

Game Title: Mechanical Revelation

Part 1: (General Information)

Core Concepts:

The game is a 3D first-person action shooter. The user plays a controllable character called Maxwell. The aim of the game is to kill all of the robots in the town therefore making the town safe again. The enemies will patrol areas going back and forth between locations and checking for the human player. If the player is detected, the enemies will shoot the player and attempt to kill them. The player must act strategically to take out the enemies and try their best to not be detected. The game offers the players the possibility to play the game according to their preferred play styles, using approaches like gung ho or being more strategic and rational when playing. The aim of this is to enable players to enjoy this game by ensuring that they have the freedom to play it any way they want to. The player will run into obstructions as they roam the world. The environment of this game will mimic a real-life setting since it will feature Outposts that have buildings that look like houses. At the same time, the setting of the game will also be distinct due to how the buildings will be built defensively, including enemy outposts and strongholds which will need to be defended. Rooms will be built in ways that benefit the enemy giving them an advantage over the player. The player will have unlimited bullets to use, but to counteract this there will still be reload time for guns and time between each bullet shot. The player will have a health bar on the game HUD which will inform them when they are low on health. The player will be able to pick up health points around the map.

Genre:

The game is designed to be a first-person single-player shooter based on the Sci-Fi and Action genre. The game will somewhat correlate to that of *The Terminator* (James Cameron, 1984) in the way that robots have taken over the world and the player aims to eliminate all of the robots therefore ending the invasion of the robots. The setting of the game will be a dystopian universe, resembling a wasteland. The game will be based at night-time to add to the game atmosphere. The area in which the game falls into the Sci-Fi genre is a Cyberpunk subgenre.

Target Audience:

The target audience for the game will be 15+. I have set it to 15+ instead of 18 due to the game not having blood and no profanity. The game does include guns and dying animations, for this reason, the game is set at 15+. The game will be catered towards a male audience as the genre for the game is heavily dominated by men. The game however is expected to be played by all genders. I expect the average player that plays this game to be between the ages of 18-40 since, as evidenced by Statista (Global Shooter Video Gamers By Age, 2018) in the United States 2/3 of players of shooter games in the US are between the ages of 18-40, therefore dominating the shooter game genre. The game will be designed to be played on PC so the game is going to be specifically aimed towards PC gamers. The game should run on most mid to high-end gaming PCs.

Part 2: (Game Overview)

Game Space:

The game will be set in an open world. Throughout the world, the player will find buildings patrolled by hostile enemy robots. Buildings will look similar and will play similarly too with enemies patrolling rooms. Rooms will be well-lit by lasers and strobe lights to give the player the ability to look around rooms. The player's ability to navigate around the buildings will depend on the different varieties of rooms they will encounter in the game, with the smaller rooms being the most difficult ones for the player to maintain their distance from hostile units. The game will feature a couple of unique bases placed around the world to create a boss-type narrative for the game. These bases will be heavily patrolled by lots of enemies making them difficult for the player to clear. Bases will also feature AI-controlled turrets that will be difficult for the player to take on without strategically working out what to do. All weapons in the game will have sound to help with the effect of the game and make each hit feel more satisfying for the player. Enemies will also have robotic sound effects to help fit with the genre of the game and set the atmosphere.

Player Avatar:

The player will be controlling a character called Maxwell. Maxwell is a male in his mid-20s. He is a well-shaped man with a military background. The protagonist is designed to look the



*British Army Soldier
in full kit*

role so the character wears a military vest and uniform to look official. The body type of the character is well-balanced so the speed and power of the character will be standard. The military uniform will represent that of the British Army. The character will carry an assault rifle and a pistol to take on the enemies. Maxwell is tall standing at 6ft. He has thick brown hair and brown eyes. Maxwell has facial scars to represent his past in the military to help build his character narrative. This has also been done to make the character appear strong and experienced having been through many wars already this early in his life. As the character walks around the map the player will be able to listen to his thoughts as the character's backstory is broken down and revealed more and more as the player progresses in the game. This is an easter egg for players

who pay a lot of attention to games as they play to enjoy. I have chosen to not dive too far into the life of Maxwell so that players can listen to the easter eggs and make up their interpretations of the character based on them. The reason for adding these elements to the game is to add an element of creativity to help the player connect with the game.

The player will interact with AI-controlled enemy robots. These will patrol areas such as buildings and bases. They will wander randomly in specific areas keeping an eye out for the human player. If the player is spotted by the enemy robot, the robot will stop and shoot at the player. Once the player moves away from the enemy and reaches a certain distance the robot will stop shooting and continue wandering. The robot also has infrared sensors to be able to detect the player in dark areas. These sensors can be seen by the player which helps the player to tactfully take out the enemy. The robots will all look the same as they are the same model. The robots are the same model because they were all produced in the same

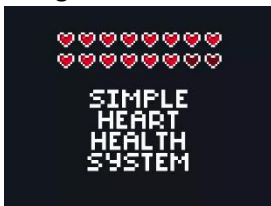
factory by an evil genius called Axon. Axon, whilst not being a character in the game itself, is an important part of the game as he is the reason why the robots have taken over the world. The robots will also carry an assault rifle that will be used to shoot at the player. The gun that the robots hold will fit the style of the models for the robots. The bullet that comes out of the guns will be red to fit in with the Sci-Fi genre adding to the effects.



Robot Hero: PBR HP Polyart

Game Assets / Game Bits:

The game consists of buildings that are patrolled by AI-controlled robots. When the player clears all of the robots in the building they will be able to go into the last room in the building which will contain health points. These will be floating red hearts that the player can interact with by walking into them. The player will start with a total of 12 hearts. In normal buildings, the player will be able to pick up three hearts and in strongholds, the player can find a total of ten hearts in the centre and three hearts in the small buildings. The hearts will be in a heart shape and will be coloured red. Once picked up they will disappear and be added to the health bar displayed to the player.



