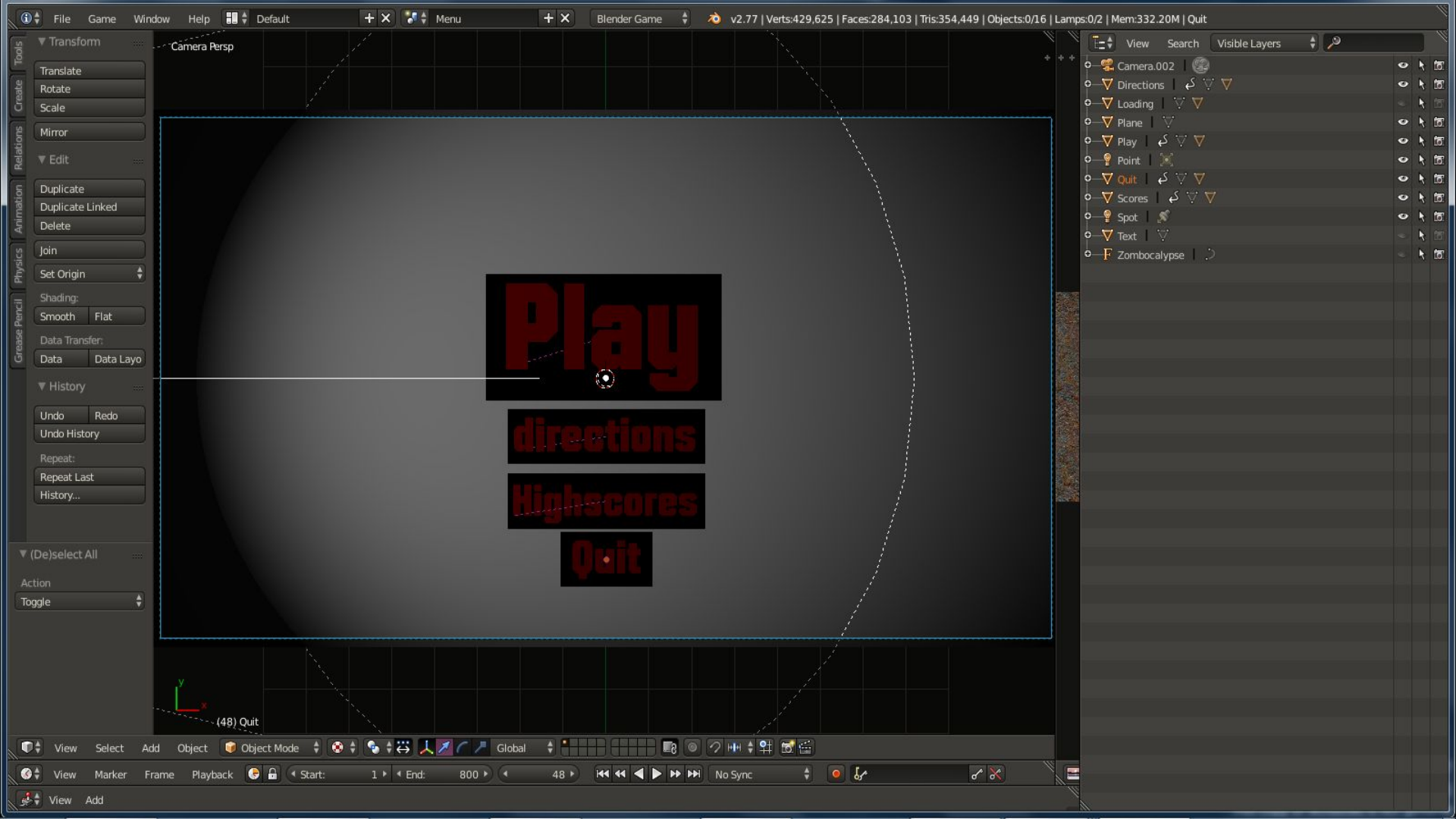
Stamina 329

Health 5  
Ammo 10  
Clips 5  
Grenades 5  
Battery% 95









Thank you :)