

# Midnight Rising – GDD

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## 1. About the Game

### 1.1. Name

Midnight Rising

### 1.2. Genre

Twin-Stick Survival Horror

### 1.3. Tone

Dark, Horror

### 1.4. High-Level Overview

In Midnight Rising you must survive waves of deadly zombies. Its kill or be killed.

### 1.5. Tags

- Action
- Shooter
- Survival
- Third-Person
- Top-down Shooter
- Twin-stick Shooter

## 2. Level Design

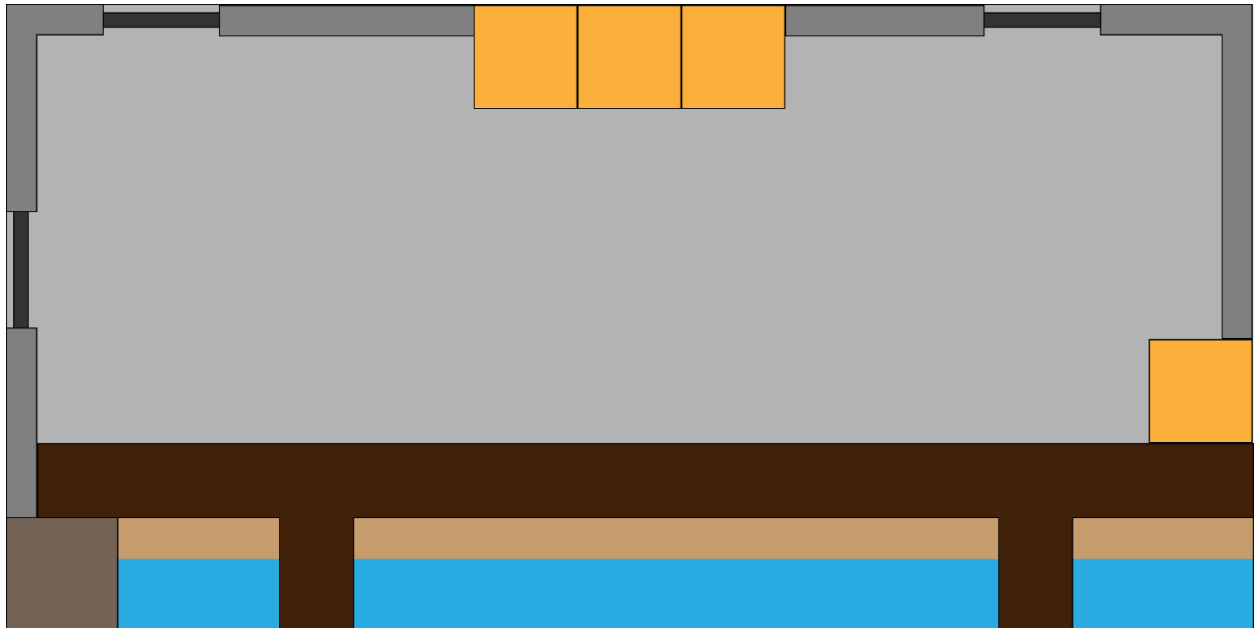
### 2.1. Overview

The game world will be split into 2 different closed off areas (rooms). These will be the:

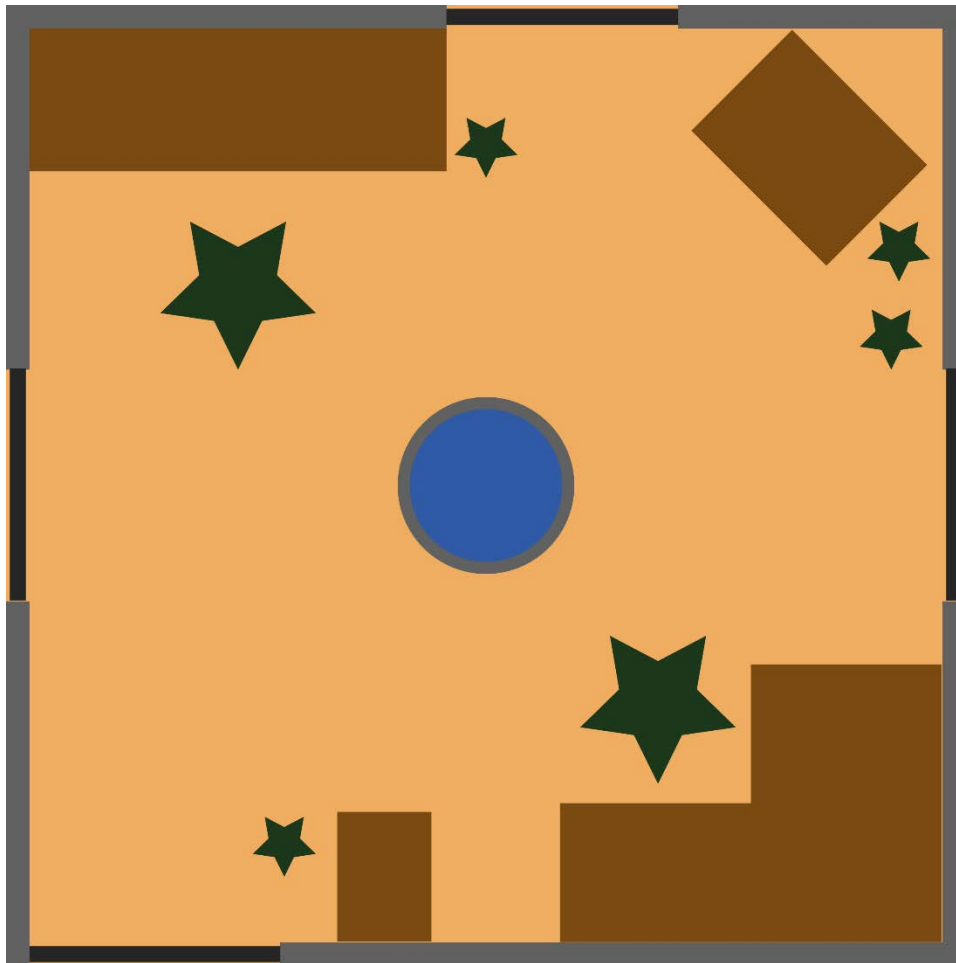
- Quayside
- Town Centre

Players will start at the Quayside and must purchase access to other rooms to progress. These transactions will be done using “Z-Coins” (blood-soaked currency collected through gameplay).

### 2.2. Quayside



### 2.3. Town Centre



## 3. Gameplay

### 3.1. Overview

- The game is wave-based
- In each wave the player must survive a set number of zombies, which dynamically spawn near the player.
- The higher the wave, the tougher the zombies.
- The game ends when the player dies.

### 3.2. Wave Breakdown

1. Spawning period – At the start of each wave a set amount of time will be allocated to spawning zombies. As waves progress this period becomes longer so more zombies spawn.
2. Player kills zombies, this earns them “Z-coins”.
3. The wave ends – Players are awarded “Z-coins” and experience points based on their performance. Factors contributing to the players rewards include time, health, wave number.
4. Cooldown period where the player has a chance to readjust, make purchases, and upgrade skills.
5. The next wave begins.

### 3.3. Game Modes

#### 3.3.1. Classic

- See 3.2.
- Will include an option to toggle a tutorial wave to teach players about the game.

#### 3.3.2. Time Attack

- Time is treated as a resource.
- The player is playing under a countdown. Killing zombies earns them more time to progress through the game.
- The timer pauses during cooldown periods.

#### 3.3.3. Barrage

- No cooldown periods.
- Continuous spawning periods.
- Tougher enemies.

### 3.4. Control Settings – Mouse & Keyboard

#### 3.4.1. Overview

- Computer peripherals and Xbox One controllers will be supported.
- Each control can have two keys binded to it for flexibility.
- Multiple controls cannot be binded to the same key.
- Presets can be saved.
- See 5.3 for more detail.

#### 3.4.2. Mouse & Keyboard

Control	Option A	Option B
Move Forwards	W	Up-Arrow
Move Backwards	S	Down-Arrow
Move Left	A	Left-Arrow
Move Right	D	Right-Arrow
Look	Mouse trackball	-
Interact	F	-
Fire weapon	Left-Click Mouse	-
Throw Grenade	G	Right-Click Mouse
Swap to Assault Character	1	-
Swap to Heavy Character	2	-
Swap to Light Character	3	-
Swap to Demolition Character	4	-
Swap to Next Character	E	-
Swap to Previous Character	Q	-
Pause Game	Escape	-

### 3.5. Control Settings – Xbox One Controller

Control	Option A	Option B
Move Forwards	Left Stick	D-Pad Up
Move Backwards	Left Stick	D-Pad Down

Move Left	Left Stick	D-Pad Left
Move Right	Left Stick	D-Pad Right
Look	Right Stick	-
Interact	A Button	-
Fire weapon	Right Trigger	-
Swap weapon	Y Button	-
Throw Grenade	Left trigger	-
Swap to Next Character	Right Bumper	-
Swap to Previous Character	Left Bumper	-
Pause Game	Start Button	-