The design of the assault rifles and pistols features a cartridge for bullets that play an animation when reloading. The weapons will also have an aiming ability for the player. I will utilise the assets for the pistol and assault rifle from Infima Games. The weapons were created using the following website: <https://assetstore.unity.com/packages/templates/systems/low-poly-shooter-pack-free-sample-144839>.



Assets for Objects in Buildings Include:

Static = Immovable objects, they will exist in the scene but serve no purpose.

Interactable = Objects that can be interacted with by the player

- Chairs (Static)
- Tables (Static)
- Doors (Static) & (Interactable)
- Walls (Static)
- Ground (Static)
- Ceiling (Static)
- Stairs (Static)
- Lights (Static)
- Rubble (Static)
- Bullets (Static) & (Interactable)
- Projectiles (Static) & (Interactable)
- Fire Torch (Static)

Part 3: (Gameplay)

Rules and Mechanics:

Navigation:

The player will be able to navigate around the world according to a navigation mesh. The nav mesh will have constraints in the world such as stopping the player from being able to fall out of the world and not letting the player walk into obstacles but instead forcing them to walk around them. Buildings and bases will also have navigation meshes in place to ensure that the player can navigate their way around the world properly. Navigation meshes will also apply to Robots and Turrets.

Object Interactions:

Assets such as walls, ground, ceiling, rubble, doors, hearts, fire torch and stairs are all static. This means that these items all stay still in the world. When bullets hit these items nothing will happen because these objects cannot take damage.

Doors are interactable meaning that the player can interact with them to open and close them.

One heart is equal to a total of 1 damage. Therefore, it would take five bullet hits from a robot and 10 bullet hits from a turret to take away one heart from the player. When the player picks up a heart it will be added to their total health. If health is already at capacity the player will not receive any additional health and the hearts picked up will be wasted.

Rubble can be used by the player as a way to dodge bullets and projectiles. Bullets and projectiles do not damage to rubble therefore meaning that a player could theoretically hide behind the rubble when avoiding being shot at.

Game Starting Items:

When the player starts the game they will start with two weapons: an assault rifle and a pistol. The player will also have 12 health points and unlimited bullets to use. The player having unlimited bullets means that the player does not need to worry about collecting them therefore hopefully providing a more exciting experience allowing the player to get straight into the action.

Player Mechanics:

- Assault Rifle bullet damage = 0.2
- Pistol bullet damage = 0.1
- Health points will be lost as damage is taken from enemies.
- Player can interact with doors opening and closing them.
- The player can walk at a speed of 0.1
- The player can run at a speed of 0.2
- The player can jump at a height of 0.1
- Reload the Assault rifle after every 30 bullets shot.
- Reload the Pistol after every 12 bullets shot.
- Reload time = 3 seconds
- Bullets take 1 second to leave the chamber therefore setting this as the time between bullets shot.
- When the player picks up a heart it will be added to the player's total health.
- The player can crouch to hide behind walls and rubble.

Robot Mechanics:

- Robots deal 0.2 damage per projectile hit.
- Robots can only see the player within their 90-degree radius. (Eye level like humans can see in front of them but not around)
- The robots can only see the player within 12 metres of their view sight.
- Robots have a total of 5 Hearts.
- Unlimited projectiles.
- Projectile takes 1 second to leave the chamber therefore setting this as the time between projectiles shot.
- Robots will move randomly within a room when patrolling (Looking for the player).
- Once the player is seen by the robot it will stand still and shoot towards the player.
- If a player leaves the robots radius and becomes out of sight, the robot will continue to move to random locations patrolling the area.
- Robots cannot interact with objects. E.g. Doors.
- Robots cannot jump.
- Robots cannot run.
- Robots walk at a speed of 0.1
- Robots don't need to reload
- Infrared sensors will be visible on robots.

Turret Mechanics:

- Turret has 30 hearts in total.
- The turret does 0.1 damage per bullet hit.
- Bullets take 0.2 seconds to leave the chamber therefore setting this as the time between bullets shot.
- Turrets are static meaning that they never move.
- Turrets are AI-controlled.
- Auto locking onto player once seen
- Turrets have a 25-metre radius
- Turrets can only see the player within a 90-degree radius.
- Turret cannot interact with any objects. E.g. Doors
- Infrared sensors will be visible on turrets.

Basic overview of the most important Mechanics:

Action	Player	Robot	Turret
Jump	Jumps at a height of 0.2	Cannot jump	Cannot jump
Run	Runs at a speed of 0.2	Cannot run	Cannot run
Walk	Walks at a speed of 0.1	Walks at a speed of 0.1	Cannot Walk

Shoot	Shoots one bullet per second. This is due to the time constraint from the bullet leaving the chamber.	Shoots one projectile per second. This is due to the time constraint from the bullet leaving the chamber.	Shoots one bullet per 0.3 seconds. This is due to the time constraint from the bullet leaving the chamber.
Reload	Reloads after using 30 bullets. Takes three seconds to reload.	Doesn't reload. Has unlimited Projectiles.	Doesn't reload. Has unlimited Bullets.

Animations:

Animations will be played when certain actions are made in the game. For example, if the robot is shooting at the player, the player will be able to see the robot transitioning into a shooting action before they get shot. Another example is a dying animation, once the player successfully kills a robot or a turret they will be able to see a dying animation play which lets the player know that they have killed it. Death animations will last for 5 seconds to allow the player to watch the animations play out and allow the game time to process it. If the player dies then the game will play a dying animation but the player will not see it as the game will fade to black and present them with a 'Game Over' message and then transition to a UI. Animations are a very important part of the game and are implemented in many parts of the game for different aspects. Below is a table outlining what animations can be played by the three entities that exist in the game.

