Games Design Document

The Last Templar

Flinn Fraher

Table of Contents

Contents

High Concept:

One line Introduction

The Templars once ruled this world – protecting legions of men from evil. Now all that stands between humanities eradication is Lazlo. The odds might be against him, but a Templar never backs down.

Theme / Environment / Setting

The level will take place in and around a medieval castle – meaning the architecture will take inspiration from medieval/middle-age buildings, and other games which utilise a similar setting. As our character is in a desperate situation, slowly uncovering what's happened while he's been away, the environments tone will convey a desolate and dilapidated landscape – with remnants of a once powerful and bustling cityscape scattered around the remaining debris. Each zone the player enters will convey different atmospheres – through distinct lighting choices accompanied by the varied objects in the environment.

Unique Selling Point/s and Key Mechanics

- Puzzle elements take place in secret rooms in a different physical depth to the rest of the level
- Multi-use **pool of purity energy** – can be used to heal, deal a large amount of damage with abilities, or collected in exchange for **blessings** which can be applied to the player's stats.
- Purifying areas
  - The player is tasked with ridding different areas of the level from evil – this is done by clearing a section of enemies and activating a templar altar. After purification, the atmosphere in that section of the level will take a much cleaner, and lighter tone – with different lighting to reflect the cleansed nature of the space.
- Upgrades to the players stats in the form of **blessings**
  - Spending some of your purity pool can allow modification of the players stats – increasing attack speed or damage, health, etc.

**Figure 1 - Dark Souls
(https://store.steampowered.com/app/211420/DARK_SOULS_Prepare_To_Die_Edition/)**

Figure 2 - Bloodborne concept art (https://bloodborne.wiki.fextralife.com/Concept+Art)

Enemy Types
- Three enemy types, with two visual type-modifiers (enemies outside the castle walls, and enemies inside)
  - Larger, tankier enemies with slower movement speed
  - Moderately big enemies, with moderate movement speed and moderate damage
  - Small enemies with fast movement speed that attack the player and possibly explode when killed, dealing some AoE damage
- Three bosses –
  - A fast moving boss with various attack types using different animations
  - Slow-moving boss with the ability to leave the play area when at a specific health threshold and spawn waves of standard enemies for the player to fight.
  - A stationary boss with various attack patterns, and the ability to spawn enemies into the play-space in set intervals.

Pickups
- Enemies can replenish the player's purity pool when killed, and also grant set amounts of XP.
- The player can find various pieces of equipment around the level which can provide different combat choices.

Weapon Types
- The player can equip a melee weapon, and can use a selection of abilities as longer ranged attacks
- There is also the option to equip one of several magic scrolls – this will dictate the magical ability that the player can currently use.

MoSCoW Breakdown

Must
- Purity pool system
- Combat mechanics for the player – combos, special attacks
- Purification system for areas – altars which the player can interact with to 'complete' an area of the level.
- Area transitions
- 3 Enemy types
- Enemy spawning system
- A win condition – once purifying all areas of the level.

Should
- Visual changes to the player when equipping different apparel.
- Enemy type variants – which affect the stats of each enemy.
- 3 player abilities that utilize the purity pool.
- Two bosses
- Inventory system

Could
- Additional player abilities
- Additional optional boss
- Different weapon types – two-handed weapons for instance with different attack sequences
- A currency/shop system

Will not/Would
- Additional sub levels – entered through doors.
- More enemy types
- Upgrade trees to further customise Lazlo and change gameplay.

Figure 3 - Dark Souls 3 concept art (https://wallup.net/dark-souls-iii-dark-souls-video-games-castle-fantasy-art-concept-art/)

Figure 4 - A drawing of a medieval Templar (https://www.middletemple.org.uk/archive/history/knights-templar)

Player Characteristics Outline

- The player takes control of Lazlo – a member of the ancient order of Templars that are tasked with removing evil beings from the world.
  - Templars can use pure energy (the players purity pool) to affect the environment, deal holy damage to evil entities, and grant themselves permanent **blessings** – modifiers to Lazlo's base attributes.
- The player can combo up to three melee attacks within a given timeframe, increasing their damage with each successive strike. When an enemy has low health, there is also a chance to perform a finisher move, which resets the melee combo timer.
- Activating an altar in the level allows the player to upgrade equipment or activate blessings using their collected purity pool if they wish. The altars in the level act as both a save hub and a place to upgrade attributes.

Character Background

Lazlo is part of an ancient order of Templars, who once kept the invasions of unholy spirits into the human world at bay. Many years ago, they fell in battle and were never seen again. Lazlo and the other Templars were locked away behind the fabric of time – unaware of their own fate. Although it's unknown how – even to Lazlo – he has somehow escaped his temporal prison and seeks to free his world from the grasp of these evil creatures. The player will control Lazlo on his journey to liberate the world and find out what happened to the Templars years ago.

Player Persona

Player Background

Metriodvania games primarily cater towards killer, achiever, and explorer player types – through their use of backtracking to complete various objectives, the requirements some areas have for a player to be accessed, and the complex mechanics involved in most of the game's combat. As this genre has been somewhat of a staple throughout the lifetime of video games, there's specific standards that will be present in a player's mind when playing for the first time – some existing titles choose to subvert these traditions to create a unique gameplay experience, but this can have the possible expense of alienating a player with changes they might dislike or not become fully accustomed to, leading to a negative gameplay experience.

It is therefore important that the game feel and any USP's the prototype has are quickly and effectively conveyed to the player to avoid frustration, giving them appropriate time to experiment

with mechanics through guided level design, and appropriate guidance to any nuances the gameplay may have compared to older titles in the genre.

To ensure I create an enjoyable experience for players of this genre both new and old alike, the prototypes design needs to clearly telegraph the core gameplay loop and any unique mechanics to the player in a timely manner, while also giving them appropriate moments to further their understanding of these features, with the use of simple puzzles that empower the player and give a playground for experimenting before honing their skills later in the level.

Level Design documentation:

Goals of level & key areas
The player needs to purify each section of the level by activating altars found throughout the world. Competing with two bosses, the player will tackle increasingly difficult enemies in each section, some of which spawning waves over time, with activating altars and cleansing the castle of the evil that inhabits it.

Story (How, Why, What)
Lazlo has awoken after being asleep for an unknown amount of time, with no knowledge of how he ended up in his slumber. The templar order he was once part of are nowhere to be found. Realising the evil that has taken over the world he once knew in the Templar's absence, he needs to rid the world of the evil entities and restore order. Finding purification altars throughout the level, the player will piece a story together on what happened to Lazlo.

Focal Points

Figure 3 - Dark Souls 3; contrast in colouring is used to bring the player to a focal point.

As gameplay takes place in a single plane of the 3D space, it is important that I use the environment closer to the player to guide them in every way possible towards the focal points of the level, and the critical pathing. Dark Souls is a great example of this kind of design – the palette of the level is normally quite muted, with enemies sometimes following this muted scheme to surprise the player by not contrasting from the environment incredibly clearly, but still maintaining a clear silhouette through

the enemy's unique appearance. The primary objectives of the level are highlighted by subverting from this palette used in the rest of the design – through vibrant SFX, contrasting colouring and physical design of the level to guide the player towards these objectives, the main objective of each level is made clear to the player through this contrast.

For player objectives to be clear, utilising this kind of design for focal points is key – I'll be using a combination of contrasting lighting, effects and different colour choices to the rest of the level in order to clearly indicate to the player significant areas of the map.

Primary Focal Points of the Level
The level will have two significantly different environments – the castle exterior and interior. The exterior of the castle will contain the player start location and make an appearance in a later boss when the player reaches one of the castle towers. I chose to include this to give the player a point of reflection whereby a similar environment is used at a later stage in the level to represent to the player how far they have come in strength compared to the start.

Castle Exterior
The exterior of the level will mainly be traversed when the player is at a point of low strength and is still learning the mechanics of the game. To compliment this state of gameplay I plan for the exterior of the castle to be much more welcoming when compared to the interior – through brighter lighting, lower enemy density and an overall decrease in pacing when compared to the rest of the level. This gives the player time to become familiar with the gameplay mechanics, combat, and general feel. The contrast in tone between the somewhat hopeful exterior and gritty, desolate interior also accompanies the narrative – Lazlo is in a state of extreme weakness in comparison to the templars once mighty rule, leaving him vulnerable to the enemies he must vanquish.

Castle Interior
The castle interior takes the player through the primary points of the level's design and is where most of the gameplay involving the unique mechanics of the level takes place. As the player will be introduced to the primary game loops at the point they enter the castle, the overall pacing of the level will begin to take a steady ascent upwards, as more enemy types, bosses and gameplay features are revealed to the player which add to their present understanding of the gameplay, and present unique gameplay challenges that reward the player for their understanding of the core mechanics.

Grand Hall
The Grand Hall is the location of the second boss fight in the level – taking place in the largest and most open area of the castle. Being the location of a difficult enemy, a checkpoint is given to the player before entering the area, and a cutscene is played upon entering the hall to introduce the boss and give a small amount of time to prepare for the fight ahead. Visually, the hall is filled with overturned tables and chairs, and sprawling pathways to other sections of the castle – once a hub to the bustling life that lived inside the walls of this fortress, now one of the last recognisable remnants of their very presence. Entering the hall, the player must first defeat a wave of enemies which block the way – giving ample opportunity to hone their skills before this critical midpoint of the level.