## 4. Characters & AI

### 4.1. Playable Characters

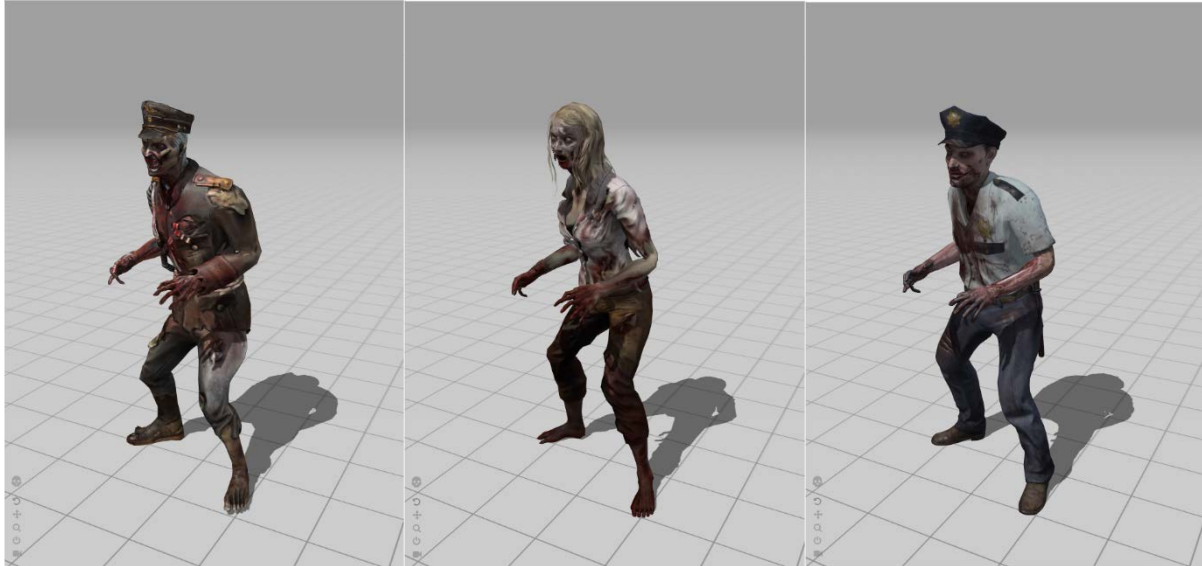
- The game features 4 playable characters
- The player controls one character, the AI controls the remaining characters. For example: if player is controlling character 2, the AI will control character 1, 3 and 4
- The player can switch character during the game – but can only switch to a character that is alive
- Each playable character has a unique mesh as shown below:



- The friendly AI has the following behaviors:
  - Moves towards the player-controlled character when the player-controlled character is too far away. Hence, follows the player around the environment
  - When zombies are within range, the AI character looks at the nearest zombie and shoots at it
- Each character has their own current health and max health

#### 4.2. Enemies

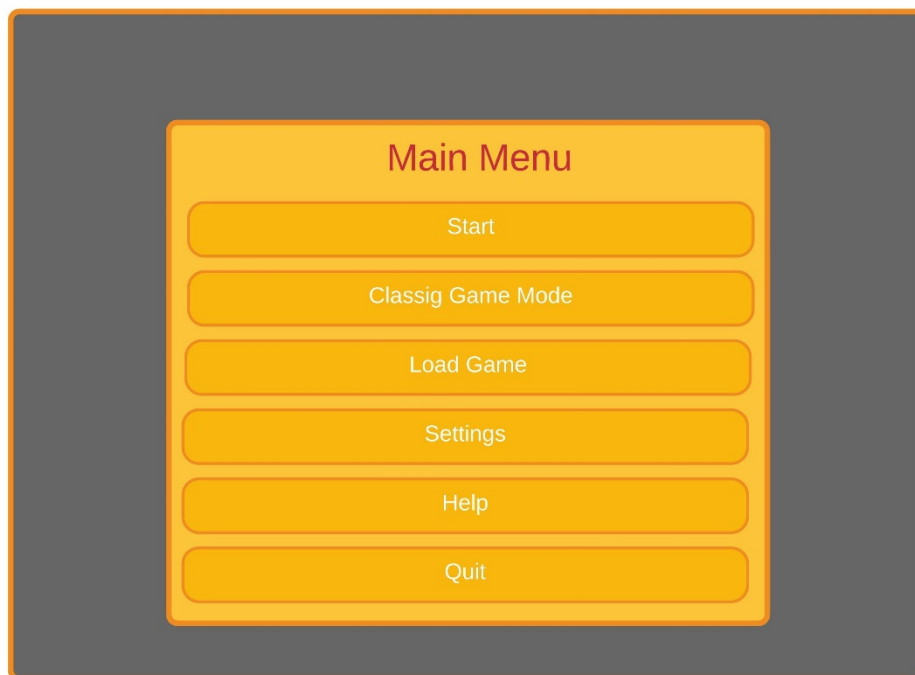
- The game features 3 types of zombies
- Each zombie type has a unique mesh as shown below:



- The zombie AI has the following behaviors:
  - Every 2 seconds, the closest player character (player-controlled or AI controlled) is set as the target
  - Looks at the target and moves towards the target (either walking or running)
  - Melee attacks the target when in range
  - Stands idle if all characters are dead
- Each zombie type has different movement speed and attack damage

