

Lemmings Metroidvania

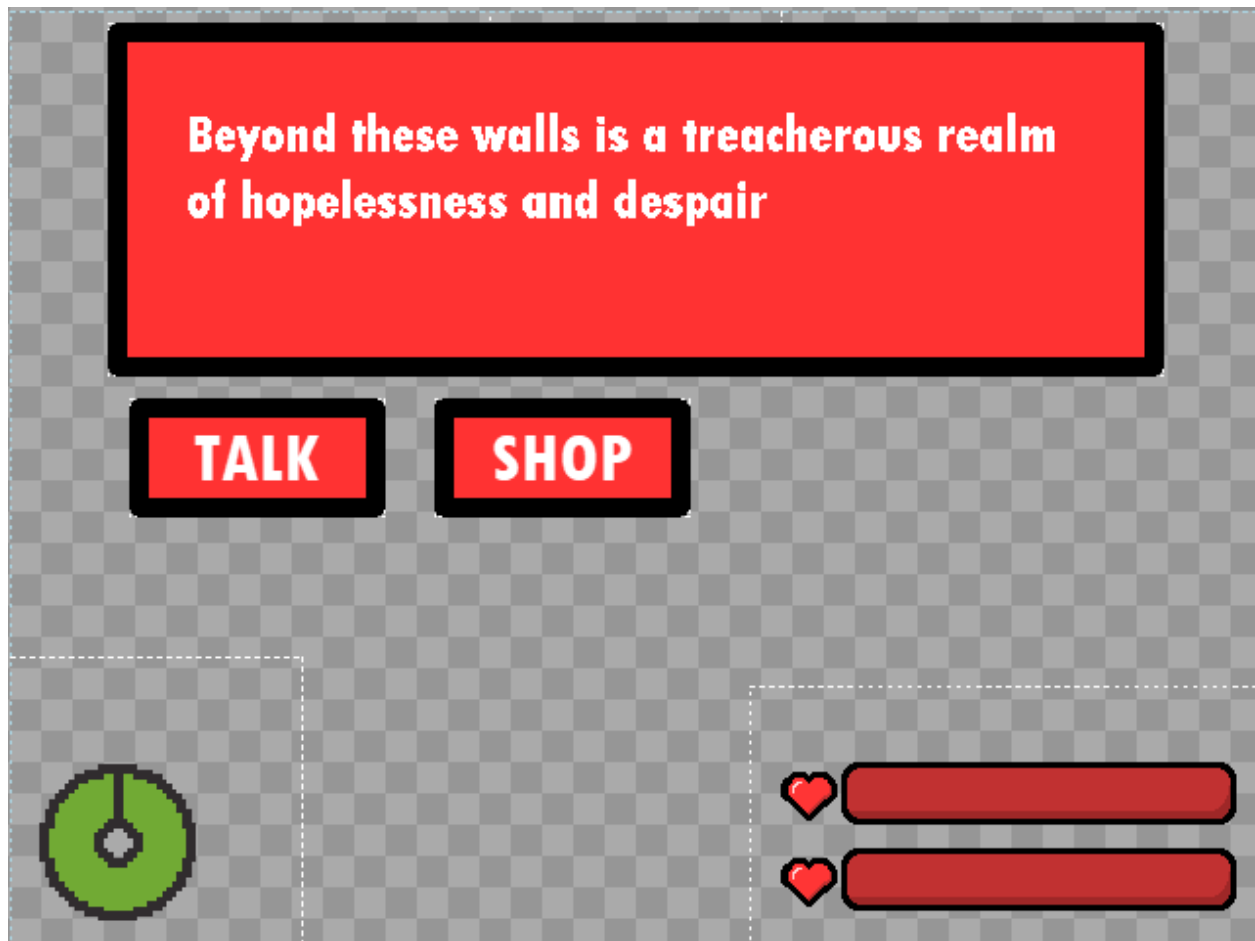
Title TBD

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Font

TW CEN MT CONDENSED

NPC interface



Game Description

2D platformer metroidvania with RPG elements including a simple, linear story. The gameplay will include movement mechanics such as running and jumping, with more mechanics that can be unlocked. The attack mechanic will be shooting in cardinal directions, at a limited range. To

progress, the player must complete story missions. To make it easier to progress, there will be an xp system and skill tree to increase stats, and better weapons as new areas are explored. The map will be split up into rooms, with some parts of the map being unlockable as the player progresses. To win, the player will defeat a final boss, which completes the story.

