

Design Document

Through the Misty Gate



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Table of Contents

1. Brief Description	2
2. Core Experience	2
3. Base References	3
3.1. Hollow Knight	3
3.2. Noita	4
3.3. Terraria	5
3.4. Rogue Legacy	6
4. Player Personas	7
4.1. Persona 1 - Veronica Sanchez	7
4.2. Persona 2 - Bruno Magalhães	7
4.3. Persona 3 - Sebastian Smith	8
4.4. Persona 4 - Molly Weasley	8
5. Play Scenarios	9
5.1. Scenario 1 - Molly Weasley	9
5.2. Scenario 2 - Veronica Sanchez	9
5.3. Scenario 3 - Fighting the first enemy	10
5.4. Scenario 4 - Solving a puzzle	10
6. Conceptual Models for Core Gameplay Elements	11
7. Core Gameplay Loops and Game Modes	14
8. Storyboards	16
8.1. Storyboard 1 - Loading up the game	16
8.2. Storyboard 2 - Exploring the ruins	17
8.3. Storyboard 3 - Fighting the first enemy	18
9. Control System	20
10. Time Window	20
11. Progression	21
12. Presentation Aspects	21

1. Brief Description

Through the Misty Gate is a metroidvania, 2D platformer in which the player explores ancient ruins in search of their father. During their adventure, the player will solve puzzles, face fierce foes with naught but magic and wit, and discover secrets hidden deep in the ruins.

2. Core Experience

By playing *Through the Misty Gate*, we want the player to feel immersed and like they have a sense of purpose on their mission to defeat the final boss. On this adventure, the player should explore the game world and collect gear and new spells to power-up their character. The player should feel challenged by the gameplay, but they should never feel frustrated or upset by the experience. We wish for the player to be driven by their own sense of curiosity and completion instead of by the game's own narrative, which should never tell the player where they can or should go.

To assess if the gameplay experience was up to our expectations, we suggest the following criteria, which should accurately measure how the player interacted with the game:

1. The percentage of areas explored at the end of a playthrough, which would directly relate to how interesting the design of the map was, and how compelling exploration was for this particular player. Low percentages would mean the player either did not feel the need to explore more of the map, or simply did not want to, neither of which are desirable results. On the other hand, high percentages would show that the environment was interesting enough to engage the player's attention and exacerbate their natural curiosity.
2. The percentage of gear collected and spells learned at the end of a playthrough, which in addition to the criterion specified in 1., would tell us how the player interacted with each area, and how likely they were to fully explore an area they visited at least once. This would in turn allow us to perceive how frustrating or difficult it might be to complete each area, and to adjust difficulty accordingly.
3. The number of deaths throughout the playthrough. This number should be higher during the initial phase of the game, when the player does not have so many resources at their disposal and is not yet familiar with the game's mechanics. However, it should exponentially decrease as the player acquires a larger repertoire of spells and equipment throughout the game, not only increasing their power, but also their knowledge and capacity to adapt. Ideally, this number should never reach zero for any new area or boss, as we'd like each of these to have a learning curve of their own, where the player must learn each new enemy's strengths and weaknesses.

3. Base References

Hollow Knight



Hollow Knight is a challenging 2D metroidvania, where the player explores twisting caverns, battles tainted creatures and escapes intricate traps, all to solve an ancient long-hidden mystery. It is one of the main inspirations for *Through the Misty Gate*, along with *Noita*. Similar to *Hollow Knight*, *Through the Misty Gate* has a dark, underground environment. The two games also share their 2D art style, but *Through the Misty Gate* differs in its choice of pixel graphics.

Hollow Knight is widely acclaimed as a masterpiece with incredible visuals and an interesting story. However, a regular criticism of the game is that deaths are too punishing and “boring”, as save points are few and far between. Furthermore, some people claim the exploration system is confusing as there are no map markers to speak of. For *Through the Misty Gate*, we plan to take inspiration in these strengths, and build upon the weaknesses by having regular save points and a better mapping system.

Setting the two games apart is *Through the Misty Gate*'s spell and equipment system, which *Hollow Knight* mostly lacks.

Noita



Noita is a magical action roguelite set in a world where every pixel is simulated. The player must explore and fight their way through with spells they have crafted themselves. Along with *Hollow Knight*, it is one of the main inspirations for *Through the Misty Gate*. From it, we take the pixel-style graphics and excellent spell visuals. Furthermore, the spell system in both games has some similarities, even though in practice they are wildly different.

The main appeal of *Noita* is also its main drawback. The sheer amount of possibilities for the player is fantastic, but might prove too overwhelming for newcomers. As such, we want to simplify this concept by having pre-made spells that the player can choose from, and also cutting back slightly on the amount of interactions between spells and environment.

Terraria



Terraria is an action-packed sandbox adventure game, where the player can dig, build and fight unique bosses and enemies. Although at first glance it is dissimilar to *Through the Misty Gate*, we based our user interface, more concretely the inventory and spell hotbar, on *Terraria's*. We felt they were a great interface to show the player what was in their inventory at any given time. As a game, *Terraria* focuses on its open-world and sandbox aspects, which also come as its greatest strengths. Its modding possibilities are also worthy of praise. However, non-creative players might struggle in the open environment, which relies heavily on player agency and creativity to entertain.

Rogue Legacy



Rogue Legacy 1 and *2* are genealogical roguelite games, where your legacy defines you. Every time you die, you get to play with your heir, which might have any number of random attributes. They are 2D platformers much like *Through the Misty Gate*, and their level design, be it the room size or platform design, was a great inspiration for us.

The games are praised for their replayability and gameplay. However, they lack any kind of coherent storytelling, which we have tried to include in *Through the Misty Gate*. In addition to this, *Rogue Legacy 2* especially feels too balanced in a way, and each different weapon or artefact feels not so different after all. For *Through the Misty Gate*, we try to correct this by having each spell and piece of equipment feel unique and meaningful.

