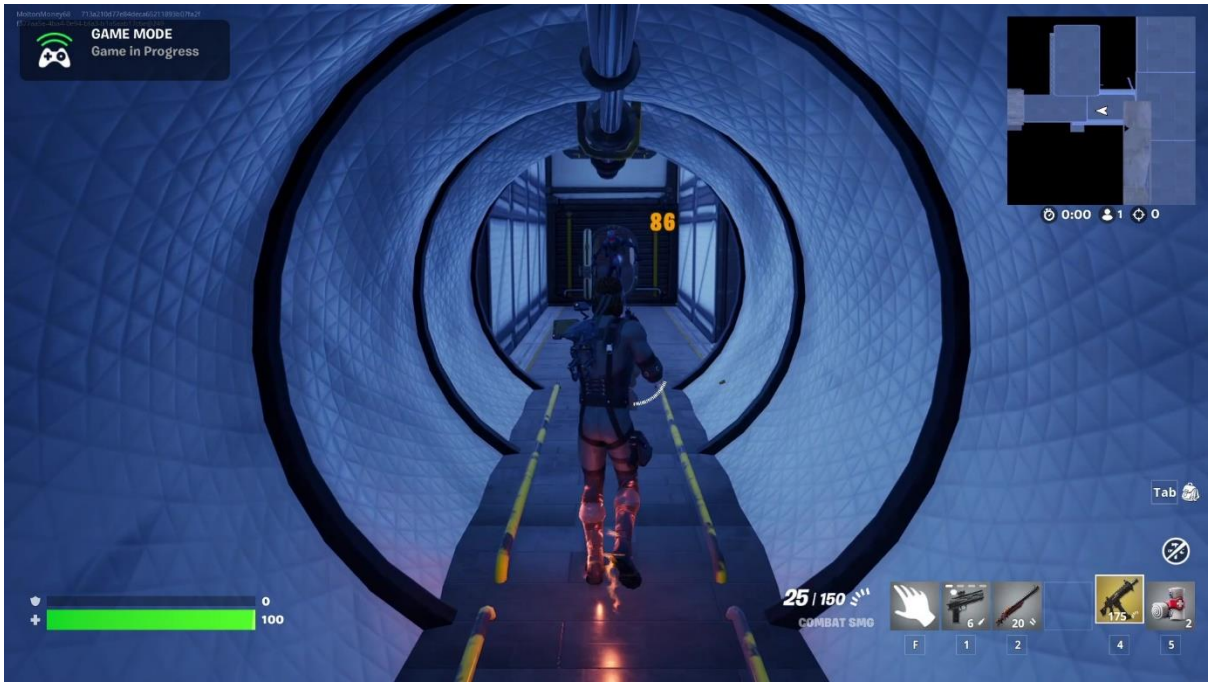
The Fallen- Custom UEFN Level Ideation Report



Contents:

Ideation Overview:

After careful consideration, I have decided my UEFN level will be a fixed camera, survival-action experience. Inspired by the gameplay-style of classic Resident Evil, my level will be designed around slow, but tense enemy encounters. Climaxing with an escape sequence, that leads to backtracking through previous areas. To ensure scope is small, the duration of the level from start-to-finish should last around 5 minutes. With these constraints and level design objectives outlined, now I can finalise my research into solid ideas.

What's the goal of your experience?

The goal is to give players a tense survival-action experience. This should be achieved by having enemies be placed in tight spaces, with lots of health and are slow. Furthermore, giving players limited ammo, feeds directly into the survival aspect of the experience because players have to be more considerate with the resources they use when navigating the level. Finally with an escape sequence, this intensifies the action because players need to rush back though the level to escape before the timer ends.

What is your mechanic focus?

- Resource management
- Fixed camera framing
- Timer with scripted events

What is your structure and flow like?

The level follows a mixture of non-linear and linear design. While there will be multiple paths, they all lead to the same target location. Upon players activating the bomb, the level follows a linear structure because certain paths will be blocked off, for dramatic effect. Thus, creating a golden linear path for player to follow. In terms of level design flow, there will be an abundance of tight spaces and corridors. These types of spaces follow architectural design principles like leading lines to subtly guide the player forward.