Story

The main player awakes... AS A LEMMING!

Text box: You awake in the tundra with no memories other than being a lemming...

Text box: Use WASD to move and spacebar to jump

As you move to the right, you come across an owl with a monocle.

"Hey it's you, shouldn't you be seeking shelter at this time?"

"And where is your defense against predators?"

"There are some leopards and foxes ahead, and since you can't fly like me you might need this pistol"

"Here, take it."

You now have a gun in your possession which moves with you. As you move a little further, an enemy (or multiple) appears.

Text box: Click to shoot your weapon...

Text box: To avoid enemies, launch yourself onto the platform

After killing the enemies they drop a currency and your number goes up when collected. There is no tutorial for this because the player can figure it out on their own. Next plot point is the village area which hosts a number of igloos and NPCs, as well as a shop. The first NPC you meet is a lemming in a red tophat with a red balloon.

"Greetings traveler! Tis I, the lemming with a funny tophat and balloon!"

"But do not fret, the world beyond you is bright and prosperous, this village is home to a thriving community and plenty of beautiful capitalist goods!"

"Except for the grumpy polar bear, but he hasn't emerged from his igloo in years"

Further into the village there are a lot of lemmings that are not possible to interact with. At the end of the village there is a wall with one lemming standing guard wearing a blue tophat and with a blue balloon. You can interact with this NPC, but cannot pass the wall.

"Hello traveler, I assume you met my brother back there, well I am the other lemming with a tophat and a balloon"

"However, nothing about this world is as bright as my brother makes it out to be"

"Beyond these walls is a treacherous realm of hopelessness and despair"

"The last travelers I let through here likely didn't make it past the mountains"

"And if they did, I doubt that they made it much further"

"The Lemmings have no place in this world and don't ever forget that"

"All hope was lost long ago"

Now this interaction will change some variable that spawns in the polar bear. When you go back into the village, the polar bear will be standing there.

"WHAT THE HELL IS GOING ON HERE"

"I WAS HIBERNATING FOR WINTER AND NOW THE TOWN IS IN A RUCKUS OVER SOME TRAVELER THAT APPEARED???"

"YOU! YES YOU TRAVELER!"

"IF YOU WANT TO GET OUT OF HERE ALIVE YOU ARE GOING TO HAVE TO DEFEAT ME!!!"

Boss fight ensues, polar bear has a tommy gun and stands up. (Because all boss fights are bullet hells). After defeating the polar bear, he speaks:

"To think that a lemming would ever defeat me, the great commander in the empire..."

"I once stood tall at the head of the animal kingdom, and now to lose to the very creature I dedicated my life to destroying..."

"If it weren't for the lemmings, I would have never been exiled..."

"At the very least can you exact revenge for me?"

"Here, take this weapon upgrade, it should allow you to go to higher places..."

"I may have done much wrong in my life, so you must go forth and undo the sin in which I have committed"

Now your pistol allows you to launch yourself further, which means you can launch yourself over the wall into the mountain area. The boss also drops currency which can be used to buy out the rest of the shop in the tundra village. The mountain area will have a sign (not an npc) that displays a dialogue box.

“Mountain of Doom : 0 Miles

Fortunate Forest : 5 Miles

██████████ : 8 Miles”

It appears that one of the locations is blanked out, I wonder why that is?

On the other side of the sign is a long string of platforms going up and over the mountain. There are no enemies, the only sprites on the mountain will be a couple of dead lemmings and leopards. This is because no species has conquered the mountain yet, it is simultaneously the most and least dangerous place for lemmings. You can still die on the mountain though, because there will be pits of spikes or lava. Finally if you reach the other side you come across the forest area.

Player

<https://www.mapeditor.org/2022/04/08/tiled-1-9-alpha-released.html>

Abilities

Run

Unlocked at the beginning of the game, basic running. Medium to long acceleration time, coupled with a short deceleration time. This will provide momentum based movement, and incentivize using the gun to boost yourself on the ground instead of just in the air. Running momentum will also be conserved in the air, without air deceleration.