4. Player Personas

TTMG targets mid-core players who enjoy playing platformers and metroidvania games. The following personas exemplify some of the players that might enjoy the game:

Persona 1 - Veronica Sanchez

- **Name:** Veronica Sanchez
- **Gender:** Female
- **Age:** 26
- **Background:** Born and raised in a small town, got into gaming because of her husband
- **Interests:** Gaming, dogs, books
- **Profession:** Elementary school teacher
- **Activities:** Playing games on Nintendo Switch, cooking, reading fantasy books, walking dogs
- **Skills:** Curious and fearless, good at exploring, patient
- **Limitations:** Dislikes horror games
- **Player type:** Seeker, Achiever
- **Currently playing:** Hollow Knight
- **Favourite games:** Animal Crossing, It Takes Two
- **Context of play:** Plays for fun alone or with her husband
- **Goals:** Plays to immerse herself in an interesting, undiscovered world and relax
- **Knowledge:** Knows and has played a lot of Nintendo games

Persona 2 - Bruno Magalhães

- **Name:** Bruno Magalhães
- **Gender:** Male
- **Age:** 21
- **Background:** Dedicated student, likes to indulge in his hobbies and interests
- **Interests:** Technology, programming, gaming, music
- **Profession:** Computer Science student
- **Activities:** Playing games on PC, studying, taking occasional walks
- **Skills:** Analytic mind, learns quickly
- **Limitations:** Gets bored easily
- **Player type:** Mastermind, Conqueror
- **Currently playing:** Rogue Legacy 2
- **Favourite games:** Divinity Original Sin II, XCOM 2
- **Context of play:** Plays in his spare time to take a break from other responsibilities
- **Goals:** Wants to feel powerful by overcoming in-game challenges
- **Knowledge:** Excels at turn-based games

Persona 3 - Sebastian Smith

- **Name:** Sebastian Smith
- **Gender:** Male
- **Age:** 35
- **Background:** Self-taught at art, started gaming to get inspiration for his art
- **Interests:** Art, gaming
- **Profession:** Freelance artist
- **Activities:** Playing games on his Switch and PC, drawing, running
- **Skills:** Persistent and strategic
- **Limitations:** Can't play games that he considers "ugly"
- **Player type:** Mastermind, Achiever
- **Currently playing:** Monster Hunter Rise
- **Favourite games:** Dragon Age: Inquisition, The Witcher 3
- **Context of play:** Plays to have a sense of achievement and to pass the time
- **Goals:** Wants to complete every game he plays
- **Knowledge:** Has very in-depth knowledge about The Witcher world

Persona 4 - Molly Weasley

- **Name:** Molly Weasley
- **Gender:** Female
- **Age:** 49
- **Background:** Became very successful in her career and retired early, gaming became one of her retirement activities
- **Interests:** Nature, geography, cooking, games, reality TV
- **Profession:** Retired lawyer
- **Activities:** Gardening, cooking, gaming
- **Skills:** Laidback, perceptive
- **Limitations:** Can't play shooter games
- **Player type:** Conqueror, Seeker
- **Currently playing:** Satisfactory
- **Favourite games:** Hollow Knight, Ori and the Will of the Wisps
- **Context of play:** Plays everyday in the evening to relax after a busy day
- **Goals:** Decompressing by immersing herself in the game
- **Knowledge:** Can cook some mean scrambled eggs

5. Play Scenarios

Scenario 1 - Molly Weasley

Molly Weasley sits down at her desk after a long, busy evening cooking for her family. She heard from her friend Veronica that a new game had come out. It is called *Through the Misty Gate*, and Veronica claimed it was quite similar to *Hollow Knight*, a game they both enjoyed. Molly decided to give it a try, since she wasn't in the mood to play *Satisfactory* tonight, the game she had been playing recently. She downloaded the game from *itch.io* and loaded it up on her computer.

The first thing she sees is the title screen. There is an image of twilit ruins in the background and relaxing music playing. She notices there are four buttons available to her: *New Game*, *Continue*, *Options*, and *Exit Game*. She can't continue a game since she has never played before, and she's not too interested in messing with the options or exiting the game she just booted up, so she clicks *New Game*.

The screen goes dark, and some text appears, detailing the start of her journey. Then, the ruins in the background return, and she sees her character walking through a gate. The character stops, and she is now in control. The game begins.

Scenario 2 - Veronica Sanchez

It is the weekend, and Veronica Sanchez, being free from work, gets to sleep in. Eventually though, Veronica has to wake up and get out of bed. It is 11 in the morning. She feels like taking a day for herself and doing something fun and relaxing. She starts her day by having a croissant and a coffee on the balcony for breakfast. It is warm outside, and the wind is gently blowing. It is quiet, and she can hear the birds singing. Feeling very relaxed, she stays on the balcony a little longer, until she decides to come back inside and start up her PC. She is in the mood for doing something fun and stimulating. She wants to play a game that would give her a sense of progression and achievement. Being a Seeker and an Achiever, Veronica likes to set herself up for full completion of the games she plays, yet today she doesn't want to dive into something too complex. She remembers that she still has undiscovered areas and unsolved puzzles in *Through the Misty Gate*, which, in comparison with other, more elaborate and draining games in her library, is a perfect choice for today.