Animation	Player	Robot	Turret
Walk	✓	✓	×
Run	✓	×	×
Die	✓	✓	✓
Idle	✓	✓	✓
Shoot	✓	✓	✓
Reload	✓	×	×
Jump	✓	×	×

Goals, Victory and Defeat Conditions:

The aim of the game will be for the player to eliminate all robots clearing all areas. The game will consist of one stronghold and 8 outposts. (This will be expanded in future updates). For the player to win the game they will need to clear all eight outposts and the stronghold without dying. If the player successfully does that they will win the game and a "Congratulations, You have won" User Interface will appear and the player will be able to exit or restart the game.

Levels, Obstacles and Difficulties:

List of areas in the world:

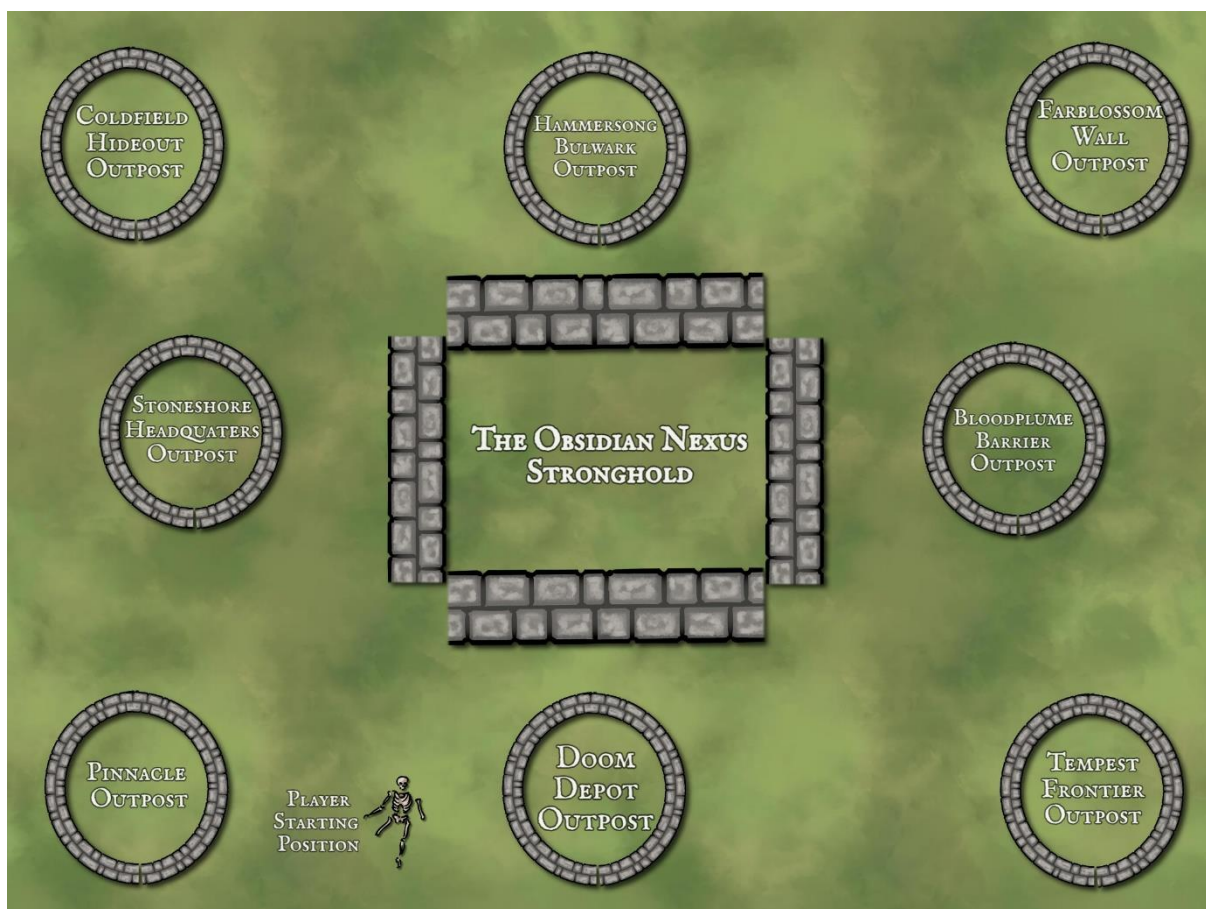
The world will consist of eight outposts in total. These consist of the following:

1. Coldfield Hideout
2. Hammersong Bulwark
3. Farblossom Wall

4. Stoneshore Headquarters
5. Bloodplume Barrier
6. Pinnacle Outpost
7. Doom Depot
8. Tempest Frontier

The world will also contain a stronghold called **The Obsidian Nexus**. This will be the final boss area for the game and it will be very challenging for the player.

The player will be able to navigate the world by walking around clearing bases. The outposts will be spread around the world meaning that the player needs to walk in different directions to find and clear them. The stronghold will be positioned at the centre of the world. It is recommended for the player to attack the stronghold last as it will be the most difficult area to clear. The player should get experience defeating outposts first to get practice before attempting to take on the stronghold.



The map was created using the following website: <https://inkarnate.com>

World and Time of Day:

The game is set at night-time so the sky will be dark. The player will be able to see the world due to how lit up the outposts are. As the player walks throughout the world the outside of outposts and the stronghold the player will occasionally come across robots roaming the area. It is up to the player whether they want to attack or try to avoid contact. The time of day will be midnight, this is why the player will not come across any humans in the world as during the night they hide out and sleep.



Outposts and the stronghold will be lit up using medieval fire torches. These will be positioned on walls and the ground depending on the area. They will provide just enough light to make the area visible but not enough to make it easy to see. This will add to the effect of the game making it feel more intense.

The Old Torch asset by Michele Marcelli is used for the light in the game.

Objects found in the world:

Outposts:

- Chairs
- Tables
- Doors
- Health Points
- Ceiling
- Walls
- Floor
- Fire Torches

Stronghold:

- Chairs
- Tables
- Doors
- Health Points
- Ceiling
- Walls
- Floor
- Fire Torches
- AI-controlled Turrets

Entities found in the world:

Playable characters include Maxwell, Sci-Fi Robots and AI-Controlled Turrets.