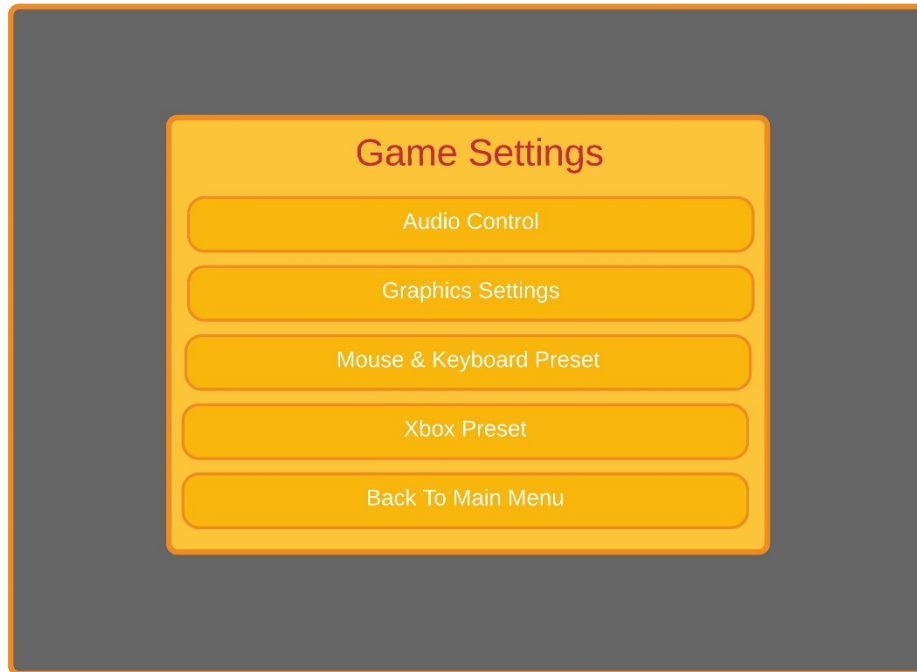
## 5. HUD & UI (Designs with Annotations)

