



SUBVERT

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1. Introduction

1.1 Abstract

“Souls-like where you control a heretic alien monk who has the power to manipulate the spacetime”



A third person action-adventure game that takes place in a hostile lugubrious planet. The untamed nature of the planet will require the player to strategically use his melee and spacetime abilities in order to survive from the environment and maddened enemies. Defy death while trying to prevent the incipient destruction of the world ruled by an ancient religion of worshippers of a black hole. As an ex member of this religion, our protagonist will have to face the high clergy and their plans to accelerate this destruction.

1.2 Backstory

Everything on the planet is lugubrious, harsh and decadent. The orbit's proximity to the black hole, Sev, has affected living conditions in every possible way and every living being fights for its survival at any cost. Meanwhile, the monks of the Ukh religion have been worshipping Sev for millennia. Time and space expands and contracts, shortens and lengthens more and more intensely as the planet approaches the event horizon. The monks have learned to manipulate this space-time and use its power through their prayers to accelerate this approach and further increase their powers. In two years the planet will

finally be absorbed, originating the end of time and a new era that they hope will eradicate disease from the planet.

Our protagonist is a high-ranked ex-monk who walked away from the cult because he did not share the vision of the ancient scriptures. He thinks that the prayers should be directed to move the planet away from Sev to end the agony and that the current drift is suicide. Since then, he has been preparing to reverse this situation and is psyched to do anything to achieve it.

2. Core Gameplay

2.1 Mechanics Overview

The player takes on the role of Eon who has the main goal to tear down the Ukh cult, being itself a former zealot of this religion. As part of the cult, Eon has a set of abilities that have been taught to all the members:

- **Combat:** Eon has a sword with which it can fight its way against the enemies that he faces throughout the game. Eon can also parry attacks, dash to dodge perils or dash across gaps not to fall into pits.
- **Spacetime warp:** Eon will learn a series of skills across the game by defeating some of the most important members of the cult. This wisdom can only be imparted to Ukh members and includes self healing, time reversal and area delay.

Eon has three basic **stats**: **health**, **stamina** and **warp energy**. Stamina governs the amount of physical skills Eon can perform in a row before having to wait for it to refill. All offensive and defensive actions (such as parrying or dashing) consume stamina, which regenerates automatically.

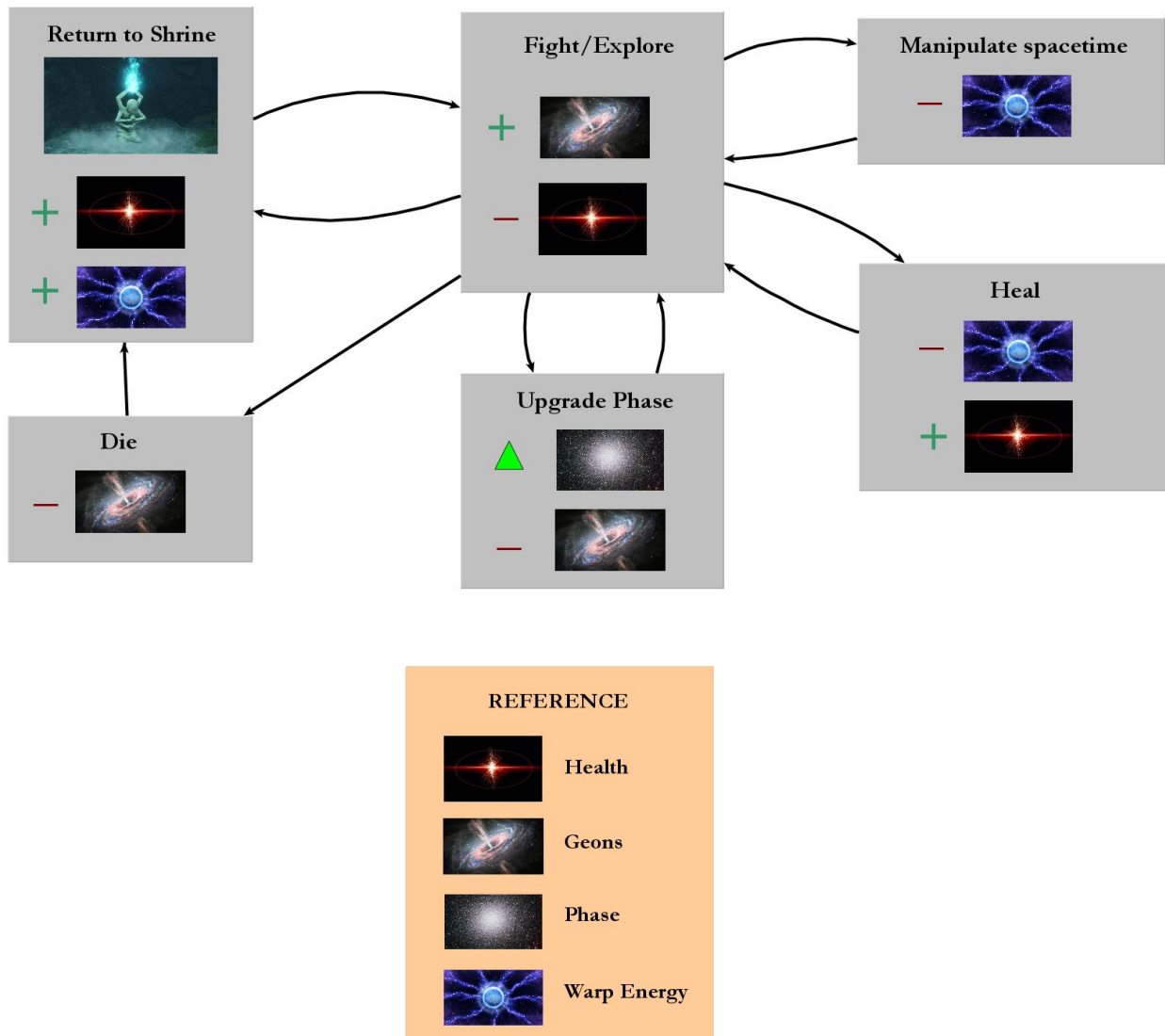
On the other hand, Eon is able to distort, dilate or alter the spacetime consuming warp energy. This energy can be used mainly to **heal** Eon, though across the game it will learn two abilities. **Time Reversal** allows Eon to **rewind time** for itself to recover part of its health, to escape from dangerous situations and to damage enemies wherever it returns. **Area Delay**, can be used to generate an area which speeds down every dynamic object underneath it, including enemies and projectiles. The only way for Eon to restore its warp energy is by successfully hitting enemies.

As well as the basic stats, Eon has different **attributes** which define both its defensive and offensive power. The basic stats are governed by three of these attributes: **Vitality** defines maximum health, **Coherence** sets the maximum warp energy while **Endurance** determines the amount of stamina Eon has. Simultaneously, Eon's attack damage is defined by its **Strength** and **Armor** rules its protection against overall damage.

Eon can enhance these attributes all through the game. Whenever Eon kills an enemy, it will obtain a number of **Geons** (gravitational electromagnetic entities), which are the main currency of the game. When Eon has a specific number of Geons, Eon will enter a new **Phase** (i.e. Eon's skill level). At this point, Geons become a new phase, and some of Eon's attributes will be raised.

2.2 Core Loop

The next diagram shows a summary of the core loop of Subvert:



- 1- During the game Eon will **Fight and Explore**, encountering a variety of enemies, either basic, major ones or bosses. When these enemies die, Eon will obtain **Geons** at the expense of losing its **Health**, or even **Dying**.
- 2- Whenever necessary, Eon can **Manipulate the spacetime** using spacetime warp abilities, which consume **Warp Energy** while giving Eon an offensive or defensive advantage, depending on how the player uses them strategically.
- 3- Likewise, Eon can recover a great fraction of its health by **Healing**. This process, which can be risky, consumes **Warp Energy** but increases Eon's current **Health**.
- 4- When Eon obtains a certain number of **Geons**, it will **Upgrade its current Phase**. As a consequence, this will enhance some of its attributes (depending on the **Phase**) and all of the current **Geons** are eliminated. Eon must start collecting them from scratch to turn into a higher **Phase**.

5- During the exploration, Eon will find a limited number of **Shrines**. When the player decides to pray at one of these, Eon will restore all of its **Health, Stamina** and **Warp Energy**. Nonetheless, this may be risky, as all of the enemies that had been killed before will be respawned (with the exception of mini bosses and bosses). Eon can always return to a Shrine whenever necessary or rest at new ones.

6- During the exploration and combat, Eon can **Die** (which is very likely). In such a case, the player will restart from the **last visited Shrine**, losing as well all of the **Geons** that had been collected so far.

2.3 Win/lose conditions

Subvert players can either win or lose while playing, and their skills and strategic abilities will determine the success of the player. The bottom line of the flow of the game is that **losing is also winning**, or, in other words, dying has rewards: learning from past mistakes, being patient and improving her or his skills.

Victory conditions

On a short-term level, the player has to kill one enemy at a time, which grants the player with Geons that can be used to make Eon more powerful. Therefore, killing an enemy does not only mean to get rid of an enemy, but also to make Eon more powerful and at the same time making the player feel accomplished.

On mid and long-term level, Eon must kill the mini bosses and bosses which are the heads of Ukh and get to the end of the game alive. Should the player be successful in these endeavors, Eon will learn new skills that enrich the player's overall experience.

Defeat conditions

Not anecdotally is the verb **Die** part of the core loop of the game. Players will and **must die** in order to improve their abilities and feel that both Eon and them are becoming more powerful with each death. As a punishment, Eon will lose all the Geons that had been collected before dying, reviving in the last Shrine and having to kill again all of the enemies (or run past them). However, this punishment will make the player wonder what his or her mistakes were, or maybe come up with a better strategy.

Risks

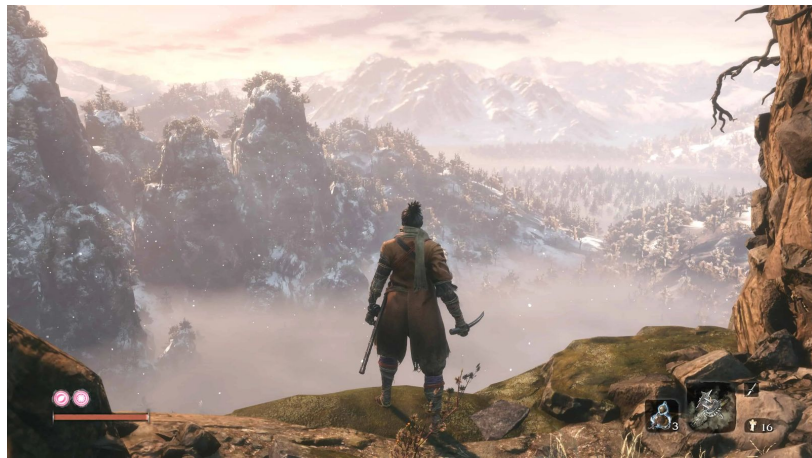
Each decision the player takes during gameplay will be very important and risky to reinforce the idea behind the learning curve: the best way of learning and winning is dying. Some of these decisions are:

- **Be more aggressive or passive?** The player may want to study the enemies' moveset before making up his or her mind and choosing what to do next, or be completely offensive despite the risk of dying. The only way of winning is killing, which demands some aggression from the player, which is risky.
- **Fight or flight?** When low on health, the player will have to choose either to keep fighting or running away. Eon needs to fight and hit enemies to recover its warp energy, but it may die and lose its geons. However it can run away and heal, but an enemy may catch Eon while healing.
- **Keep moving or return to a Shrine?** If Eon is low on health and has some geons, the player may decide either to return to a Shrine and heal, but all of the enemies will respawn. If Eon keeps moving then it may find a Shrine later in the level, hit enemies and gain warp energy to heal or die.
- **What is the best strategy against an enemy?** Some enemies require the player to perform only regular attacks, while in other situations Eon will need to slow down aggroed foes, or use time reversal to attack enemies along the way. Each action has a cost (either in stamina, warp energy or exposure) and a reward (more winning likelihood).

