

# GAME DESIGN DOCUMENT

# FPS Game™

SUB TITLE

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## Game Analysis

FPS Game™ is a first-person shooter action game that places the player in control of a character with specialized equipment that will help them defeat enemies and bosses. Over the course of a level, the player gains money to spend on upgrades such as a double jump, jetpack, or increased HP. These upgrades can be purchased after completing a level. Using these upgrades grants the player access to new areas that would otherwise be inaccessible, these areas contain rewards such as more money, health increase, and new weapons.

## Mission Statement

FPS Game™ is a first-person action shooter where the player can collect new weapons and upgrades, and use them to defeat enemies in linear levels. The game is replayable, but the levels are not. The order in which you purchase upgrades will affect the items available to you.

## Genre

FPS

## Platforms

PC

## Target Audience

Containing violence and potentially explicit scenes, it is geared towards a more mature audience. Needing to already hold some degree of knowledge regarding FPS Shooters, the game makes use of the already tested market; the goal is to sell a story-based Shooter that is similar to Doom or Borderlands. Hoping to give the player the experience of being a Badass gunning down enemies. Pairing this with a mechanically responsive game, it will allow players to increase their skill and give replayability to the game as well. The game is targeted towards mid to late teens to young adults who would want to play a game they can get into and out of quite frequently.

## Characters

Character	Description	Characteristics	Misc. Info
Character Name	Describe the character. It is a playable character or NPC. How does this character fit into the story, etc.	Describe the character's abilities, personality and so forth.	Present any other notes about the character.
FPS Guy	-Player Character- The player is Fransua-Phillip-Simon Guy, a mysterious merc.	Double Jump, Sprinting, Jetpack, Dash	FPS of Fransua-Philip-Simon is his first name, Guy being his last.
Smol AI	A small spherical enemy that shoots a single small bullet at the player	Small, poor damage, low hp	
Smol Flyer AI	A near copy of the Smol AI, but it can fly.	Small, poor damage, low hp	
Medium AI	A medium-sized spherical enemy with four guns. A menace in close combat	Medium, insane damage, good hp	
Big AI	A large spherical enemy with a single large gun. Excels at long range	Large, good damage, huge hp	

# Gameplay

## Overview of Gameplay

The player navigates different levels and kills enemies along the way. The player earns money by killing enemies, allowing the player to increase their stats such as their maximum HP.

The player has weapons that are placed in certain levels that they keep throughout the game. These weapons fulfill different purposes such as a low RoF pistol that does a lot of damage and has low ammo.

The player uses these weapons to kill enemies placed throughout the levels, and must avoid being killed by the enemies.

## Player Experience

Main Menu - The “Start Game”, “Options”, and “Quit Game” buttons are displayed here. The options button allows changing of graphics and mouse sensitivity.

Level One - A mix of an open environment and close-quarters hallways, the player must kill all enemies in the level and then make it to the exit in order to proceed.

Shop Menu - Several buttons allowing the player to increase their stats, purchase a jetpack, or continue with the game.

Level Two - A close maze-like environment with halls and corners placed everywhere. There are no long-range engagements here. Much of the level is in darkness except for the flashing red lights and occasional normal light. The player can use the flashlight to see in these dark environments. If the player unlocked the jetpack, they can use it to ascend quickly to the second level and find the exit, otherwise the player must navigate the first floor to find a staircase to go to the second level.

Level Three - A large open room with 4 smaller rooms attached to the four walls. At the center is the boss that controls the enemies. The player must venture into each of the smaller rooms and activate a lever. Once all 4 levers are activated, a huge laser-beam descends upon the boss and kills him. The player then can return to the center platform to complete the level.

Win Screen - A simple “YOU WIN” message is displayed whenever the player completes Level 3.

Death Screen - A simple “YOU DIED” message is displayed whenever the player dies, and a “Main Menu” button is also displayed allowing the player to return to the Main Menu to try again.

## Gameplay Guidelines

To achieve a T Rating or something similar although there are guns and (potentially) crude humor, the enemies need to be robots or something similar as to lessen the impact of violence.

## Game Objectives & Rewards

\*\*\*This is where you present more details on how the gameplay will motivate the player to progress through the game. Discuss rewards and penalties and the difficulty level. You can use the table below to help break down objectives and rewards.

Rewards	Penalties	Difficulty Levels
Money - by killing enemies, the player gains money that they can spend on upgrades	Death - The player must restart the game if they die.	There is only one difficulty.

## Level Design

**Discuss the levels:**

**How many levels will the game have:**

The game itself contains three levels,

**What will be included in each level, Include overall look and feel:**

Each level is designed in an interior space large enough to allow for the player to approach their objectives in multiple different ways rather than their objective being straightforward

**Hazards the level presents:** On top of having to deal with enemies, certain sections of levels can contain ground hazards

## Control Scheme

Describe the control setup for the game. Does your game use touch input, a controller, or mouse & keyboard? Discuss the functionality of each button/touch. It may help to insert a diagram/pic to help explain the actions.