Castle Dungeon
The dungeon of the castle is an optional pathway to take in the level. If the player chooses to take this path, they'll find a series of traps blocking their way that they must traverse, using the dash ability to their advantage. The resources rewarded to the player for exploration of this zone are high – giving them Lazlo's original Templar Sword, a longsword with moderate damage and fast attack speed. A player exploring this area would be at a sufficient advantage for the remaining battle as a reward for their hard work, with an additional altar to be found here that further boosts their overall level completion.

The Keep

Holding the third and final boss of the level, the keep is the last sanctuary of the evil in the castle. The drop before entering this zone is designed to give the player a point of reflection to how far they have come, and what depths they must go to when cleansing the castle. With the rest of the level giving the player sufficient time to become familiar with core gameplay mechanics and techniques for combat, the keep aims to provide a balanced but challenging fight to consolidate the player's experience before accessing the final altar of the level.

Visual Development

Gameplay Influences

The overall feel of the gameplay takes inspiration from a variety of different games, spread over different genres and adapting core ideas into a feasible format for the metriodvania genre. Below, I will be detailing some of the primary influences the level has had from other titles regarding design.

Level Influence – Diablo 3

Diablo 3's levels generally involve some degree of backtracking in each of its sections during a gameplay act – from subsequent quests leading the player to a previously inaccessible area of the level, to entire hidden cave systems that are only accessible during specific seasonal events. The gating of sections of a level based on specific gameplay requirements makes for a much more immersive gameplay environment, where the player feels they have a direct influence on the game world. Preventing the player accessing specific areas of a level can be a useful gameplay tool, but also requires careful usage to ensure the player doesn't feel too limited, removing immersion and player involvement from the level.

For my level, I hope to implement this aspect of Diablo's design by utilising the various abilities and items in the game, but still giving the player the ability to choose if they access these areas of the level. The boss in the tower of the castle for instance can be skipped entirely, and the player can simply follow the critical path and complete the level but will receive a different overall outcome and ending cinematic in comparison to a 100% completion of the level. This adds further aspects of replayablity to the level and depth to the outcome of the level.

Colour Palette

Palette Analysis of Existing Games

Diablo 3

Figure 4 - Diablo 3's castle-like interiors use a limited palette, with lighting and contrasting colour choices guiding the player through the level's critical path.

Diablo's use of colours in map design is carefully designed to guide the player in the direction of the level's pathing – using lighting sources to guide the player to focal points, and careful colour choices to differentiate different areas of the level. The small section to the bottom left in figure 6 is a great example of this – the player is shown an area before they can access it, giving them with a sense of progress once they reach this point. The level will be using this kind of technique when the player transitions between the exterior of the castle and the interior, whereby the player is given a look at the interior of the castle before they enter it, giving a solid sense of progress once they reach that point.

Hollow Knight

Figure 5 - Hollow Knight

Fig. 7 shows another great case study of guiding the player through colour choices in the environment. Despite having a limited selection of colours in its design, Hollow Knight's use of colours are kept consistent in order to keep the player familiar with different elements of gameplay – enemies are generally kept a bright white or grey to contrast with the darker foliage and the neutral backgrounds.

Lighting

To further convey the narrative of the game, lighting will take a darker tone while in the castle interior, with torches illuminating the castle hallways. The player will still need suitable visibility, so carefully balancing the correct environmental tone without affecting gameplay is key for this effect to compliment the level's design and not detrimentally affecting player experience. The altars, and any other key objective items in the level will be lit using a different lighting colour to the rest of the castle – further enhancing their significance to gameplay but also making sense thematically to their origin as magical Templar-relics found in the world.

Like how Valve's Half-Life uses the games iconic lambda symbol to guide the player to caches of resources and objectives in levels, I'll be using bright and lighter shades of blue in my lighting of objective-related objects to make important elements of the scene stand out from the darker, more evil tone of the rest of the environment.

Figure 6 - Half Life 2's Lambda iconography is used to guide the player to key points in a level.