### 5.1. Main Menu Panel

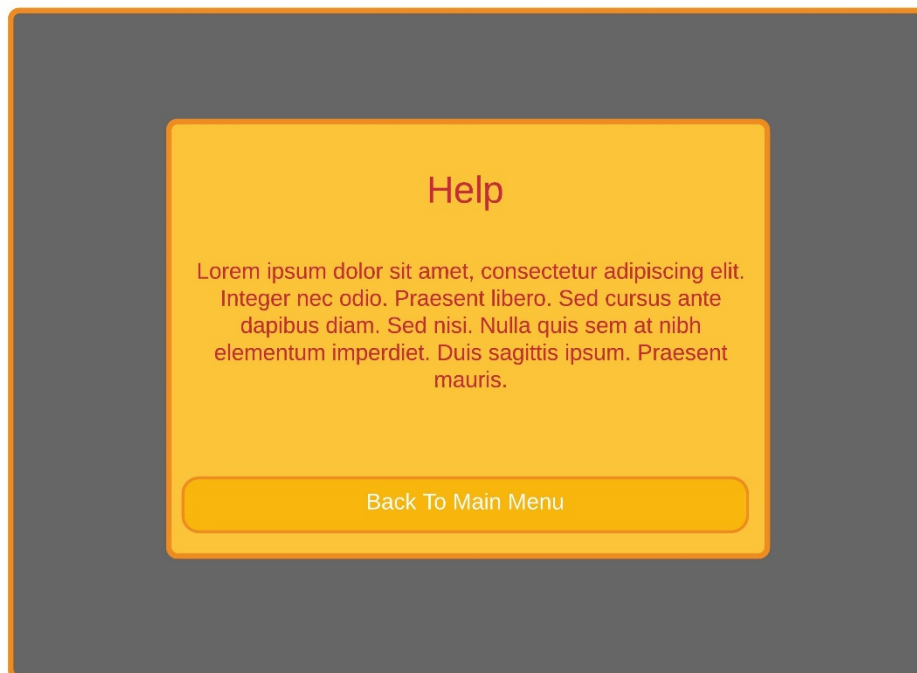




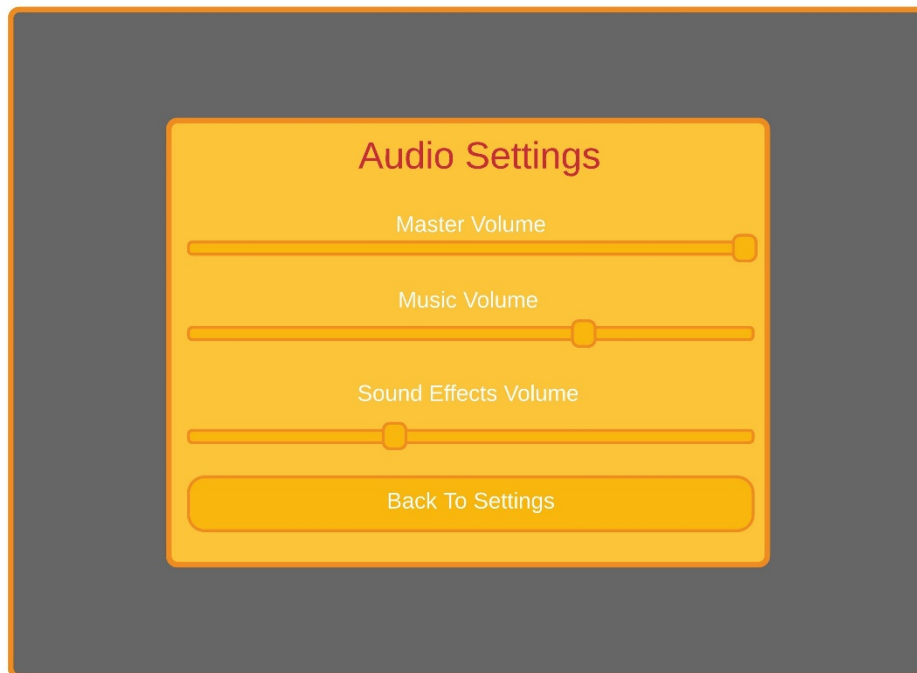
## 5.2 Settings Menu Panel



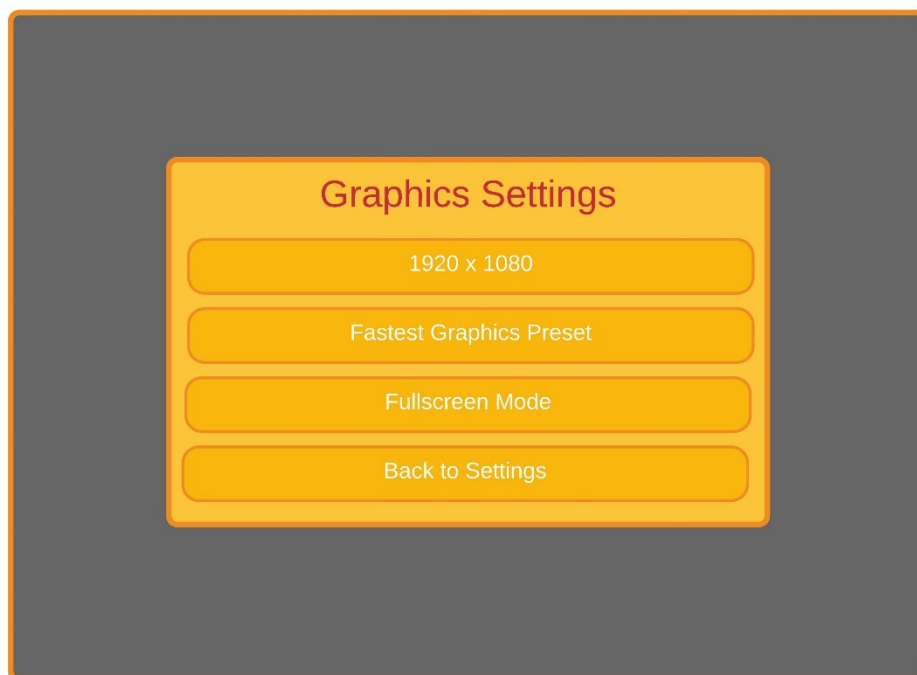
## 5.3 Help Menu Panel



## 5.4 Audio Control Panel




## 5.5 Graphics Settings Panel




## 5.6 Mouse & Keyboard Preset Panel

Presets		
		Default...
Move Forwards	W	Up-Arrow
Move Backwards	S	Down-Arrow
Move Left	A	Left-Arrow
Move Right	D	Right-Arrow
Look	Mouse	-
Interact	F	-
Fire Weapon	Left-Click Mouse	-
Throw Grenade	G	Right-Click Mouse
Swap to Assault Character	1	-
Swap to Heavy Character	2	-
Swap to Light Character	3	-
Swap to Demolition Character	4	-
Swap to Next Character	E	-
Swap to Previous Character	Q	-
Pause Game	Escape	-