Button/ Touch Input	Action it Performs
WASD	Move in the direction of the button press
Left Shift combined with WASD	Sprint in the direction of the button press
Left Alt combined with WASD	Walk slowly in the direction of the button press
Spacebar held (while on ground)	Jump
Spacebar pressed in air	Double jump
Spacebar held in air && Jetpack unlocked	Jetpack Fly
X combined with WASD	Dash in direction of button press
L	Toggle flashlight
J && Jetpack unlocked	Toggle jetpack
R	Reload currentWeapon

## Game Aesthetics & User Interface

We will use the scifi warehouse pack for the level design (listed in sources below).  
 The UI can be simple Unity UI items, it does not need to be special.  
 The AI can match the player design in using Unity primitives.

## Schedule & Tasks

Tasks to Complete & Schedule				
Tasks	Assigned To	Start MM/DD/YYYY	End	Complete Y/N
<b>Development Phase</b>				
<b>Designers</b>				
Level 1 (Test Level)	Will	03/27/2023	04/06/2023	Y
Level 2	Will	04/17/2023	04/18/2023	Y
Level 3	Will	04/17/2023	04/19/2023	Y
Level Tiles	Will	03/27/2023	03/27/2023	Y
Visual FX				
Weapon 1 Visuals (Pistol)	Zach	03/27/2023	03/27/2023	Y
Weapon 2 Visuals (Rifle)	Zach	04/16/2023	04/16/2023	Y
Weapon 3 Visuals (Projectile)	Devin	04/10/2023	04/30/2023	N
Audio FX				
Weapon 1 Audio (Pistol)	Zach	04/16/2023	04/16/2023	Y
Weapon 2 Audio (Rifle)	Zach	04/16/2023	04/16/2023	Y
Weapon 3 Audio (Projectile)	Devin	04/16/2023	04/30/2023	N
Player UI				
Health	Zach	03/27/2023	03/27/2023	Y
Jetpack Fuel	Zach	03/27/2023	03/27/2023	Y
Ammo Counter	Zach	04/23/2023	04/23/2023	Y
Shop UI	Richard			N
Money Counter	Richard			N
Purchase Cost Display	Richard			N
Unlock Jetpack Display	Richard			N
Stat Increase Display	Richard			N
Main Menu UI	Richard			N
<b>Programmers</b>				
Character Controller	Zach	03/27/2023	04/19/2023	Y
Movement Controls	Zach	03/27/2023	04/19/2023	Y
Jetpack Controls	Zach	04/03/2023	04/03/2023	Y
Double Jump Controls	Zach	03/27/2023	03/27/2023	Y
Dash Controls	Zach	04/19/2023	04/19/2023	Y
Weapons				
Weapon (Raycast)	Chris	04/03/2023	04/08/2023	Y
Weapon (Projectile)	Devin	?	04/30/2023	N
Pickup 1 - Increase CurrentHp	Zach	03/27/23	03/29/2023	Y
Pickup 2 - Jetpack Fuel	Chris	04/10/2023	04/14/2023	Y
Pickup 3 - Pistol Ammo	Zach	04/23/2023	04/23/2023	Y
Pickup 4 - Rifle Ammo	Zach	04/23/2023	04/23/2023	Y
Pickup 5 - Projectile Ammo	Devin			N




Shop Interaction	?			N
Unlock: Jetpack	?			N
Enemy AI: Smol	Ryan	03/27/2023	04/07/2023	Y
Enemy AI: Smol Flyer	Ryan	04/07/2023	04/10/2023	Y
Enemy AI: Medium	Ryan	03/27/2023	04/07/2023	Y
Enemy AI: Big	Ryan	03/27/2023	04/07/2023	Y
Level 3 - Switch Mechanic	Chris	04/19/2023	04/20/2023	Y
Level 3 - Death beam animation	Chris	04/19/2023	04/20/2023	Y

## Sources

GDD adapted from <https://vitalzigns.itch.io/gdd>

PlayerController zoom effect and crouch effect adapted from:

 First Person Controller - Zoom/ADS (EP07) [Unity Tutorial]

Gunshots, death beam, and lever activation sounds:

<https://assetstore.unity.com/packages/audio/sound-fx/sci-fi-guns-sfx-pack-181144>

Level design:

<https://assetstore.unity.com/packages/3d/environments/sci-fi/sci-fi-construction-kit-modular-159280>

Skybox:

<https://assetstore.unity.com/packages/2d/textures-materials/sky/spaceskies-free-80503>

Unity ProBuilder

Unity TextMeshPro