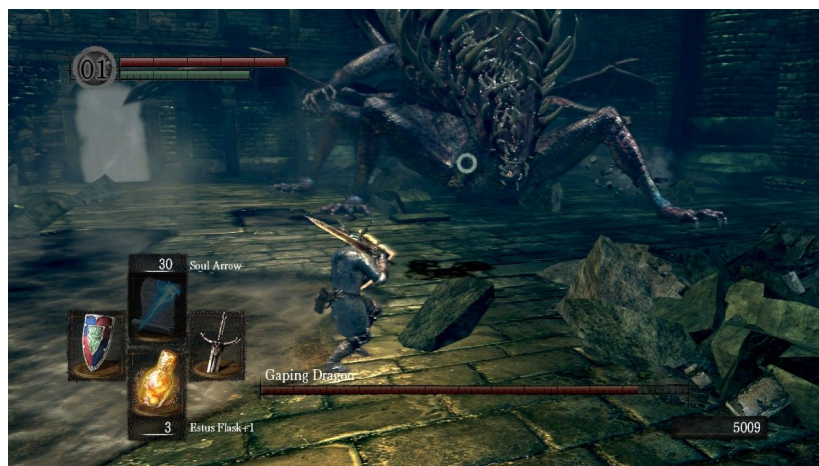
3. Camera

The game uses a third person camera located right behind the character, who is seen completely from head to toes. The game has different types of camera depending on the situation of the main character:

- **Free camera:** The player has total freedom to rotate the camera around the character. The camera will be located near the character to allow the player to visualize the level and, at the same time, be immersed in the playthrough.



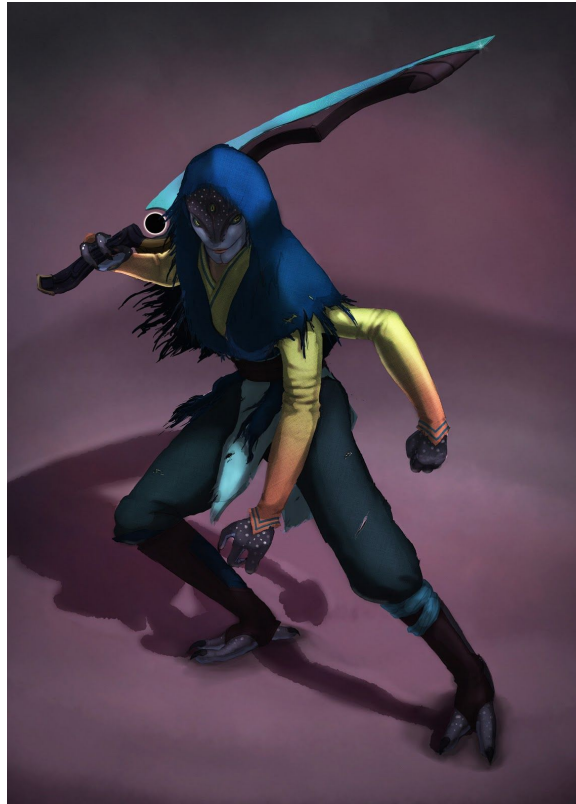
- **Lock-on camera:** If the player needs to, it is possible to focus on an enemy using the lock-on camera. This can be activated manually: that is to say, the player has free will to choose between free camera or lock-on. If there are two or more enemies, the player can lock the camera on only one of the enemies, but it can switch between enemies choosing the direction of the enemy with the right stick



- **Free Aim camera:** The player can cast the area delay ability either in its current position or in a different one, selecting it by aiming in a specific direction. The aim will use a free shooting camera available when pressing the lock-on button and the area delay button at the same time.



4. Eon



4.1 Stats

The character stats define the player health points, attack damage, stamina and all the attributes that affect the performance of Eon throughout the game.

4.1.1 Health

- This is the Eon's **hit points**, also referred to as HP.

- It represents the amount of damage Eon can take before dying
- When health drops to 0, the character dies (unless the player has enough Warp energy to perform a **Time Reversal**)
- Maximum health can be raised by increasing **Phase (Vitality)**
- The player can heal Eon in two ways:
 - Using **Time Reversal**, recovering the previous health
 - Using **Heal**

4.1.2 Stamina

- Stamina is used for every action that the player carries out with the exception of: walking and jogging (sprinting reduces stamina)
- Every action depletes a different amount of stamina
- When stamina drops to 0, Eon can only walk or jog
- Maximum stamina can be raised by increasing **Phase (Endurance)**
- Stamina regenerates automatically over time while Eon is not performing any action that requires stamina.

4.1.3 Warp Energy

- Warp Energy is used to perform spacetime warp abilities, i.e. abilities that distort, dilate or contract time
- This energy is also used to heal Eon
- Initially the warp energy bar is divided into 6 slots
- It can be restored in two ways:
 - In shrines: warp energy is completely restored
 - By hitting enemies: every successful hit recovers 20% of a slot
- Maximum warp energy can be increased by increasing **Phase (Coherence)**.
- When maximum warp is increased, a fragment of a new slot is added

4.1.4 Attributes

Eon has a series of attributes which affect its overall performance. These attributes start with a value of 1 and are increased when Eon transitions to a new **phase**.

4.1.4.1 Strength

- Strength scales **Damage Sent** to enemies. **Damage Sent** does not reflect the final damage taken by a target, as it has not been reduced by the target's defense yet.
- The **Base Damage** is the **Damage Sent** before considering your strength level

- **Base Damage** for each attack is the following:
 - Regular attack: 40
 - Strong attack: [60,80], depending on how long the player holds the button for a maximum of 3 seconds
 - Dash strike: 20
- The **Damage Sent** follows the formula below:

$$DMG\ Increase\ Ratio = 5$$

$$Damage\ Sent = [Base\ Damage] + ([Strength] - 1) * [DMG\ Increase\ Ratio]$$

4.1.4.2 Vitality

- Vitality scales how much **Maximum HP** Eon has.
- The **Base HP** is 100 and it is the HP before considering your Vitality level
- Eon's **Maximum HP** is calculated following this formula:

$$HP\ Increase\ Ratio = 5$$

$$Maximum\ HP = [Base\ HP] + ([Vitality] - 1) * [HP\ Increase\ Ratio]$$

4.1.4.3 Armor

- Armor scales Eon's **Total Damage Received**.
- The **Total Damage Received** follows this equation:

$$Total\ Damage\ Received = [Damage\ Sent\ By\ Enemy] * (1 - [Armor] / 12)$$

- For instance, if DamageReceived = 80 and Eon has an Armor of 2, then the total damage received is 72

4.1.4.4 Coherence

- Coherence increases Eon's **Maximum Warp Slots**, consumed for spacetime abilities.
- Eon has a **Base Warp Slots** of 6

$$Maximum\ Warp\ Slots = floor([Base\ Warp\ Slots] + ([Coherence] - 1) / 2)$$

4.1.4.5 Endurance

- This represents the **Maximum Stamina** that Eon has

- Eon has a **Base Stamina** of 100 which is incremented with a specific Stamina Increase Ratio according to the following formula:

$$STA\ Increase\ Ratio = 10$$

$$Maximum\ Stamina = [Base\ Stamina] + ([Endurance] - 1) * [STA\ Increase\ Ratio]$$

4.2 Geons

Geons represent the experience points and are the “currency” to increase levels.

4.2.1 Source

- Geons are dropped by enemies when they are killed and are automatically absorbed by Eon

4.2.2 Destination

- When Eon dies, the player loses all the geons that were collected since the previous **Phase**
- When the amount of geons reaches a predefined threshold, it will consolidate into a **Phase**

4.3 Phases

- Phases represent Eon’s skill level and raises its attributes
- They are not lost under any circumstance, not even Eon’s death
- Eon starts at phase 1

4.3.1 Transformation of Geons into Phases

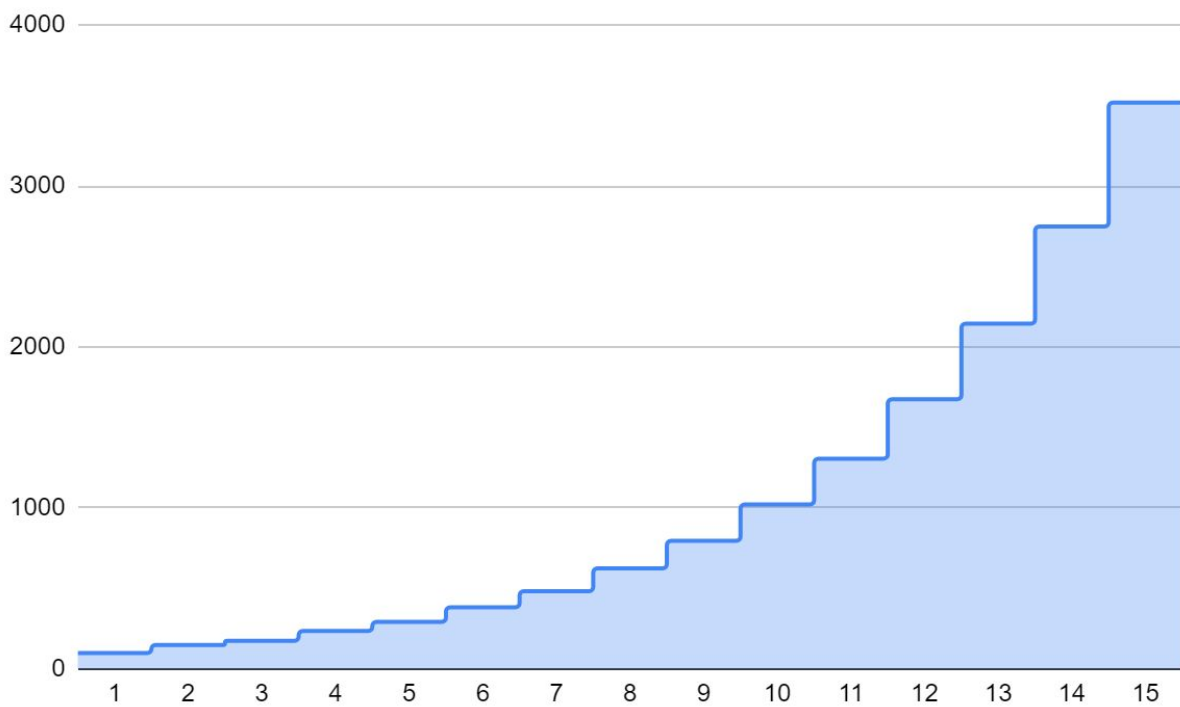
- When Geons reach a certain level, Eon automatically transitions into a new Phase
- Eon has a number of **Current Geons**. Whenever it receives an amount of Geons (**Gained Geons**) these are added to the **Current Geons**. If the **Current Geons** exceed the number of Geons required for a new Phase, Eon will transition into a new phase.
- The number of Geons that Eon will have after entering the new phase is:

$$Geons\ After\ PhaseUp = (CurrentGeons + GainedGeons) - PhaseRequiredGeons$$

4.3.2 Geons required per Phase

The following formula describes the number of geons required to raise your current phase, it follows a Fibonacci progression.

$$Geons\ To\ Phase\ N = [(Geons\ To\ Phase\ N - 1) + (Geons\ To\ Phase\ N - 2)] * Geons\ Increase\ Ratio$$



4.3.3 Attribute Allocation

- When Eon transitions into a new Phase, some of its attributes are raised according to the following table

Attribute	Condition
Strength (S)	On every even phase
Vitality (V)	On every odd phase
Armor (A)	Every 3 phases (starting from 0)
Coherence (C)	Every 3 phases (starting from 1)
Endurance (E)	Every 3 phases (starting from 2)

- Summary of attribute allocation:

	2	3	4	5	6	7	8	9	10	11	12	13	14	15
S	X		X		X		X		X		X		X	
V		X		X		X		X		X		X		X
A		X			X			X			X			X
C			X			X			X			X		
E				X			X			X			X	

The attributes are automatically allocated. Whenever Eon changes to a new phase, the HUD notifies the change and the attributes that get boosted in each corresponding phase change.

5. Mechanics

5.1 General Control

5.1.1 Movement: idle, walk and run

- Eon can move in any direction on the floor
- Eon starts in an idle state and it can walk or jog depending on the input value

5.1.2 Camera control

- The player can rotate the camera around Eon
- Camera rotation can only be performed while the camera is not locked onto an enemy

5.1.3 Target lock-on/Camera reset

- The player can toggle between free camera and lock-on camera
- When there are two or more enemies, the camera will lock onto the nearest foe
- If there are no enemies nearby, pressing the lock-on button will reset the camera, with the character in the center
- If the camera was locked on an enemy and the player presses the lock-on button, the camera will be set to free camera
- Once the player locks on to a foe, the character will continually face the foe as it moves around
- When the locked on foe dies, the camera will be set to free (unless there are more enemies nearby)
- The player can move the right stick around while locked on in order to change the target to the nearest one on the right or on the left

Restrictions

- The camera can only be locked onto a single enemy
- The player can only lock the camera on visible enemies who are near Eon within a maximum distance range.
- If a locked-on enemy goes out of sight, either because of its distance or because a static non-transparent object is placed in between the enemy and the character, the camera is reset to the free camera.

