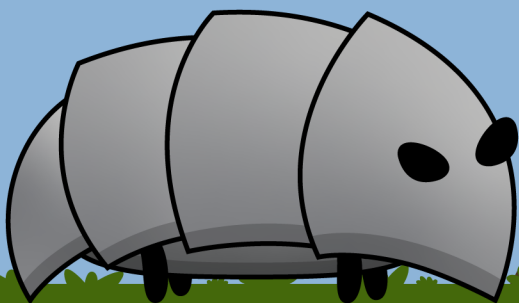


# An Escape

by Jared Mason



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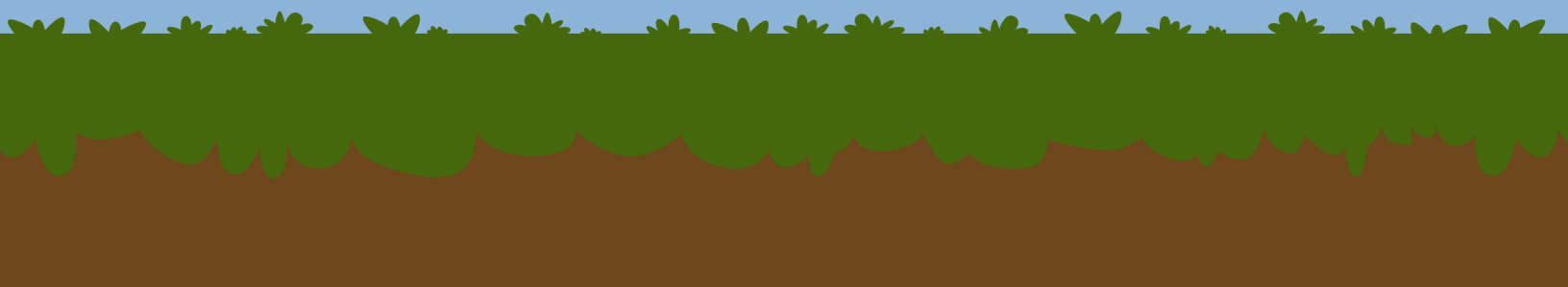
# Abstract

Throughout my life, video games have offered me temporary shelter from the stressors of reality. They have offered up entire worlds for me to explore and disappear into. *An Escape* acts to build this feeling into a playable game through both the narrative and the experience.

*An Escape* follows the imagination of a young child trying to escape reality. They recently moved to a new town after their father's unexpected death and are now experiencing the combined pressures of an overprotective mother and a new school. To cope, they have retreated into their imagination, where everything is depicted by a more fantastical representation of itself.

In order to ensure the game could act as an escape from reality for both the main character and the player, the gameplay itself offers a fun experience focused on combat and exploration. Using the Metroidvania genre allowed me to showcase character progression through gameplay focused ways like unlockable powerups while offering the player momentary relief from the real world.

# Background



# Metroidvania History

## Definition: Metroidvania

A subgenre of action-adventure video games. Traditionally presented as a side scrolling platformer. Known for their large, interconnected worlds where different areas are gated behind unlockable abilities. The name itself came from a combination of *Metroid* and *Castlevania*, the two most notable frontrunners of the genre.

Before I could make a Metroidvania game, I first wanted to ensure I knew the history and the progression of the genre. This would allow me to learn from and build off other's experiences. To accomplish this, I began at the beginning.

## The Metroid Series

*Metroid* (1986) was originally designed with the goal of creating a platformer that followed a non-linear progression system. This series introduced many staples of the genre, like the interconnected room based map system, and the presence of various discoverable powerups that would allow players to traverse into these new areas. They developed and refined the formula over a period of 16 years and 4 games, before taking a break from it in 2002.

## Castlevania: Symphony of the Night (1997)

In order to create a game that could have similar levels or play time and enjoyment across all skill levels, *Castlevania* introduced many RPG elements into the formula. These included a large open world with key items gating off areas, and a experience system that caused players to level up and get stronger over time.

While not every Metroidvania utilizes all aspects of it, these games established the basic formula for the genre.

# Indie Influence

As technology progressed and 3D development became more popular, large developers took a step back from the Metroidvania genre. However, indie developers made sure the genre didn't go untouched for very long. In 2004, Daisuke Amaya released *Cave Story*. This game was created entirely by himself and incorporated many mechanics from the Metroidvania genre. The game became known as one of the first and most successful, independently developed game. Because of this, it brought greater interest to the genre for many like-minded developers.

Since then, *Guacamelee!* (2013), *Ori and the Blind Forest* (2015), and *Hollow Knight* (2017) are all examples of successful independently developed Metroidvanias. Due to this success, larger developers have recently returned to the genre. Koji Igarashi, the original creator of *Castlevania: Symphony of the Night*, released *Bloodstained: Ritual of the Night* as a spiritual successor. *Metroid Dread* (2021) also marked Metroid's long awaited return to the 2D, Metroidvania formula.

# Child Anxiety and Comfort Objects

In the development of my main character, I ran into the idea of a comfort object. This is an object that helps an infant transition away from a dependent relationship with their mother. It is generally the first “not me” possession the infant views as their own, usually a blanket or a toy. It fills the comforting void left behind during times the mother cannot be present and helps act as a defense against anxiety.

While my character might be a bit older than those typically requiring a comfort object, I thought it would be a good way to represent their anxiety. They perceive the blanket wrapped around them as protection from the world, which translates into their various in-game abilities. As these abilities, as well as the rest of the environment, take place inside the main character’s imagination, the blanket is able to act in semi unrealistic ways.

The main inspiration for this story telling method came from the game *Gris* (2018), by Nomada Studio. Within this game, all of the main character’s abilities are shown through her dress. It helps her to escape from a shadowy black monster that represents her built up pain and sorrow. I wanted my character to have a similar object that could help them traverse their emotions.



# Visual Research

Team Cherry's *Hollow Knight* (2017) was the main inspiration for the visual aesthetic of this project. The characters in *Hollow Knight* often follow an aesthetic that mixes a playful exterior, with a darker undertone. As my story involves serious ideas being shown through a young child's imagination, I wanted to have similar aesthetics to match. *Hollow Knight* was also made by a small team inside of Unity. As this was similar to the workflow I was pursuing, I was able to take inspiration by some of the technical ways they created their final aesthetics.