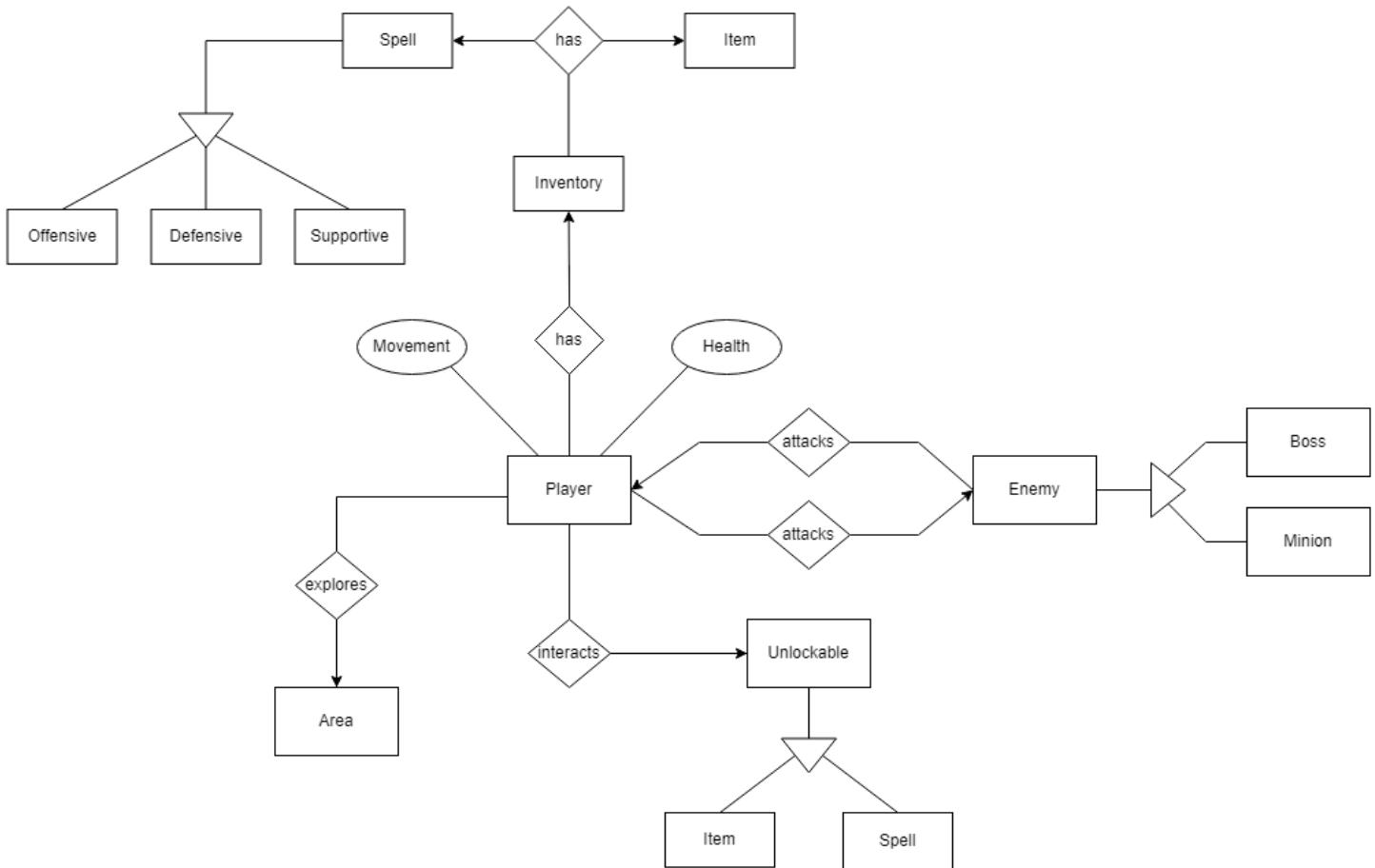
Scenario 3 - Bruno Magalhães

Bruno Magalhães is on the train. He has an exam in less than an hour, but his head is still overflowing with ideas and strategies. How could he ever defeat Jangrang? He'd been stuck on that boss for the last few days, and no strategy he thought up seemed to work. Maybe... maybe he needed to cast the *Quake* spell before he cast the *Vines* spell. Yes, that might just work. He could follow *Quake* with a *Haste* spell to more easily dodge Jangrang's power attack. Then he could cast *Vines* and immobilise... yes, that was it for sure. This time, it had to work. It simply must.

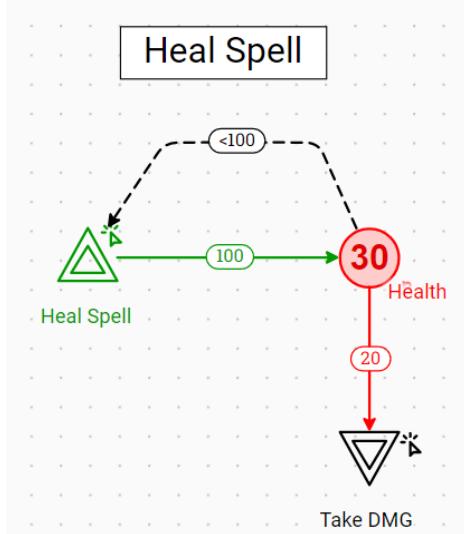
Scenario 4 - Sebastian Smith

Sebastian Smith takes his hands off the keyboard, adrenaline still pumping in his veins. Defeating the final boss proved more difficult than he was expecting, but in the end it was worth it. The strategy he'd used was risky, but he'd done it. Sebastian gets up, stares for a moment. This game had been his life for the last couple of days, but it had been well worth completing. The ambience, the combat... everything just worked together seamlessly. He looked around his room, to the posters of other games he loved on the wall above his bed. *Dragon Age*, *The Witcher*... maybe he should get a *Through the Misty Gate* poster, too. He looked at his sketchpad. After playing *TtMG*, his mind was racing with all the ideas for the awesome paintings he'd create in the next few days. He couldn't wait.

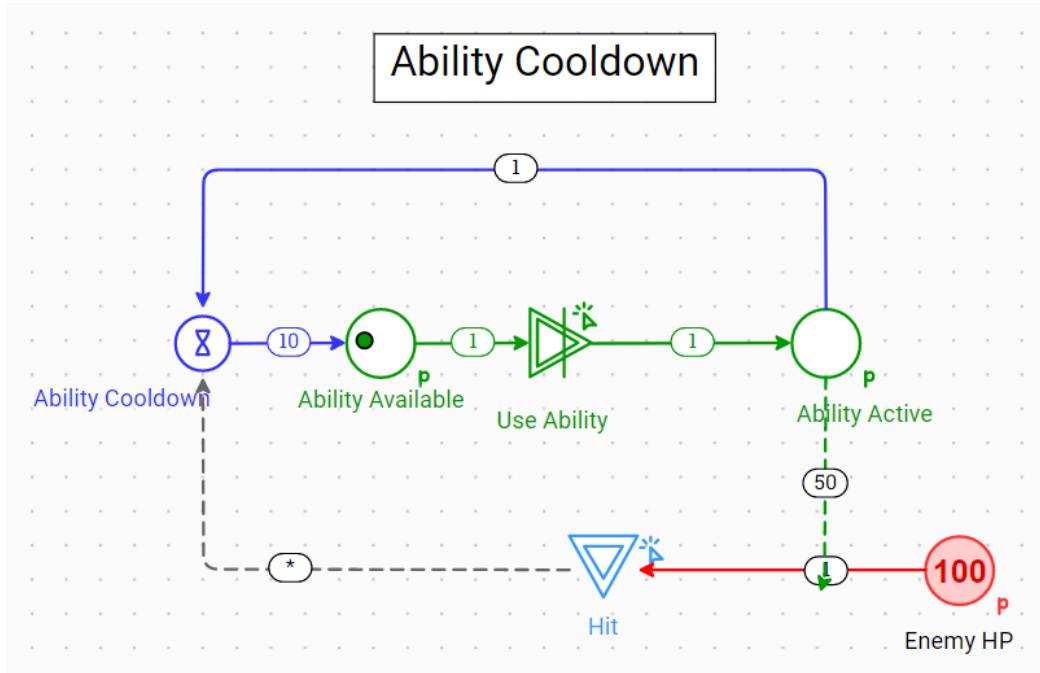
6. Conceptual Models for Core Gameplay Elements