5.1.4 Sprint

- Eon can sprint while pressing the sprint button and pushing the left stick all the way in a direction
- Stamina cost: fixed per frame

5.1.5 Dash

- When the player taps the dash button, the character performs a dash in the direction indicated by the left stick
- Dash can be used:
 - Defensively: for dodging attacks or retreating (as a backstep)
 - Offensively: to position the character around or in front of enemies
 - Evade holes throughout the level
- The player cannot change directions during the dash (that is, the character dashes straight to the pointed direction)
- Eon is visible during the dash
- Eon moves a certain distance away from its original position
- The character stops the dash if it hits any static object
- Eon lightly pushes back all collided enemies during the dash (with the exception of big enemies)
- Eon is invincible to any melee attacks and projectiles during the dash
- Dashes cannot be cancelled into another dash or any other movement
- Stamina cost: fixed per dash
- Cooldown: 0.2 seconds

5.2 Combat

- These abilities require **stamina**
- The character starts with all of these abilities
- Any damage will be interrupted upon receiving an enemy hit (only on start up frames)

5.2.1 Melee - Regular attack

- Regular attacks can be chained one after the other
- Cost: fixed per attack

5.2.2 Melee - Strong attack

- If the player holds down the button, it can perform a charged attack
- Stamina Cost: fixed per attack

5.2.3 Dash Strike

The same rules that apply to dashes apply to dash strikes, with some new ones:

- To perform a dash strike, the player must press the dash button and the regular attack button at the same time
- While performing a dash strike, the character inflicts damage to anything that the weapon hits on its way
- Dash strikes cannot be cancelled into any other movement or attack
- Stamina cost: $\text{DashCost} + \text{RegularAttackCost}$
- Cooldown: 0.4 seconds

5.2.4 Parry

- To perform a parry, the player must tap the parry button
- When an attack is incoming, the player can choose to parry the attack and, if it is timed right, the enemy can be staggered
- Parries can be performed on two types of attack:
 - Melee regular: Can only be performed when the character and the enemy are at the same level of elevation
 - Projectiles (ranged attack)
- It can be performed on one enemy at a time
- The parrying animation has startup, active and recovery frames as any other combat movement. Parries connect successfully only when their active frames coincide with the active frames of the attack of an enemy.
- Stamina cost: fixed per parry

Effective parries

Next are the consequences of a successful parry:

- The parried enemy is staggered for a short time and cannot move or attack
- Eon can perform an attack with extra damage

5.2.5 Finisher

- When a close enemy's HP drops to 0, the player has up to 2 seconds to perform a finisher by pressing the same button as the regular attack
- A successfully executed finisher has the next consequences:
 - Eon will gain 20% more of the geons that it was supposed to gain from the enemy's death without performing a finisher
 - Eon will recover 10% of its maximum warp energy
- Finishers cannot be performed on bosses or mini-bosses

- If the player was unable to perform a successful finisher, the enemy will instantly die, dropping the normal amount of geons

5.2.6 Backstabbing

- Eon can backstab enemies when performing a dash strike
- If the strike hits the enemy on the back (even if the enemy detected or not Eon) Eon performs a backstab, dealing 50% more damage than a regular dash strike
- Only basic enemies can be backstabbed

5.3 Spacetime Warp Abilities

Spacetime warp abilities require **warp energy**.

5.3.1 Time Reversal

Eon starts with this ability

- It allows the player to return to a previous location **up to 5 seconds before the present**. Only Eon goes back in time, the environment and enemies are unaffected
- When the ability is activated, there is a trace of Eon's past locations to help the player choose when to deactivate the ability
- The ability is deactivated if one of these happen:
 - The player releases the button
 - 5 seconds have elapsed since time reversal was activated
- When the ability is deactivated:
 - Recovers:
 - The position and rotation at a specified time
 - 50% of the HP that Eon lost between the activation and deactivation periods
 - Stamina at the specified time
 - Eon emits a radial force, pushing away every enemy that is located nearby
- **Warp energy cost: 2 slots (independent of the amount of time returned)**. If the player returns less than 5 seconds, the cost is always 2 slots.
- After using the ability, there is a **5 seconds cooldown** until it can be used again
- Eon is **immune to all enemies** while the ability is active
- The character goes through any enemy that is on its way back (as if it were a ghost)
- When Eon dies, the player has 5 seconds to activate this ability to rewind time

- If the player is locking onto a target, the lock-on will be deactivated while the ability is active. When the ability is deactivated, the lock-on will be reset to the last locked-on enemy

Concurrency with other actors

With Enemies

- Eon will emit a radial force at the location it ends up, pushing every nearby enemy away (knockback effect)
- The Time Reversal knockback effect has a **base damage**, with its maximum value in Eon's position and 0 at the boundaries of the radial force area.
- The damage dealt to enemies by the Time Reversal depends on its base damage, Eon's **Coherence**, the radius of the knockback area and the distance between Eon and the enemy:

$$DamageDealt_TimeReversal = [TimeReversalBaseDamage] \times [Coherence] \times \frac{[Radius] - [Distance]}{[Radius]}$$

With moving, non-damaging objects

- This includes doors and platforms
- If Eon ends up in the same location as one of these objects, Eon returns to the point where he started the time reversal, losing the warp energy in a failed attempt to use the skill.

With moving, damaging objects

- This includes traps
- In this case, the object will damage Eon as it would happen in a normal time flow

5.3.2 Area Delay

Eon will learn this ability after killing the golem Gard

- It allows the player to slow down every moving entity that is located in a specific area
- Eon and everything outside the area move at their normal speed
- **Warp Energy cost: 1 slot**
- Players can use this ability when necessary if they have enough **Warp Energy slots**
- The player can activate the ability in three different ways:

- **Eon's location:** the player presses and releases the Area Delay button and the area is automatically spawned where Eon is
 - **Locked-on enemy:** while Eon is locked onto an enemy, if the player presses and releases the Area Delay button then the area is automatically spawned where the enemy is.
 - **Free aiming:** the player can press the Area Delay button while pressing the lock-on button, then aim with the right stick. When the area delay button is released, the area will be spawned in the target.
- Only one area delay can be placed at a time. In other words, the ability cannot be activated again if it is already active somewhere else

5.3.3 Healing

Eon starts with this ability

- It allows the player to heal Eon
- **Warp Energy cost: 4 slot**
- Every time the player heals Eon, health will increase 30% of Eon's **Maximum Health** (or fill Eon's health gauge if Eon has at least 70% of its maximum health)
- When the player presses the button to heal Eon, the game will start an animation. Right after the animation ends, Eon will be successfully healed
- Healing can only be performed on the ground

Successful and unsuccessful healings

- Healing can be interrupted if Eon is attacked during the heal animation
- If the healing was interrupted:
 - Eon will not be healed (is health will not increase)
 - The cost will not be deducted from the current warp energy
- If the healing was successful:
 - Eon will be healed right after the animation ends
 - The cost will be deducted from the current warp energy

6. Environment

6.1 Shrines

- Shrines work as the checkpoints throughout the game
- Praying at a shrine has the following effects:
 - Complete restoration of Eon's HP, Stamina and Warp Energy
 - It becomes the latest checkpoint
 - All of the enemies that had been killed before praying at the shrine will be respawned (with the exception of mini bosses and bosses)
 - All of the traps that had been activated before are set to deactivated
- When Eon dies, it will restart from the shrine the player last prayed at. This has the same effects as praying at a shrine (with the addition of the loss of the previously accumulated geons).
- The status of the following is unaffected when Eon prays at a shrine:
 - Permanent doors or bridges that had been activated
 - Destructible props that were broken

6.2 Props

Non-destructible props

- Eon and all of the enemies collide with non-destructible props
- They cannot be shattered by anyone, not even bosses

Destructible props

- Eon and all of the enemies also collide with destructible props
- These can be shattered when either Eon or the enemies land a hit on the prop
- Sometimes these props may block Eon's way, and the only way to free the path is to shatter them

6.3 Fall damage and pits

- Eon may find several pits all over the level and the player must be aware of them not to let Eon fall down
- The game does not prevent Eon from falling down, i.e. there are no invisible colliders on ledges

- Eon can fall into bottomless pits and off ledges

Bottomless pits

- Eon will die 2 seconds after falling into a bottomless pit,
- The player has a 5 second window to use time reversal in order to revive Eon

Falling off ledges

- Eon may fall off a ledge into a lower area
- If the falling distance is enough (that is if Eon fell from a great height) then Eon will take fall damage, which may cause death

6.4 Doors

- In some situations, Eon must open a door that blocks his way by activating the associated switch
- There are three types of doors:
 - **Timed:** when Eon activates their associated switch, they remain open for a while and close afterwards. Sometimes these doors remain open for a very short time
 - **Normal:** once Eon activates the switch, the door is opened and if the switch is activated again, the door will be closed
 - **Opens only once:** the door will remain open permanently once Eon activates the switch

6.5 Traps

- **Traps are deadly:** when Eon falls into one, it dies instantly. However, the game will wait for a short time so that the player is able to activate time reversal.
- **Traps also affect enemies:** if they get in their way, enemies die too.
- There are no traps in bosses or mini-bosses' areas
- **All traps are unavoidable:** they cannot be eluded with movement actions, unless the player uses a combination of spacetime warp abilities.
- There are two types of traps:
 - **One-time:** once they are activated they can never be activated again. These extend to the following:
 - **Collapsing ceiling:** debris that falls over Eon from the ceiling when it goes through an area

- Collapsible floor: trap that mimics the actual floor but when Eon steps on it, crumbles down
- **Accelerated objects:** once they are enabled, they are constantly activated. The only way to elude them is to slow down time near them. These include:
 - Debris anomaly: similar to collapsing ceiling but once it falls down, time reverses in the area and the rubble goes back up and falls again. This is so fast that the player must either dash to dodge them or use area delay
 - Perpetual rotation door: it is a gate that rotates constantly at such speed that Eon cannot go through. The only way is for the player to use area delay

6.6 Bridges

- Bridges are necessary to go across a gap which is so large that the player cannot dash over it
- They have to be activated with a switch
- There are different types of bridges:
 - **Normal:** once Eon presses the switch, the bridge is activated and if the switch is pressed again, the bridge will be deactivated
 - **One-time lifted:** when Eon activates the switch, the bridge is automatically activated and stays this way permanently
 - **Timed:** when Eon activates the switch, the bridge is activated and stays this way for a while. Afterwards, the bridge is deactivated.
 - **Broken:** these bridges have a broken mechanism. When the switch is activated, the bridge rises from the gap and when it gets to the final position, instead of staying in it, it goes back to the gap and gets deactivated

6.7 Murals

- Eon will come across different walls with images about the lore and the level itself
- When Eon inspects a mural, a message will appear indicating how many murals have already been observed and how many are left

7. Enemies

7.1 Basic Enemies



The three basic enemies are monks from Ukh order who are dutiful, obedient and fearful of their god. They are not necessarily bad people (some of them are) but they will blindly follow the commandments of their religion and use force when necessary.

7.1.1 Sulking monk - (Enemy 1 Basic)

HP	Weapon
80	Lance

Behaviour	Attacks
Patrol walking	Thrust: Forward spear pushing
Recovers life	Circle spear attack: Enemy makes a circular motion with his body and the spear in only one hand

7.1.2 Crying Monk (Enemy 2 Basic)

HP	Weapon
60	3 Daggers

Behaviour	Attacks
Patrol walking	Stab: Knife stabbing
Sprint	Sprint Stab: High power knife stabbing
Recovers life	

7.1.3 Mulling Monk (Enemy 3 - Ranged)

HP	Weapon
50	Energy lance

Behaviour	Attack
Acts as a centinel , warns the other basic enemies Eon's presence	Ranged attack: Shoots energy beams from the lance. The energy beams can be delayed with the area delay skill and can also damage other enemies.

