

# Round Table Team

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## High Concept:

### Theme / Environment / Setting

The game will have multiple themes depending on what level is selected.

The first level will be an open field with very little prebuild. This will have a post-apocalyptic setting with zombies being the main enemy. This will be based at nighttime to create a fear factor to the game and allow a constant setting. Lots of lights will be around to light the area that the player will be.

The game will be a polygonal 3D isometric game with bright colors to signify different abilities and items.

### Gameplay Summary

Player will be spawned into the chosen level with the pistol, the goal of the game is to survive by defeating the enemies with the weapons, resources and power ups dropped and provided as the player progresses, enemies will progressively get stronger as they play as well as gaining power ups every

Wave System. When the player has killed all the zombies there is a grace period between the rounds. Around 10 to 20 seconds this time if for the player to collect resources and deploy their turrets and barricades, allowing them to prepare for the next waves of enemies.

After 5 Rounds the player will be able to deploy a Loot Drop. This drop will have power ups and resources for the player. The grace period will be longer for this time to allow more set up time.

Each wave is going to get harder with more types of zombies and more zombies each one. The further the player reaches into the game the more weapons and areas they will unlock.

## Level Design documentation:

### Goals of level & key areas

Goal of the game if for the player to survive waves against a horde of enemies, they will achieve this via using weapons, towers/turrets, and power up that will help assist the player in combat. The weapons the player will use focus on guns and turrets which will be placed, dealing damage to the enemy.

### Story (How, Why, What, Who, When)

TBD

### Gameplay Influences

Game takes inspiration from various wave defense games where the goal is to survive, gameplay influence examples, Boxhead (flash game), Call of Duty Black ops (see Dead ops arcade), Stardew Valley (Journey of the Prairie King).

Visual influences focus on many games which have this 2.5D style, having polygonal graphics mixed with traditional 2D game play aspects, also has a focus on block style characters. Examples include Boxhead, Roblox, Minecraft.

## Lighting

The first level is set at night and will need lighting around the play area. As well as this the player firing the gun will create lighting. The players turret may also have lights attached to them to show that they are friendly and are firing. Different levels will have different lighting depending on the scene and the atmosphere.

## Asset List

### Model assets

- Guns (pistol, rifle, sub-machine gun, minigun, rocket launcher, assault rifle, railgun)
- Turret (rocket, shotgun, machine)
- Barricades (different variations)
- Player Model
- Zombies Model (different zombie types)
- Buildings / Ruins
- General Props (trees, steel barrels, stone rubble, wheat)

### Sound Assets

- Enemy
- Guns-different guns firing
- Turret
- Building
- Music
- Ambient noises

## Player Characters, Controls and Abilities

### Player Controls and Map

Player controls very basic, will move well with the WASD in terms of movements and will be looking in the direction of the mouse. Left click to fire, numbers hot bar to correlate between the weapon). Mouse left click will function as interact button with the UA (main menu and pause menu), will be able to interact with the main menu and pause menu. Esc key allocated to the pause menu button. A build control needs to be decided as well as potentially any other added mechanics.

WASD-Movement

Left click-shoot, In UI menu interact

Mouse- players will look at the direction of the mouse.

Esc-Pause

### Building Mechanic

The game will include a building mechanic that will allow the player to place turrets using a resource they pick up from the zombies as drops. The turrets will do damage to the zombies over time, but the

zombies will destroy the turrets over time, different turrets deal different amounts of damage and affects adding more to the strategy the player must. The player can also place barricades. This will cart the zombies round an area. This allows to player to edit the map to their advantage, allowing the player to gain positional advantage.

## Mood Boards

Gameplay mood board- [http://www.gomoodboard.com/boards/mAWlyYQ\\_/share](http://www.gomoodboard.com/boards/mAWlyYQ_/share)

Stylistic mood board

## Character/s Mechanics

Player Movement – Using WASD to move round the board.

Player Aiming – Uses Mouse to look at the direction and left click to fire

## Character/s statistics

The player will have base stats such as MaxHealth and MaxAmmo. Each of these will be able to be upgraded with the supply system in the game allowing for powerups. Each different type of weapon will have a different amount of ammo. Player will have a set amount of movement speed; this will not change and will be set slightly faster than the enemy

## Character/s Weapon Loadout

### Pick up weapons

these are weapons that will be unlocked and used, they will all offer different options in terms of combat with the enemies, in closer combat something like the shotgun will be more effective, in large waves the submachine gun will be more effective with limited ammo, the pistol will be weaker but will be useful in managing ammo etc.