Level Design Plans

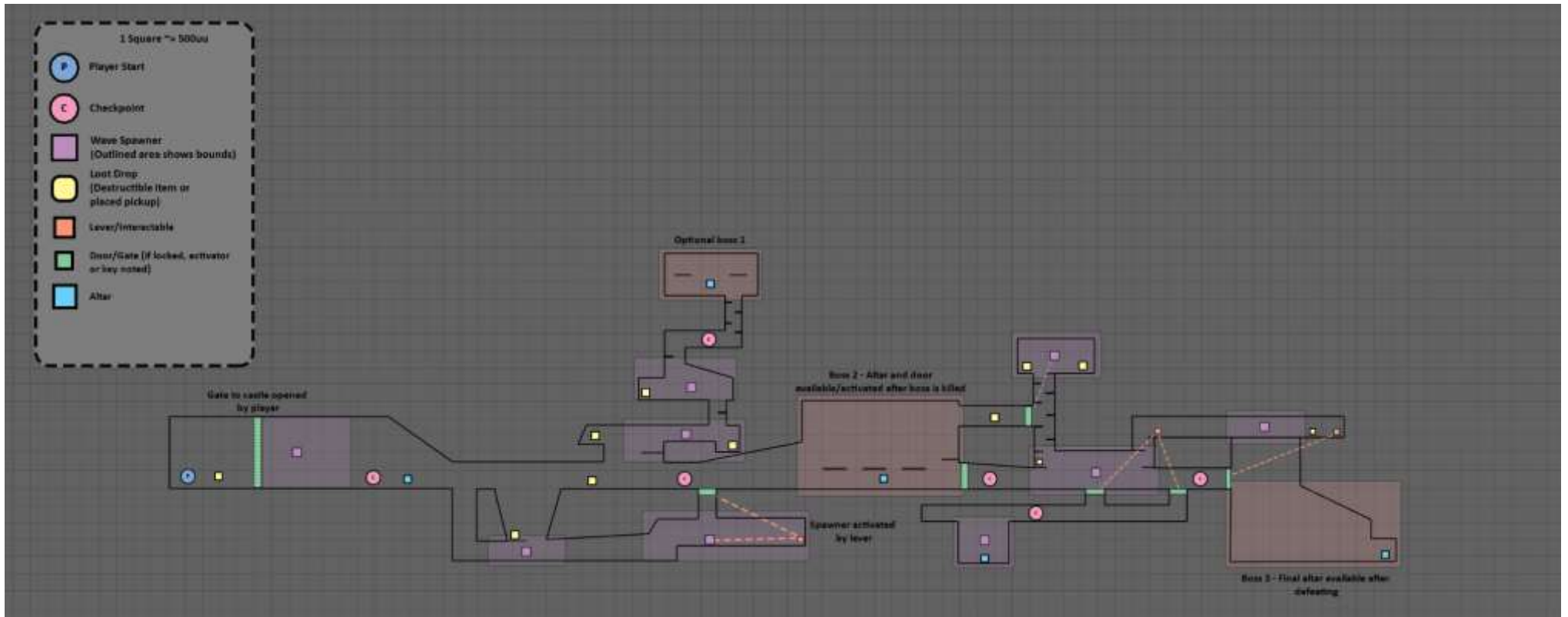## Initial Map Overview

Figure 9 – Second-pass of the map layout with key gameplay elements
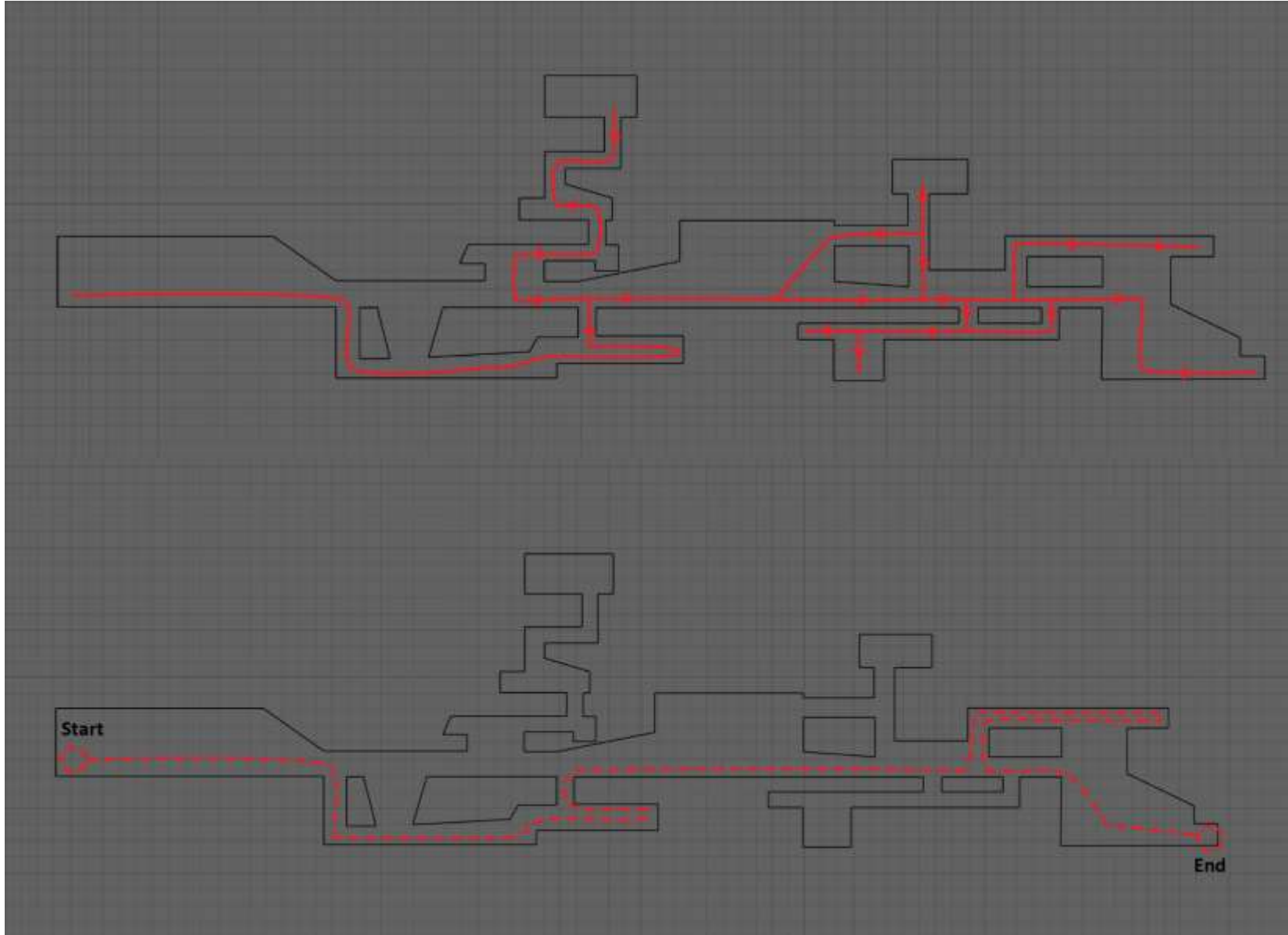
Figure 10 – The critical pathing of the level – the first image including the secondary paths.
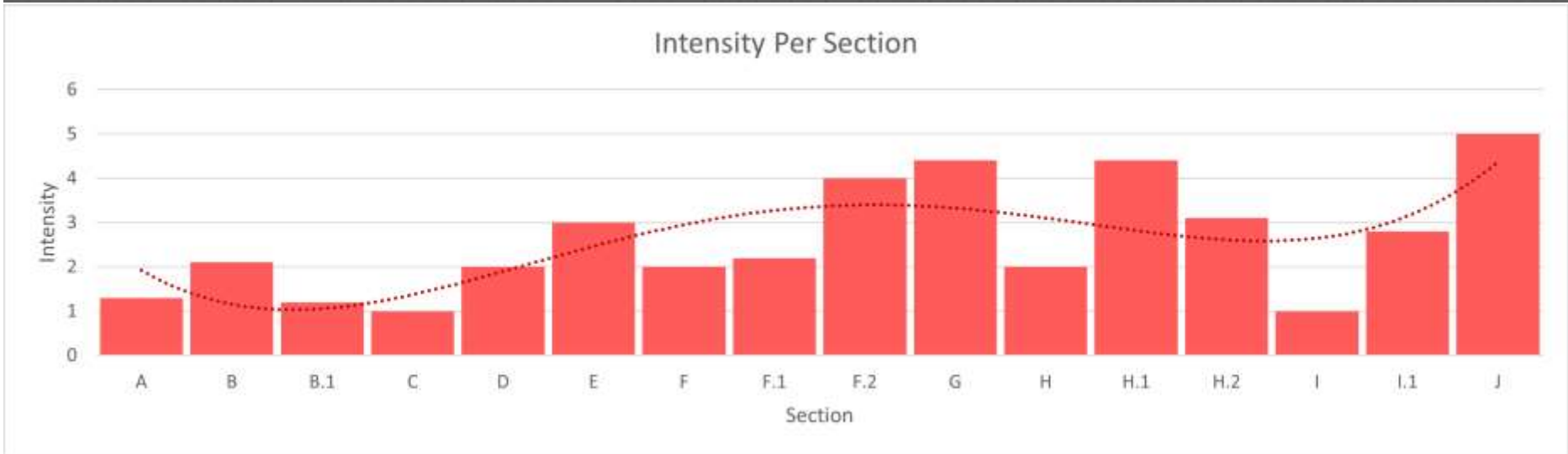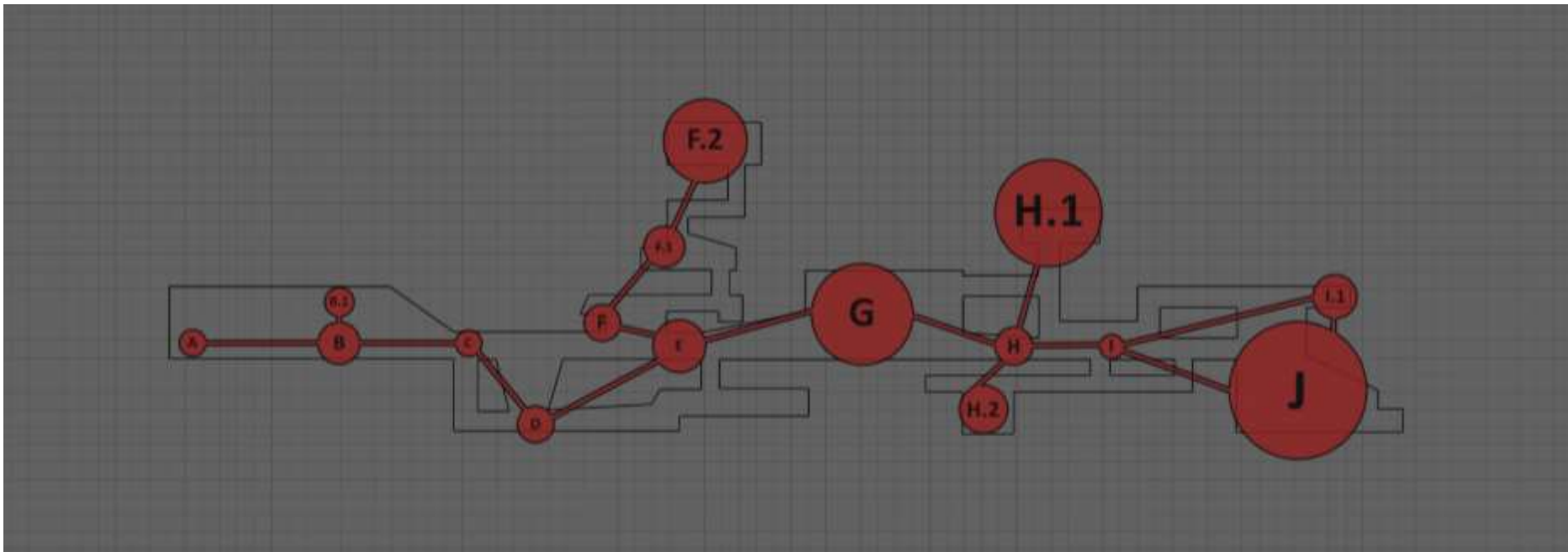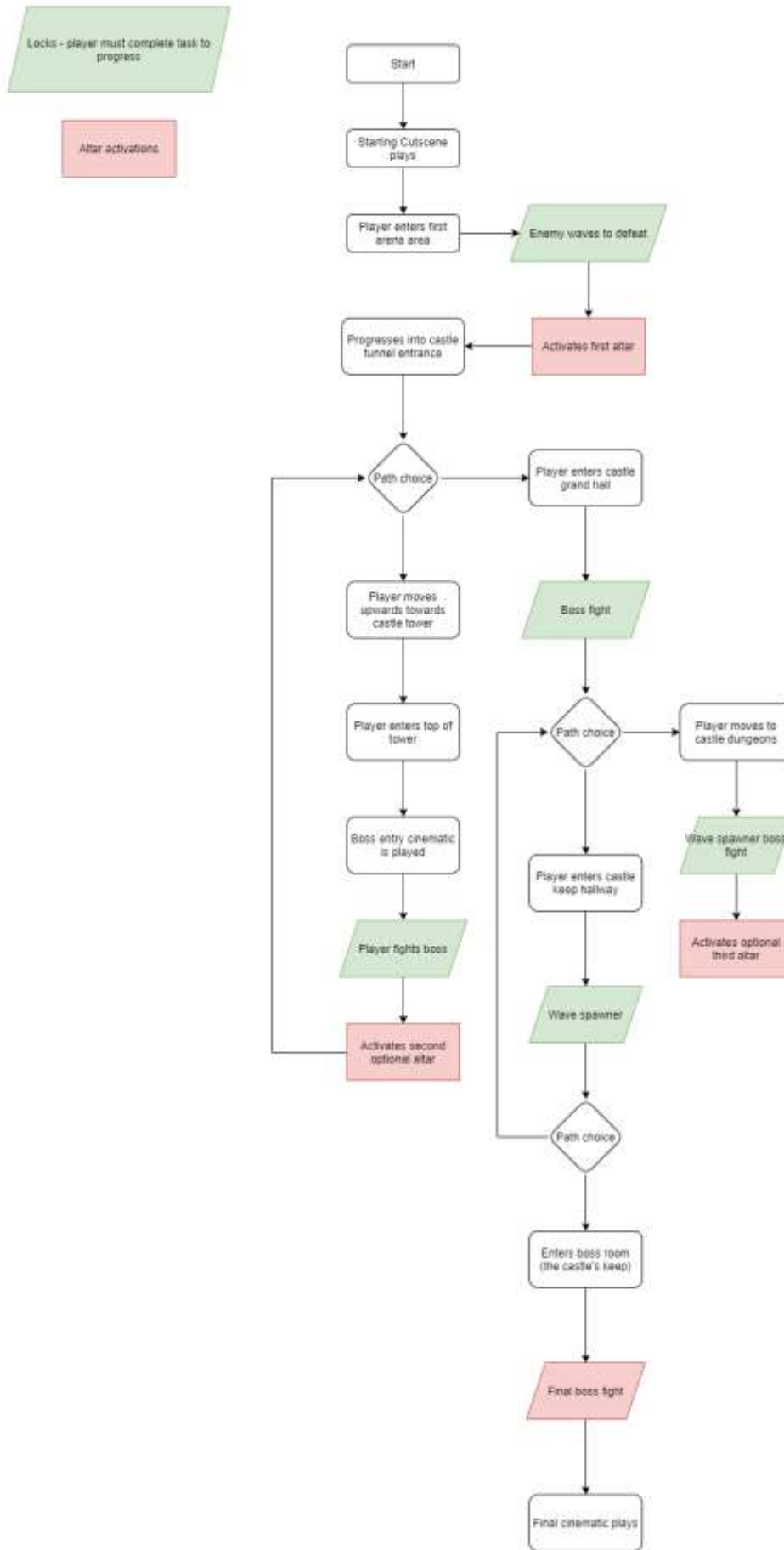
Figure 11 – Intensity/Pacing graph of the level

Figure 12 – Level flowchart

Focal Point Location

Figure 13 – Castle Exterior

Castle Exterior

The castle exterior has a very simplistic critical path – the player traverses through this area following the initial tutorials on core game mechanics, and therefore their path through this is much more rigid, with no backtracking required.