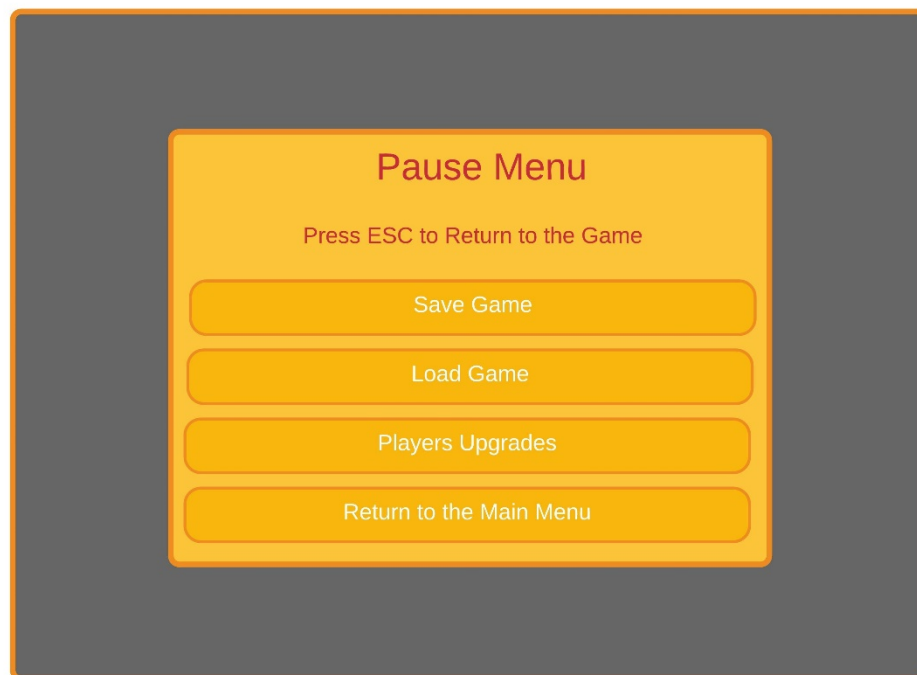
Save Preset As : Default(1) 

## 5.7 Xbox One Preset

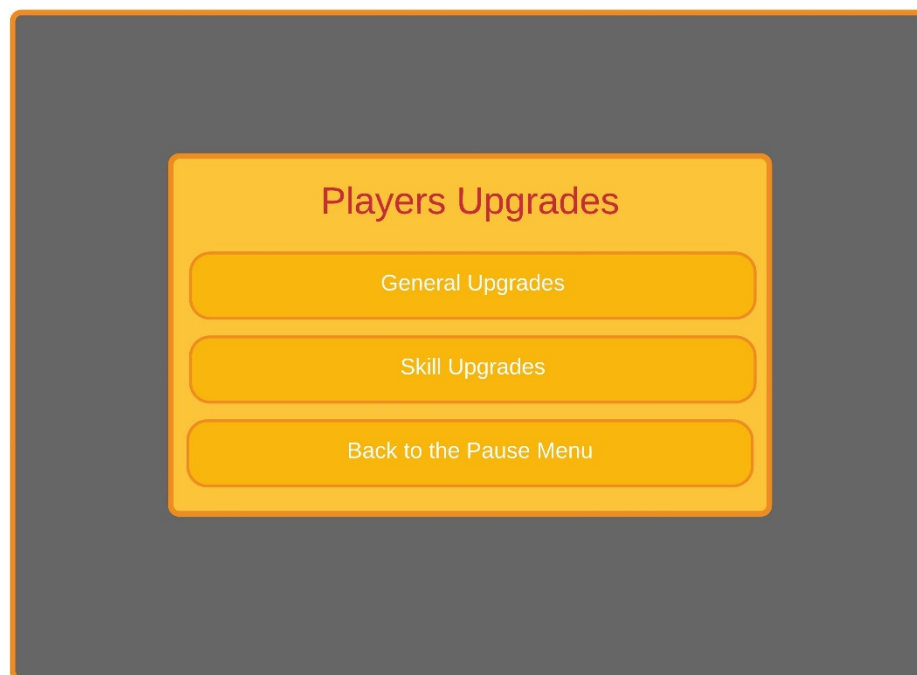
Presets		
		Default...
Move Forwards	Left-Stick	D-Pad Up
Move Backwards	Left-Stick	D-Pad Down
Move Left	Left-Stick	D-Pad Left
Move Right	Left-Stick	D-Pad Right
Look	Right-Stick	-
Interact	A	-
Fire Weapon	Right Trigger	-
Throw Grenade	Left Trigger	-
Swap to Next Character	Right Bumper	-
Swap to Previous Character	Left Bumper	-
Pause Game	Start	-

Save Preset As : Default(1) 

## 5.8 Pause Menu Panel



## 5.9 Players Upgrades Panel



## 5.10 General Upgrades Panel

### General Upgrades

Points Available 100

Max HP  
0/10  
+ -

Ammunition Size  
0/10  
+ -

Max Energy  
0/10  
+ -

Move Speed  
0/10  
+ -

Reload Speed  
0/10  
+ -

Skill Cooldown  
0/10  
+ -

Grenade Area  
0/10  
+ -

Grenade DMG  
0/10  
+ -

#### Current Stats

HP:	???
Energy:	???
Move Speed:	???
Ammo Size:	???
Reload Speed:	???
Skill CLD:	???
Grenade DMG:	???
Grenade Area:	???