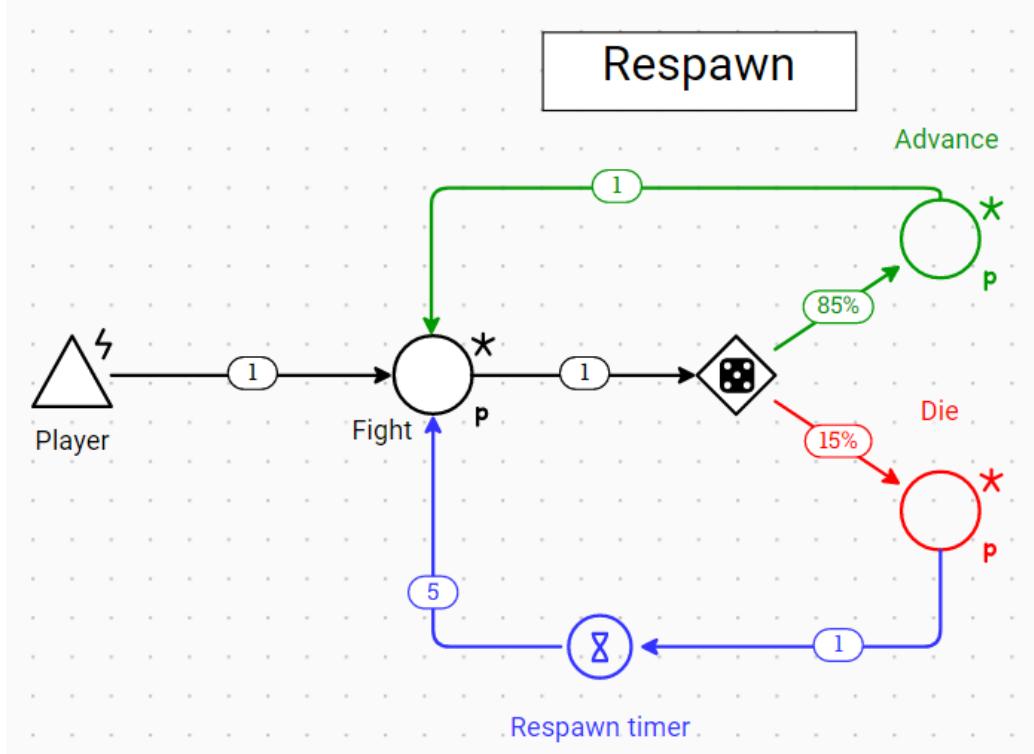
The player has health and an inventory. They can also move. Their inventory contains items and spells, which can be offensive, defensive, or support spells. The player can explore areas. The player can attack enemies, who might be bosses or minions who might in turn attack them. The player can interact with unlockables, which might be new spells or items.



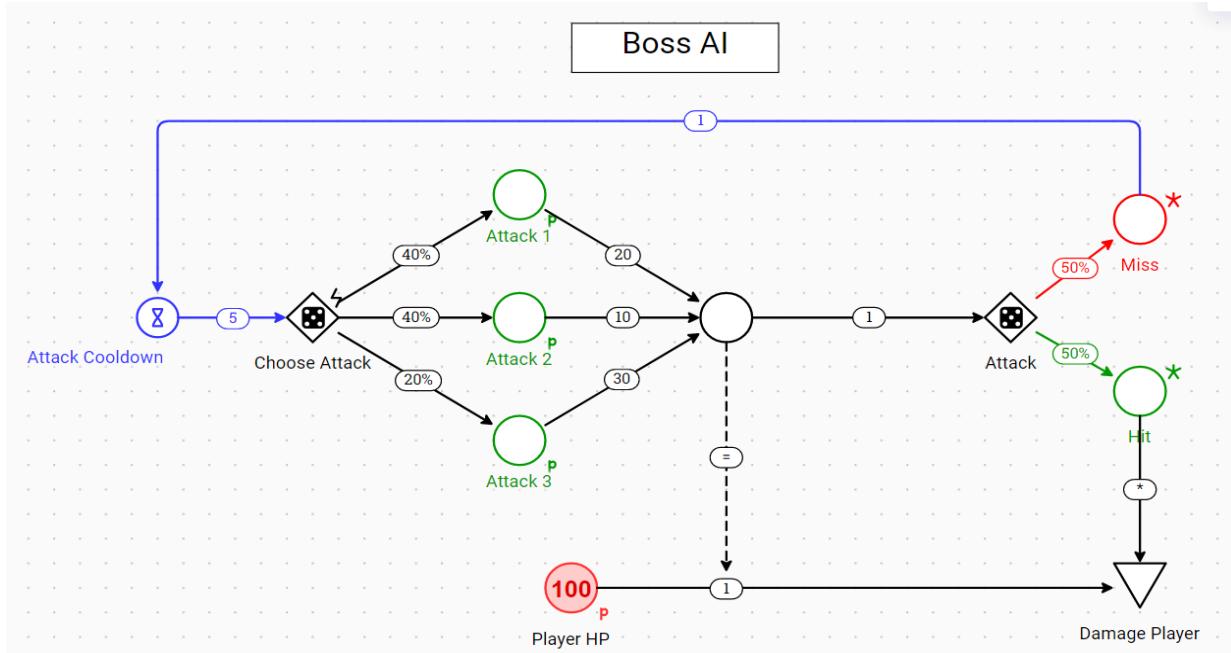
The player can use the spell *Heal* if their health is less than max. The Healing spell fully heals the player.