Figure 14 – Castle Interior

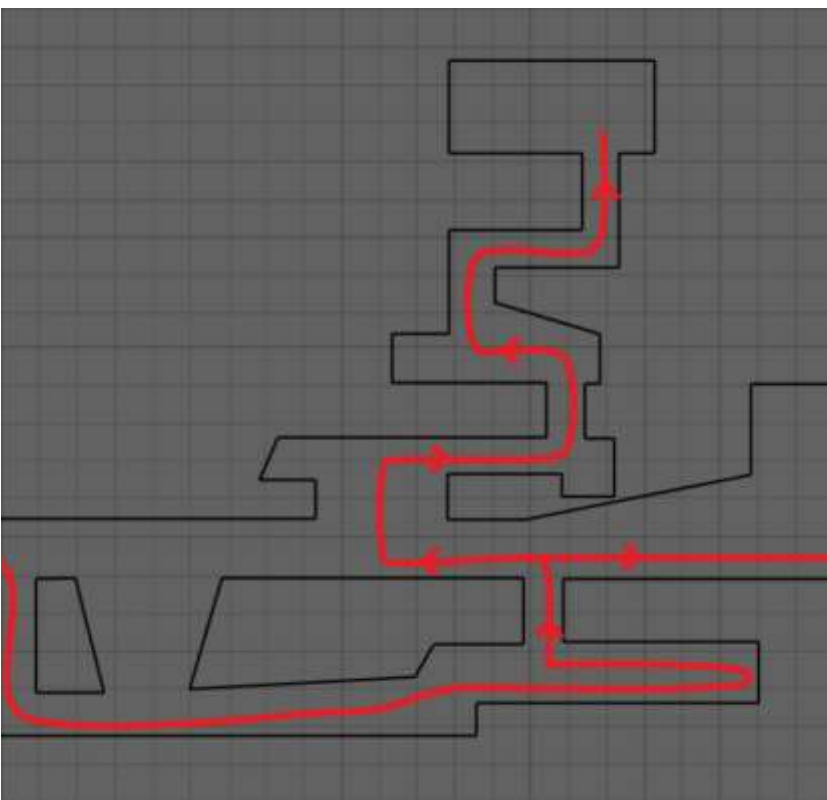**Castle Interior**

The castle interior presents the player with their first choice in which path to take. Requiring the dash ability to enter the tower, if the player deviates from the critical pathing at this point, they'll be rewarded with the dash ability just above the entrance to the castle interior, as well as an optional boss sequence and altar if they continue to follow this diverging path.
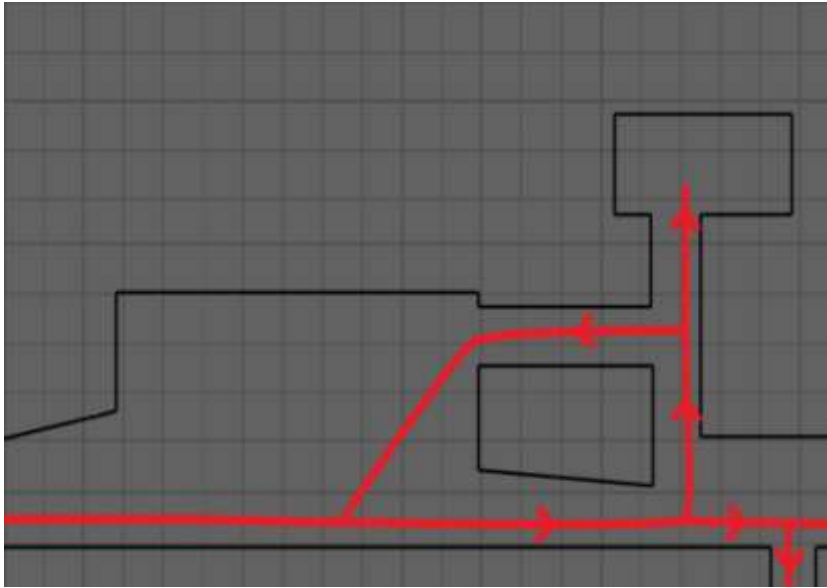
Grand Hall
The grand hall contains one of the two primary boss fights of the level, along with two optional paths for the player to take that lead to the castle dungeon, and the second castle tower. Each path provides the player with sufficient incentive to explore, with the path to the tower also providing an overlook of the grand hall as a point of reflection to the journey the player has been on.

Figure 14 – Grand Hall
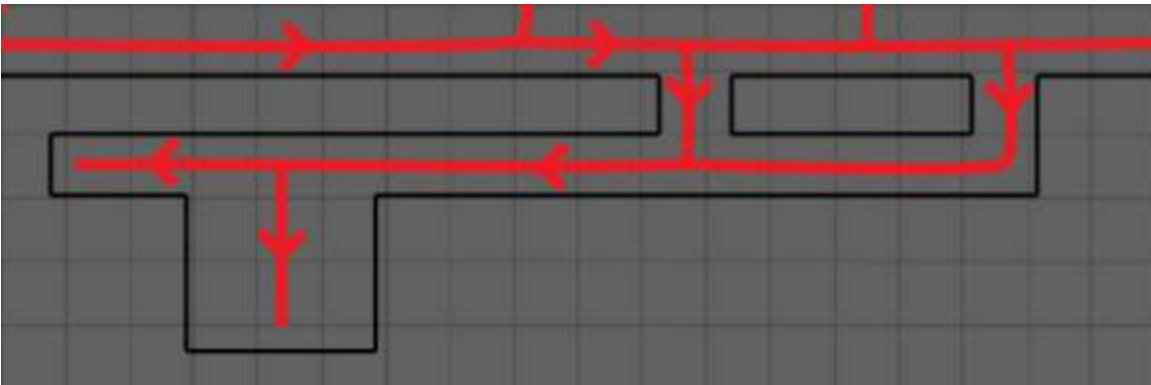
Figure 15 – Castle Dungeon

Castle Dungeon
The castle dungeon is an optional area for the player to explore before entering the keep of the castle and fighting the final boss in the level. Accessible after activating a lever which allows access to the final boss room, the player is given a choice, and a moderate decrease in pacing before the final fight to choose if they wish to explore this area. If they decide to do so, they are greeted with two different paths inside the dungeon to explore – the far-left path leading them to the third purity ability – the templar's strike – and the path delving downwards leading them to Lazlo's lost Templar sword, granting them a modest boost to stats before the final fight and rewarding the player for exploration of this area.

The Keep
The keep is the final area of the level – a large drop leads the player to the point of no return, and the final boss sequence of the level, with the lever on the upper level opening access to this room and to the castle dungeon mentioned prior. The pathing here provides the player with a moderate decrease in overall pacing before the
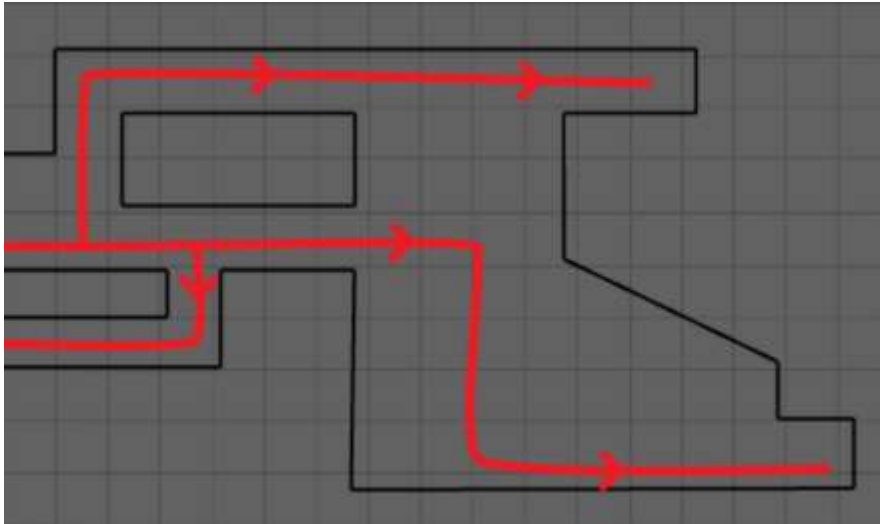
Figure 16 – The Keep

final fight, giving ample time to prepare for the upcoming fight and finish any ongoing exploration taking place around the optional paths of the level via backtracking.