7.2 Mini Bosses

7.2.1 Gard



Gard is the 1st mini boss you fight. He is a hostile creature that does not respawn after being killed, and he will give you the **Area Delay** ability.

HP	Weapon	Location
500	Hands and vines	Grotto

Skills

- **Basic attack:** Gard punches the ground with his rock arm dealing 40% damage
- **Ranged attack:** if the player is at medium/large range he punches the ground with the lianas arm and they appear in the players position dealing 20% damage and launching the player away.
- **Area attack:** Gard swings the vines arm and deals 30% damage and launches the player away.
- **Area delay:** Gard screams slowing down the time in a range of 20m from him for 5 to 10 seconds

Strategy

Gard attacks are slow and have a clearly visible anticipation. The best option to defeat it is to dodge him and try to attack him between arches.

The best option when Gard uses his area delay attack is to leave the zone and avoid being hit by him.

7.2.2 Lesath



Lesath is the second mini boss in the game. You can find him praying in the garden. He is a hostile creature that does not respawn after being killed. Also, after being defeated, the chapel will become a usable checkpoint for Eon.

HP	Weapon	Location
1000	Two sickles	Garden

Skills

- **Basic attack:** It is a close range attack that deals 15% damage.
- **Strong attack:** He joins the two sickles and makes a diagonally strong attack, doing a 20% damage.
- **Strong dash attack:** If he is at medium or long distance from the player, he will make a sliding attack with the swords making a scissors shape that will cause 35% damage.
- **Dodge with attack:** If you try to attack with dash, he can dodge it with a circular movement and attack you.
- **Time Reversal:** He can use that to quickly change position and disorient the player, or to restore his health.

- **Dash:** He can move quickly to dodge attacks
- **Parry:** He can parry your attacks to perform a counter

Strategy

Most of Lesath's attacks can be avoided by dodging him at the last second. Many of his moves require him to first line up his attack, giving Eon time to move or prepare. Otherwise, doing in a timely manner during one of these common attack operations may be a bit more risky, but it will still prevent Geon from being hit. Lesath can be staggered when he receives a strong attack, being helpless for a few seconds.

The **first phase** will be the easy part, and the boss will let you have the advantage. Most of his attacks will be basic, with some strong attacks and he will dodge you. When he dies in this phase, he will use the Time Reversal ability to revive and his life bar will increase by two thirds.

With that, the **second phase** begins. Now Lesath attacks faster and more aggressively. He will stop attacking close, and will try to take distance to make a strong dash attack. But if you get too close he will dodge you and fight back, or he will use Time Reversal to confuse you about his location. If you try to attack him with a strong dash attack, he can use dodge with attack. If he received a lot of damage, he can use Time Reversal or get away from you to attack you with a dash. One particular usage of the Time Reversal skill worth noting is that she will tend to cast it when both Eon and Lesath have been moving in the same direction for a while, so that Lesath reappears behind Eon to catch him off guard.

7.3 Final Boss: Cygnus



The Boss in the game is the final step to finish the game. You find it in the church. It is a hostile creature that Will try to kill you with melee attacks and time control skills. It can reverse time to recover from a powerful hit and slow down time in an area to more effective melee attacks. After being defeated the game ends.

HP	Weapon	Location
5000	Legs, claws, Black Hole Ray in last phase	Church/Temple

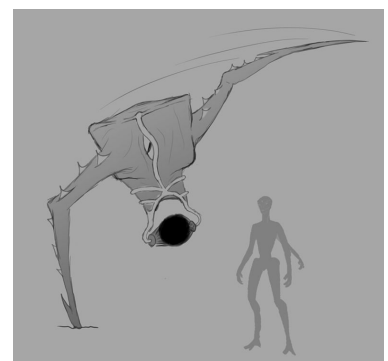
7.3.1 Skills

- **Basic attack:**
 - (1,3) Close up melee attack alternating with upper arms.
 - (2) Kick attack with legs.
 - 20% damage.
- **Strong attack:**
 - (1,3) Melee attack with joined upper arms.
 - (2) Stomp with legs.
 - 30% damage.

- **Parry:**
 - (1,3) Makes an X with upper arms to self protect.
 - (2) No.
- **Ranged Attack:**
 - (1) Makes a gravity field to itself to attract Eon, at the same time makes a self swirl to hit.
 - (2) After consecutive damage on its legs, Cygnus makes anti-gravity for Eon in a closer area to make him float, once at his height, melee attacks with upper arms.
 - (3) Raise its body to expose the black hole, shoot a ray from it side to side to hit Eon.
 - 40% damage.
- **Time reversal:**
 - (2,3) Once being hit with a strong attack reverses time to recover life, this move is limited with a time bar as Eon.
 - Cygnus may also use time reversal to escape the effects of an area delay.
- **Area Delay:**
 - (1) Raises the body with arms and strongly hits the ground with the black hole making an area delay. When success on Eon, melee attacks.
 - (3) Joins upper arms and strongly hits ground making an area delay. When success on Eon, melee attacks.
 - 30% damage.
 - Cygnus may also cast an area delay on Eon upon being hit by Eon's area delay, as a countermove.
- **Spawn enemies:**
 - (3) Stands on arms and spikes to raise black hole to spawn enemies from it. In this movement, the boss is desperate. It is exposed to melee attacks in a short time but compensates spawning enemies. After spawning, Cygnus enters a less aggressive state while there are spawned minions on the battlefield.

7.3.2 Strategy

The first phase the Boss mainly attacks with melee movements. From time to time it can make a ranged attack and when it is strongly hit will make an area delay. Once its life has been decreased by 30% it will start phase 2. The weak point is the black hole.





The second phase the Boss is more aggressive. Appart of making melee attack and ranged attack it now recovers life by reversing time when strongly hit. This reverse ability can be drained and then Eon can start making real damage to the Boss. The weak point here are the legs of the Monster to make it fall. Once the legs are disabled the Monster starts the third phase. Life decreases another 30%.

The third phase the Boss is desperate. It drags its legs on the ground and you have to melee attack its arms to make it fall and then attack the black hole again. The Monster melee attacks, range attacks, time ability attacks (limited to drained time) and also spawn enemies to take a breath. After being defeated the game ends.



8. Mechanics Use Cases Analysis

8.1 Environment

UC 1 Find a shrine

The player finds a Shrine and interacts with it.

Pray at Shrine
X

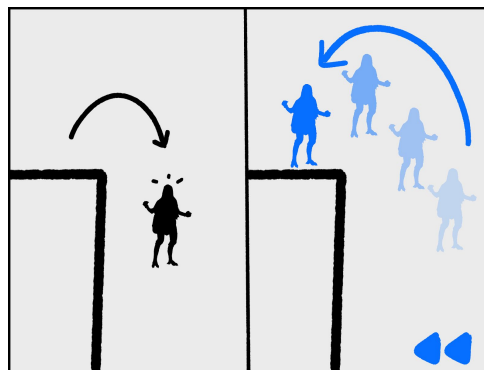
UC2 Eon needs to heal with low Warp Energy

The player needs to heal but Eon does not have enough warp energy to heal itself. The safest (and less risky) way to heal is by returning to a Shrine.

Pray at Shrine
X

UC 3 Fall into an endless pit

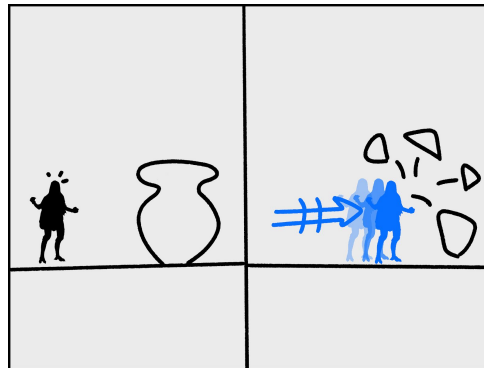
Eon falls into an endless pit and the game waits for 5 seconds to let the player make a choice, to either let Eon die or use time reversal. Eon has enough warp energy.



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	

UC 4 Clear way blocked by destructible props

Eon reaches a path blocked by destructible props. Eon must perform a dash strike or an attack on the props until the path has been cleared.



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X				X			

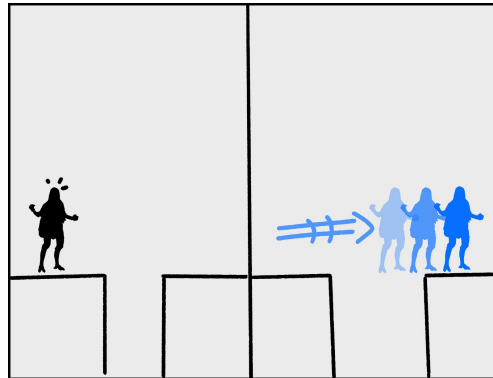
UC 5 Fall into a pit and take fall damage

Eon falls into a pit and the height difference between the fall and the previous position is enough for Eon to take fall damage (it is not an endless pit). There may be two situations:

1. Eon dies: the fall damage is enough for Eon to die. The game will wait for 5 seconds to let the player make a choice: either let Eon die or use time reversal (if it has enough warp energy).
2. Eon is alive: the fall damage reduces Eon's health, so the player can make these decisions: heal Eon, use time reversal to avoid the damage or keep playing as usual.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
						X	X	

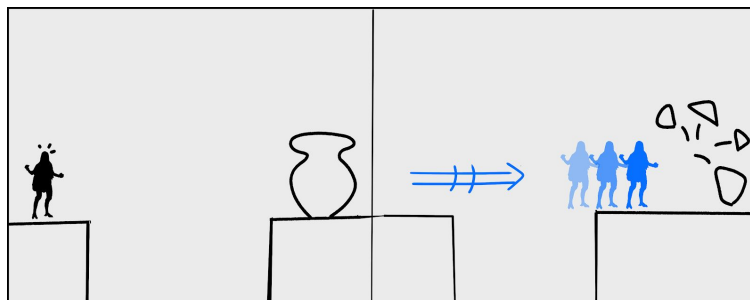
UC 6 Dash over a gap



The player meets a gap and if it keeps moving, it will fall. Eon has to dash across the gap to go to the other side.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X						

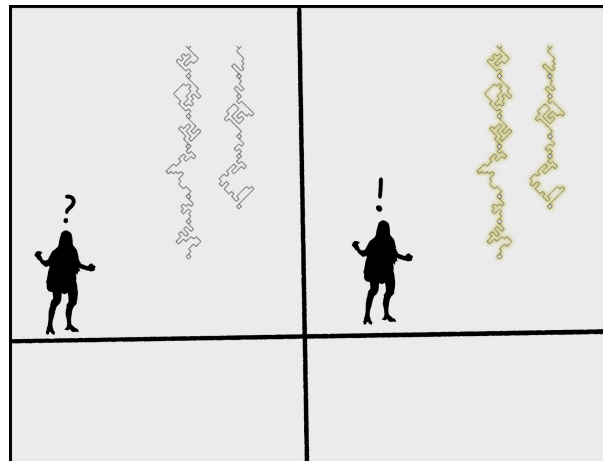
UC 7 Dash over a gap with an obstacle on the other side



Eon meets a gap blocked with a breakable prop at the other side. If it keeps moving or tries to dash over the gap, it will fall. Eon has to perform a dash strike to cross the gap and destroy the obstacle.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
					X			

UC 8 Find a wall with drawings



Eon comes across a mural with a drawing. Eon can interact with it to inspect it.

Inspect mural
X

UC 9 Activate timed door with a distant switch

Eon must go through a closed door to continue, which can only be activated with a switch that is far away from the door. When activated, the door opens up and closes fast enough not to let Eon arrive in time to go through the door after activating the switch. The player can choose one of these alternatives:

- 1- Get Eon near the door, activate the switch and use time reversal to return near the gate
- 2- Use area delay near the door, run to activate the switch and return to the previous position (it is possible to return either by moving or by using time reversal)

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	X

UC 10 Activate door and bridge with a deadlock

Eon is near a closed door, whose switch is at the other side of a bottomless pit. The only way to go across and activate the switch is to go across a bridge. If Eon activates the button, the bridge rises albeit the door opens, so their activation is mutually exclusive. The player has to position Eon near the door, then go across the bridge and activate the switch. Once

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	

Eon must take a path where there is an unavoidable trap. When the trap is activated, it kills Eon instantly. However, by using time reversal, Eon can revive and continue along the path as the trap can never be activated again.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	

Eon must take a path where there is an unavoidable trap which moves very fast. If the trap is activated, it kills Eon instantly and the player must use time reversal to revive. The area delay should be used near the trap to slow it down so that Eon can continue along the path.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	X

Eon has to go up a path but there is a gap which cannot be dashed over. The player must activate a bridge which goes up from the gap and then is released to finally rest on a ledge so that anyone can go to the other side.