Whether an attack hit or missed, the cooldown countdown starts as soon as the spell is cast.

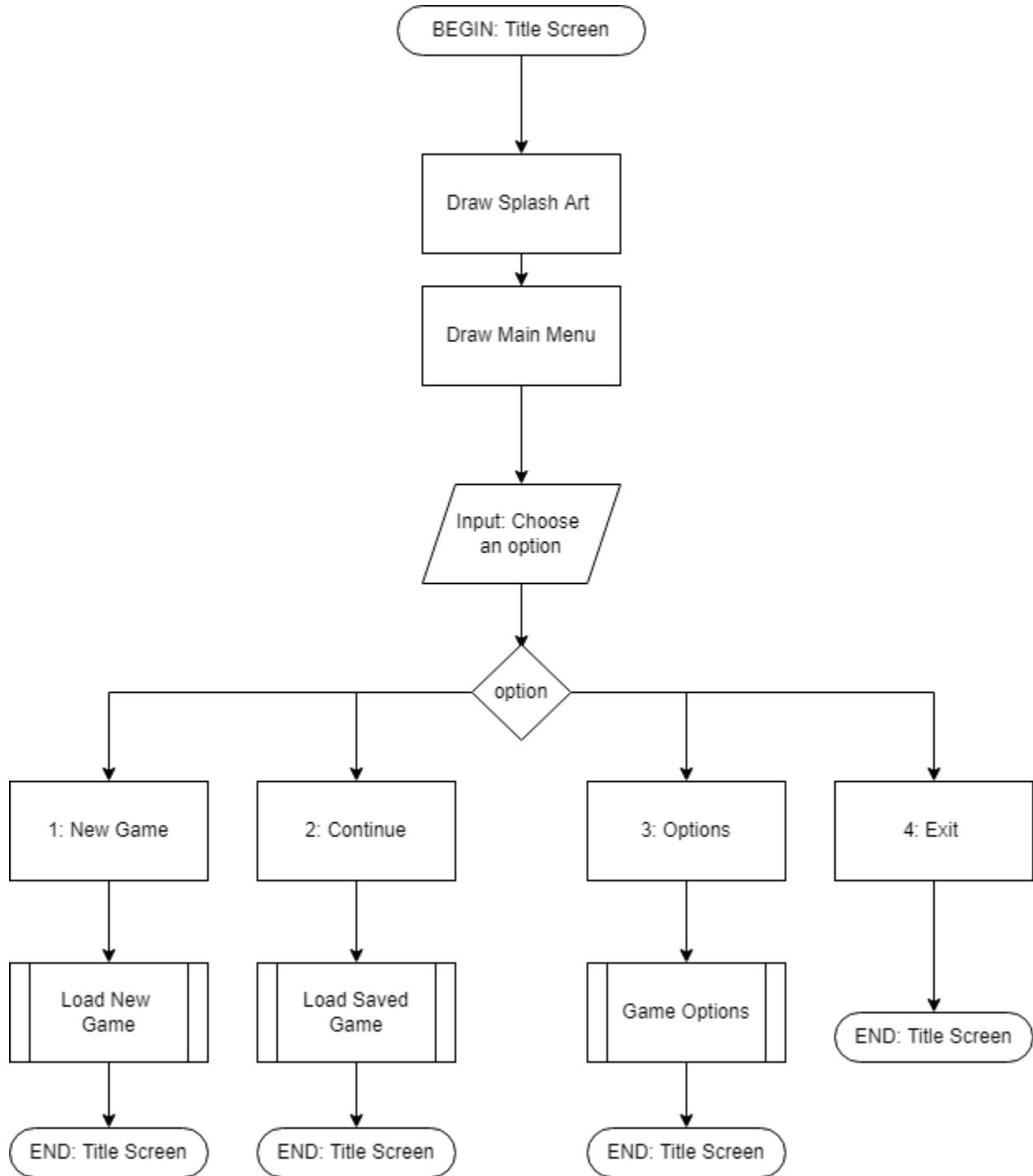


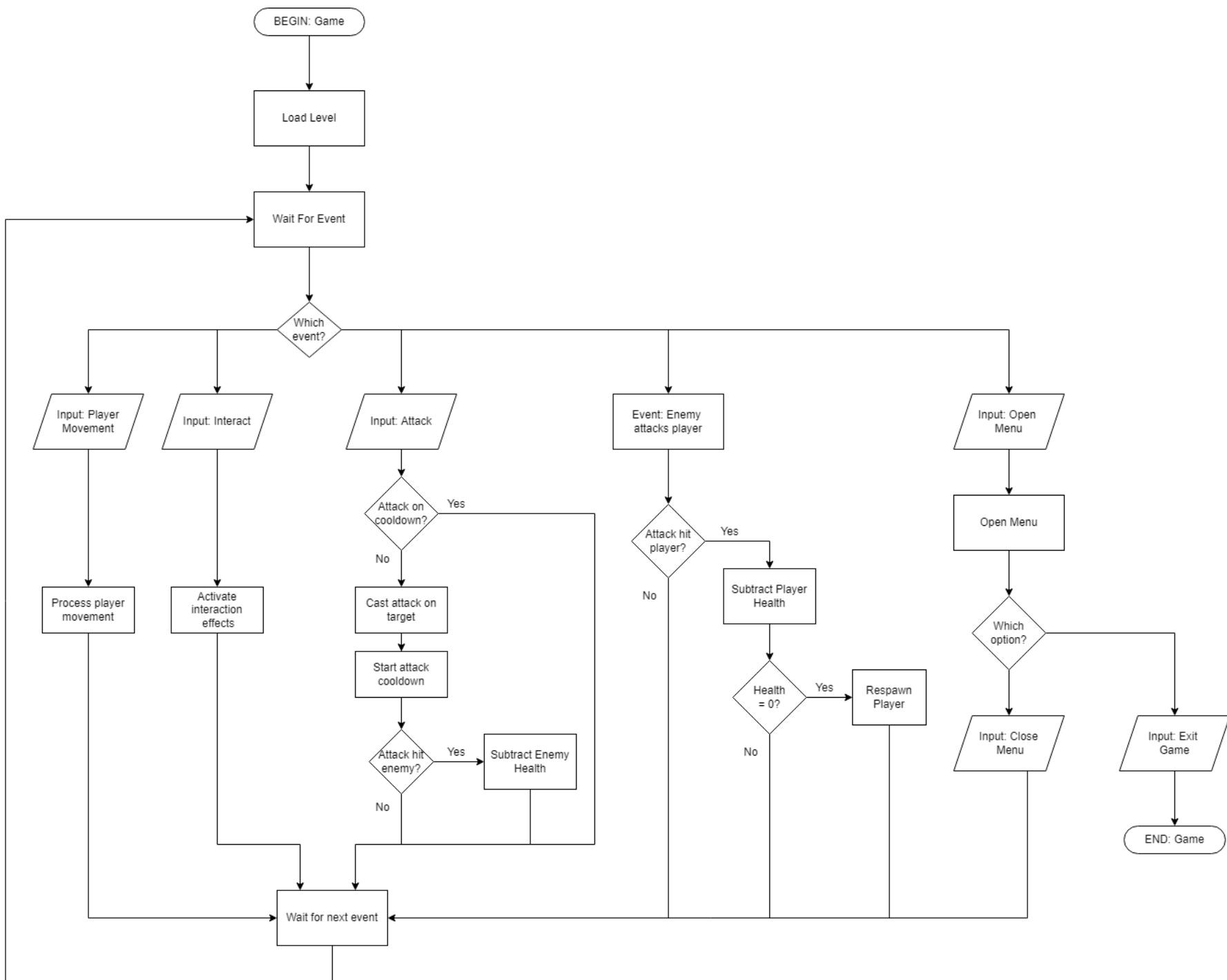
Once the player dies, they must go through the death animation and respawn in a safe place, and the fight starts over again. If the player survives, they can advance to the next fight.