*8Doors* (2021), by Rootless Studio, is another game I took inspiration from. While the overall aesthetic is similar to *Hollow Knight*, I took particular note by how they created their ground textures. These appeared to be large, repeating textures that were then surrounded by a border or edge. At the time I was struggling with how best to create mine, so I sought to imitate this technique.

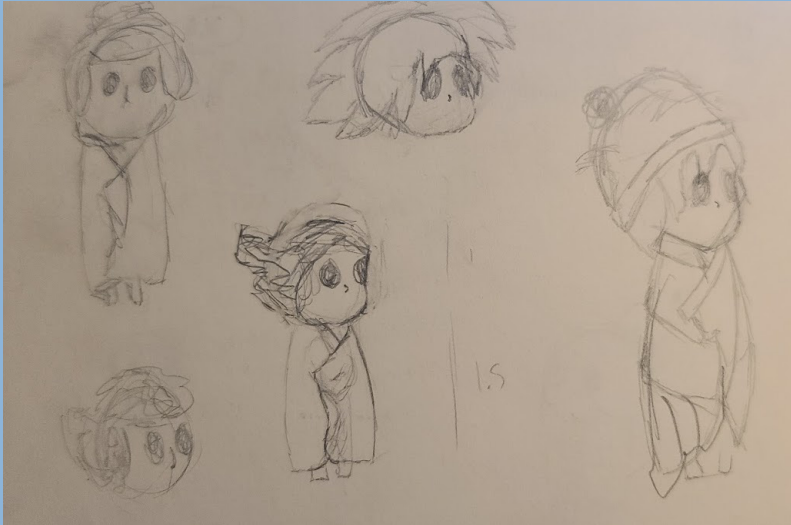




# Production



# Character Design



As mentioned, I decided to center my main character's design around a comfort object. This led to my goal of creating a young, androgynous child wrapped up in a blanket. As the character was going to be relatively small, I wanted to keep the colors and details limited. This led to the simplistic face style, and the blacked out shadows found under the blanket.

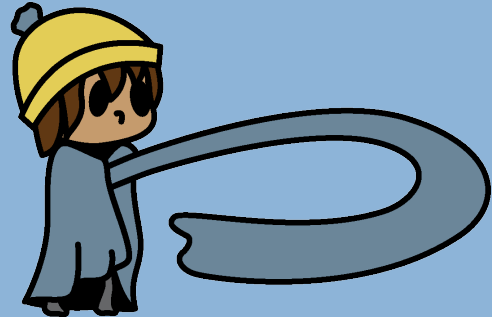
For the blanket itself, I wanted the character's whole body to be covered, as to protect them, with a tuft of the blanket left out for attacking with. To create this, I draped a blanket over myself and recreated the folds in a simplified, yet realistic, way.

The hat came about after numerous attempts at creating a realistic and unique hairstyle. I wanted the hair to be messy, but everything I drew up lacked the reserved nature I wanted the character to have. I decided that if the character was already bundled up, a winter beanie would match the aesthetic. This would allow their hair to be ungroomed, while not feeling too loud. I also took this hat and used it as an icon for the players health bar.

I chose the colors as they created a neutral, child reminiscent palette while allowing the character to stand out against the various environmental backgrounds.

# Character Controls

For the combat portion of gameplay, I decided the character would use a short range, melee attack. This translated into a whip style attack that would make best use of the character's blanket. While looking at examples of other video game whip attacks, I decided to best implement this as a two stage pattern. If timed correctly, the first two attacks come out back to back. Then, there is a slight pause before the character can attack again. This created a more interesting and rhythmic feel a more standard, spamable attack system.



I wanted the other basic character movements, such as walk speed and jump height, to allow the player to navigate quickly and nimbly through the levels. This would also compliment the close range attack pattern as it would allow for quick engaging and disengaging with enemies. For this, I made sure that all inputs have immediate changes in the character's movement or direction. This included the characters jump height, which can be easily controlled based on how long the input button is held down for.

The specifics of these movements took heavy inspiration from *Hollow Knight*. Their character is similarly scaled in respect to its world, and also utilizes a melee attack. I most closely compared our jump and fall speeds to ensure *An Escape* had a similar feeling in the quality of its motions.