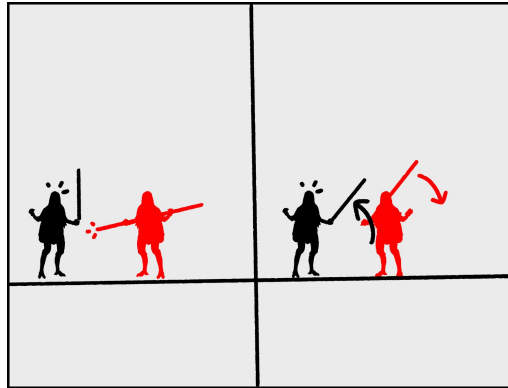
[illegible]

8.2 Combat: 1v1

UC 14 An enemy is about to melee attack Eon

Enemy is about to hit Eon, and the player anticipates the attack. Eon has enough health, stamina and warp energy.

Case **Offense**:



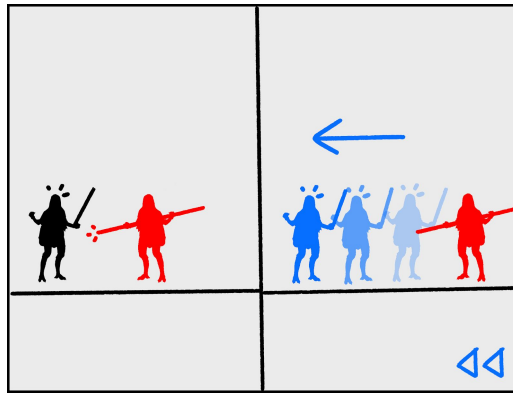
Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X			X	X			

Case **Defense**:

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	X

UC 15 Receive high damage with enough warp energy

An enemy attack has reduced Eon's health by a lot. Eon can perform time reversal or sprint to go away and heal.



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
			X			X	X	

UC 16 An enemy is about to perform a ranged attack

Ranged attack coming from an enemy. Eon has enough stamina.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X	X				X

UC 17 Low health Enemy attack could kill Eon

The enemy's and Eon's health are minimal, the one who attacks first kills the other.

Case **Offense** (with or without warp energy):

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X				X			

Case **Defense** (enough warp energy)

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
			X			X	X	X

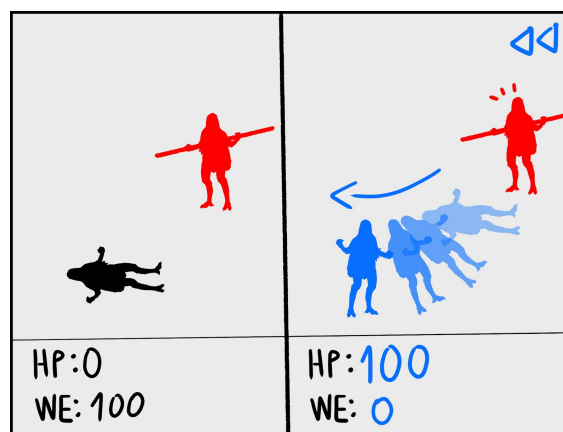
UC 18 Enemy is about to die and finisher move becomes available

Enemies are too strong and Eon needs to upgrade his phase using a specific quantity of geons. When the next Eon's attack (regular or strong) is going to kill the enemy, a quick time event will be enabled to *finish* the enemy so Eon can get a higher drop of geons.

Finisher (QTE)
X

UC 19 Eon dies by an enemy attack

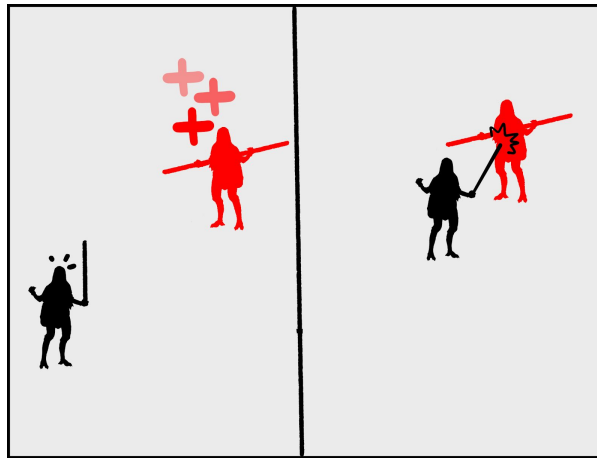
An enemy attack has reduced Eon's HP to 0. If Eon has enough warp energy, the player can use time reversal. If not, Eon dies and respawns at the latest shrine (*checkpoint*).



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	

UC 20 Enemy is healing

An enemy begins healing. Eon has enough stamina and the objective is to interrupt the healing process.



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X		X		X			

UC 21 Eon needs healing and an enemy detects it

Eon needs more HP. When it starts to heal, an enemy sprints to interrupt Eon.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X					X

UC 22 Enemy is at medium distance

The enemy is not close enough to do a melee attack. Eon has enough stamina.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X		X			X

UC 23 Enemy is dodging and moving fast

An enemy is moving fast, making dashes and dodging Eon's attacks. Eon has enough warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
								X

UC 24 Enemy has not noticed Eon and is at medium distance

Eon is behind an enemy at enough distance not to be detected. If Eon has enough stamina it can do a dash strike to make higher damage to the enemy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
					X			

UC 25 Enemy has noticed and is chasing Eon

An enemy detected Eon and started to chase it. The player has enough warp energy to run away from the enemy and use time reversal to go back and hit the enemy once time reversal ends.

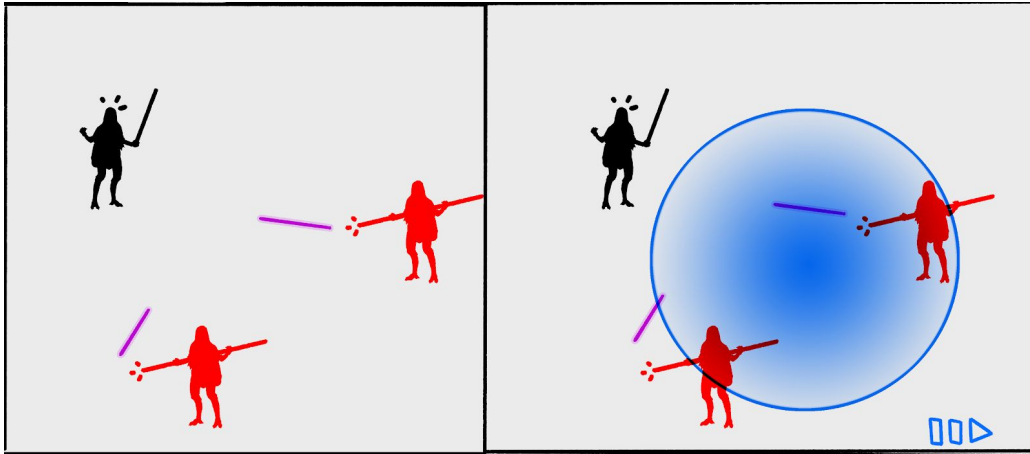
Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	

8.3 Combat: 1vN

UC 26 Multiple enemies range attack

There are a number of ranged attack enemies far from Eon and close from each other. If Eon has enough stamina and warp energy, it can slow down the foes so as to run to their positions and attack them.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X		X		X			X



UC 27 Multiple ranged enemies and has no warp energy left

If Eon does not have enough warp energy, it can dodge the attacks doing dashes or sprint to get far away from them.

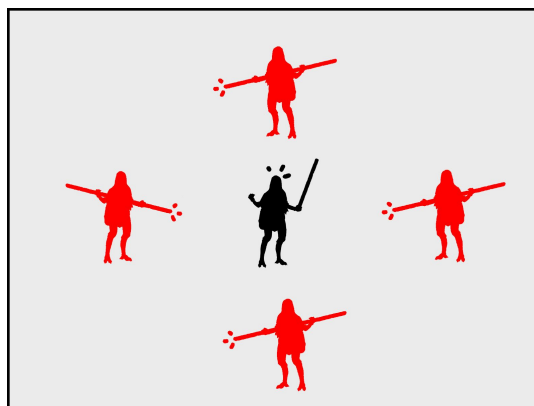
Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X					

UC 28 Multiple ranged enemies and has no stamina left

If Eon does not have enough stamina it can attempt to parry the projectiles to deflect them.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
				X				

UC 29 Eon is surrounded by nearby, melee enemies



Case **Offense**: Use area delay to slow down their attacks and begin attacking them. Alternatively, use time reversal to get behind enemies and backstab them.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X				X		X	X

Case **Defense**: Use area delay in Eon's position to halt the enemy attack, and subsequently get away from them to plan a new strategy and regain HP.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X			X		X

UC 30 Multiple melee enemies are getting closer from different directions

Eon is being approached by multiple enemies coming from different directions at the same time. Additionally, Eon has been near the enemies' current positions less than 5 seconds ago.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
							X	X

UC 31 Enemies are patrolling around an area you must traverse, they have not noticed you yet

Use area delay to slow down the most distant enemies and start attacking the ones that are closer to you. Eon has enough warp energy and stamina.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X				X			X

UC 32 Eon is being attacked by multiple melee and ranged enemies at the same time

Eon has enough warp energy to use area delay on its position to slow down melee enemies and has enough stamina to sprint or dash towards the ranged ones.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	X

UC 33 A ranged enemy has detected Eon and makes a call for other enemies

Eon has enough warp energy to use area delay on the ranged enemy's position while fighting the melee ones. Otherwise Eon can reverse time to avoid being seen.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X	X	X		X		X	X

8.4 Combat: Bosses and minibosses

8.4.2 First Mini Boss - Gard:

UC 34 Gard performs basic, ranged or area attack

Gard is about to perform one of his attacks, leaving time for anticipation. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	

UC 35 Eon gets caged inside an area delay

Gard has cast an area delay and caged Eon inside. Eon has enough health, stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X		X		X	

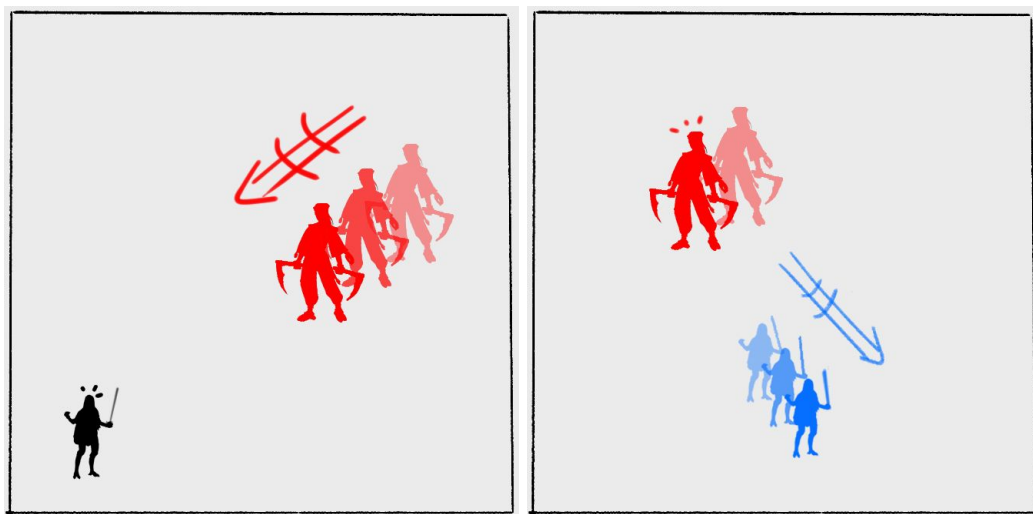
UC 36 Gard is about to cast an area delay

Gard starts its animation to cast an area delay. Eon has enough health, stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X		X			

8.4.1 Second Mini Boss - Lesath:

UC 37 Lesath performs strong dash attack



Lesath is about to perform a strong dash attack, leaving time for anticipation. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	X

UC 38 Lesath performs a defensive time reversal

Lesath uses Time Reversal to distance himself, heal from damage and escape Eon's combo. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X		X	X		X	X		X