Core pillars:

Core pillars:
1. Tense survival action
2. Efficient use of spacing
3. Fixed camera angles

MoSCoW analysis:

Must have's
-Characters working to design specs
-Fixed camera framing (add after blockout is done)
-Intentionality
-Gameplay loop
-Roughly 5 minutes

Should have's
-Apply relevant design theory
-Nice uses of affordances and signifiers to guide the player.
-Minimal meshing
-Nice lighting

Could have's:
-Cinematics
-Polish (i.e post process volume filters and sound design)

Won't have's
Puzzles
Focus on story

Level Design theory applications:

Rules of 3 pacing for introducing mechanics:

- **Introduce enemy, then again (reward with pistol ammo). Before doing 2 enemies. (Player is rewarded with Shotgun)**
- **When player acquires Shotgun, introduce one enemy. Then on return scale it up to 2, before 3!**

To achieve the **flow state**, controls and gameplay should be easy to understand. Including using spaces like corridors, to encourage players to keep moving forward.

Varied traversal methods:
Using fixed framing gives traversal more satisfaction. E.g. climb a ladder from the top down or upper angle. but only do one type of traversal once. That way exploration feels fresh. Examples **of traversing environment: stairs, ladder, climbing through window, going though door**

Clear objectives (UI text):

1. Plant bomb/Obtain treasure
2. Escape!

Player agency:
Play with verticality, to ensure there are multiple paths that lead to the final destination.

Contrasting setting and lighting is a good strategy to retain player immersion. E.g. Mansion is dark and grimy, whereas lab is bright and bespoke.

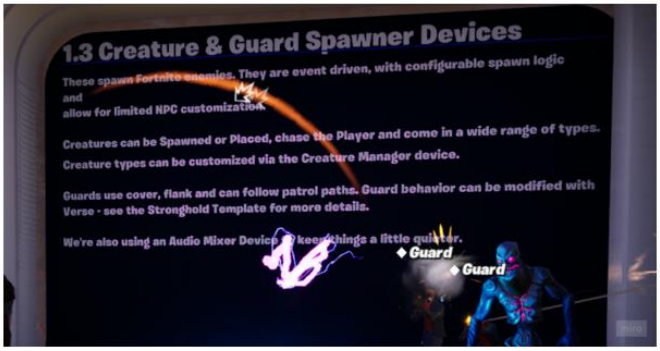
Gameplay testing viability:

To see if the gameplay could be realistically achieved within UEFN, I investigated some solutions for AI, fixed camera framing and animations that would fit my level design objectives.