Back to Upgrades

Reset Points

## 5.11 Skill Upgrades Panel

### General Upgrades

Points Available 100

Fire Rate  
0/10  
+ -

Gun Damage  
0/10  
+ -

Speed Boost  
0/10  
+ -

Health Regen  
0/10  
+ -

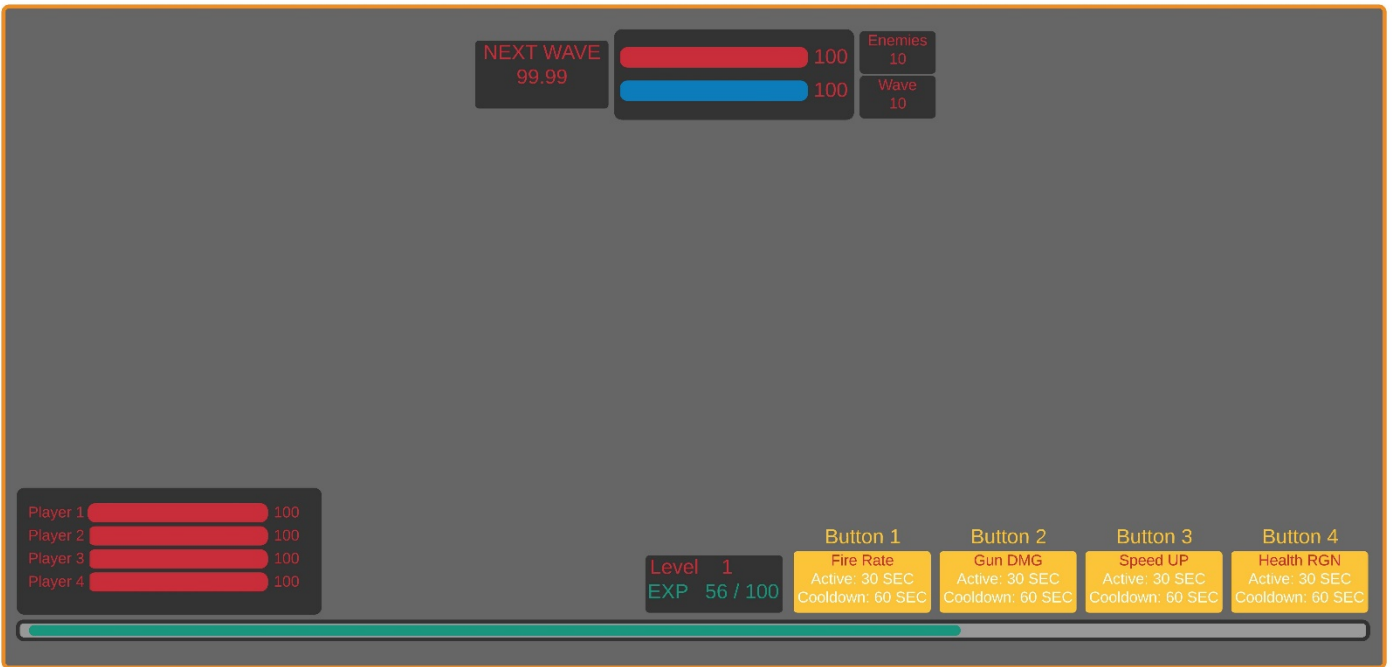
#### Current Stats

Fire Rate:	???
Gun Damage:	???
Speed Boost:	???
Health Regen:	???