The core boss AI chooses an attack from a pool of attacks, each one with different damage values and effects. Once the attack has been executed, the boss will wait a short amount of time before being able to choose the next attack.

7. Core Gameplay Loops and Game Modes

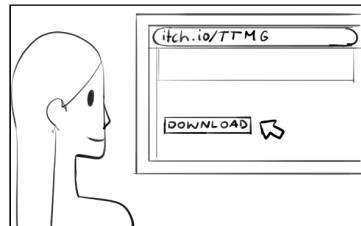




Storyboards

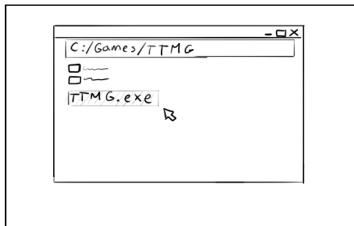
Storyboard 1 - Loading up the game

Title Through the Misty Gate

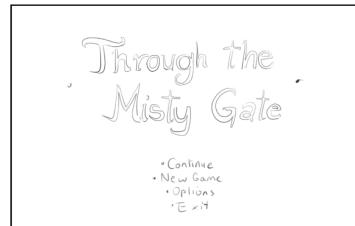


Molly sits down to try TTMG for the first time.

Name Storyboard 1 - Loading up the game



She downloaded the game and runs the executable.



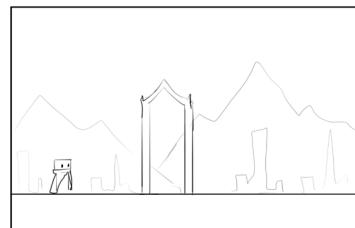
The game boots and the title screen appears.



She sees 4 buttons and clicks on "New Game".



The screen goes black and some text appears.



She sees her character and the game starts.

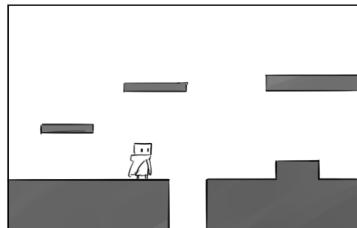
Molly Weasley sits down at her desk after a long, busy evening cooking for her family. She heard from her friend Veronica that a new game had come out. It is called *Through the Misty Gate*, and Veronica claimed it was quite similar to *Hollow Knight*, a game they both enjoyed. Molly decided to give it a try, since she wasn't in the mood to play *Satisfactory* tonight, the game she had been playing recently. She downloaded the game from *itch.io* and loaded it up on her computer.

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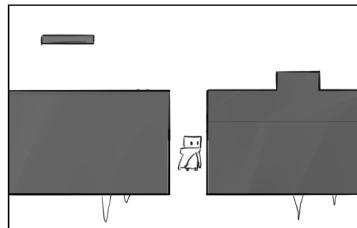
The screen goes dark, and some text appears, detailing the start of her journey. Then, the ruins in the background return, and she sees her character walking through a gate. The character stops, and she is now in control. The game begins.

Storyboard 2 - Exploring the ruins

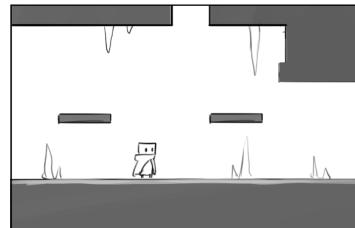
Title Through the Misty Gate Name Storyboard 2 - Exploring the ruins



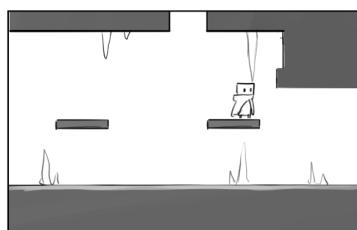
The player is walking around when they see a hole.



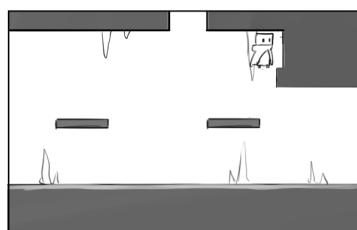
Being curious, they jump down.



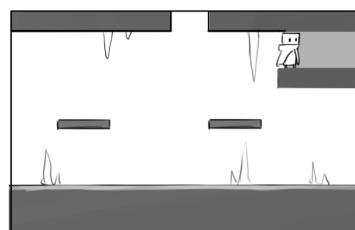
They find themselves surrounded by ice.



The player notices a dent in the wall.



They jump and try to land on the ledge.



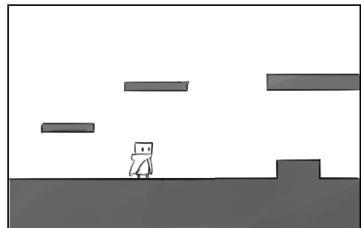
They land and uncover a secret area!