1. Migrated some animations from the UEFN animation template for future proof, if I am doing cinematics.

2. Read up some documentation for NPC types and played the NPC template

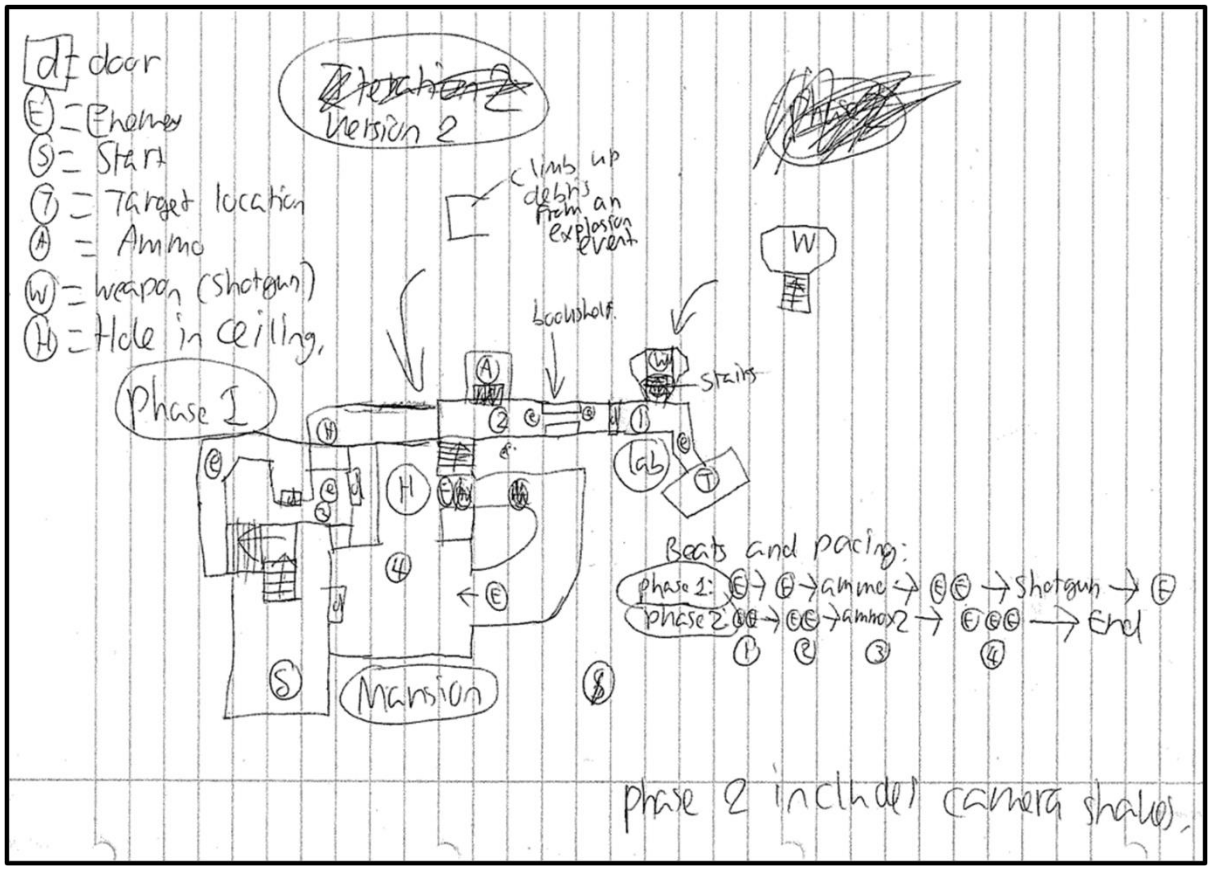
https://dev.epicgames.com/documentation/en-us/uefn/npc-types-in-unreal-editor-for-fortnite



From this research I have decided my enemies should be the creature NPC types. Thus use the Creature Spawner device.

3. In the same NPC template, I came across A 'Fixed Angle Camera with Tracking.' This is an amazing tool because I can keep a fixed angle, but (for extra polish) by slowing down the tracking speed, enables the camera to subtly track the players movement through a space:

Design layout review 1:



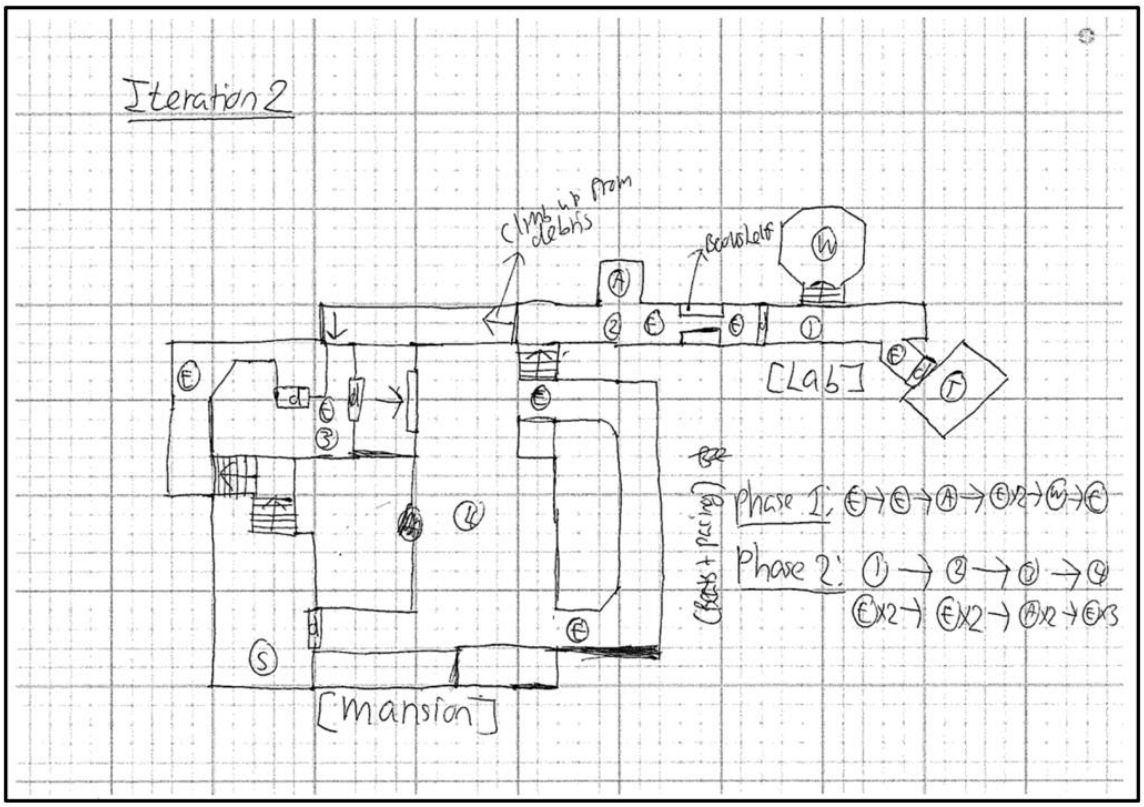
Design layout review:

After some consideration, I have decided to choose my version 2 layout. As it is meets more of my level design goals I have for my UEFN level. For example, it features:

- Two contrasting settings (Mansion and Lab)
- Offers non-linear paths to a fixed target location
- Uses vertically, with consideration of flow.
- Enemy and item placing follows rules of 3.

Design layout review 2:

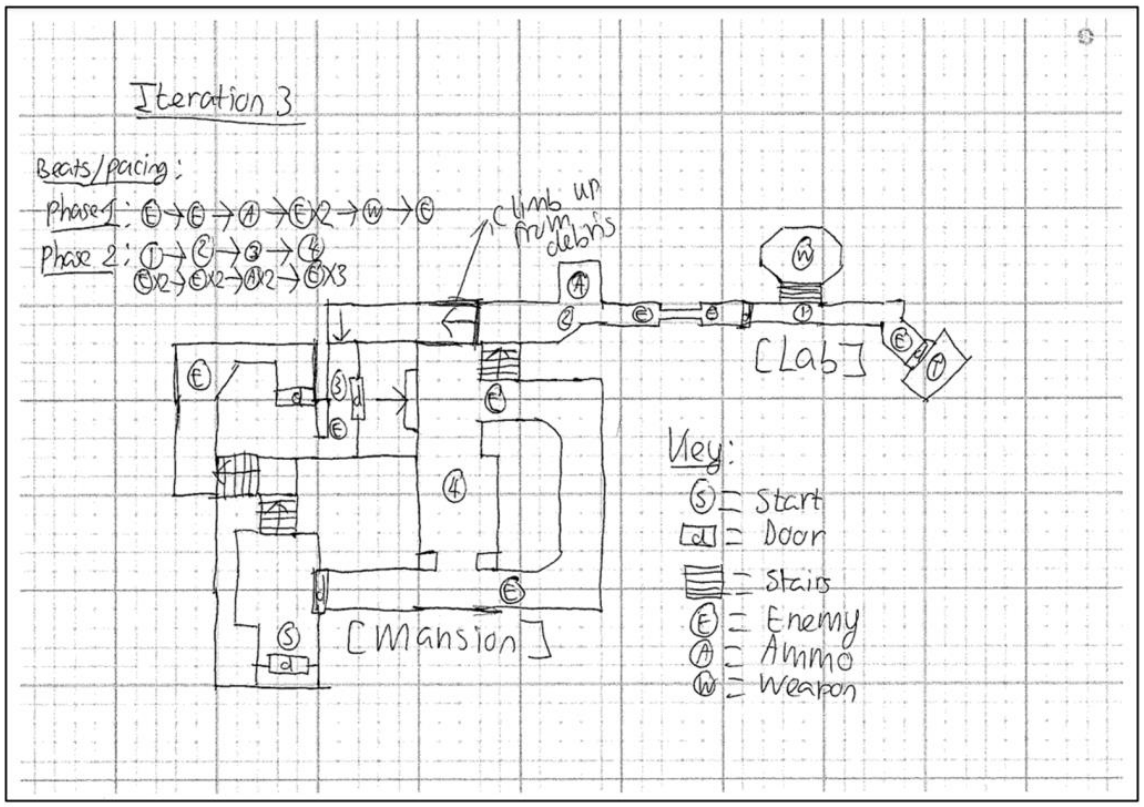
2nd iteration:



By using square paper, I have been able to get a better sense of scale of the level. However, I think the middle area (4) and Lab corridors are too large. Plus I need to add a key to identify the most important elements of the level.

Design layout review 3:

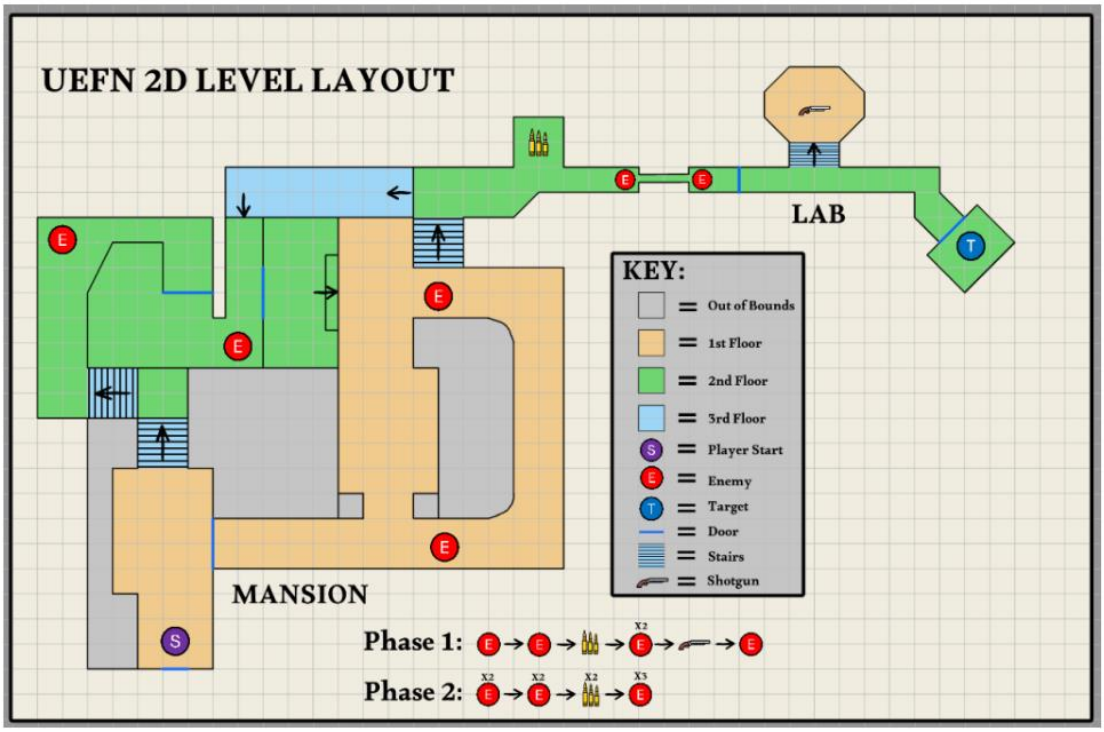
3rd Iteration:



Scale has been reduced in the middle area and lab corridor. Thus, theoretically achieving my level design goal of having tight spacing. The layout also contains a key, to break down some of the most important elements that persist within the level. Plus, a better breakdown of the beats/pacing of the level through the lens of enemy and item placement.

Now I just need to digitise this layout and then I can move onto completing a blockout in UEFN editor.

UEFN Digital 2D Level Design Diagram:



Using Dungeon Scrawl, I made a digital version of my level layout. Hopefully with the different colours, showcases verticality a bit better and having icons does help with understanding each element of the level.

For next time:

-Mechanic design considerations

-Blockout

UEFN Mechanic led design & MDA:

This week I applied Mechanic design principles onto my UEFN level and created an MDA diagram to visualise the interactions between the mechanics in the level.