Introductory Material (Short Cut Scene):

The game begins with a short cut scene which introduces the fictional apocalyptic world to the players. The player remembers what Earth used to look like prior to the invasion of the robots, showing brief flashbacks of Maxwell embracing his family. Following this, the cut scene changes to the perspective of a robot, depicting a robot uprising. The players' attention is drawn to Axon, the evil mastermind behind the invasions, who is sitting in his office observing a sketch of robots taking over the planet. Axon laughs diabolically before the cut scene transitions once more to depict how far Earth has deteriorated under the robot invasions. In this cut scene, the player is shown each of the enemy outpost through consecutive images. After each outpost is shown, the player's attention will then be diverted to an image of the Stronghold which contains masses of enemy robots and AI-Controlled Turrets. Finally, the cut scene ends with Maxwell gearing up whilst he is receiving his objectives. These objectives are communicated to Maxwell through a voiceover recording of a mysterious rebel leader, who informs the players that the existence of humankind depends on the

success of his mission. The game then transitions to a playable mode in which the player can see the time of day on their HUD as well as a list of objectives they need to complete.

Game Objectives:

1. Clear Outpost: Coldfield Hideout
2. Clear Outpost: Hammersong Bulwark
3. Clear Outpost: Farblossom Wall
4. Clear Outpost: Stoneshore Headquarters
5. Clear Outpost: Bloodplume Barrier
6. Clear Outpost: Pinnacle
7. Clear Outpost: Doom Depot
8. Clear Outpost: Tempest Frontier
9. Clear Stronghold: The Obsidian Nexus

Map information and Critical Paths for the Game:

The game is open world. As a result of this, the player can walk freely around the world without any specific constrictions. The game does not have any critical paths but rather it has boundaries to ensure that the player can navigate around the world properly without falling out of the world and being able to walk around obstacles and buildings without walking through them. The aim is to make the world simulate that of real life.

Encounters throughout the world:

The player will encounter robots patrolling areas as they walk through the world. Robots can be found outside walking around the world, but they will only be found on themselves making them vulnerable and easy to take out. Robots will also be found in Outposts and the Stronghold. Robots will be found in larger numbers making them more difficult to take on and due to the confined space in rooms, it will also be harder to get out of sight of the robots. A lot of the time to get through a room that the player needs to get through they will have to take out the robots. In the Stronghold the player will also encounter AI-controlled Turrets which will be monitoring areas at all times, these will be very difficult for the player to take out therefore adding an element of challenge and intensity to the game.

Game Assets affect on the Player:

The world and its outposts as well as the strongholds will be laid out using navigation meshes. As a result of this objects will be placed into the world in specific ways that affect the player. For example, if a table is placed in the middle of a room the player will be forced to walk around the table rather than being able to walk straight through. The impact of this could be very hurtful to the player if, for example, a robot is shooting at them. Doors will also affect the player because the player will have to interact with the doors to open and close them. If they are being shot at this is extra time for the robots to shoot the player as the player interacts with the door. Small interactions like these can have a big impact on how the game plays and functions. Rubble also has an effect on the player as it can act as a shield for the player if they choose to hide behind it to avoid being shot at. Similarly, walls can do the same thing with the only difference being that the player can't use them tactically when in battle but more as a means of escape and hiding.

Fire torches will provide the player means of light for visibility in the scene whilst stairs will provide the player with a way to get to the next floor in a multi-story building.

Robots will shoot projectiles at the player once the player is in their line of sight. As a result, the player will take damage and lose HP. Turrets which will be found in the stronghold can also attack the player by shooting at them which will also deal damage to the player.

Player Controls:

The player will be able to play the game across PC, Xbox, PlayStation and Nintendo Switch. The controls for each platform are the following:

Keyboard and Mouse:

Walking Forward = W

Walking Backwards = S

Walking Left = A

Walking Right = D

Sprint/Run = WASD + Shift

Jump = Spacebar

Crouch = WASD + Shift

Aiming = Right-click Mouse

Shooting = Left click Mouse

Reload = R

F = Interact

Escape to pause menu = Esc

Switch weapon = Mouse wheel up



Xbox Controller:

Switch weapon = Y

Reload = X

Interact = B

Moving Forward, Backwards, Left and Right = Left Toggle

Sprint/Run = LB

Jump = A

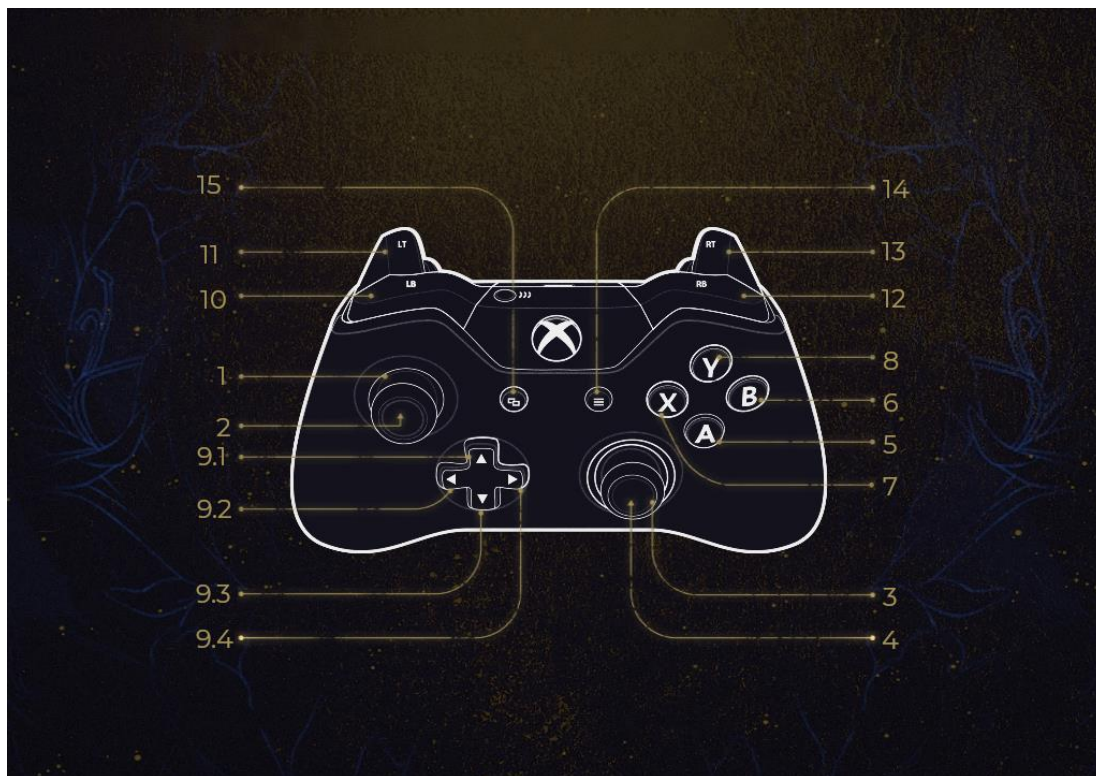
Crouch = Press down the Right Toggle

Looking up and down and around = Right Toggle

Aiming = LT

Shooting = RT

Escape to pause menu = Settings Menu button



PlayStation Controller:

Switch weapon = Square

Reload = X

Interact = O

Moving Forward, Backwards, Left and Right = Left Toggle

Sprint/Run = L1

Jump = Triangle

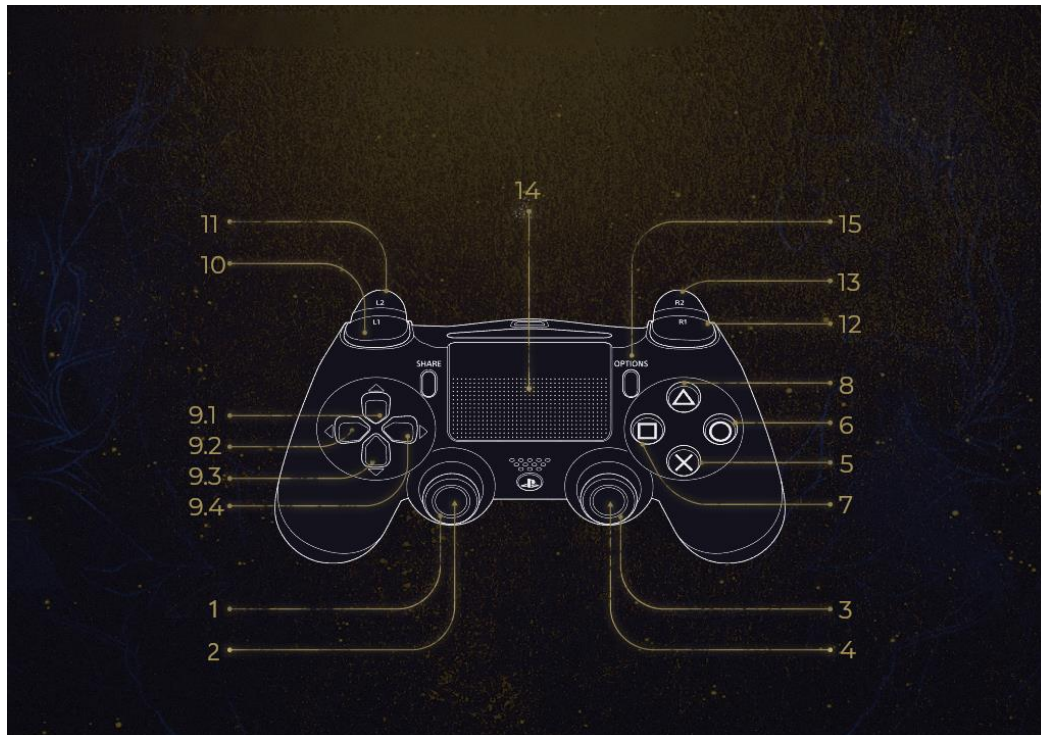
Crouch = Press down the Right Toggle

Looking up and down and around = Right Toggle

Aiming = L2

Shooting = R2

Escape to pause menu = Options button



Nintendo Switch Controller:

Jump = B

Switch weapon = X

Reload = Y

Interact = A

Moving Forward, Backwards, Left and Right = Left Toggle

Sprint/Run = LB

Jump = Up Arrow Directional Button

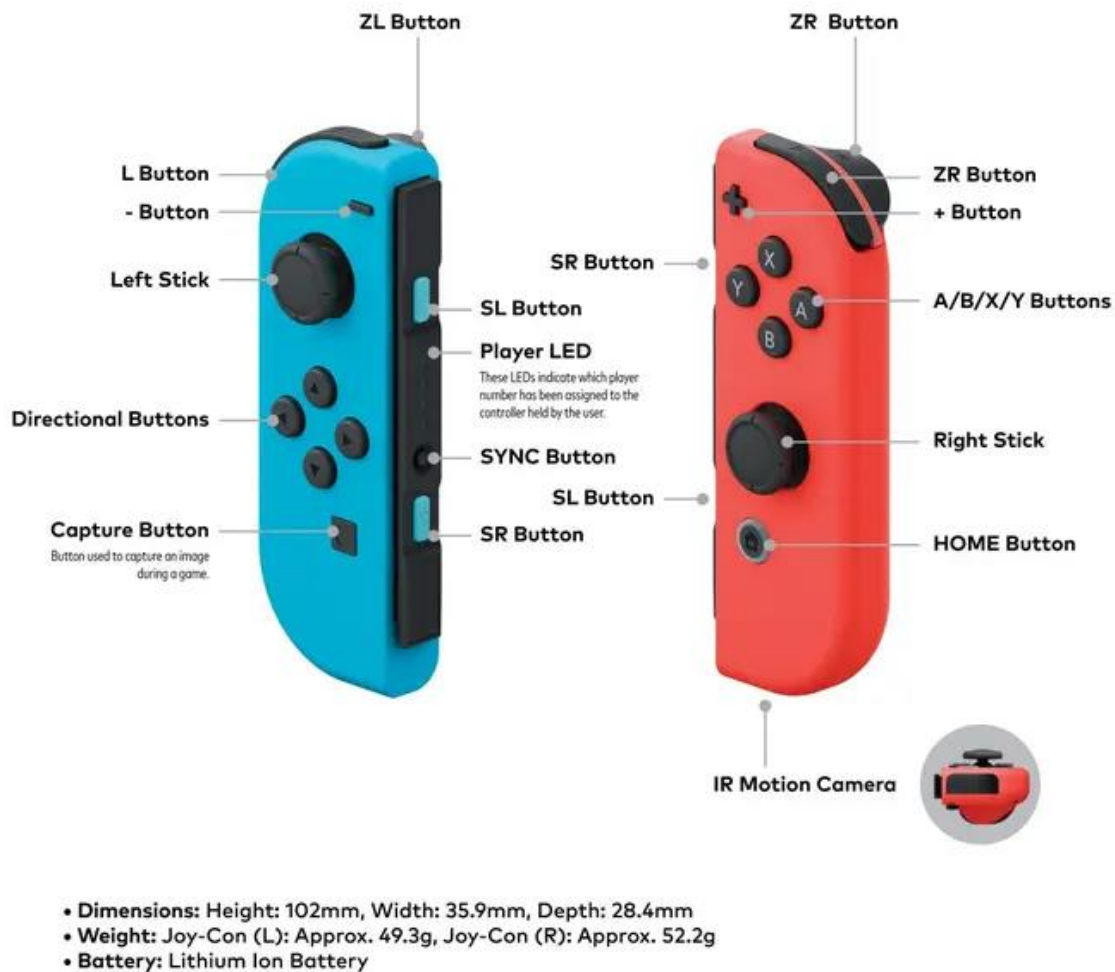
Crouch = Press down the Right Toggle

Looking up and down and around = Right Toggle

Aiming = L

Shooting = R

Escape to pause menu = +



Player Experience:

The game begins with the player starting in an open world. The player is surrounded by darkness which the player will have to navigate through. The player will try to avoid robots who are roaming the world to avoid getting into fights and losing health. As the player approaches Pinnacle Outpost, they interact with the door at the entrance to enter through. As they walk into the room they will instantly walk into the sight of view of a robot. The player gets into a fight with the robot and takes it out losing 1 heart in the process. The player then walks up the stairs to the next room in the building and clears out the rest of the patrolling robots. The player then walks into the final room on the top floor and picks up three hearts to recover health.

Physics:

The physics of the game are implemented in a way as to try and simulate that of the real world. As a result, the world in the game will closely match that of what you would expect in real life. For example, the jump physics in the game are set to a height of 0.2. This is influenced by the physics of gravity and acceleration. The projectile behaviour whereas bullets and projectiles for the player and robots leave the chamber at one bullet per second is governed by physics.

The style of the game when it comes to gravity will be boots on the ground. The player can jump but due to it being at 0.2 height, this makes for a very realistic representation of the real world. The player and enemies will both be grounded meaning that they cannot do any special movements in the world.

When a bullet or projectile shot by an enemy is shot at the player, the player will lose health as a result. When a bullet is shot at the enemy, damage will be dealt to the enemy therefore losing health. When bullets and projectiles collide with static objects in the scene such as walls, chairs, tables, rubble, lights and doors. Bullets will not deal any damage and the collision will be rendered useless as it does nothing.

The line of sight for guns and the turret is also a part of the game's physics due to the line of sight. When the player collides with the edge of the world or walls the player will be bounced back by 0.3 to stop them going through the object or falling out of the world.

Part 4 (Aesthetics):

User Experience:

Game Opening – Start Menu:

Once the player has loaded up the game application they will be met with a start menu user interface. The menu will have two buttons available which will be a 'Play Game' button and an 'Exit' button.



The game will also have a pause menu when playing that they will be able to load up in their game. The pause menu will contain four options which the player can click. These options will be the following:

1. Resume
2. Mission Objectives
3. Restart
4. Exit to main menu



If the player presses the exit game option from the pause menu they will met with a screen asking 'Are you sure that you want to exit the game?' with a warning that all progress will be lost.



Game Interface:

The HUD for the game is very simple. The player will see their gun in first person and be able to see a red dot when aiming to help them get the correct angle when attempting to shoot the enemy. This has been implemented to make it easier for the player to be able to play the game and understand shooting mechanics.

On the hood itself will be a list of missions that the player needs to complete positioned on the right of the screen. Missions will only appear one at a time as not to cause a distraction and annoyance for the player. Missions will be shown to the player based on location. The nearest mission that can be completed will be shown. Once missions are completed they no longer appear on the screen for the player to see.

On the bottom right of the screen will be a little picture of the gun they are holding with their ammo and capacity. The game has unlimited bullets for the player so the capacity will be infinite. This is useful so that the player can keep an eye on their bullets knowing when they should reload. This will be in a similar style to that of Call of Duty Modern Warfare (Activision, 2019).



Screenshot from a YouTube clip by Infinity Ward, titled 'Call of Duty®: Modern Warfare 4K Gunfight Gameplay'.

A kill count will be shown at the top left of the screen to let the player know how many enemies they have killed in the game. The purpose of this is mostly important for future updates in which the plan is to make an option at the end of the game to carry on playing an endless version of the game. The endless version would be similar to Call of Duty Black Ops Zombies (Activision, 2010) in which enemies keep spawning more and more the aim is to survive as long as possible. For this, a time count would also be added to the HUD to allow for the player to compete with others for records.