UC 39 Lesath performs offensive time reversal

Lesath uses time reversal to reposition himself and try to catch Eon off guard to start an attack. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X	X				X

UC 40 Lesath performs fast dodge

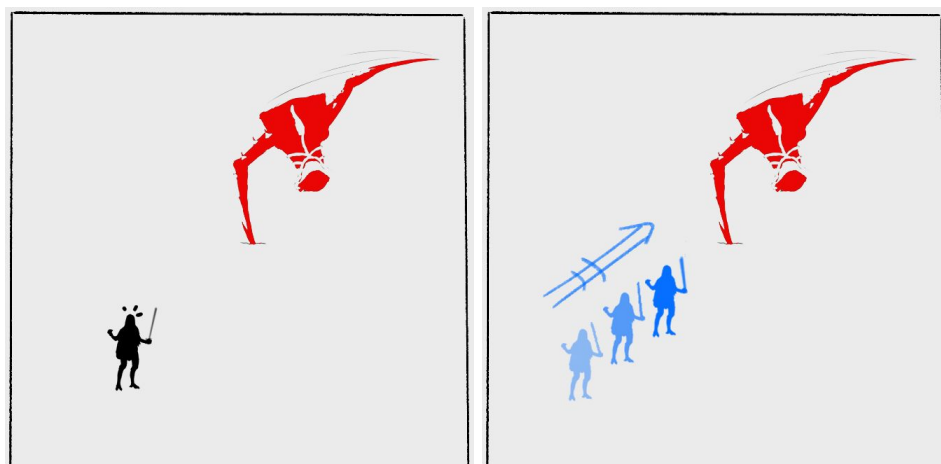
Lesath rapidly dodges Eon's attack. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X		X		X	X			X

8.4.3 Final Boss:

UC 41 Eon reacts to phase 1 Cygnus' attack

Cygnus is in phase 1 and about to perform an attack on Eon. Eon has enough stamina and warp energy.



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X	X			X	X

UC 42 Eon reacts to phase 2 or 3 Cygnus' attack

Cygnus is in phase 2 or 3 and about to perform an attack on Eon. Eon has enough stamina and warp energy.



Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	X

UC 43 Cygnus starts animation to spawn enemies

(Exclusive to phase 3) Cygnus enters a vulnerable state and starts his animation to spawn enemies. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
X	X	X	X		X			X

UC 44 Cygnus starts to attract Eon with its blackhole to perform a rotary attack

(Exclusive to phase 1) Cygnus exposes his blackhole to attract Eon and perform a rotary attack. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	

UC 45 Cygnus starts to attract Eon with its blackhole while shooting a laser beam

(Exclusive to phase 3) Cygnus exposes his blackhole to attract Eon while aiming at him with a laser beam Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	X

UC 46 Cygnus starts to make Eon float and perform a melee attack

(Exclusive to phase 2) Cygnus creates an anti-gravity field around himself if he has been receiving multiple attacks. If Eon is caught inside, it starts to float and becomes vulnerable and immobile. Eon has enough stamina and warp energy.

Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay
		X	X				X	

8.5 Use Case statistics

Mechanic												
Use Case	Regular	Strong	Dash	Sprint	Parry	Dash Strike	Heal	Time reversal	Area delay	Pray at shrine	Finisher	Inspect mural
UC1										X		
UC2										X		
UC3								X				
UC4	X	X				X						
UC5							X	X				
UC6			X									
UC7						X						
UC8												X
UC9								X	X			
UC10								X				
UC11								X				
UC12								X	X			
UC13									X			
UC14	X	X	X	X	X	X		X	X			
UC15				X			X	X				
UC16			X	X	X				X			
UC17	X	X		X		X	X	X	X			
UC18											X	
UC19								X				
UC20	X	X		X		X						
UC21			X	X					X			
UC22			X	X		X			X			
UC23									X			
UC24						X						
UC25								X				
UC26	X	X		X		X			X			
UC27			X	X								
UC28					X							
UC29	X	X	X	X		X	X	X	X			
UC30								X	X			
UC31	X	X				X			X			
UC32			X	X				X	X			
UC33	X	X	X	X		X		X	X			
UC34			X	X				X				
UC35			X	X		X		X				
UC36			X	X		X						
UC37			X	X				X	X			
UC38	X		X	X		X	X		X			
UC39			X	X	X				X			
UC40	X		X		X	X			X			
UC41			X	X	X			X	X			
UC42			X	X				X	X			
UC43	X	X	X	X		X			X			
UC44			X	X				X				
UC45			X	X				X	X			
UC45			X	X				X				
Count	11	9	22	24	6	16	5	23	23	2	1	1

9. HUD

9.1 Mockup



9.2 HUD information

9.2.1 Player Information

- The HUD has three colored bars for each of the stats of the player. Green for Health, Yellow for Stamina, Blue for Warp Energy.
- The health bar gives visual feedback when affected with a subtle shake when decreasing and a subtle glow when recovering.
- The health bar turns to a reddish color when it gets to a lower number (15% of total).
- When a stat is maxed out, the colored bar of the corresponding stat has a slightly saturated color.
- Additionally, the HUD shows a double circle in an eclipse-like shape indicating the current Phase progress, and showing the current Phase with a number in the middle of the circle.
- The black circle progressively covers the red circle as the player gets geons. Once the player reaches a new Phase the black circle completely covers the black circle and a

small red halo appears as the phase number increments by one. A sound effect is played when the player reaches a new Phase.

- This cycle starts over in each phase level. The saturation of the red circle also contributes further to indicate the level of the player.
- When using the time reversal skill, the player gets a visual feedback of how much time is remaining for the reversal.

9.2.2 Basic enemy information:

When attacking a basic enemy, or focusing on it in lock-on mode, or being attacked by one of them a red bar will appear over the head of the enemy, showing how much health has left. The bar will disappear after a short while and reappear if attacking again.

9.2.3 Bosses Information

When fighting a Boss or Mini-Boss, a colored bar will show on the bottom of the screen, indicating the health level of the main enemy.

9.2.4 Lock-on information

When using the lock-on camera, the focused enemy will have a small circle in the middle of its body.

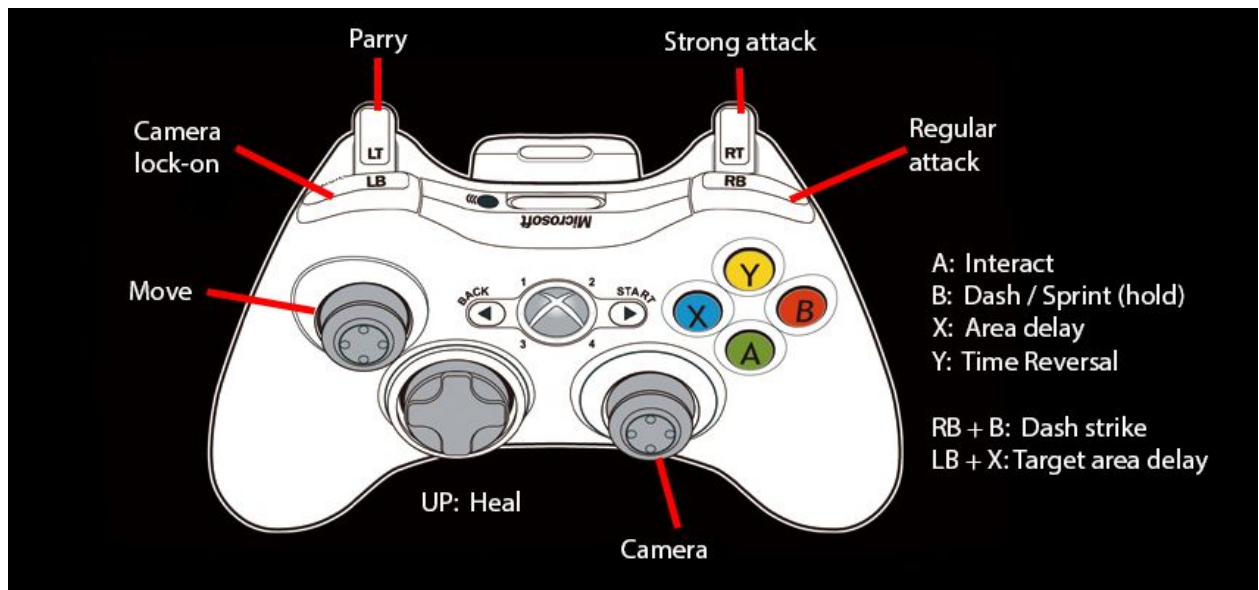
9.2.5 Initial controller prompts

1. Move instructions: At the start of the game, the player receives visual cues on how to move around the stage.
2. Attack instructions: At the sight of the first basic enemy, the game pauses briefly and the player receives visual cues on how to attack.
3. Time control instructions: At the first opportunity to use a time control skill, the game pauses briefly and the player receives visual cues on how to use the skill.

10. Control

10.1 Input Configuration

	XBOX	PC
Movement	LS	WASD
Camera Movement	RS	Mouse
Regular Attack	RB	LMB
Strong Attack	RT	RMB
Sprint	B (hold)	Left Shift
Dash	B	Space
Dash Strike	RB + B	Space + LMB
Parry	LT	Left Ctrl
Camera Reset/Lock On	LB	F
Target Area delay	LB + X	Q
Heal	Up Button	1
Time Reversal	Y	2
Area Delay	X	3
Interact	A	E



10.2 Frame Data

Every attack can be broken down into three different parts: beginning, middle and an end. Frame data is a way to measure the length of time that each part of an attack will last.

Beginning is the start-up, amount of time before an attack can hit the opponent

Middle of an attack is its Active Frames, period of time when the attack can hit the opponent

End of an attack is its Recovery, period of time after an attack can hit the opponent but before the character returns to neutral and can move again

Combat and spacetime warp abilities performed during gameplay have a set of frame data depending on the moment they are activated and when they finish:

- **Start-up frames:** is the amount of frames a move takes since the user input until the move is active, that is, when the move is able to hit an opponent (if it is an attack). The higher the start-up frames, the slower the move will be.
- **Active frames:** is the period of time (counted in frames) in which the move is in active state. For example, during these frames, an attack will hit its opponent (or "connects"), or an area delay is being activated.
- **Recovery frames:** is the period of time when the character is recovering from the move it has performed and returning to neutral state. After these frames, the character will be able to move again.
- **Cancel frames:** is the time it takes to start another animation after the active frames of the previous animation end, when the previous move was cancelled (see "Cancel" section),

For example, suppose the strong attack has the following frame data (summarised) and the game runs at 60fps:

Start-up	Active	Recovery
6	4	20

- Start-up: When the player presses the strong attack button, it will take 6 frames of animation to start up (0.1s).
- Active: On the 7th frame, the strong attack becomes active. During 4 frames (~0.06s), the attack can hit the opponent
- Recovery: on the 11th frame, the character starts recovering for 20 frames (~0.3s). During this time, it is impossible for the character to perform another move.

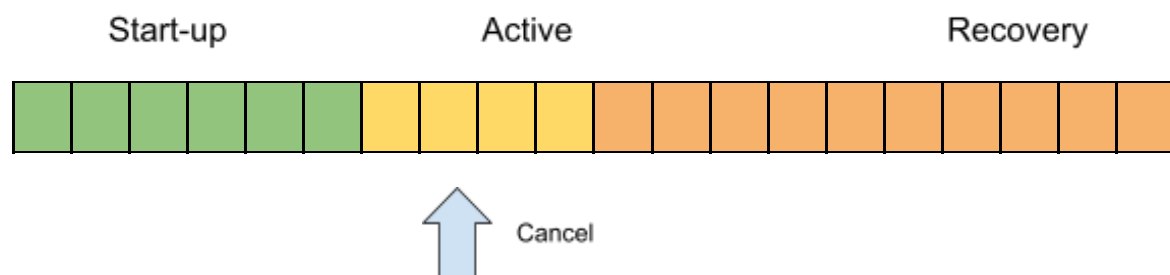
Overall, the move takes 30 frames of animation to complete, approximately 0.5 seconds.