Shoot short ranged bullets ~~in all four directions~~ pointing towards the mouse

Unlocked briefly after the beginning of the game, you are able to shoot a short ranged shot(3-4 tiles) that damages enemies based both off of your damage stat, as well as the weapon you currently have equipped.

Shot boosting (base with unlock upgrade)

Dash/slide (unlock)

Double jump (unlock)

Lemming tether/grapple hook(unlock) - based on environmental station alpha

Unlocked abilities are gained by progressing through the main story. Allow you to backtrack and explore new areas/progress further in the story.

Skills

Gain XP from killing enemies/collectibles in the world, spend numeric amounts of it to gain skills in the skill tree. Skill tree is fairly linear in 4(?) main directions that specialize in different stats. Maybe small branches or decisions in the skill tree, but primarily the skill tree is just choosing a stat to specialize in, or to be a generalist/all-rounder. Skills near the origin and near the middle of each branch are small stat boosts, nothing major. One to two skills at the end of each branch that are slightly more significant. Ex: Damage end perk is having a stun effect on basic enemies. Main branch categories are: Damage, Health/defense, Speed/fire rate, Boost, and possibly the frenzy idea mentioned in the "Health" section

Weapons:

Starter gun (pistol):

Medium range, medium fire rate, medium base damage, small boost

Shotgun:

Short range, small base damage per bullet (but has multiple bullets in each shot), large boost

Rapid fire rifle:

Medium range, fast fire rate, smaller base damage than pistol, small boost

Sniper rifle:

Infinite range, slow fire rate, large base damage, large boost

Minigun/Laser (Bonus):

Infinite range, incredibly fast fire rate (a beam of bullets), very small damage, small boost but the player can hold down shoot and fly in opposite direction

Rocket (Bonus):

Slow bullet speed, slow fire rate, large damage (area damage), large boost, and can inflict self-harm on the player when hit

Health:

Numeric value that gets decreased by enemy contact/projectiles. No set/base damage for enemies, varies by enemy. Health recovery system is currently undecided*, maybe something unique to do with the lemmings.

*Idea: After defeating an enemy, they will drop an orb of some sort which fills up the player's "frenzy" meter. When the meter is full, it gives the player speed, damage, and health regeneration. This fits into the story because the orbs were originally designed to increase lemming efficiency, but the orbs were considered too dangerous, and taken away from the lemmings.

Movement:

Medium amount of acceleration time to make the character feel light/momentum based, and a slightly shorter than acceleration time deacceleration time. Fairly low jump height but decent jump time with pretty high air acceleration. Ground momentum is conserved in the air.

Technical

Libraries and Frameworks

The game will be developed using .NET 5.1, the MonoGame framework to handle rendering, player inputs, as well as other low level implementations. The game will be developed entirely in C#, without any other languages that offer support for .NET