Veronica Sanchez drops down a hole. She finds herself surrounded by ice. The ground is slippery, but there are no enemies around, at least for now. She jumps up a ledge to her right and walks a little further. She comes across a tall wall, and she stops. When she does so, her character slides slightly. Always on the lookout for secrets, Veronica analyses the wall. She notices a small dent in the wall, just within jumping distance if she uses her *Jump* spell. She jumps onto a nearby platform to make it easier to reach the dent, which she's pretty sure is a secret area of some sort. She focuses on the hard jump, but manages it easily. She is rewarded with a little jingle and her character walking seemingly into the wall. Moments later, the secret area is revealed, and she sees a new piece of equipment waiting for her inside.

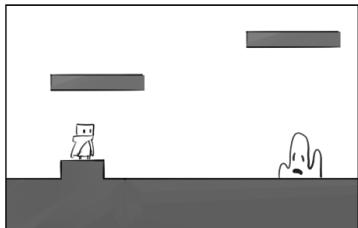
Storyboard 3 - Fighting the first enemy

Title Through the Misty Gate

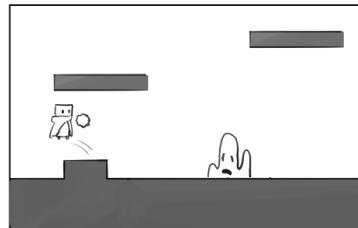
Name Storyboard 3 - Fighting the first enemy



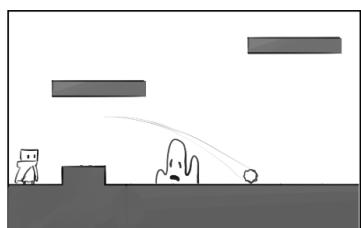
The player carefully explores the level.



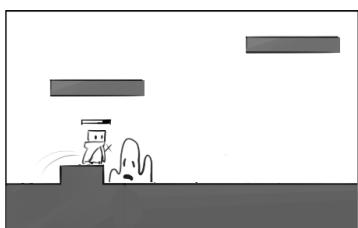
They encounter their first enemy.



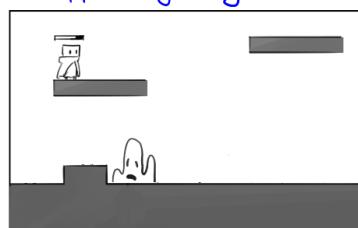
They cast an attacking spell and jump to the left, to gain distance from the approaching enemy.



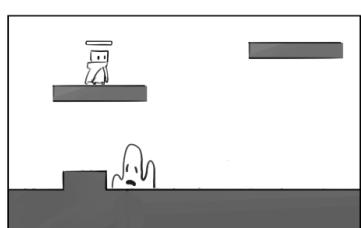
The player misses the attack.



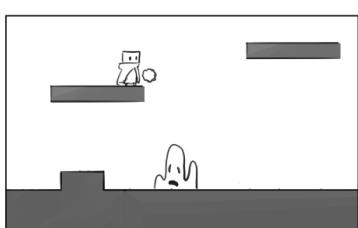
They get too close to the enemy and get hit.



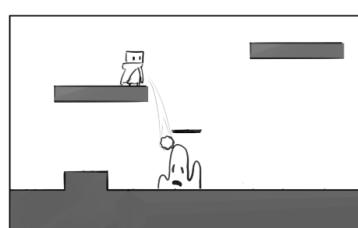
The player jumps onto the platform for safety.



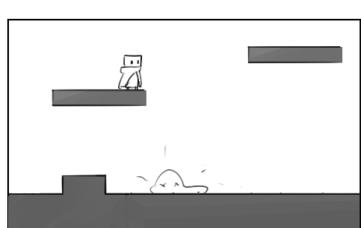
Then, they use the healing spell to recover lost health.



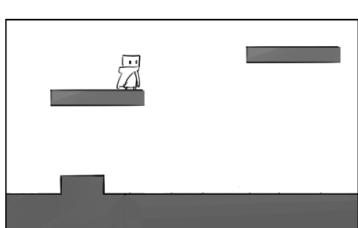
The player casts another attack spell on the enemy.



The attack hits the enemy.



The enemy dies.



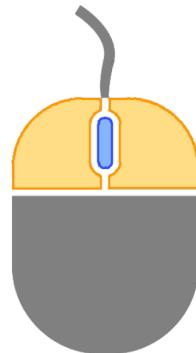
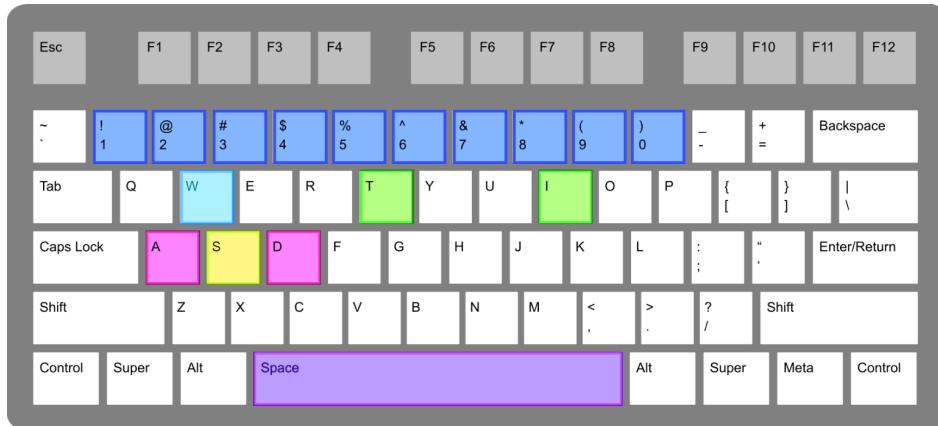
The player is victorious!