The player will also have a health bar on the top left which will show how many hearts they have. This is a useful feature as it allows players to always know how much health they have at any time.

Visual Style:

The game will be set at nighttime therefore making it a dark and creepy atmosphere. In contrast to other video games in the genre such as Terminator: Resistance (Reef Entertainment, 2019) which is set in the future, the game is set in the present day to allow for a more realistic experience in a world that resembles one that the player can relate to.

The art style for the game is realism. This style has been chosen to help the game feel and look modern as well as to fit in with the look that the game is aiming to achieve. The colour palette will be very basic for the game as it is set at nighttime. Bright colours will be used to help objects stand out in the game and to make them visible to the player. Darker colours will also be used to make it difficult for the player to see in the game.

Music and Sound:

The game will begin with a creepy atmosphere as the player will be standing in the open in the dark at night. Ambient sounds will be playing alongside sound effects that fit the theme of the game such as electronic robot noises to allow the player to understand exactly what to expect.

As robots are walking around their footsteps will be loud and noticeable by the player. Robots will also make spark noises as they walk around to allow the player to recognise the fact that they are getting close to a robot. This has been done to fit in with the genre of the game and make it sound and feel like a Sci-Fi game.

When a fight scene begins the sound in the game intensifies to make the fight feel more intense and important. This will allow the player to feel more excited when a fight begins and allow them to feel more immersed in the game. Bullets and projectiles will be loud making for an exciting shoot-out,

When a robot sees the player the player will know as the robot will make a loud siren noise to make the player aware of the fact that they have been found. This should also make the player feel scared as if they were trying to avoid being noticed this could shock them.

If a robot kills the player the robot will be heard celebrating through an evil robotic laugh. When a robot dies to the player a loud defunction sound is made to allow the player to be sure that they killed the robot. Turrets will also make a very similar sound when dying however it will sound slightly different to allow the player to differentiate the two.

When the player is being shot at the player will make hurting sounds to represent the fact that they are losing health. Turrets will make a locking sound like that of a missile when locking onto the player. This is done to amplify to the severity of the situation and make them sound threatening to the player.

When opening doors, a creaky opening sound can be heard to make the interaction more realistic. The same goes for simple functions in the game such as reloading, walking, running and jumping.

Part 5 (Additional Information):

Risks and Significant Challenges:

Risks & Significant Challenges	Description and Solution
Victory Condition bugs	The game needs fully tested to ensure that there are no bugs in the victory condition. To achieve this, I need to test the game from start to finish completing each mission in a different order each time. This way I can ensure that there are definitely no bugs in the game.
Doors not functional	I need to test that doors cannot be walked through without opening them. To do this I need to play the game in test mode and attempt to walk through a closed door. I will also need to test that doors can open and close and make sure that this functions properly as well as test for any bugs that might take place after opening and closing.
Turret and Robots AI-Controlled Player Detection	I will have to test that when a player gets in range of a turret and robot that if they can see the player in their view that they automatically

	lock onto the player and shoot at them. I will need to test this in multiple different environments to ensure that there any bugs.
Health System	I will need to test that the player starts with full health. I also need to play test the game to ensure that health is being correctly removed when taking damage from enemies. I also need to make sure that health is gained when picking up hearts. I also need to test Robots and Turrets Health as well to make sure that they have the correct health and that they lose health when taking damage.
Player Gun Shooting	I need to test that when the player shoots that the enemy takes the correct amount of damage per bullet and ensure that reloading takes place once 30 bullets have been shot.
AI Enemy Shooting	I need to test that when the enemy shoots that bullets shoot correctly at the same rate and that the player takes damage when being hit. I also need to test that bullets are only shot if the enemy has locked onto the player
Mission Completion	I need to test that when the player clears bases that the mission gets removed from the missions list. This includes on the players HUD, Missions UI and Victory Condition.
HUD Updating	I need to play test the game to make sure that the HUD automatically updates as the game is played. This includes bullets used, health bar and missions.
UI Testing	I need to make sure that the UI is tested and working. I need to click on each option on each User Interface. This includes the Game Starting UI, Pausing UI, Game Finished UI and Game Over UI. I need to ensure that each option is functional and doing what is expected.

What Makes the game fun?

Element/Feature	Description
Robots	Robots are a fun part of the game because they are something that resembles that of which could happen in real life one day. This of course is theoretical and robots becoming evil and taking over the world is unrealistic but the fact that humans know in their minds that this is a realistic possibility creates room for the player to feel immersed with the game and create a unique connection between the player mentality and the robots. This creates for excitement when playing against robots and create a fun experience.

	<p>The fact that robots will only shoot at the player once the player has been seen creates an element of stealth in the game. This allows the player to play in a way that they want to. Robots being able to shoot the player and making noises to alert the player that they have noticed them makes the game more exciting.</p>
Turrets	<p>Turrets are basically bosses for the game. They only appear in the stronghold for the game. Turrets have a lot more health than robots and shoot a lot quicker. This makes them a lot more powerful than the robots therefore making them feel boss like for the player when playing the game. The difficulty when facing turrets will be a lot higher. This should make them a fun element of the game and should add to the players overall experience.</p>
Victory Condition	<p>The Victory Condition for the game is to complete all missions. This should give the player something to achieve therefore adding to the players excitement. The player will be able to play the game knowing what they are aiming to achieve.</p>
Guns	<p>Guns make for fun when playing the game because you can shoot and destroy robots and turrets. Using a gun is crucial to gameplay because without shooting the enemies the player cannot progress. Shooting enemies should add an element of excitement for the player.</p>
Sound	<p>Background sound is an exciting part of the game because it sets the atmosphere for the games environment. The use of eery background noise makes it fit in with the genre of the game and sets the tone for how the game will play. Being able to hear robot noises and footsteps as the player walks around the game creates for a fun experience and lets the player feel a little bit of intensity when playing.</p> <p>Robots and Turrets make robotic noises to represent the Sci-Fi genre and set the environment of which the player is playing. The player should feel immersed in the game and the robotic sounds that can be heard can add to it.</p> <p>Shooting, taking damage and destruction will also create sounds in the game. This should add</p>