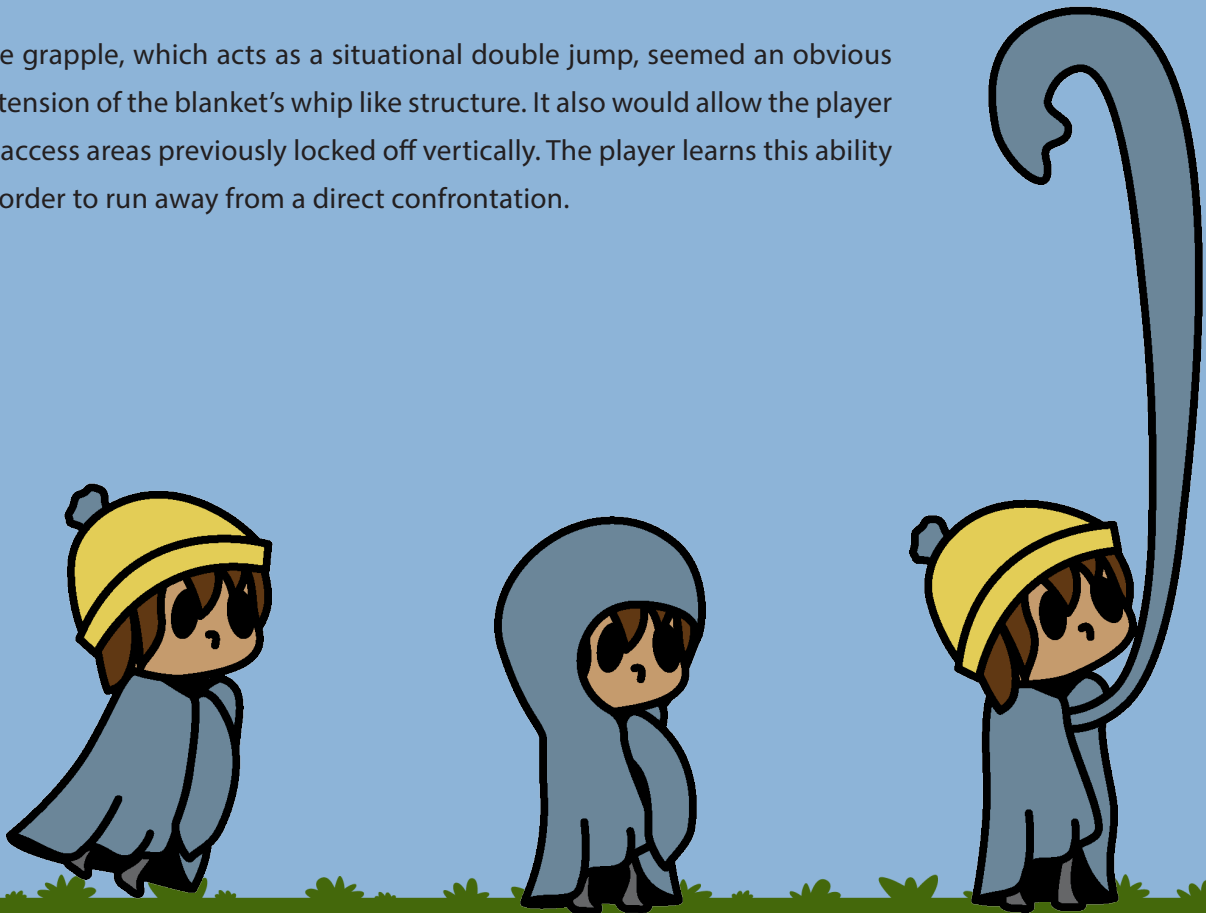
# Character Abilities

To follow the Metroidvania game model, I gave my character various unlockable abilities. These abilities became dash, stealth, and grapple. These are all typical Metroidvania style abilities that could be represented through the main character's blanket while also showcasing character growth in the intended way.

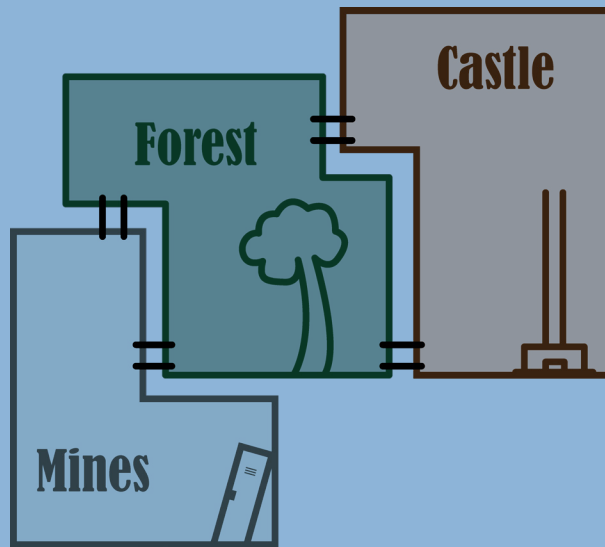
The dash would allow players to traverse larger platforming gaps and better avoid enemy attacks. It is introduced when the character learns to avoid their problems.

Stealth would allow the player to access previously locked off areas and sneak past certain enemies. The character learns this ability in order to hide from those that are stressing them out.

The grapple, which acts as a situational double jump, seemed an obvious extension of the blanket's whip like structure. It also would allow the player to access areas previously locked off vertically. The player learns this ability in order to run away from a direct confrontation.



# World Building



The next step was to design the world my character would exist in. To match the progression and exploration aspects of a Metroidvania, I wanted to create three distinct, connected areas. Each of these areas would represent an area of the main character's life, shown through a fantasy type "lens of imagination". The main areas I determined a young child might exist in were their house and their school, with an outside area serving to connect the two.

For the house, I decided to represent it with a large castle style area. Originally, I was leaning towards an abandoned town style area, however a castle matched the vertical space I allocated for this area and better fit the imaginative theme I was basing my aesthetics from.



# World Building

The school translated into the mines area. To me, this logically made sense as mines are seen as areas of hard labor, similar to how a child might view going to school.



Lastly, for the outside I turned it into a massive tree. I did this in order to make the character feel small in comparison to their environment. Also, most Metroidvania level designs follow a more interior, room based system, and encapsulating the area inside a large tree would allow me to accomplish that.



# Background Story

Before progressing further, I decided to develop a background story that would help guide my design choices to create a cohesive environment. Currently, my story was that of a young child living in a new location and using their imagination to escape from stress they were experiencing at both home and school.

While creating something more specific, I decided the root cause of my character's stress would be their father's recent death and the changes caused by it. Afterwards they moved to a new town and their mother became much more protective.

In the narrative, the character starts by heading to their house. There they encounter the "watching eyes" of their mother. In the area's boss fight, they learn how to hide and escape from this constant surveillance, shown through the unlocking of the stealth ability. This allows the player to pass through doors previously locked by their mother's supervision.

Next, they go to their new school where they encounter the pressure of a new environment. This includes bullying and ostracization by the other students and the stress of being placed at the center of attention by teachers. While most of this may be in their head, they unlock the grapple ability and use it to run away into the forest.

In the forest they encounter a combination of the previous two boss fights. This culmination of their stress causes them to break down and collapse as they get dragged back to reality.

# Enemy Creation

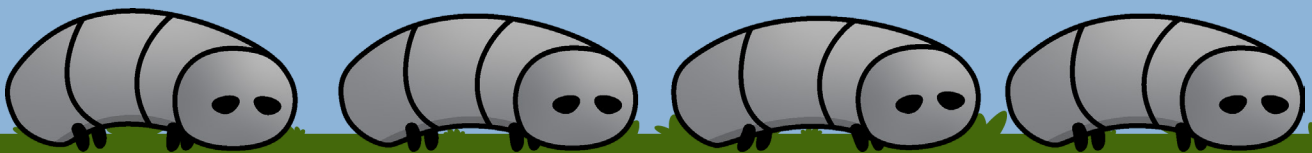
While designing the enemies, I wanted to ensure there was a variety in the types in order to create continually interesting gameplay. To achieve this, I decided to create three different basic enemies and one boss fight for each of the aforementioned areas. This led to a total of 12 different enemies. Each enemy was inspired by a varying combination of gameplay and story reasons.

## Forest

As the forest acts as both the first and last area encountered, I wanted the basic enemies to be fairly light in difficulty and meaning. Bugs came to mind as a realistic fear for a young child to encounter in a backyard or outdoor location. This, along with the desire for variety, led to the creation of the noodlebug, the bumblebug, and the chargebug.