Molly Weasley descends into the dark caves under the ruins. There, she sees a slime a little to her right. The slime jumps toward her, aggressively. Molly has never fought an enemy before in this game, but she has been taught how to. She casts her *Magic Missile* spell while walking to the left, away from the slime. She misses her first cast, so she has to wait for the cooldown. She misses the jump to the platform and starts panicking as the slime comes closer. She casts *Magic Missile* again, and this time it hits, but fails to kill the slime. Molly attempts the jump again, butm the slime touches her before she can. She loses some health, but makes it up to the platform. Once there, she decides to cast the *Heal* spell on herself to recover her health. She then casts *Magic Missile* once more, hitting the slime and killing it. Molly is victorious!

Control System

Through the Misty Gate is played using a mouse and keyboard. No other input devices are currently supported. The key bindings are as follows:

- A and D are used to move left and right, respectively;
- Spacebar is used to jump;
- W is used to climb ladders and interact with the game world;
- S is used to drop down from a two-way platform;
- T and I are used to open the spellbook and inventory, respectively;
- Left and Right Mouse Button are used to cast a spell in their normal and alternate forms, respectively. The spell is cast in the direction of the mouse pointer;
- The number keys are used to select the active spell from the hotbar. Alternatively, the mouse wheel can be used to cycle between the spells in the hotbar.



Time Window

Through the Misty Gate is divided into several biomes. We expect each biome to take around 15-20 minutes to complete, and around 30-40 minutes to fully explore. This would put the total playtime to finish the game at around 1 to 1.5 hours for a normal playthrough, or roughly double that for a 100% run.

The shortest playthrough would take the player only through the necessary gameplay elements with minimal autonomous exploration. A normal playthrough would see the player explore their surroundings to a limited degree, while the full playthrough would mean the player found every collectible and explored every area of the map.

Progression

During a playthrough, it is expected that the challenges and enemies the player faces will become progressively more difficult. Later in the playthrough, the enemies will become stronger, dealing and taking more damage. Parallelly, the player should become more powerful themselves; more spells and items at the player's disposal will increase player agency and the ability to respond to different challenges with the most appropriate solution. Spells found by completing more difficult challenges are also more powerful than earlier spells, which, combined with the player's growing mastery of the spell and combat system, contributes to the increase in the player's power.

Narratively, the story should progress in its natural, non-linear manner. As the player uncovers new lore and secrets, the bigger picture should become gradually clearer, and the overall arc of the plot should begin to fit together in the player's head like a puzzle.

Upon completion of an area, the player will also get to experience new biomes and areas of the game, which should help diversify the visual experience.

Presentation aspects

Representation of the player

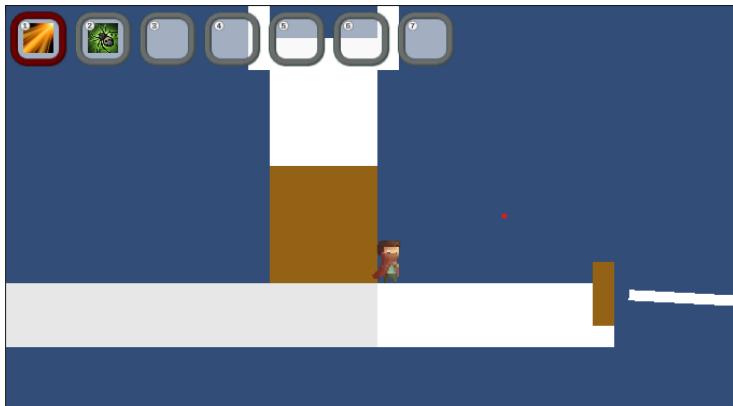


In our game, the representation of the player character is explicit. Our main focus is on the *sense of agency*, where we aim to improve upon through the use of precise control settings and input devices (the keyboard and mouse), as well as on the *sense of placement* that we try to achieve with our character design, which fits the style of the environment, together with the use of animations while the character is idle and walking, to simulate these actions.

Representation of the Game World

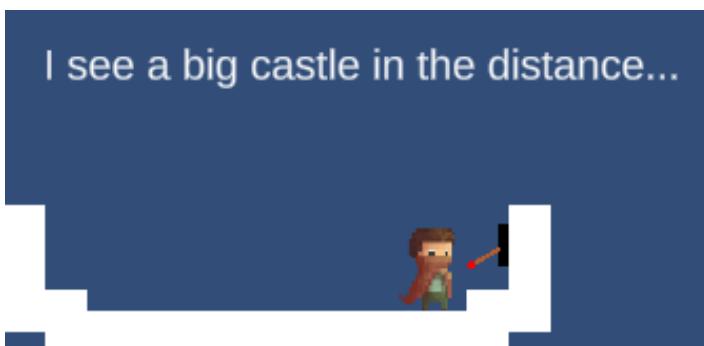
Our game is two-dimensional, so we have implemented a side view. The camera automatically follows the player around the map, but it is not directly controllable by the player. We chose this method as it allows the player to focus on the gameplay. The camera might automatically zoom in or out depending on the environment, to give the player a sense of scale.

Presenting Information and Feedback



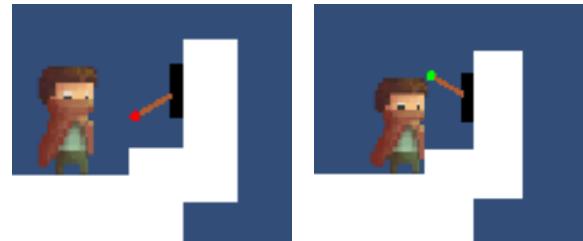
Our interfaces are non-diegetic. We implement several UI elements that are always present on screen, and some that need to be activated. The spell bar, seen here, represents the spells the player can choose between, and is always present. The red border indicates the one currently selected. The empty spots are for new spells the player might find in his path.

Another part of the UI is the spell book. It contains all the spells the player has available. It is open using the T key in the keyboard, and allows the player to switch the spells on their hotbar. The greyed out spells are the ones that are already present on the hotbar. Similarly, we will have an inventory that allows the player to equip and store items.



We also have text as part of our UI, which allows us to introduce story beats and exposition. Text will pop up in specific parts of the world, when the player completes a certain task or triggers a certain event.

We will also implement health bars for both the players and enemies, that will better represent their current health. Additionally, we use some interactable objects that allow the player to know the state of the world. As seen here, the green lever is active, while the red one is inactive.



Metaphors

We make use of some metaphors in our game: The inventory is a metaphor for a bag. Similarly, the spell book can be seen as a metaphor for a book, where one would keep their spells.