	to the experience and let the game play as it would in the players imagination.
Doors	Doors have the potential to be quite exciting in the game as they could cause issues if the player attempts to make a quick escape when being shot at by the enemies.
Health System	The Health System is an exciting part of the game as it is very crucial to the game works. When the player loses health they will be able to see the health bar on the screen and by being able to visually see the bar on the screen they will feel a bit of intensity when losing health. When the health bar drops very low this should make the player feel a little bit anxiety knowing that they need to be very careful with getting into more fights and that they need to get more health.
Setting	The game being set at nighttime makes it feel very intense and scary for the player. It also means that robots, buildings and other elements of the game appear brighter to the player when playing the game. This sets the environment for the game and should make the player feel more involved.

Bibliography:

assetstore.unity.com. (n.d.). Old Torch | 3D Interior | Unity Asset Store. [online] Available at: <https://assetstore.unity.com/packages/3d/props/interior/old-torch-203664> [Accessed 20 Feb. 2024]

Call of Duty: Black Ops Zombies. (2010). [Video game]. Publisher: Activision

Call of Duty: Modern Warfare. (2019). [Video game]. Publisher: Activision

Cameron, James (Director). The Terminator. 1984. [Film]

Dungeon Mason. "Robot Hero: PBR HP Polyart." Unity Asset Store

Guim.co.uk. (2024). Available at: https://i.guim.co.uk/img/media/324eb4b8dd0377f1d2794114944957064c184561/0_0_1200_1200/master/1200.jpg?width=700&quality=85&auto=format&fit=max&s=e4ce319c64737d284da30706bfa774cf [Accessed 21 Feb. 2024]

Infima Games. "Low Poly Shooter Pack - Free Sample." Unity Asset Store, <https://assetstore.unity.com/packages/templates/systems/low-poly-shooter-pack-free-sample-144839>

inkarnate.com. (n.d.). Inkarnate - Create Fantasy Maps Online. [online] Available at: <https://inkarnate.com>

Karousel.com. (2024). Available at: https://media.karousel.com/media/photos/products/2023/1/19/programming_macro_media_contro_1674121988_13e31828_progressive [Accessed 21 Feb. 2024]

Statista. (n.d.). Global shooter video gamers by age 2018. [online] Available at: <https://www.statista.com/statistics/1129298/age-distribution-shooter-video-gamers/>

Terminator: Resistance. (2019). [Video game]. Publisher: Reef Entertainment.

Title: British Army Soldier in Full Kit in Afghanistan Description: A British Army soldier fully equipped in Afghanistan. Source: Wikimedia Commons URL: View Image

Title: Simple Heart Health System, Publisher: OArielG, Asset Store Link: Simple Heart Health System1

Warframe.com. (2024). Available at: https://support.warframe.com/hc/article_attachments/360083490851/ps4_controls_general.png [Accessed 21 Feb. 2024]

Warframe.com. (2024). Available at: https://support.warframe.com/hc/article_attachments/360083516691/xb1_controller.png [Accessed 21 Feb. 2024]

Mechanical Revelation Start Menu Image created using:

Freepik.com. (2024). Available at: https://img.freepik.com/free-photo/humanoid-robot-working-with-machine-factory-ai-generative_123827-23865.jpg?w=1380&t=st=1708533721~exp=1708534321~hmac=d49d74dca1fb52c2d7fb898c7f0acd4df7c119b9f2bb704796d9a64e47160d24 [Accessed 21 Feb. 2024]

Freepik.com. (2024). Available at: https://img.freepik.com/free-vector/flat-design-silver-frame_23-2149236395.jpg?size=626&ext=jpg&ga=GA1.1.1493831503.1707144461&semt=ais [Accessed 21 Feb. 2024]

Mechanical Revelation Pause Menu Image created using:

Freepik.com. (2024). Available at: https://img.freepik.com/free-photo/cosmic-background-with-colorful-laser-lights_181624-

[19888.jpg?w=1480&t=st=1708535524~exp=1708536124~hmac=9dc85d36e1997c531c1608a7e49fea47b252aa15e282a97b9f29a0d5962ee1f4](https://img.freepik.com/free-vector/dark-set-game-stone-button-elements-progress-bar-bright-different-forms-buttons-games-app_1150-39977.jpg?w=826&t=st=1708535524~exp=1708536124~hmac=9dc85d36e1997c531c1608a7e49fea47b252aa15e282a97b9f29a0d5962ee1f4) [Accessed 21 Feb. 2024]

Freepik.com. (2024). Available at: https://img.freepik.com/free-vector/dark-set-game-stone-button-elements-progress-bar-bright-different-forms-buttons-games-app_1150-39977.jpg?w=826&t=st=1708535423~exp=1708536023~hmac=2f5854dee475af4c291373765117cc265c235d0a566a37a4d411185301e7c46f [Accessed 21 Feb. 2024]

Both created using:

Figma (2019). *Figma: the collaborative interface design tool*. [online] Figma. Available at: <https://www.figma.com>

www.paintshoppro.com. (n.d.). *PaintShop Pro 2022 | Download Your Free Trial*. [online] Available at: <https://www.paintshoppro.com/en/>

Separate:

Teyon (2019). *Terminator: Resistance* [Video game]. Available at: Steam (Accessed 26 Feb. 2024)

www.youtube.com. (n.d.). *Call of Duty®: Modern Warfare 4K Gunfight Gameplay*. [online] Available at: https://youtu.be/dH5_QRLLOVo [Accessed 26 Feb. 2024]