### Noodlebug

The noodlebug was the first enemy I fully designed. I wanted to create a simple, bug like creature that walked back and forth, turning around at walls and edges. For the design, I experimented with various body shapes until I settled on one that reminded me of a macaroni noodle, hence the name, mixed with a pill bug. Even though it is the first enemy encountered in game, I decided I wanted to give it three health. This is because the players attack starts at dealing one damage. Requiring the player to use three attacks here would hopefully teach them about the aforementioned two hit rhythm to the players attack, before they encounter any challenging enemies.

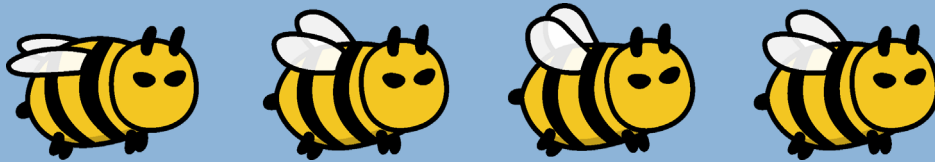




# Enemy Creation

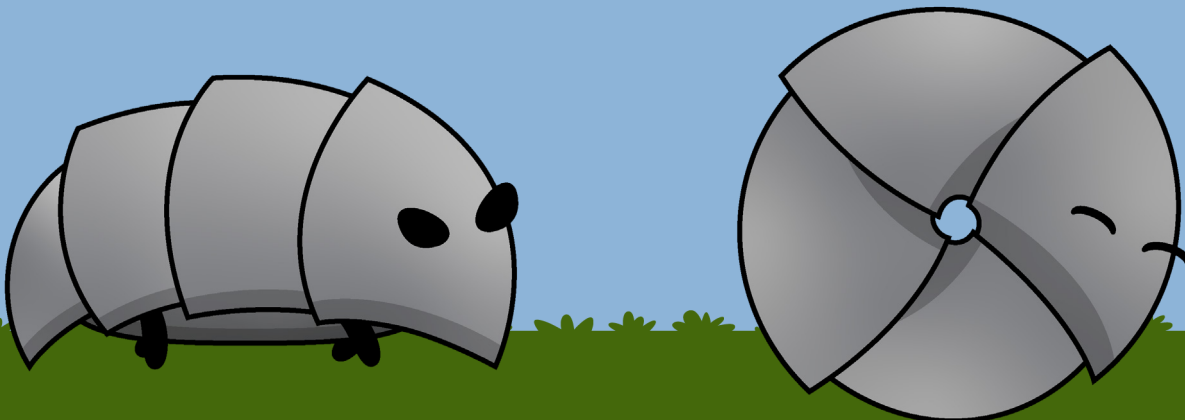
## Bumblebug

As the second enemy in the game, I wanted to introduce variety by implementing a flying enemy. On the surface, the bumblebug is the simplest version of that you can create with it simply flying straight towards the player. However, under the surface it became fairly technically complex to implement. I wanted to ensure that it couldn't detect the player through walls, and that it would correctly path around walls and obstacles while chasing them. To implement this, I ended up utilizing raycasting techniques and the A\* Pathmaking Project plugin. Visually, I decided to use a bee as reference as that was the most likely flying bug for young children to have anxious interactions with.



## Chargebug

I created the chargebug to be the first real challenge in the game. I wanted an enemy that, upon its defeat, would grant the dash ability. As the player was meant to be “learning” said ability, I wanted to create an enemy that could dash itself. As the previously explained noodlebug enemy was reminiscent of a pill bug, I decided to create a larger, stronger version that could curl up. This bug would then curl up and charge at the player. If avoided, it runs into the wall and is stunned allowing the player to come and defeat it. The difficulty of this fight would force the player to experiment and hopefully try new strategies to defeat enemies in the future.



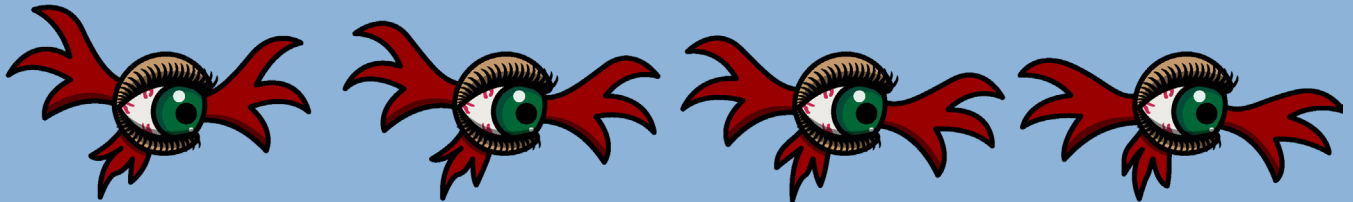
# Enemy Creation

## Castle

For the castle area I wanted to theme the enemies around anxieties the main character might experience in their own home. These played to the aforementioned themes of the overprotective mother and the recently deceased dad.

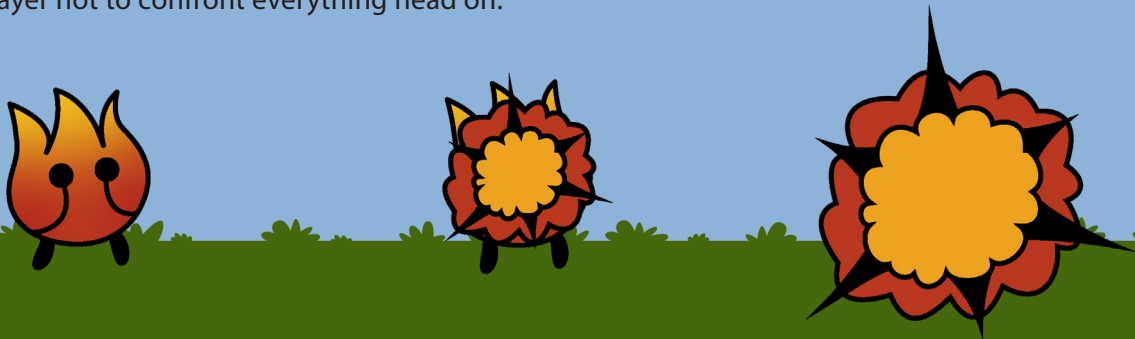
### Little Eye

This enemy was created to highlight the overprotective nature of the main character's mother. I wanted to create an eyeball enemy to push the idea that she was always watching them. To make it appear feminine in nature, and push the mother idea, I gave the eye long eyelashes. Flying seemed to be the most natural movement system for an eyeball and I decided to make it shoot a projectile to mix up the current enemy attacks.