Story Element Locations

Critical Path Analysis
The critical pathing of the level takes the player through the main sections of the level, excluding the first optional boss – but clearly shows the player the optional path to take, and presents suitable time to make a decision with the lowered intensity at the point of the optional path.

Enemy Locations
The enemy spawns in the level are managed by individual wave spawners around the playable area. Each spawner instantiates a set number of enemies, with each enemy type being randomly selected from a set list per spawner.

Pickup Locations

Static Pickups
Pickups that are centric to the critical path or are key abilities that the player can find are designated on the map in key areas – the three player abilities can be found in distinct areas of the level after a fitting challenge is completed by the player.

Dynamic Pickups
Generic pickups such as health potions are instantiated dynamically at each lootable object, adding further to the replayability of the level by varying each playthrough in a balanced manner.

Weapon Locations
Weapons can be found in the various loot locations throughout the level – each lootable object has ~20% chance of giving the player a weapon. The player can also find weapons after defeating enemies. The dynamic spawning of weapons in different locations adds additional replayability to the level by making each playthrough of the level slightly different.

Level Start & Level End Location

The level begins in the castle exterior, with the player seeing the castle courtyard and an underground entrance to the Templar's fortress. The level ends inside the castle keep, after the final boss sequence in which the player must activate the final altar to complete their playthrough.

Quest Design

Instead of specific quests being listed to the player during gameplay, the optional pathing throughout the level provides the player with ambient quests they can optionally complete to further purify the castle of evil and increase their resulting percentage of completion at the end of the level. This encourages replayability and exploration of the secondary paths of the level, and reinforces the accommodation of different player disciplines (as exploring isn't necessary, different types of players won't be penalised directly for not exploring secondary paths/ambient quests if they choose not to)

Castle Tower Boss

The boss found in the castle tower will be listed to the player as an optional objective which the player can pursue if they wish to. This is reflected in the level design – access to this boss requires some degree of backtracking but rewards the player with additional items compared to a normal playthrough, and a different ending cutscene to players who don't complete this quest.

Altar Activations

Altars will be clearly indicated to the player with the use of unique lighting and particle effects that linger around the altar's position in world space. Activating altars will give the player the option to obtain new abilities through blessings – each altar providing a different one to the player.

Figure 17 – A Templar altar

Scripted Sequence documentation:

Scripted Sequence Locations

Scripted sequences take place throughout the level in the form of both boss introductions, and the activation of different interactable objects – when the player uses a switch which opens an area for instance, the camera will move to the location of the opened door, giving them instant feedback as to what difference their interaction has made to the game world, and keeping the player informed of alternate paths they can take if they choose to do so. Additionally, when a boss area is entered, the introductory sequence of the subsequent boss is played, giving the player instant feedback and information on what is inside the area they are entering, as well as adding to gameplay narrative by displaying the bosses name during these cinematic sequences.

Camera Shots and Timing

Boss Sequences

For each of the three bosses in the level, a unique cutscene takes place in which the camera is manipulated, and the boss appears inside the level's playspace. The goal of these cinematics is to differentiate bosses from other enemies, and to indicate to the player that a challenging event is likely to follow these cutscenes. The differentiation in cinematic also helps to distinguish each boss as a unique experience and gives them much more of a personality as an antagonist in the level by asserting their importance in a scripted sequence.

Introduction Sequence

The introductory sequence of the level aims to set the scene for Lazlo, and his impending uphill battle to gain back control of the castle and rid it of evil. The initial scene is set before the invasion of the castle, with

Special FX

Each cutscene uses varied special effects in the form of timed animations in the level sequencer – some bosses spawn particle effects after specific actions because of animation notifiers inside the animation asset, with some others having different ambient effects during cutscenes such as cloth simulation on parts of their skeletal meshes.

Audio

The audio for each sequence uses both sounds from the base framework given, and a small selection of custom audio clips from various sites (for specific citation refer to the asset list documentation)

Character Animation

The boss sequences use a variety of the different animations from the framework and other sources on sequence-specific actors that play inside the cutscenes.

Figure 18 – The sequencer animations for the Frost Giant's entry cinematic

22

Asset Lists

Blueprint Asset List

Asset Name	Production Time (Approx)	Description	Source (if applicable)
Character Pawn	4-5 hours	Additional logic to the framework's existing player pawn blueprint	Self-made/framework
Inventory Component	3-4 hours	Actor component to manage the player's current inventory, blueprint function library for getting inventory data from respective data tables	Self-made
Ability Components	4 hours	Actor components for the 3 different abilities the player can use	Self-made
Enemy Pawn(s)	4-5 hours	Additions to existing logic of enemy pawns in the framework	Self-made/framework
Boss – troll, guardian of the keep, and ice giant	1-2 hours	Troll enemy – abilities, core logic and boss sequences	Self-made
Purity system	1-2 hours	UMG and character pawn modifications to add the purity bar to the framework	Self-made
Enemy Spawning	1 hour	Addition of enemy wave managers which spawn enemies when a player hits their associated trigger	Self-made/framework
Additions to player HUD	2 hours	Additions to existing framework HUD in the form of new widget animations, an additional inventory tab to manage the players equipped items, and the display of additional player statistics	Self-made/framework
Camera Management for interactable items	<1 hour	Blueprint management/interfacing for player camera blending when specific gameplay objects change	Self-made

Non-Blueprint Asset List

Asset Name	Asset Type	Production Time	Description	Source
Arched castle walls	Static Mesh	<1 hour	Arched snap pieces using the same texture as the castle walls in the framework	Self-made
Castle Tower Background	Static mesh	<1 hour	Stretched cylinder which acts as the backdrop for the two castle towers. Using the same texture as the castle walls with appropriate UV adjustment.	Self-made
Character Skeletal Mesh	Skeletal mesh & animations	<1 hour	Unreal's Greystone character from the Epic store	Epic Store
Enemy Skeletal meshes	Skeletal meshes & animations	< 1 hour	Use of various meshes from the epic store for enemies, as well as a mesh from Mixamo.	Paragon: Grux Paragon: Sevarog Mixamo: 'Romero' character
Item Mesh – scroll	Static mesh	1 hour	Mesh for the ability scrolls in the game	Self-made
Niagara particle emitter for Ice Giant	Particle System	1-2 hours	Niagara particle system for the Ice Giant's 'ground pound' ability	Self-made
Boss Entry cinematics	Level Cinematics	2-3 hours	Level sequences for two boss entries.	Self-made
Level intro cinematic	Level cinematic	1 hour	Level sequence for the start of the game	Self-made

Player Characters, Controls and Abilities

Player Controls and Map

The player will have control of 3 separate abilities at any given time accompanied by Lazlo's basic attack combos. These will be changeable through the games inventory screen via a skills tab.
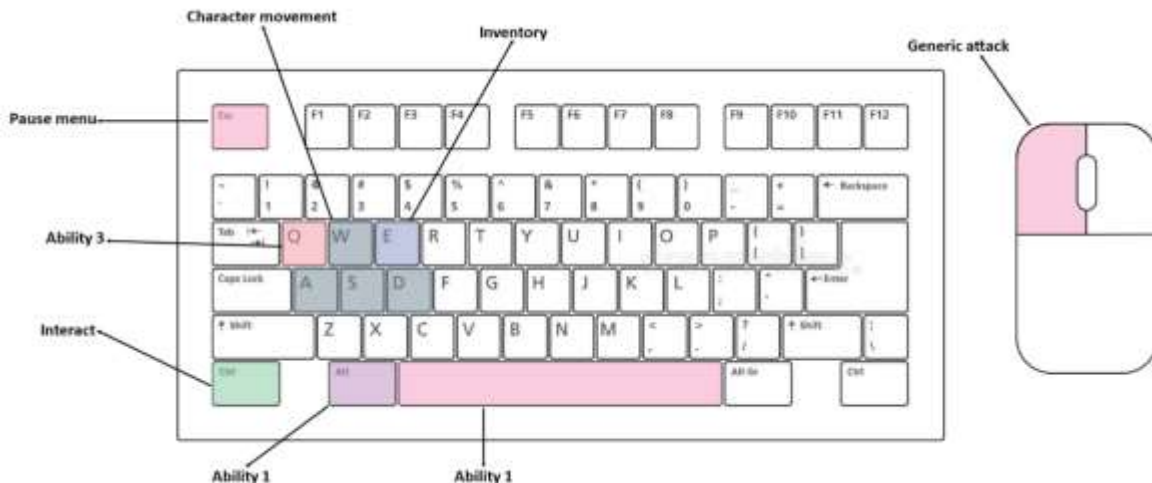

Figure 19 – The game's control scheme

Figure 20 – In-game properties for the player camera

Player Camera

The base player camera in-engine is attached to the player pawn via a spring arm – this is kept at a set distance of 1200uu from the player pawn. The camera can also be manipulated when interacting with some objects in the level – namely, boss sequences and switches. When these changes take place, the camera is blended via the 'Set View Target With Blend' node which allows the camera to be slowly interpolated to a target position to avoid jarring camera movements. These adjustments are done sparingly and during points of a low overall pace, to avoid frustration during gameplay.
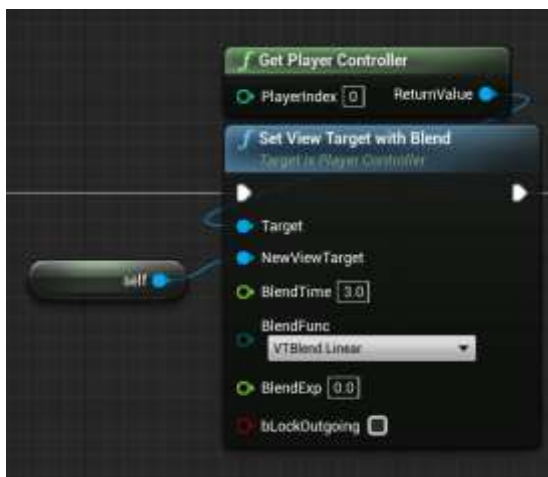

Figure 21 – An example of the 'Set View Target with Blend' node being used.