Mechanics in my UEFN level:

- **High impact shooting**
- **Moderate locomotion**
- **Key collectible**

High impact shooting and moderate locomotion are **primary mechanics** the player will use throughout the level. To some extent these mechanics resonate and interact with each other. If an enemy is moving towards the player, the player will likely shoot the

enemy. Alternatively, if the player can move and shoot an enemy if they feel the enemy poses immediate danger to them. However, the interactions are fairly limited because it is unlikely for the player to shoot without the presence of an enemy. A **secondary mechanic** is obtaining a key collectible. Whie this mechanic doesn't necessarily resonate and interact with the other primary mechanics. It serves as the main objective for players. Once they obtain this item, it sets off the final sequence of events.

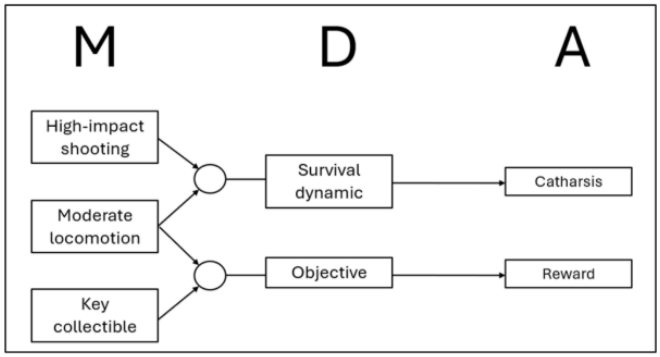
These mechanics are not multiplicative in nature because there are conditions that likely need to be met (e.g. an enemy appears) before they interact with each other. Plus to some extent the player may be disadvantaged for utilising both primary mechanics because aiming may be reduced whilst moving.

Adhering to gameplay conventions:

Adhering to locomotion: The player has slow movement, to heighten suspense and threat of enemies. The level's spacing would adhere to this slower walking speed by using tight spacing, to ensure players are still enticed. For example, in the level there is a section with bookshelves in a corridor that has tight spacing. This immediately adds suspense to the gameplay experience because players feel trapped.

Adhering to shooting- Gameplay has adhered to shooting by making enemies have high HP values and low ammo counts. This results in shooting being more tense and impactful gameplay experience.

MDA diagram:



Mechanic: High-impact shooting and moderate locomotion are the primary gameplay mechanics. With key collectible being the secondary gameplay mechanic.

Dynamic: A **survival dynamic** is shared between high-impact shooting and moderate locomotion. With slower movement speed, means shooting becomes more vital to use because fleeing is an unlikely option. Furthermore, limited ammo feeds into this survival aspect because each shot needs to count, or else the player risks being killed. Moderate locomotion and key collectible mechanics intertwine to create an **objective dynamic**. Due to the slower player walking speed results in obtaining the key collectible to be slightly longer. Adding meaningful weight to this objective.

Anticipation: The survival dynamic leads directly into reaching a sense of **catharsis** because the player has survived the enemy threat and can bask in the satisfaction of knowing they survived. Finally, anticipation can be viewed through the lens of a **reward** through players completing the objective of obtaining the key item.

Level Layout Structure:

How is your map structured?

My level follows a parallel level design structure:

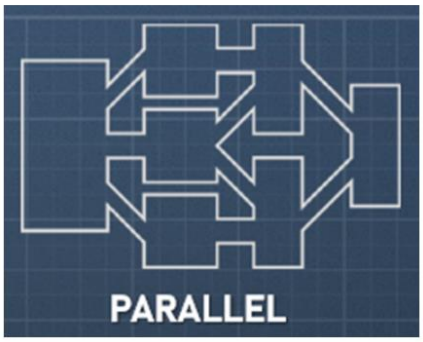
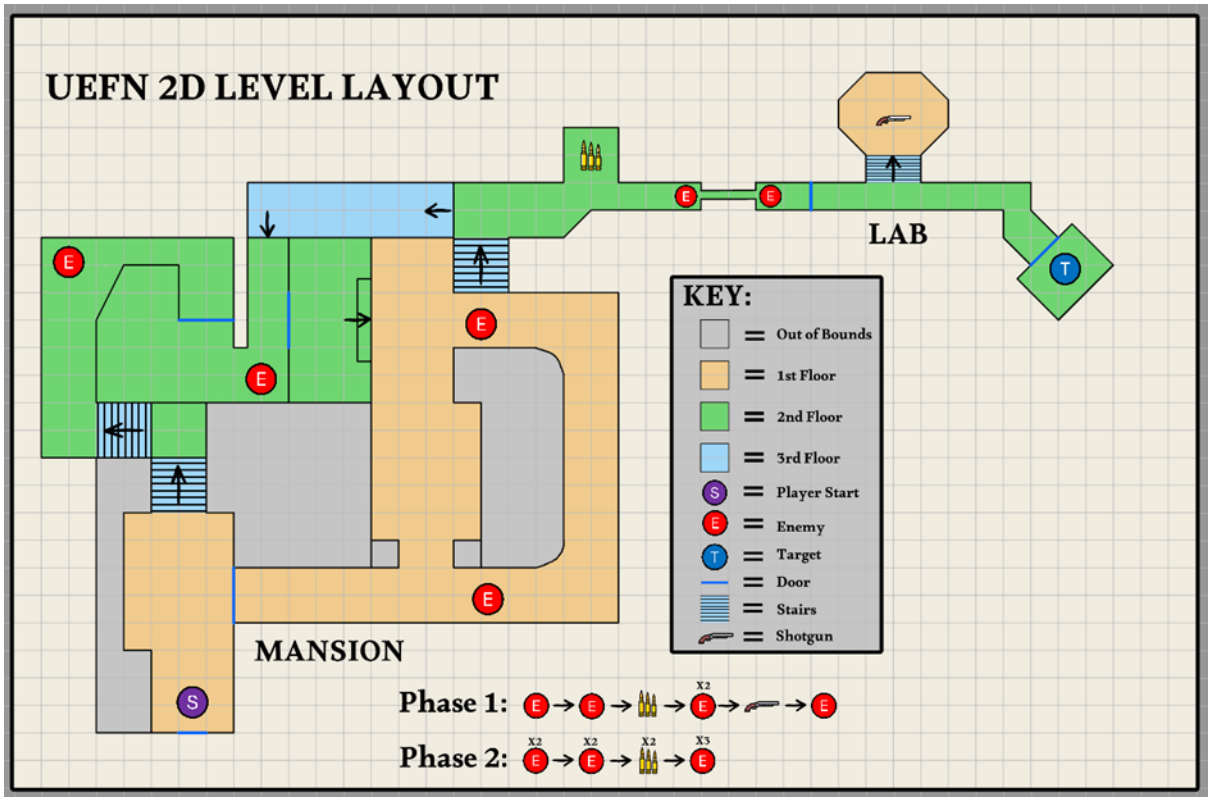


*image sourced from Week 2.2 PowerPoint slides.

This is because players have multiple paths they can take to arrive at a fixed target location. The structure works well because it offers players the illusion of player choice, but subtly guides them to an intended area.



Does it fit and encourage the style of gameplay you are aiming to achieve?

This level structure compliments the fixed camera survival action gameplay well. It uses corridors, to make the player feel claustrophobic, whilst also guiding them forward. Thanks to its parallel level structure, the level affords multiple paths, creating a more engaging space for the player to navigate.

Agency and experience:

Does your level encourage player agency?

My level encourages player agency through its varied corridor layouts. For example, when players start, they are presented with multiple paths. Cleverly tricking the player into thinking they have agency over how they navigate the level. However, the level is designed to guide the player to a target location, no matter which path they take. Furthermore, though the use of tight corridors, results in the player slowing down because there is less space to navigate through. Players may be more alert because the threat of an enemy is heightened. Since there is physically less space to run away from an enemy or give the player more time to attack.

Do you encourage or discourage certain behaviours through the structure or placement of content itself?

Whilst the level does contain a linear objective, the non-linear paths the player can take, does encourage certain behaviours like exploration. Including collecting ammo or finding a new weapon. With enemy placement serving as structural breadcrumbs, to subtly guide the player towards the intended path