### Fireball

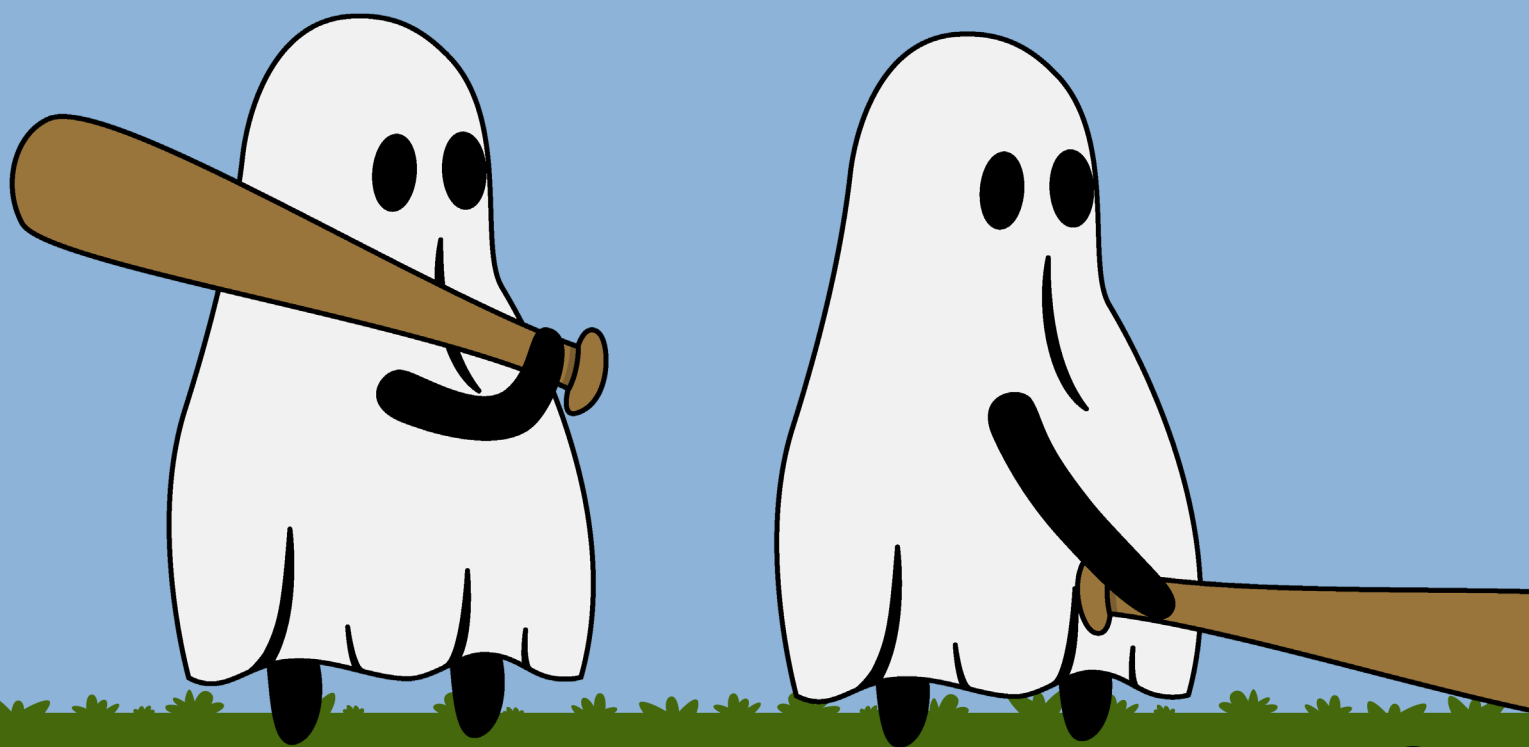
The visual design for this enemy was created long before *An Escape* reached its current state. It was originally drawn with the only reasoning being that fire was a potential home hazard for children to be wary of. Later, when reviewing my old sketches, I realized that the lines seemed similar to that of a baseball. Around the same time, I had started exploring the recently deceased father storyline. As baseball seemed a common father and child trope, I decided it would be symbolic of their relationship and how it still continues to affect the main character. In game, the fireball waits in place until it detects the player, then it runs at them and explodes. This would add variety and teach the player not to confront everything head on.



# Enemy Creation

## Ghost with a Baseball Bat

The original goal of this enemy was to create a large, stationary enemy that could guard collectibles. This led to a big figure that stood still and swung something at the player when they got too close. One of my sketches for this resembled the outline of a ghost. It is hard to be sure whether this, the fireball, or the dead dad idea came first, but the result led to a ghost holding a baseball bat. I drew the ghost more akin to a figure covered in a white sheet to better show its representation of a real person, albeit a dead one. The main character has not fully processed their father's death and is haunted by thoughts and memories related to the topic.



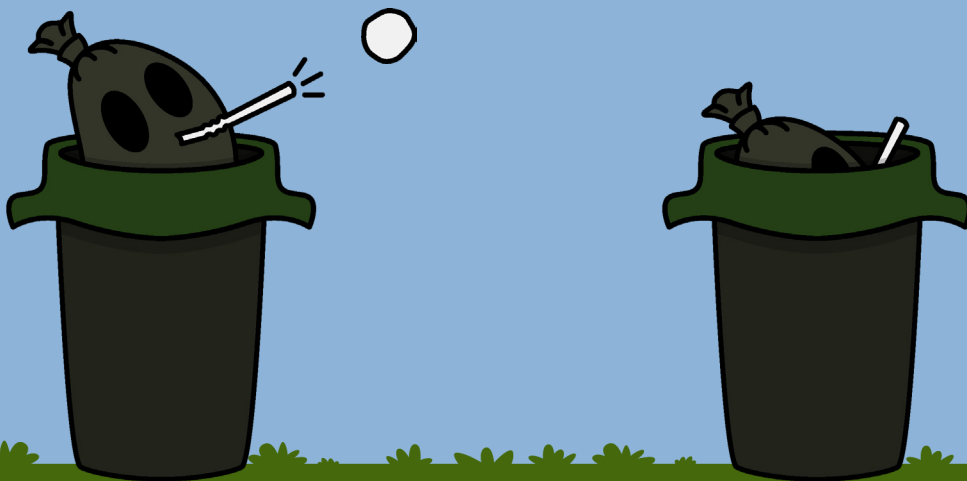
# Enemy Creation

## Mines

For the last area I based my enemies based around hostile situations a new student might encounter in a new school mixed with creatures found underground. While some of these ended up a little vague, I also wanted to ensure a wide mix in enemy types.