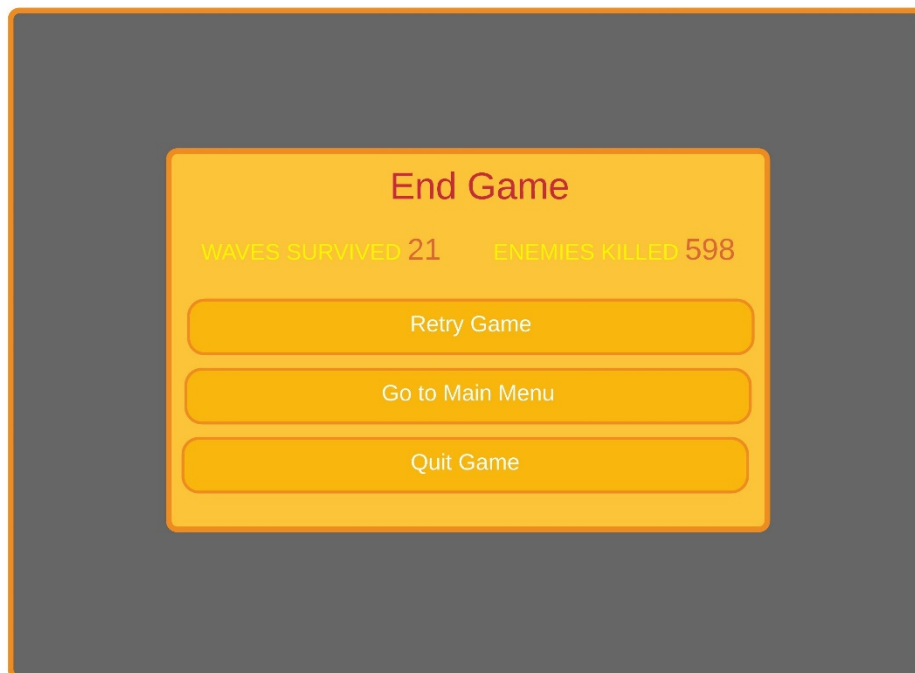
Back to Upgrades

Reset Points

## 5.12 GUI Design



## 5.13 End Game Panel



## 6. Weapons & Pickups

### 6.1. Weapons

Assault Rifles – This class of weapons are the “good all-rounders”, with moderate damage and rate of fire, assault rifles can be considered for any situation.

Sub Machine Guns – Lightweight weapons make for faster movements speed, but less damaging effects.

Shotguns – High damage short range, this class of weapons thrives in crowded areas.

Heavy Machine Guns – Large heavy weapons, larger magazine sizes and slower reload times plus a hit to movement speed makes heavy machine guns a situational weapon.

Specials – This class of weapons are not purchasable in game but instead are gained through random spawns on the map. These weapons are extremely

Below shows a table of each class of weapons and a few examples of weapons of each class

Weapon Class	Weapon Name	Damage per bullet	Rate of Fire (Per Second)	Reload Time (Seconds)	Ammo in Mag
Assault Rifle	Ak 47	27	2	3.2	30
Assault Rifle	Scar-H	20	3	2.7	30
Assault Rifle	M4A1	26	2.5	3	30
Sub Machine Guns	P90	13	6	1.5	60
Sub Machine Guns	UZI	10	7	2	50
Sub Machine Guns	MP5	18	5		40
Shotgun	870	12 (4 bullets per Shot)	1	5	20
Shotgun	SPAS-12	10(5 bullets per Shot)	1	4	30
Shotgun	STRIKER	5(12 bullets per Shot)	1	6	60

Special	Rocket Launcher	100	1	N/A	N/A
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## 6.2. Pickups

Pickups in this game can be split into two categories, “drops” and “perks”, drops are powerups that are gained through killing enemy's, named because they drop from the body these drops give temporary boost to player stats or temporary. While “perks” are bought from several locations on the level, these boost player stats or weapon stats and are permanent. Below includes a table outlining both perks and drops and their effects.

Pickup Type	Name	Effect	Duration (If Applicable)	Cost (If Applicable)
Drop	Max Ammo	Refills all players ammo	Instant	N/A
Drop	Instant Kill	All Enemy's Die in one hit	30 seconds	N/A
Perk	Big Boy Blue	2x Max Health	5 Waves	£2000
Perk	Hypoxia-inducible factor	1.25 x Move Speed	Permanent	£3000

## 7. Skill Trees & Progression

### 7.1. Overview

All characters can have stats upgrade skill to increase their base stats. Also, with all the weapon can have upgrade for damage, fire rate, etc.

### 7.2. skill tree

All character (all character have hp and energy)

Each time character level up 1 level give 2 skill point

Each time character level up will need 10 more exp to reach the next level

Those attributes will affect the whole game when player learn the skill

Max HP : Max level 30 Each level + 10 Max hp

Max Energy: Max level 20 Each level + 10 Max Energy

HP regain : Max level 10 Each level + 10% HP regain

Move speed : Max level 10 Each level + 2% Move speed

Max ammunition (more bullet each time reload): Max level 10 Each level + 1 max ammunition

Reload speed: Max level 10 Each level + 1% reload speed

Skill cool down reduction: Max level 10 Each level 1 second skill cool down

Those attributes will affect the whole game when player learn the skill



### 7.3. Skills

Weapon Class	Damage amplification	Fire rate amplification
Rifle	Damage increases	Fire rate increase
SMG	Damage increases	Fire rate increase
Shotgun	Damage increases	N/A
LMG	Damage increases	Fire rate increase
Special	Damage increases	Fire rate increase

#### Skill 1

Skill name: Fire Rare

Fire increase: Fire rate increase + 10% at skill lv10

Duration: 30 Second

CD: 60 Second

Mana cost: 20

#### Skill 2

skill name: Health Regen

Hp regain: Regain 100 Hp each second at skill lv10

Duration: 30 Second

CD: 60 Second

Mana cost: 20

#### Skill 3

skill name: Gun damage increase

Gun Damage in crease: 20% at skill lv10

Duration: 30 Second

CD: 60 Second

Mana cost: 20

#### Skill 4

skill name: Speed boost

Speed boost: character move speed increase 100% at skill lv10

Duration: 30 Second

CD: 60 Second

Mana cost: 20