### Gun variants

- Pistol- default weapon, single fire, infinite ammo
- Machine pistol-automatic fire, weaker than pistol but high fire.
- Submachine gun- automatic fire, moderately powerful but runs out of ammo much faster than other weapons
- Assault rifle-burst fire, moderately power, and consistent weapon
- Assault rifle – full fire, moderately power, and consistent weapon
- sniper rifle- semi-automatic long-range gun, slow fire rate but powerful shots which hit multiple enemies
- shotgun-short range gun with a large burst, closer shots=more damage

### Power weapons

stronger more limited weapons, guns that are gained in a distinct way which will be extremely powerful but extremely limited in terms of usage this provides a reward situational usage towards what the player user.

### Gun variants

- minigun- fast and strong automatic gun which will run out of ammo rapidly

### Turrets

Another part of the player's arsenal that has been considered is turrets that can be placed, they will require resources to be built and the cost to build them will gradually increase as more are present in the game. Turrets provide consistent damage over a set area where it has been placed but can be destroyed by the enemy as the player progresses through the wave.

### Turret variants

Rocket Turret- slow fire but high damage turret, does area of effect

Shotgun turret-short range, turret which does larger amount of damage based on proximity (closer to turret=more damage)

Machine gun turret- consistent automatic fire turret

Flamethrower turret- area of effect fire, which applies fire damage (DOTS) towards enemies

### Projectiles/ throwables

(additional) The player will be able to throw projectile weapons at the enemy as well, these projectiles are limited and will require drops like ammo or resources, they will deal area of affect damage toward the enemy and have different affects depending on what projectile.

### Projectile variants

Grenades-projectile which can be thrown, will deal large area of affect damage toward the enemy

## Game Conditions

### Win condition

The game will not have a win condition, the goal of the game is to try and get to a high as possible level and survive the longest. The player also can gain success by completing optional side missions to gain items in their survival. These small side quests could be simple like collecting key cards.

### Lose condition

The player will lose when they are killed by the zombies. This will end the game and give the player a screen telling them they have lost, displaying the round survived on top of the scored they achieved during the round.

### Rewards and Progress

Currently every 5 waves will reward the player with a power up that will upgrade the player though that run, these will help the player in terms of choice in what they can choose to upgrade and will either improve the player's health, damage output or ammo. The current idea for how they will start off with adding values but will change to be percentage based, this is to compensate for later round in terms of scaling.

### Score such as multipliers, kills, kill count.

The player will have a tab to show their current kill count as well as resources dropped from the zombies. This will be shown to the player at the end when they die as a high score system, potentially the idea of scoring scaling with the rounds, and idea of score multipliers implemented as a power up.

Upgrades such as character / weapon enhancements / unlocks.

The player is going to have upgrades that are dropped every 5 Waves

- Health Up – More Health to the player
- Power Up – More Damage
- Ammo Up – More ammo

Turrets can be built based on the resources gained from enemy drops, the cost of turrets will be based on the amount of current turrets and what type of turrets that can be.

### Enemy Density

Beginning of game will start with a few, but waves will progressively increase each with each wave having a larger number of enemies, with means different weapons will be more effective against certain situations, some weapons will be more effective in large group, some more effective against single target that are stronger.

### Level Pacing with use of environment

The main goal of the zombies will be to chase the player but as they gain resources, they can begin to use obstacles and turrets to help deal with them, this will help giving advantages in how the player utilize the placement of these obstacles.