### Trash Turret

This originally started with the idea of creating a large, stationary, projectile based enemy. To make it more interesting, I thought to make it hide whenever the player got too close. This would help push the idea of it being a sturdier enemy. It also fit the mental narrative a new student might have towards their fellow classmates. Where they perceive themselves getting picked on from afar, but whenever they try and make new friends, everyone disappears. While designing the looks, I thought about what someone might be able to duck into that would be located at a school. A trashcan was the clearest example and led to the creation of a trash bag shooting spitballs.



# Enemy Creation

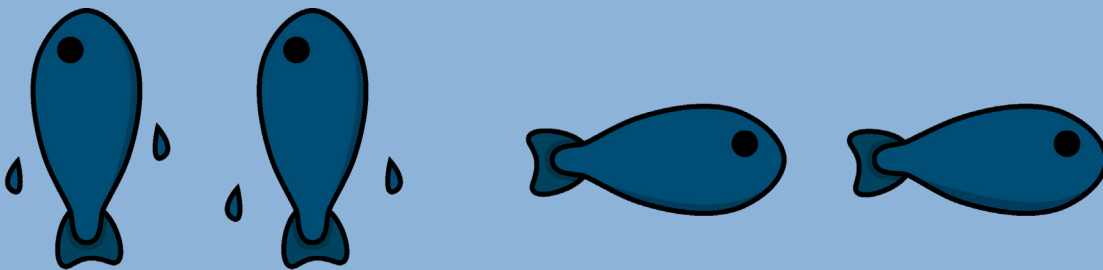
## Ceiling Slug

This enemy was designed with the idea of creating an enemy the player could use the stealth ability in order to sneak past. I also wanted to create a third flying enemy with a different style of attack. Its final iteration is that of a slug that clings to the ceiling, then slams down whenever you pass under it. It then flies after you and continues to slam down whenever it gets above you. This attack system is similar to that of how a bully might wait for and attack its target. The overall design became that of a winged slug as slugs are creatures you might find on the ceiling of a cave, and how one might perceive someone they dislike.



## Fish

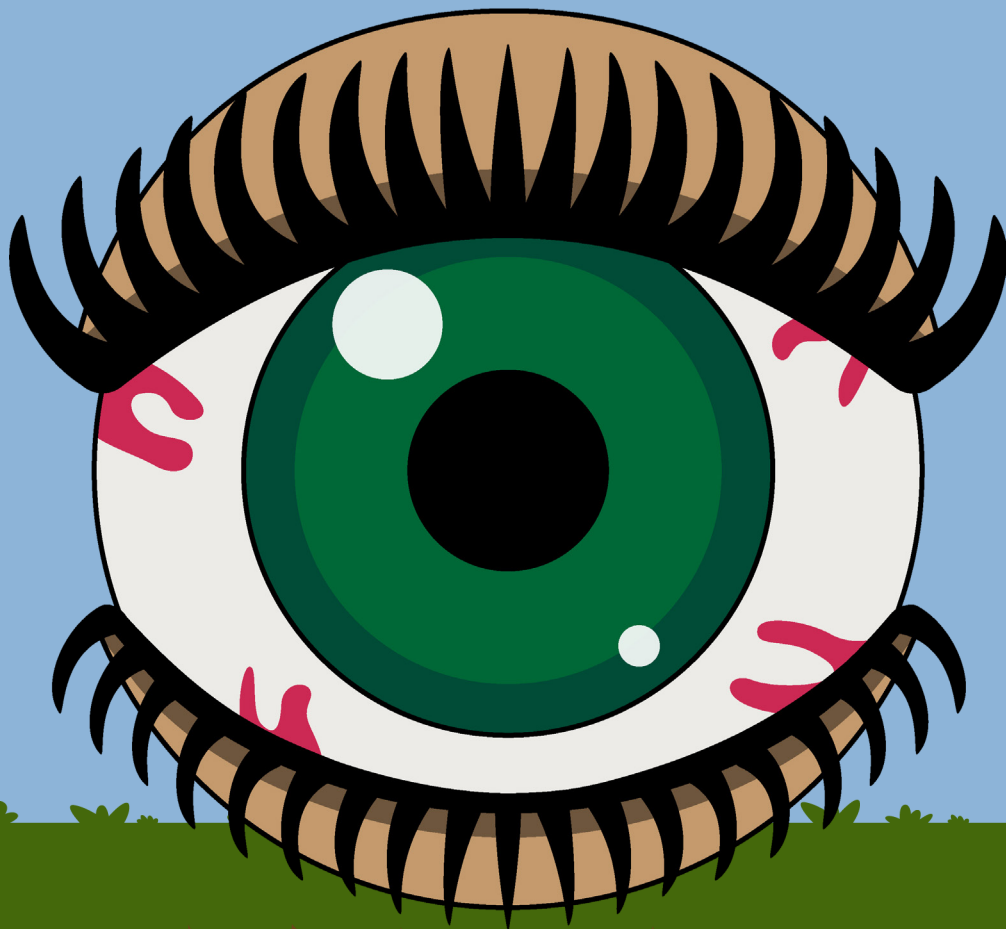
I wanted water to be an aesthetic feature of the Mines. Because of that, I needed an enemy that could live in said water. As its overall design was mostly obscured by the water, I decided to keep it simple and make it a fish. Gameplay wise, the fish swims back and forth in the water, and jumps upwards anytime it detects the player is above its pool of water. This uses similar hit and run tactics to that of the trash turret.