Player UI

The player will have two primary UI states – the standard HUD which will show during gameplay, and the inventory screen. The inventory is overlayed on top of the player HUD, and only covers a small section of the right-hand side of the screen. The inventory will make use of multiple tabs which show the player different characteristics of the current player character. The primary inventory screen will show a selection of available weapons to the player, and their respective stats, and the second skills section will allow the modification of the current player abilities the player has equipped during gameplay.
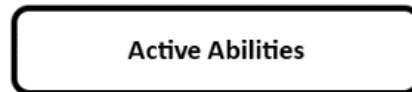
Wireframes

Player HUD

Health

Purity Pool

Inventory Tab 1

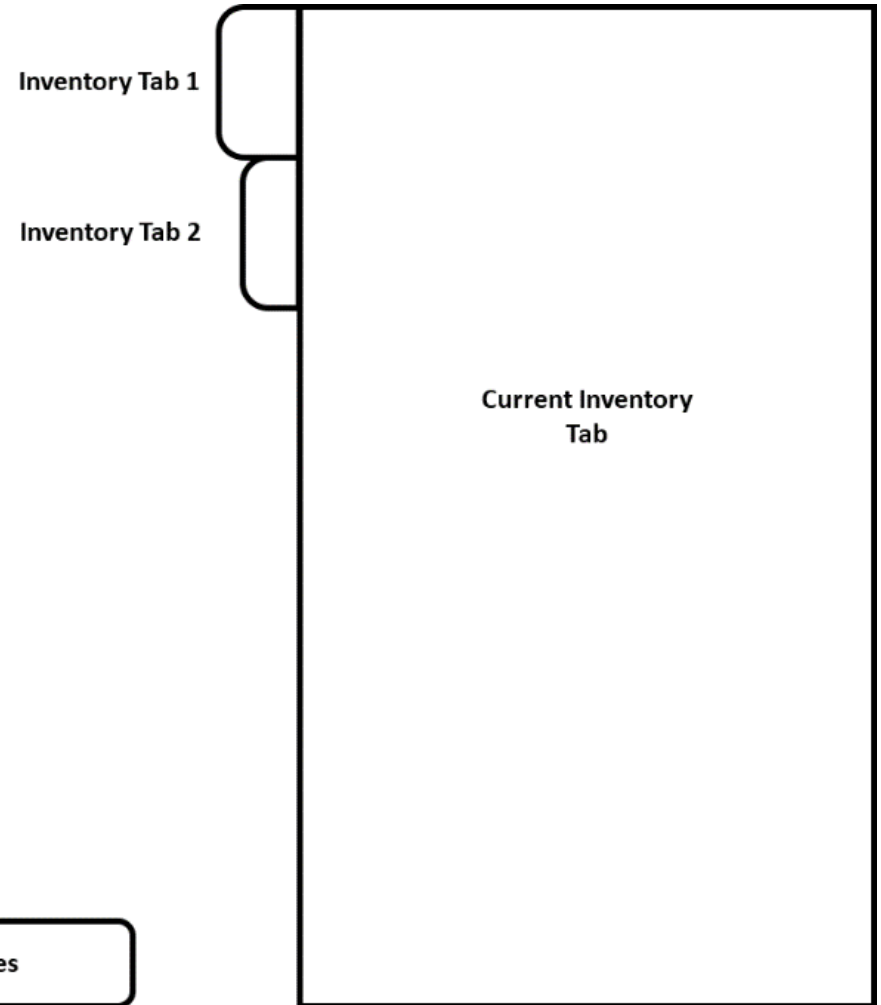Inventory Tab 2

Current Inventory Tab
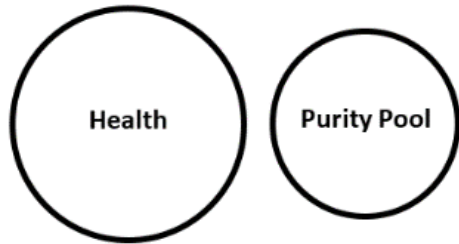
Active Abilities

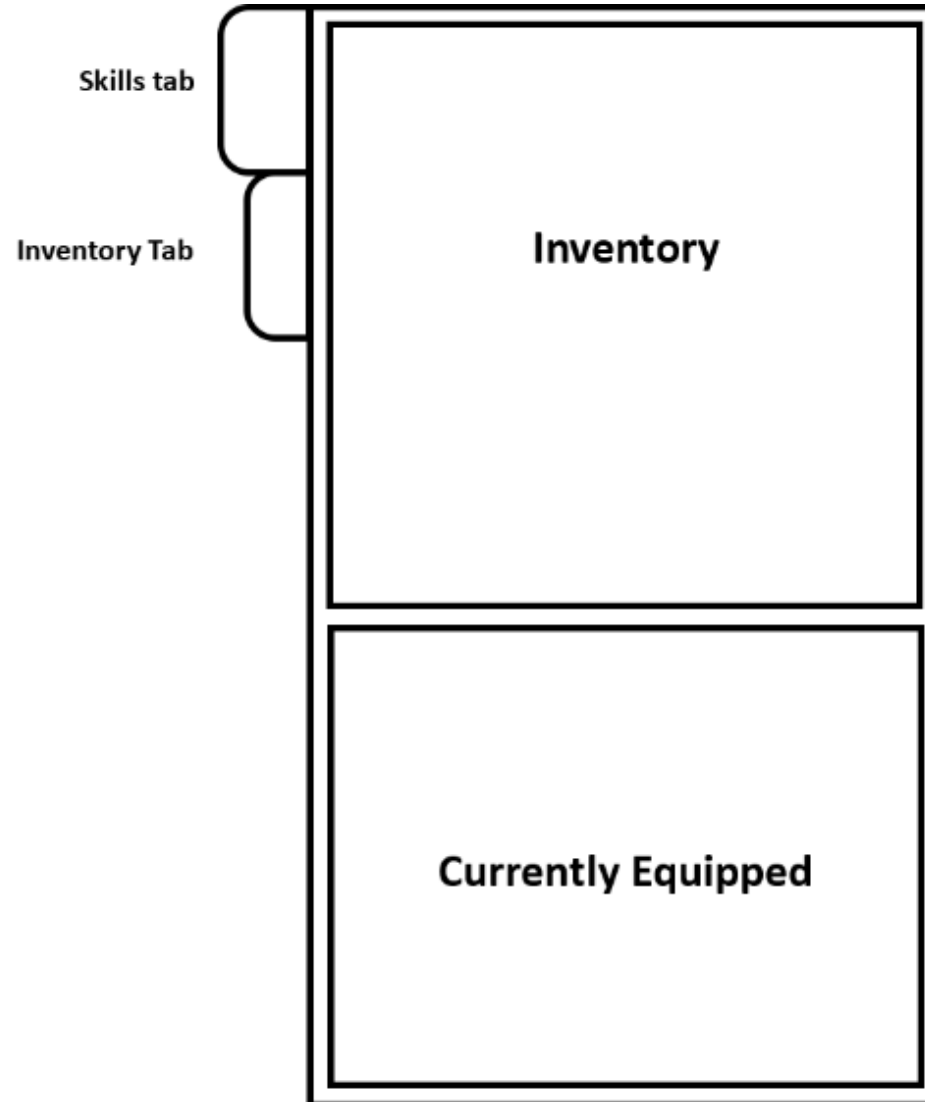**Figure 22 – Base HUD wireframe**

Inventory – Player Inventory Open

Figure 23 – Inventory HUD wireframe

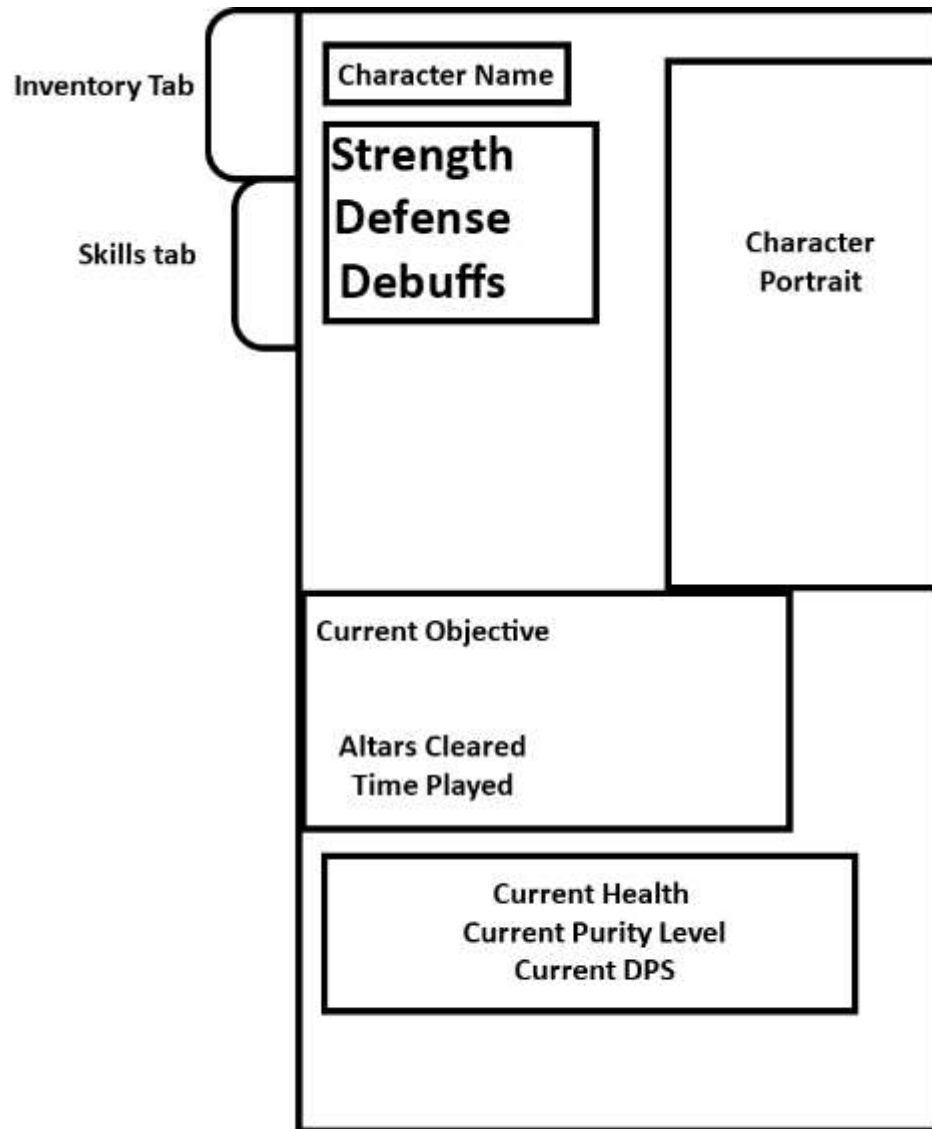**Inventory – Player Stats Open**

Figure 24 – Inventory stats wireframe

Character/s background

Lazlo was born into the Templar order and raised by his allies to harness the power of ancient magic around them. From a young age, Lazlo was aware of the importance of the Templar's order over evil – watching his allies die around him in battle to defend against the pressing forces of evil to keep humanity safe.

After the Templar's final stand against evil, Lazlo was locked in between worlds after evil destroyed all he knew eons ago. Returning to the once definitive force of the Templar's castle, he must cleanse the world of all evil, and save humanity. Lazlo is unaware of how long he's been gone for, and unaware of how he's been brought back. Knowing this might be humanities last hope, the task is clear – conquer all evil he can and take back the castle.