10.2.1 Cancel

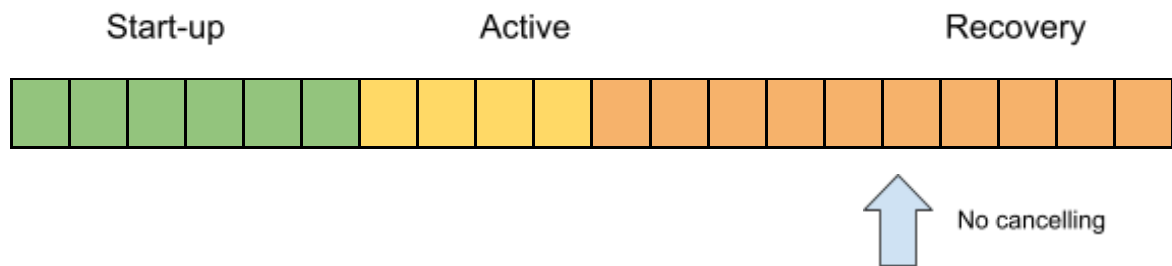
To give the sensation of control fluidity, some moves allow cancelling. Cancelling refers to interrupting an animation that is in progress with another animation. The player is able to break out of a current animation or move by inputting another move that cancels the previous movement. This means that, when an attack is able to be cancelled, it is possible to create a combo into another attack or ability.

For instance, a regular attack can be cancelled into a strong attack, which can then be cancelled into a regular attack to perform an attack string or combo.

- Cancelling can only be performed when the input is made during the active frames.



- Once the character is recovering, it is impossible to move or cancel into another move. If the input has been made during the recovery frames, the input will have to be performed again as soon as the animation of the previous move ends so it can hit effectively



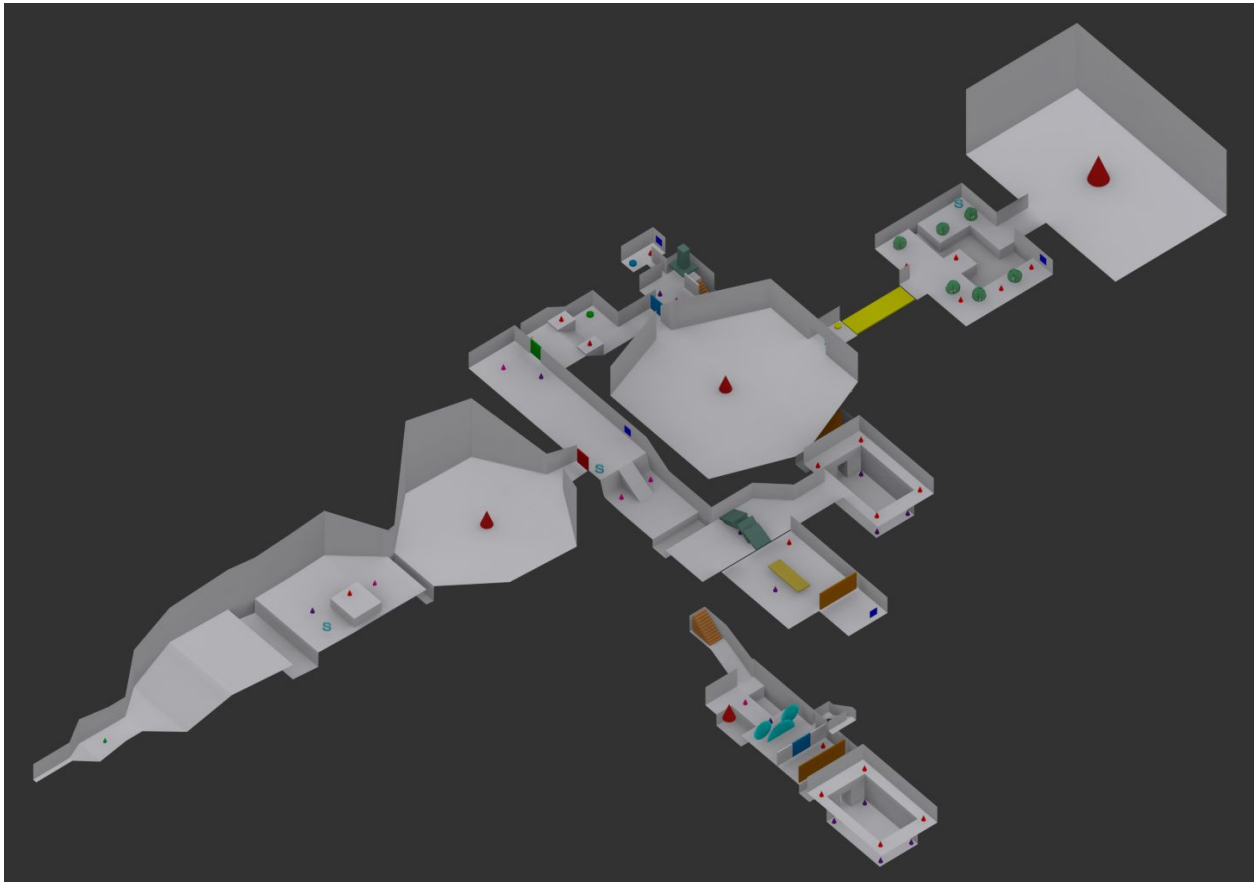
For example, suppose the strong attack now has a dash and a regular attack cancel

Start-up	Active	Recovery	Regular attack cancel	Dash cancel
6	4	20	0	10

- If the strong attack was successfully cancelled into a regular attack: the regular attack will start immediately after the active frames elapse (i.e. at the 11th frame)
- If the strong attack was cancelled into a dash: the dash will start 10 frames after the strong attack active frames finish (i.e. at the 21st frame)

11. Level Design

11.1 Level overview

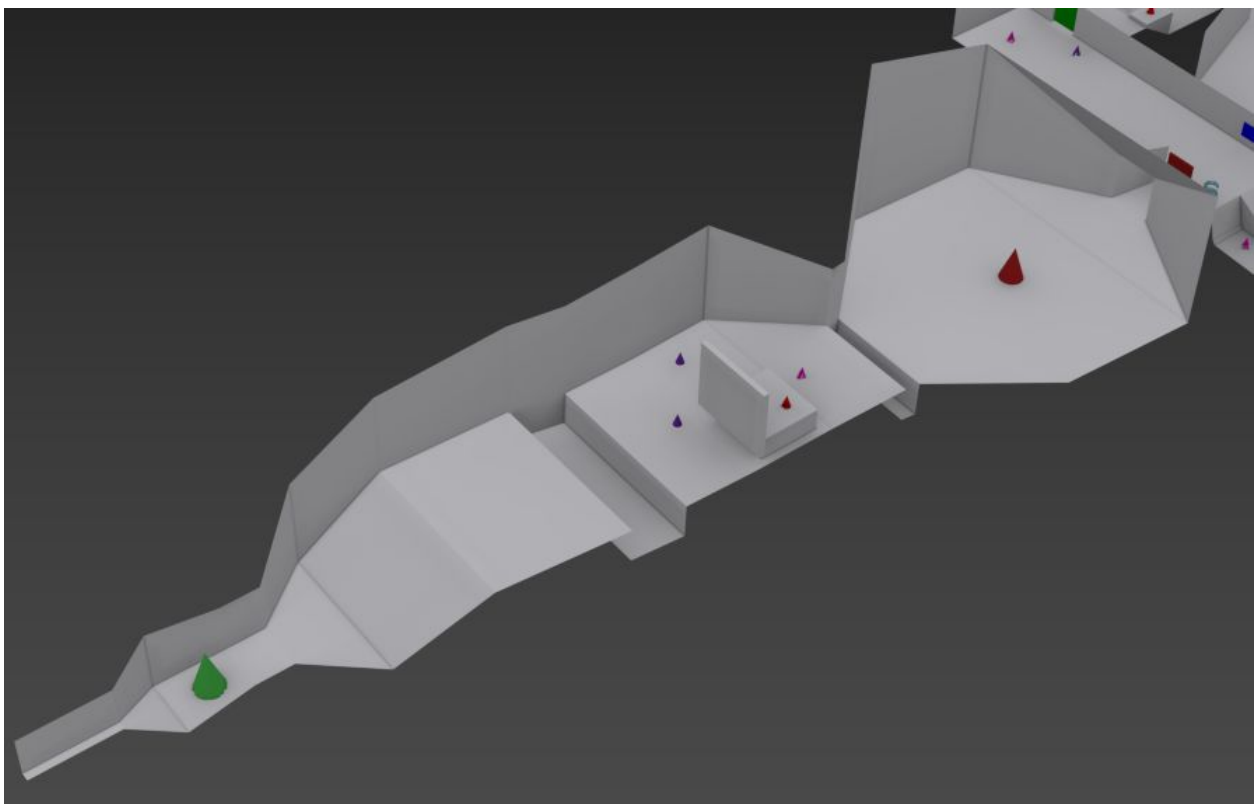


Objects reference

- Green large cone: Eon
- Purple cone: first basic enemy
- Pink cone: second basic enemy
- Red cone: ranged enemy
- Large red cones: bosses
- Red/blue boxes: timed doors
- Green boxes: collapsing ceiling
- Brown boxes: destructible props
- Dark blue boxes: murals
- Green pistons: debris anomaly
- Blue "S": shrine
- Light blue cogs: perpetual rotation door

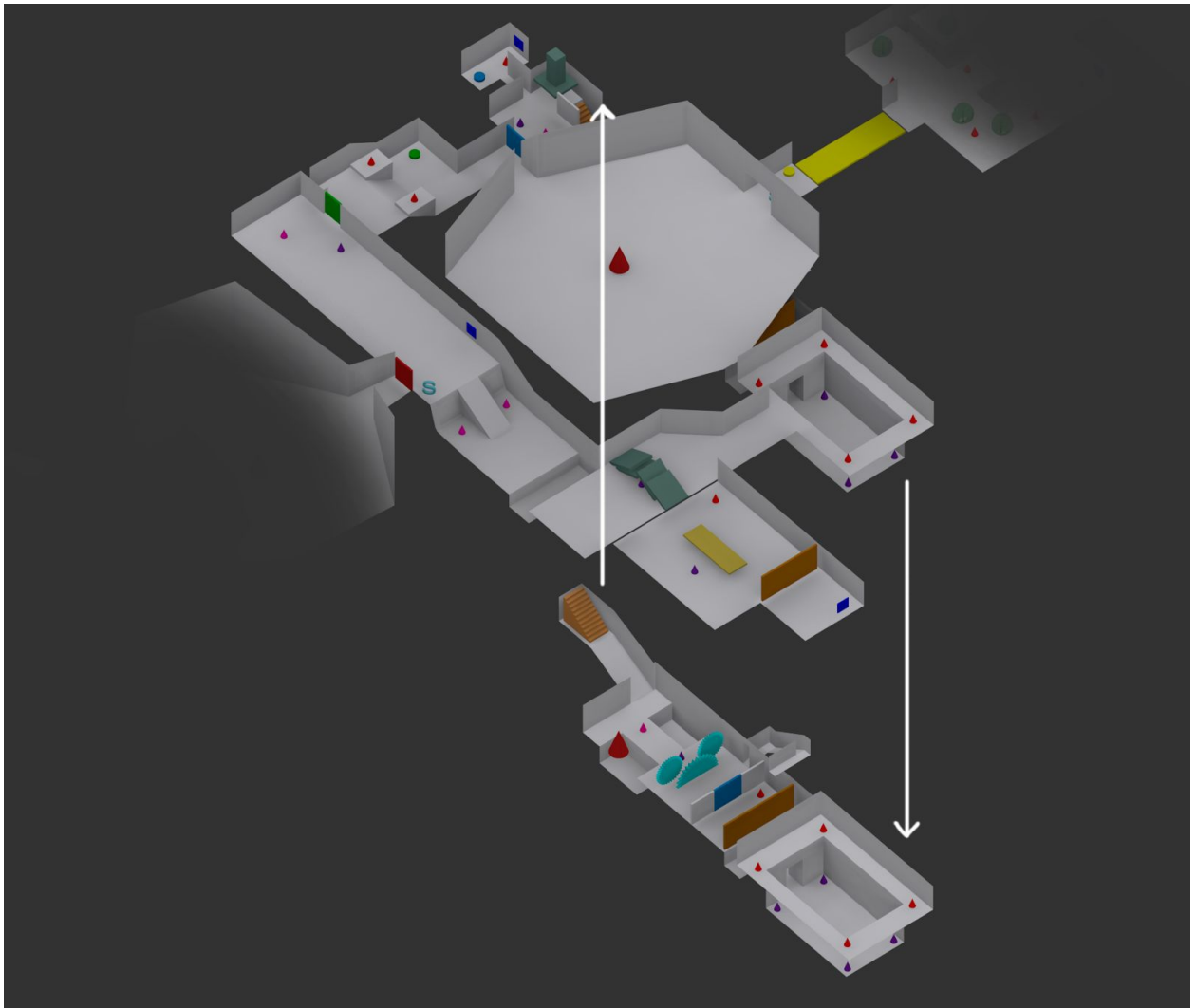
11.2 Walkthrough

1. Eon starts in a cave. The game starts with a **movement tutorial**
2. There is an area with a collapsing floor. Eon falls but before dying, the game stops to explain **time reversal and warp energy**
3. The game shows a **dash tutorial**. Eon now has to dash across the gap
4. Eon encounters a basic enemy. The game shows a **combat tutorial**
5. The first time Eon gets hit, the game shows a **healing tutorial**.
6. When Eon kills the first enemy, the game shows a **finisher tutorial**. The player performs a finisher on the enemy
7. The player meets an enemy who has not detected Eon. The game shows a **backstabbing tutorial**, and the player performs a backstab
8. Eon fights a basic enemy and a ranged enemy which is at the top of a ledge. The game shows a **parry tutorial**.
9. Eon dashes over a pit and fights the first mini boss, **Gard**
10. When Gard dies, Eon gains **area delay** and the game shows a tutorial to explain how to use this ability
11. The player finds a timed door, Eon has to use **area delay** to slow down the mechanism and go through