# Enemy Creation - Bosses

## Mother's Eye

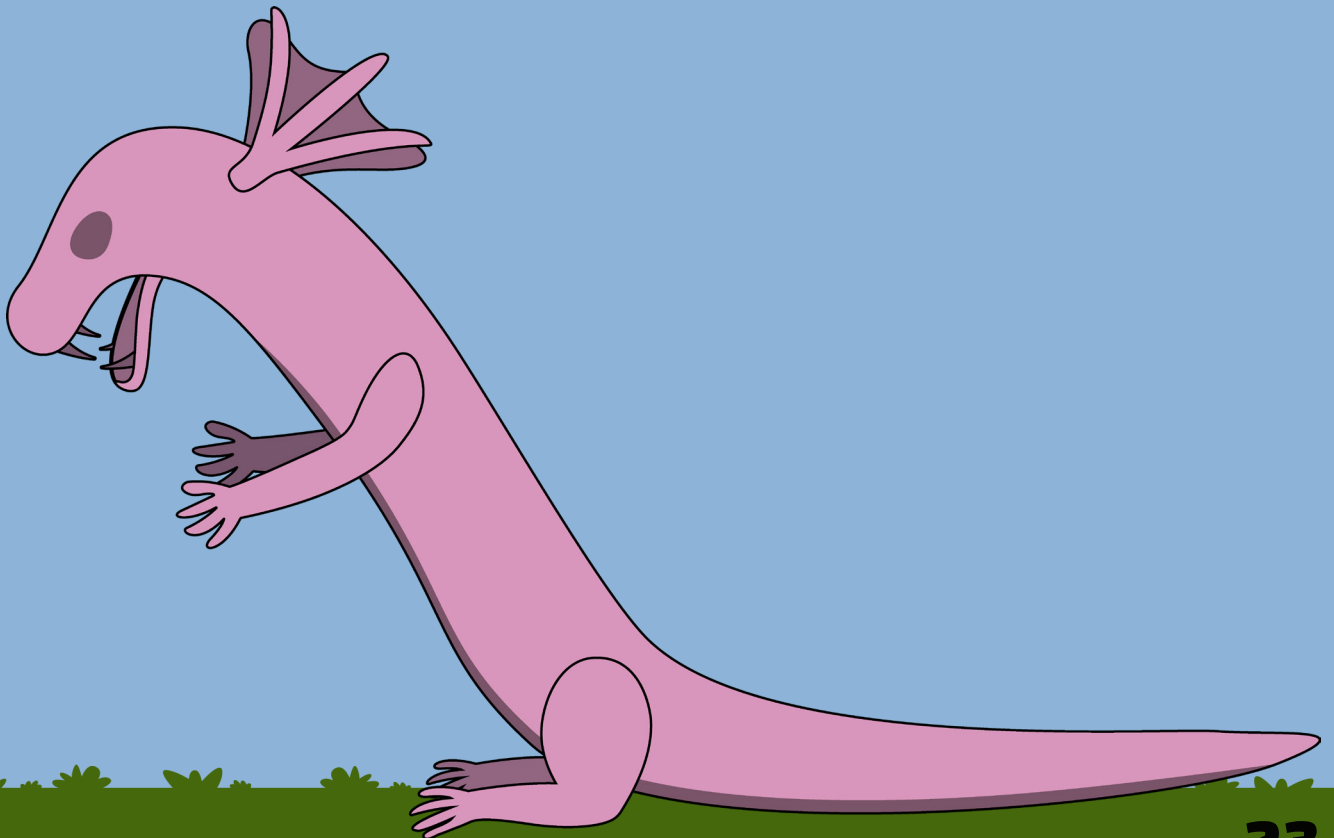
This is the first boss fight encountered in the game. The large eye represents the overprotective nature of the main character's mother. Constantly watching her child's every move. I designed the eye as a larger version of the previously mentioned little eye, eyelashes and all. It attacks similarly, by shooting out different patterns of projectiles. Several times throughout the fight, the eye charges up a large, area of effect attack. During these the player must hide in a bed present in the scene. However, as this happens the bed is slowly destroyed. This represents the main character hiding from their mother's outbursts and the steady loss of privacy in their life. However, at the end they learn the stealth ability, which represents their newfound desire and expertise at closing off and hiding things from their mother.



# Enemy Creation - Bosses

## Lizard Teacher

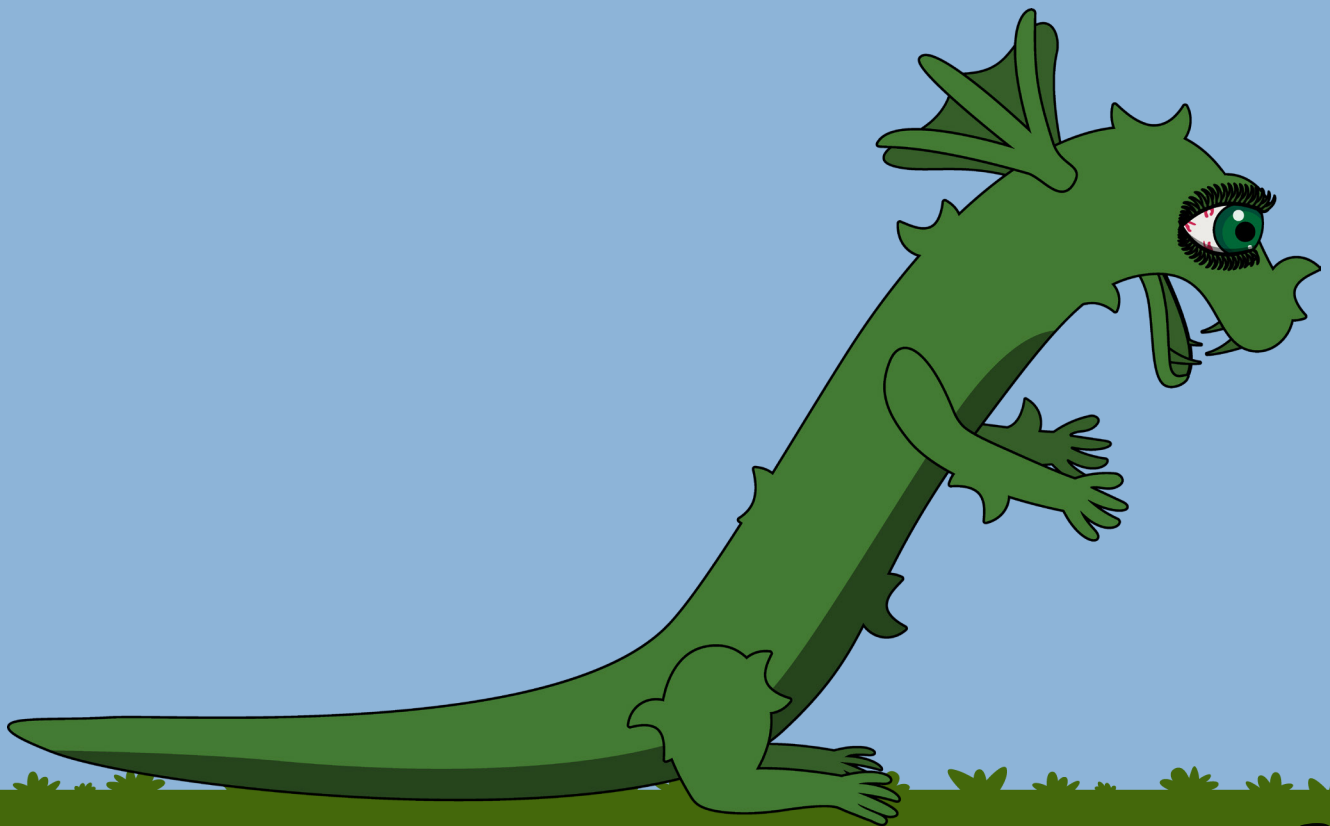
This is the second boss in the game. The idea was to create a situation reminiscent of getting cast into the center of attention by a teacher in a new, uncomfortable classroom. When creating the room itself, I placed the fight on a dirt platform surrounded by water and stalagmites. This was to match the aesthetic of getting cast up on stage with everyone watching from around you. The boss itself was designed based off the olm salamander as it was a blind, interesting looking creature found deep within caves. I wanted this boss to be blind in order to contrast with the first boss fight. Because of this, I made sure all the attack patterns were randomly based, area attacks that had no basis on the player's location. This blind aspect was also tied to the random, all encompassing stress cast onto students by school. At the end the main character runs away from the confrontation.