Character/s Mechanics

Player Abilities

Below are the three primary abilities that the player can utilise during gameplay. Each ability provides different kinds of utility during general gameplay or combat and have predefined cooldown times listed below.
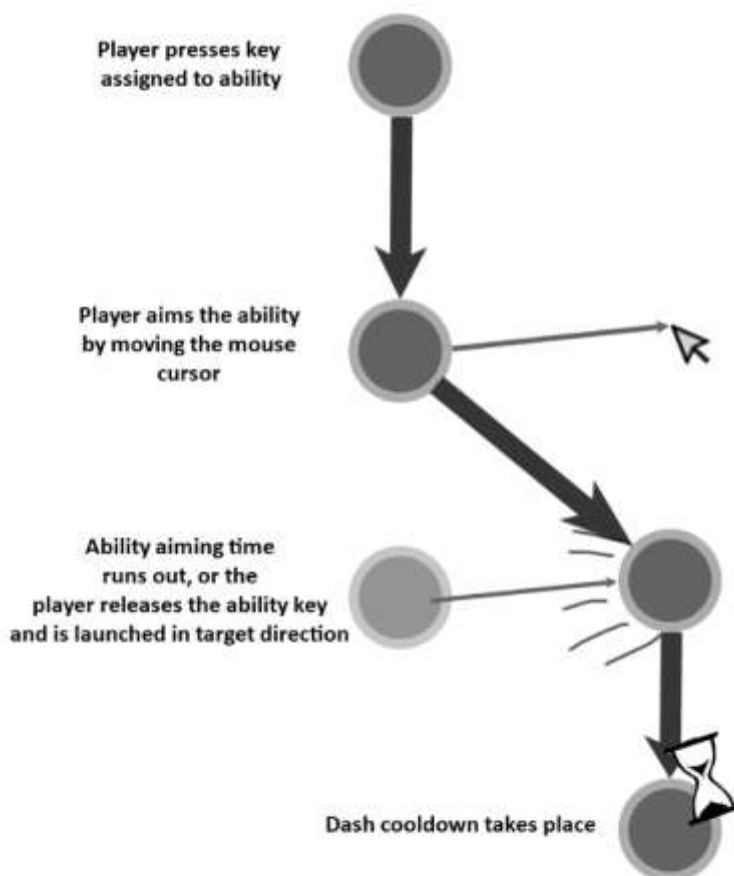
Dash Ability

When holding down the key associated with this ability, the player can choose to dash a short distance in the direction of the mouse cursor. While aiming the dash, the global time scale of the engine is slowed to 10%, giving the player more time to consider options during combat and reposition themselves favourably. This ability is also required to access the optional boss fight in the first castle tower – being required to pass one of the large gaps in the upward climb to the tower.

Figure 25 – Shield Bash ability

Player enters combat

Player uses templar strike ability

Additional damage is dealt on the subsequent 3 melee attacks

Templar strike cooldown takes place and player is unable to use the ability again until completed
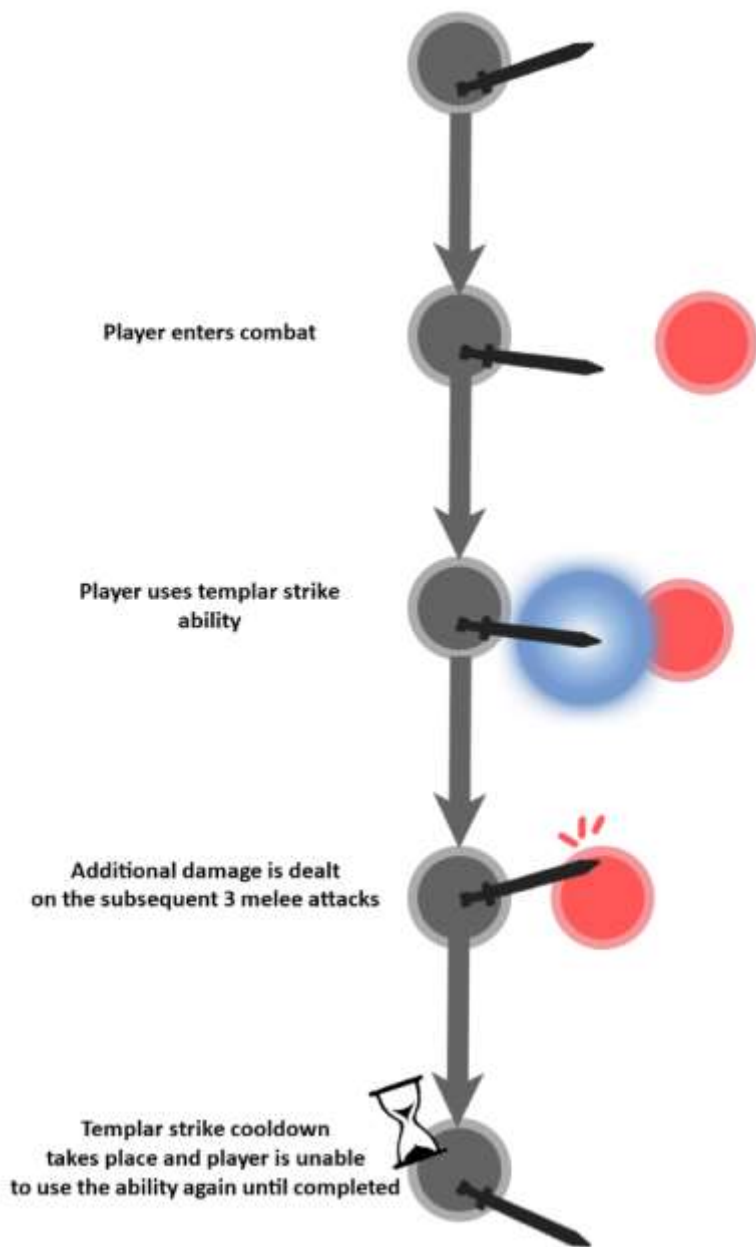
Templars Strike
The templar's strike is an activatable combat ability, which when used gives the next player attack increased damage. This ability is helpful in specific combat situations, and when combined with the dash or a tranquillity burst can allow a player to emerge victorious from challenging combat situations. The player finds this ability inside the secondary path of the castle dungeon, when leaping across the cavern that leads to the Templar's sword.