## Enemy Design

### Enemy Behavior characteristics

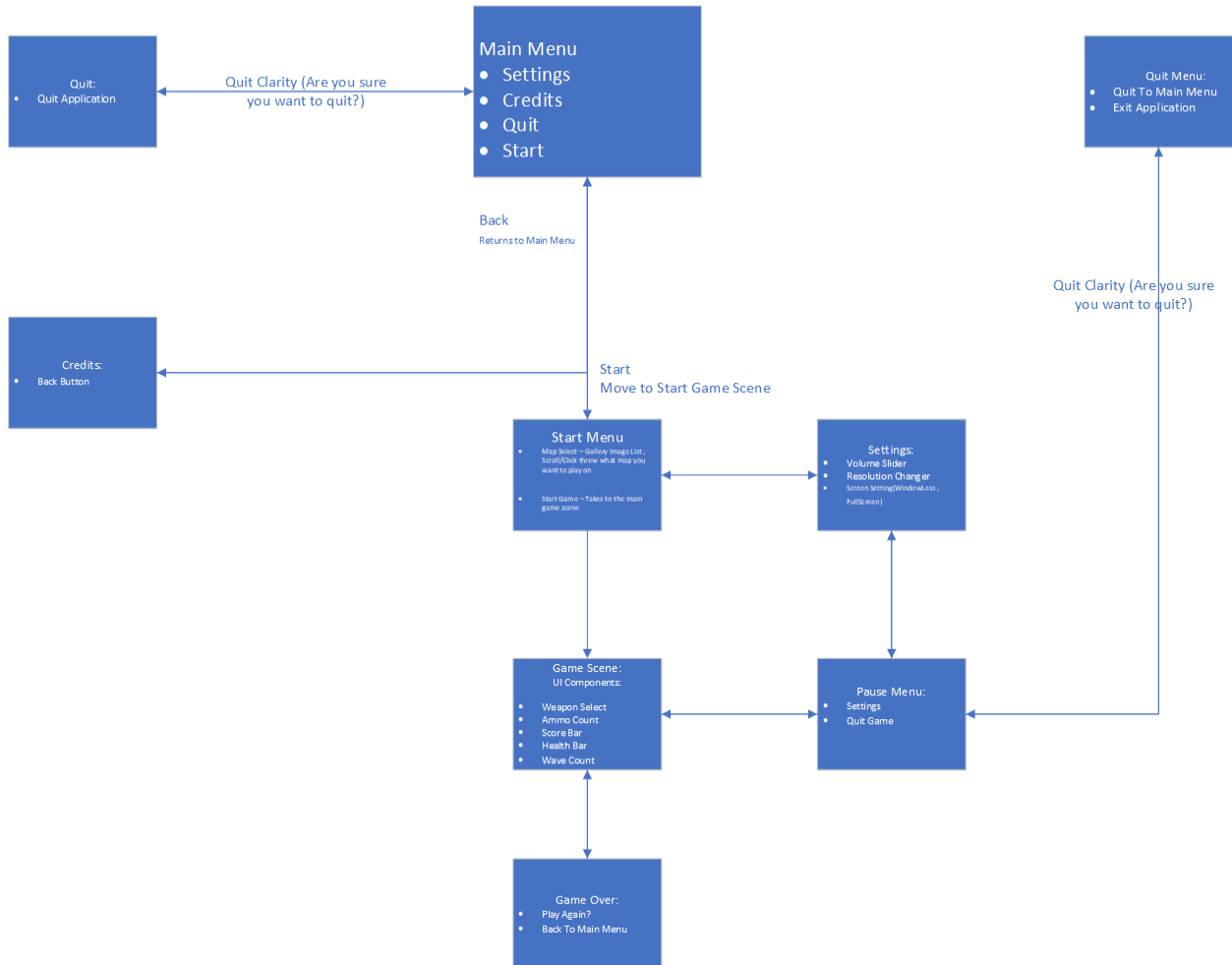
Main enemy focus in chase the player, upon contact with the player they will deal damage to the player's health, the AI goal is to kill the player by reducing their health to 0. Enemies will also look to interact with structure, breaking them to reach and get closer to the player.

### Enemy Abilities

Main abilities will be chasing the player and attacking structures or the player. Although not different abilities the enemies may have different attributes, for example some will be better at dealing more damage to structures rather than the player or some tougher to kill (larger health pools, more damage but lower movement speed).

Enemy drops

## UI Design



## Difficulty

The game difficulty will increase depending on the game wave that the player is on. Things like several zombies and types of zombies. This will increasingly get harder for the player due to them having to spend more resources to finish the round. The game will always get harder, and the player will always have a challenge to get further getting more weapons in terms of assisting the player.

## Platform

Currently the platform for the game we have decided to go with is PC, this is due ease of access, controls being more suitable for a keyboard than a controller or phone.

## Software

- Photoshop – Photo Editing
- Blender
- 3D Coat



- Maya
- 3DS Max
- Unity 2021.1.17f – Game Engine
- GitHub – File Sharing