# Enemy Creation - Bosses

## Vine Combination

The final fight of the game acts as a combination of the previous two boss fights. The two bosses are aesthetically combined as a vine monster, as the fight occurs in the forest. The attack patterns are made up of slightly changed versions of the previous bosses' attacks. This fight acts as a build up of all the main character's stressors attacking them at once. In the end, the stress ends up being too much for the character to handle and they collapse in a pile of blankets, marking the end of the game.

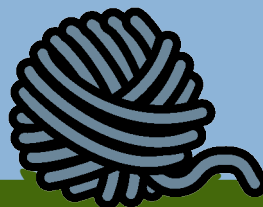
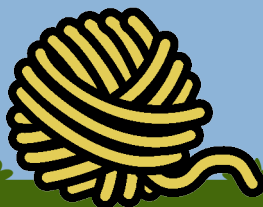




# Collectibles

As is typical for the genre, I also hid several collectibles throughout the levels. These took the form of blue and yellow balls of yarn. Finding four balls of yellow yarn grants the player another point in their max health and finding three balls of blue yarn increase the players damage. There are a total of twelve yellow yarn balls and six blue yarn balls allowing the player to go from five to eight maximum health and one to three damage.

In order to increase the player's survivability, I also gave every enemy a fifty percent chance of dropping a small hat that would heal the player for one damage upon pickup.



# Save System

In order to make this a fully playable game I needed to create a save system. As done in most metroidvanias, I created set locations, represented by benches, where the player could save their game. This would copy all the important variables I had created to track progress into a “pool” assigned to the active save file. With this system I could create multiple save files as is typical for most video games.

Based off this, I also create three preconstructed saves for the sake of showcasing my work. These allowed players to start at various stages in the game and helped me showcase the different areas without having to manually progress through the whole game.

This was all implemented through a button based menu system that allowed also allowed for pausing, exiting, and viewing a recap of the controls.

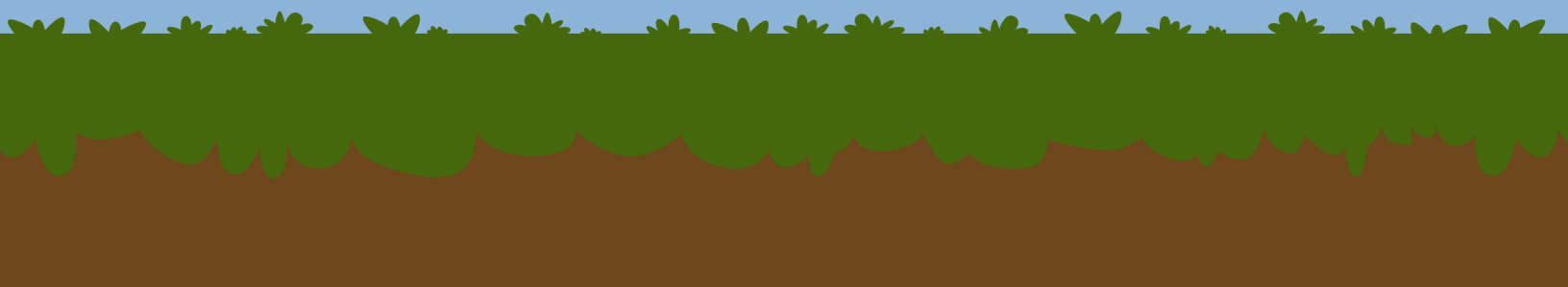


# Controller Support

Another issue that proved important to me was to create full controller support. While this come down to preference, I personally prefer to play any 2D platforming based game with a controller. As this would fall into that category, I wanted to ensure its possibility. While this was fairly straightforward for the majority of the controls, the menu system proved tenacious when it came to smoothly transitioning between a mouse or a controller input system. However, I overcame this by reading for the different types and changing the systems to accommodate based on the most recent input.

Another issue I encountered was that different controllers are read differently by different operating systems. The current build is specifically designed around my controller. It uses a direct input system that is read identically by both Windows and Mac computers. With this I was able to present my project in an easy and interactive way, however other users may not find their controller to utilize the same buttons. I plan to create several versions that specify which controller input type they are built for.

# Final Product



# Final Game

Overall, *An Escape* turned out into a successful recreation of my original intentions. The goal was to create a fun experience based around action and exploration. In the final game there are twelve different enemies that can create varied and exciting action. I was also able to make the map large enough to be interesting to explore. The final map has three areas, each with around sixteen connected rooms, with vastly different aesthetics and encounters. The player can also grow and improve as they gain new abilities during the game.

So far, the feedback I have received from those playing my game has been positive, which tells me that I was successful in creating a fun experience. Hopefully those who play it can get a brief reprise from the pressures of reality as they immerse themselves in the experience.

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