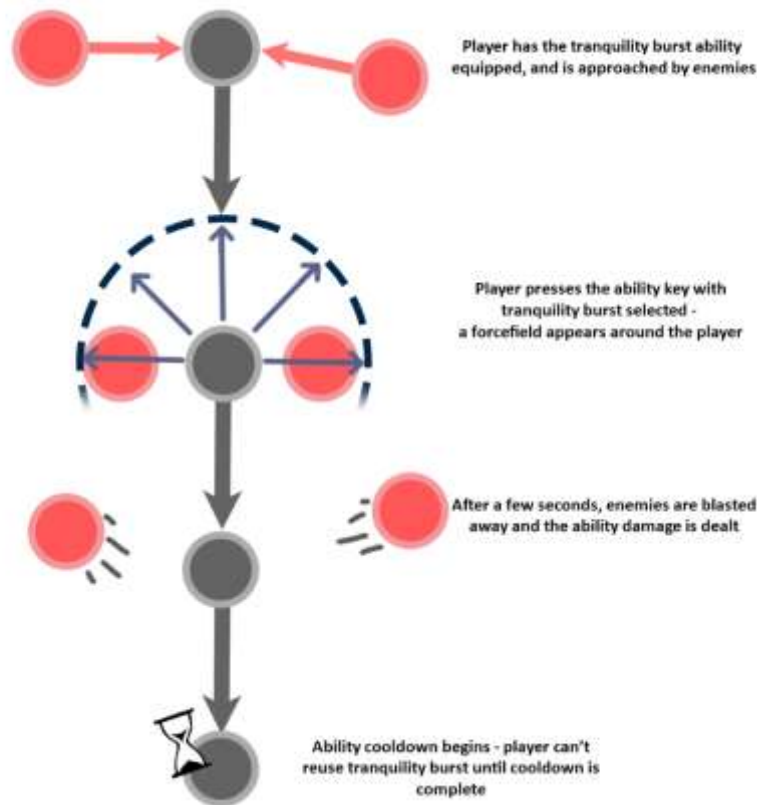**Figure 26 – Templar Strike ability**

Figure 27 – Tranquillity Burst ability

Tranquillity Burst

Tranquillity burst is a charged ability, which locks the player in place for a small duration, before releasing a large pulse of purity energy that deals damage in a radius around the player and knocks enemies back. This ability is found on the secondary path at the overlook point of the grand hall.

Character Physics

Jumping

The characters jump height is scaled based on the time the jump key is held – the duration the key is held for is then clamped by the engine to a maximum velocity. This gives the character controller a much more dynamic jump and gives the player more autonomy on how high they wish to jump when deciding to.

General movement

The player has two primary traversal options – standard movement with the movement keys, and the use of the dash ability. Due to the cooldown of the dash ability, it is not viable to simply utilise one or the other. The dash ability is required to access the optional boss in the level, meaning that to traverse all areas in the castle, and understanding of the different movement capabilities of the player will be key.

Character statistics

Character Weapon Loadout

Starting weaponry
The player initially begins with no weapon, but within the first few moments of the level will quickly be able to equip a base sword during the introduction to the inventory system.

Weapon Upgrades
Throughout gameplay, the player can acquire a selection of different weapons to choose from by opening chests, breaking lootable boxes and killing enemies. Each weapon can be equipped through the player inventory menu (see UI wireframes for a more detailed look at these)

Base stats			
Base HP	Base Purity	Base Damage	Min Strength
100	100	Varies on weapon	25

Max Stats			
Max HP	Max Purity	Max Damage	Max Strength
200	250	Varies on weapon	45

Item Stats

Weapon Stats
Below is a table of each weapon in the level, and their respective stats. These values are taken directly from the engine, and the subsequent weapon values are used during damage calculations when the player attacks.

Weapon Stats		
Weapon Name	Attack Damage (pre-stat calculations)	Attack Speed
Basic Sword	30	1.0
Base Axe	38	1.1
Templar Sword	33	1.3
Hammer	30	1.4

Potion Stats

Each potion in the level can be obtained from lootable items, and enemies. The potion type determines the amount of health restored from the potion – the table of these values are below. Potions can be used by the player interacting with the item in the inventory UI, adding the potions heal amount to their current HP, clamping the new value to the current maximum health of the player.

Potion Stats	
Potion Type	Heal Amount
Small Potion	25
Medium Potion	50
Large Potion	100

Game Conditions

How do you win?

The player can complete the level by either cleansing all the areas via the altars in the level, and then kill the boss for a 'good' ending, or simply defeat the end-level boss and activate the final altar for an alternate ending.

How do you lose?

The player can lose the level through dying, at which point they will respawn at the previously used altar and enemies in uncleansed areas will respawn.

Can you die?

The player can die through taking lethal damage from enemies or environmental traps. They will respawn at either the altar used most recently, or the player start position if no altar has been used.

Rewards and Progress

Achievements based on player type such as collector, explorer, killer.

The level aims to accommodate all disciplines of player personality, by providing ample opportunities for each type of player to engage with gameplay in different ways. An explorer can find a plethora of alternate and secondary paths to take throughout the level and maximise their completion of the level by cleansing the whole castle of evil and activating all altars. A collector on the other hand, would enjoy traversing secondary paths of the level to find lootable items, and killing as many enemies as possible to maximise drops and their overall strength. A player who prefers combat can find entertainment on the critical pathing of the level – killing enemies that block their way and fighting the two bosses the main path of the level has to offer.

Score such as multipliers, kills, kill count, collection based.

The accumulation of different weapons can be key to defeating specific bosses – if a player is having trouble with a specific section of the level for instance, they can quickly respawn and explore an alternate path to accumulate different weaponry, equip those weapons, and have a much easier time getting past a point in the level. Additionally, a player who activates all the altars in the level will have a different ending sequence to a player who does not. The percentage of evil being cleansed from the castle being shown to the player upon completion creates a soft-scoring system where a player can be encouraged to find all the altars to get a 100% score.

Character Progression

Throughout the level, the player will slowly unlock more abilities for Lazlo to utilise in order to defeat increasingly harder enemies – these abilities are obtained through exploring secondary areas and progressing through the critical path of the level. Additionally, Lazlo can level up through the framework's built-in XP system, allowing a modest stat increase and a moderate increase in the player's overall strength when enough enemies are killed.

Key Drops / Usage

The drops that are key to player progression are comprised of the three different abilities available on the map – although not required to reach the end of the level, for the player to explore all areas of the map, these abilities are required. Below is a map of these drops overlayed with the critical pathing of the level. These are subject to change, however the key drops in the level are below.
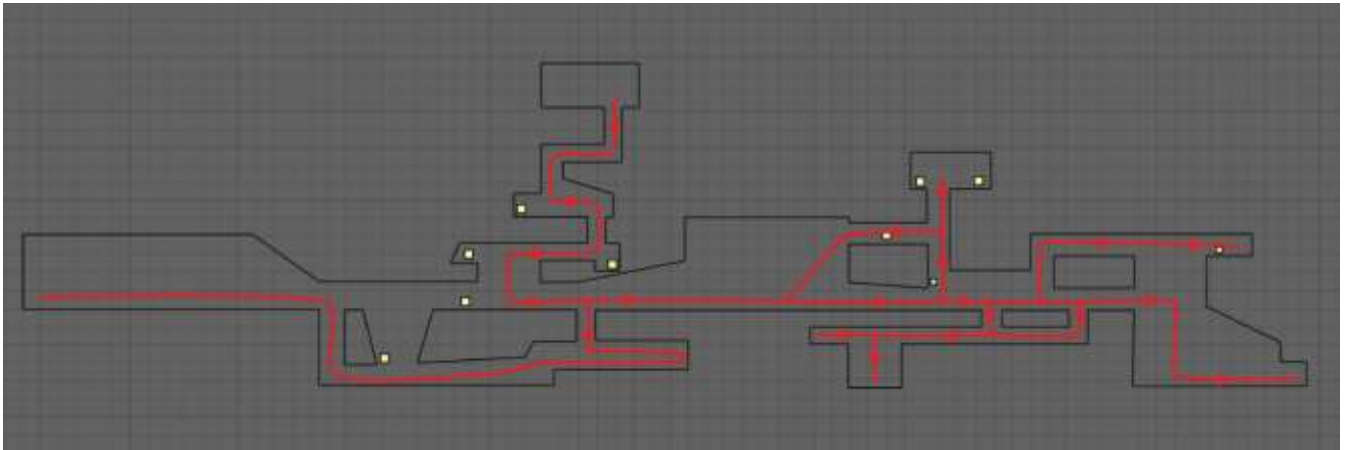

Figure 28 – Map layout with critical pathing and key drops shown

Enemy Design

Enemy Behaviour characteristics

The enemies in the level use a basic patrol system, in which a random point is selected and projected into the XY plane of the level, which the enemy then moves to using a basic AI controller. If the player is found during this movement, the enemy will stop moving and attack in the direction of the player until they leave the attack radius of the enemy.

Enemy Abilities

Each base enemy has different characteristics which vary combat in each encounter – with different enemy types having varied attack ranges, movement speeds, and attack speeds. This challenges the player to think during each combat encounter and consider how to approach a wave of enemies using the gameplay mechanics they have unlocked.

Enemy Theme

All enemies are evil entities which invaded earth after the defeat of the templars many years ago – they take on various forms, but all share a common theme of being ethereal beings – some of the names come from mythic literature (Draugr, Lich and Yaokai)

Enemy Stats

Below is a table of the base enemy stats from values inside the engine.

Enemy type	Health	Speed	Strength	Defense
Draugr	75	300	25	15
Lich	150	200	35	20
Bombers	250	250	25	20
Ice Giant	1200	N/A	65	20
Guardian of the Keep	1100	250	55	25
Troll	1100	150	60	20