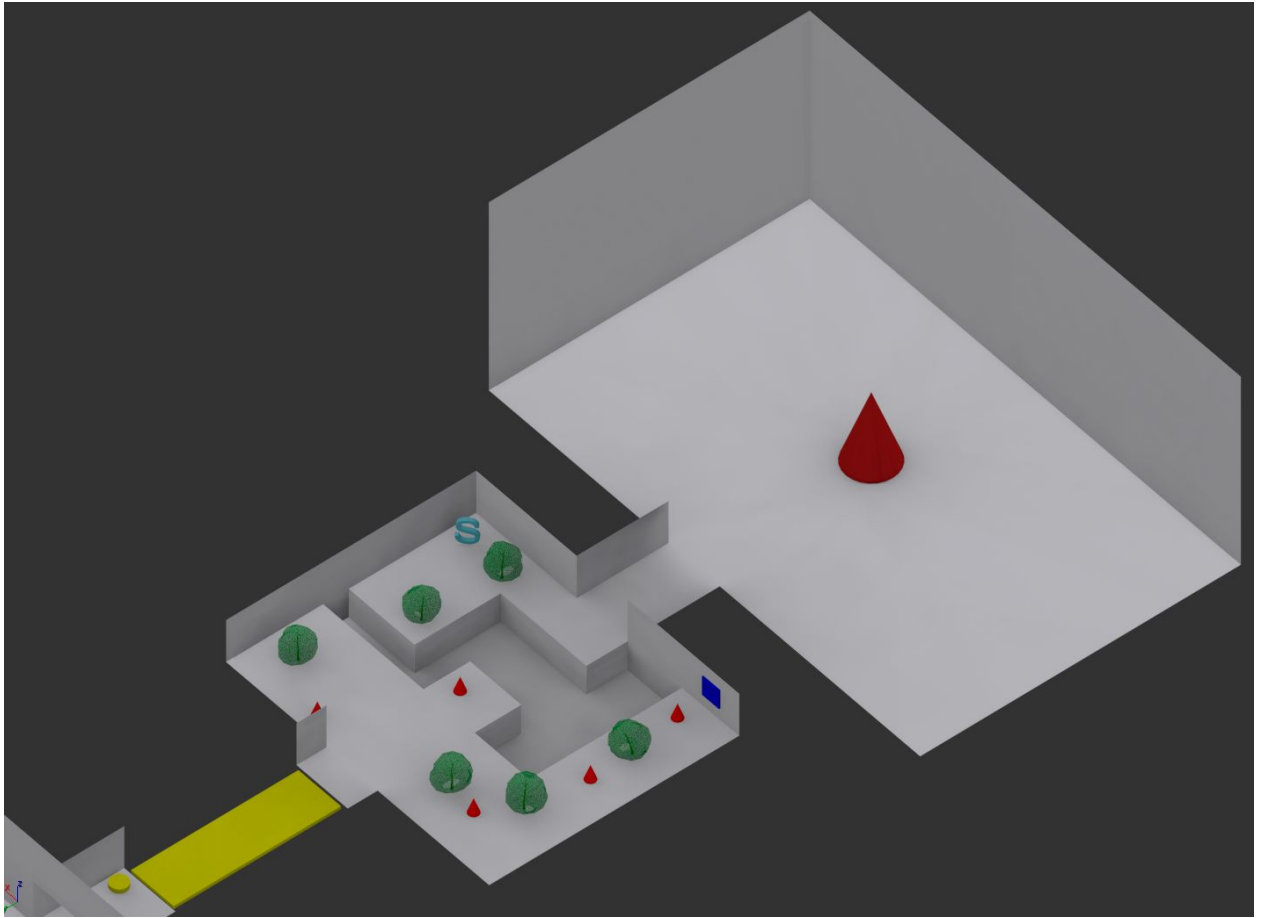


12. Eon finds the first Shrine and the game shows the **shrine tutorial**.
13. Eon finds the first mural on the front.

14. The player can go to the left and encounters two basic enemies and a door, but the door cannot be opened from the other side
15. The player goes to the right and two basic enemies ambush him from behind
16. Eon dashes over a gap
17. The camera shows to the left that an enemy is approaching Eon but a collapsing ceiling falls over it and kills it. The debris blocks the way.
18. Eon goes to a room where there are two enemies, a basic and a ranged one.
19. There is a room blocked with destructible props. Eon can destroy them to find a mural
20. The player goes out of this room into another one where he or she finds 4 ranged enemies and a pit. Eon must fall down the pit
21. Down the pit, Eon receives fall damage and must decide whether to use time reversal (if he dies) or to keep moving.
22. In this same pit, Eon fights 4 basic enemies, while being shot by the ranged enemies (if they had not been killed before)
23. In the next room, Eon must perform a dash strike to dash over a gap and break some destructible props
24. Eon finds a timed door which is activated with a trigger that is before the gap. Eon must use area delay in the door and press the trigger to go through the door
25. To its right, Eon has to go up a slope and finds a mural
26. In the previous room, Eon finds a perpetual rotation door. The player must use area delay to slow it down
27. Eon meets two basic enemies in a narrow space and has to attack them or run past them
28. The player goes up some stairs and finds a debris anomaly, so he or she has to use area delay
29. In this room there are two enemies and a timed door. The player must use area delay near the door, go to another room to activate the door and find a mural, and then return to the door.
30. To its left Eon has a gate to Lesath, and straight ahead there is another room. In this room Eon finds two ranged enemies and a trigger to a permanent door. Eon has to activate the trigger to open the door. This is the one that the player has found closed previously
31. The player can go to the previous shrine to pray and regain its health before fighting the next mini boss.
32. The player goes back to fight Lesath



33. Once the second mini boss has been defeated, Eon finds a shrine and a broken bridge, where area delay must be used to go through
34. Eon gets to the backyard of the temple, where it encounters several basic enemies, finds a mural and the last shrine
35. After praying at the shrine, Eon must enter the temple to fight Cygnus
36. When Cygnus is defeated, the game is over, and the player won.



12. Audio Design

12.1 Premises

- Pr1. **Satisfying combat:** SFX will help make the combat clearer (the player should be able to identify what is happening just by listening, with his/her eyes closed) by informing the player unambiguously about when Eon lands/receives a hit, helping to anticipate enemies' attacks, etc. SFX must also make the combat addictive, through the inclusion of SFX that is satisfying to listen to.
- Pr2. **Contribute to the game's atmosphere:** SFX will help support and reinforce the visual atmosphere of the game, that is, emphasizing the characteristics of the environment, i.e.: gloomy, religious, tribal, decadent, unsettling... The same applies to the music.
- Pr3. **Bring out the presence of the bosses:** specially, SFX must heighten bosses by making them sound menacing. The same applies to the music.

12.2 SFX

They comprise **Foley** (SFX that recreate the realistic audio that would sound, like footsteps or cloth movement) and **atmospheres** (ambience sounds, such as wind or wildlife sounds if any).

Methodology

To achieve Pr1

- Hit sounds that avoid frequency ranges dominated by footsteps, ambient sounds, etc.
- Hit sounds with resonating frequencies, to make them easily distinguishable.
- Accompany realistic Foley with creative audio design, in order to make the SFX's easily recognisable.

To achieve Pr2

- At the cloister: windy atmosphere.

- Inside the monastery: SFX of the building creaking, subtle and resonant wind atmosphere, usage of reverbs + *resonant impulse responses* (this is important, it makes all the difference: <https://youtu.be/mZSXmvAKx9Q?t=339>)
- Intimidating enemy sounds.

To achieve Pr3

- Intimidating screams (especially for the final boss), possibly derived from animal noises.
- SFX associated to them with lots of low frequencies.

12.3 Music

Methodology

To achieve Pr2

- Usage of orchestra, choirs, ethnic percussion (tribal style) and synthesizers.
- Usage of unconventional time signatures, inexistent in contemporary music, like 5/4 or 13/8.
- Frequent usage of silence and abrupt silence.
- Usage of harmonies and melodies that generate plenty of tension, e.g.: diminished chords, augmented chords and dissonances.
- Usage of plagal cadences, frequent in religious music.

To achieve Pr3

- Usage of full orchestra.
- Abundant usage of choirs.

12.4 Audio engine

Minimum requisites

- Distance volume attenuation
- Left/Right panning depending on Eon's rotation
- Two separate output buses for SFX and music

Nice to have

- Online effects processing: e.g.: dynamic reverbs based on the environment (cave, chapel), filters (low-pass when Eon has little HP left, high-pass to decorate attacks) and compressors to keep the volume in check.

- High-frequency occlusion: automatically attenuate high frequencies associated with SFX when there are obstacles between Eon and the emitter of the sound.
- Interactive/adaptive music.

13. References

Appearance

- Star Wars Jedi: Fallen Order

<https://www.youtube.com/watch?t=663&v=8939aURV9Dc&feature=youtu.be>

Mechanics

- Mortal Kombat 11 - Geras

<https://www.youtube.com/watch?v=AylzxVOTJCK>

- Quantum Break

<https://www.youtube.com/watch?v=lwy-LkNsbtU&t=159s>

- Horizon: Zero Dawn

<https://www.youtube.com/watch?t=74&v=yKLwbkbWQpc&feature=youtu.be>

- Darkopolis

<https://youtu.be/VoIRRyLJO-Y?t=61>

- Jak 3

https://www.youtube.com/watch?t=1155&v=eN1bUqGYw_w

- Dishonored

<https://youtu.be/wvbl-GrC5ks?t=1036>

<https://www.youtube.com/watch?v=-fN0SFJQIz4&t=14s>

- Necrópolis

<https://www.youtube.com/watch?v=FL-s9LNW49Y>

- Solar Ash

https://www.youtube.com/watch?v=kvEJCacMozo&feature=emb_title

- Singularity

<https://youtu.be/KBMTd2rBboQ?t=136>

- Overwatch

https://www.youtube.com/watch?t=15&v=LRXkkns6IRU&feature=youtu.be&ab_channel=Valeria

- Hollow Knight

<https://youtu.be/Htz7ZSyiovU?t=28>

- Ratchet & Clank Future: A Crack in Time

<https://youtu.be/OMxNBnRYusM?t=110>

- Game mechanics that use time

<https://youtu.be/GEGjvYe6F1o?t=96>

- Kingdom Hearts

<https://youtu.be/8CyQMahzydc?t=523>

14. Ideas for balancing

- The last health reduction received by an attack can be restored if the player successfully executes one or several attacks on an enemy within 5 seconds after being hit.
- Eon may be rewarded for landing hits on enemies shortly after performing a time reversal by recovering more warp energy/all the warp energy used for the time reversal.
- The trace of Eon shown when time reversal is cast may be permanently shown in the world, and not only when the ability is used. (A phantom constantly following Eon).
ref: <https://euw.leagueoflegends.com/es-es/champions/ekko/>
- Regular attack may have more than 1 hit, it may be composed by a combo of several chained hits.
- If Time Reversal can be used to heal the player, then maybe the Heal ability can be removed