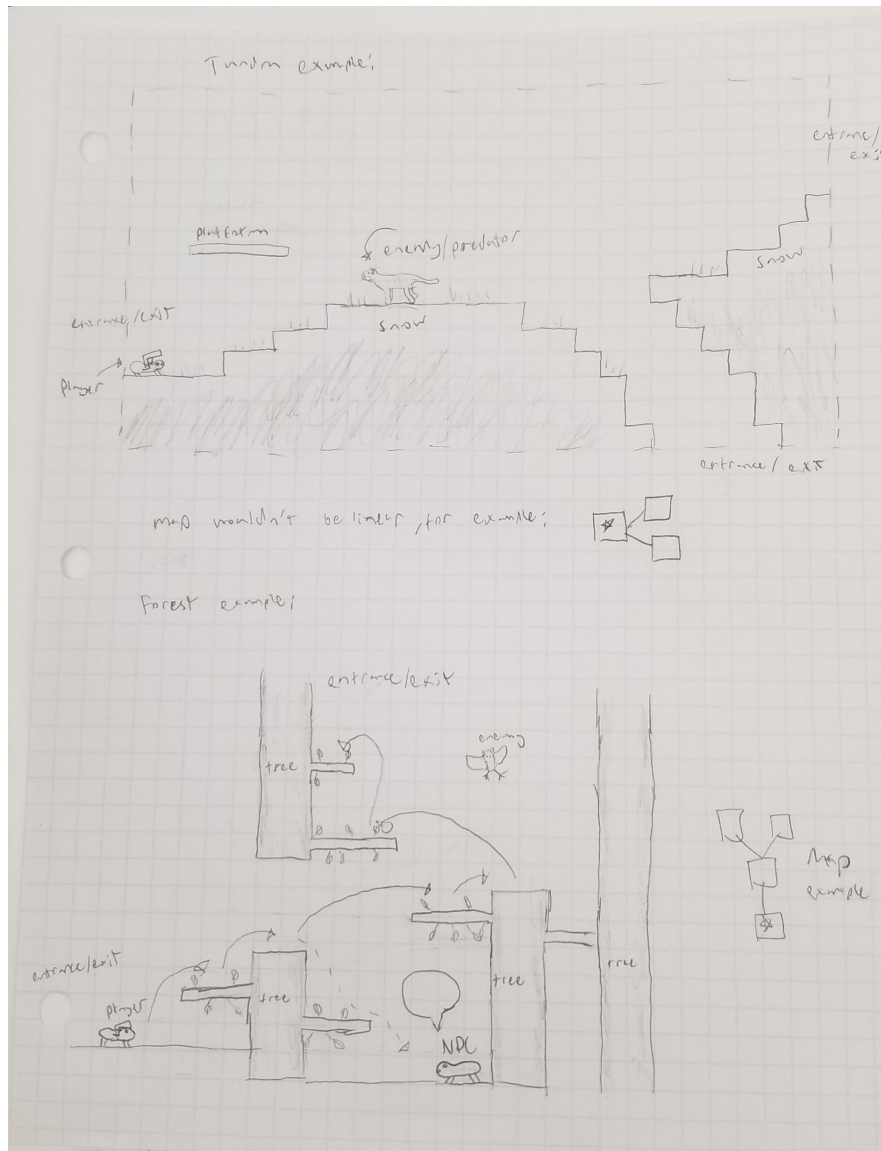
Architecture

The game will conform to standard ECS(Entity Component System) architecture, however it will not be a strict interpretation. The game does not demand high amounts of performance, so specifically the interpretation of the System part of ECS might not be upheld to the highest standard

Tilemaps

Due to the levels being simple tile based levels, the levels will be stored in a custom text format using numeric tile ids. A python tool will be created by Brendan to create these levels visually.

World



Rough sketch by Matthew

Rooms

World is split up into “rooms,” rectangles or squares with preset tile based levels. Doors can be on any wall of the room and do not have to be centered. Rooms can be any size, but rooms that require camera scrolling should be used sparingly to give those rooms a very large feeling. Room dimensions are also generally based on increments of x (undecided) to make the minimap more legible/compact. Rooms may have their exits locked until the player finishes a puzzle in the room or clears the enemies/boss. Rooms

fall into four categories, travel rooms where the player does not have to do anything besides movement/platforming challenges to exit the room, fighting rooms that contain enemies to kill, sometimes necessary to leave, sometimes not. There are puzzle rooms which contain either tricky movement or clever use of obstacles that isn't typically seen in other rooms. Puzzles will not require very much time to solve, they should be quick and concise. There are finally boss rooms which typically involve brief NPC dialogue, and a boss fight that is required to leave the room. Boss rooms are typically very large, much more so than the standard room.

Obstacles

In addition to platforms and enemies, there are environmental obstacles that can fill the room. There are unique obstacles for each area of the world, as well as some universal ones that can appear in any area. These obstacles have not yet been decided.

Enemies

Enemies will be unique to each region, with a handful(4 or 5) enemies belonging to each region, spare the tunnel. More will be made if we have time but we will shoot for four or five. Enemies can deal damage by shooting projectiles and by direct contact with the player. Different types of enemies will primarily only change movement/firing patterns, however the City and Cave zones may have more unique types of enemies due to their later presence in the game. All enemies will be based on real animals.[INSERT ENEMY CONCEPTS BELOW

- Tundra
 - Leopards (chase player quickly but cant jump)
 - Foxes (jump towards player)
 - Boss: Exiled polar bear (runs towards player then uses a tommy gun)
 - (gives player key to the city, foreshadowing main objective)
- Forrest
 - Hawks (dive bomb player and explode)

- Owl (float towards player)
- Monkeys (random movement)
- Boss: Big tree (but the player is tricked into thinking they are going to fight a big owl) (shoots apples at player but doesn't move)
 - (opens pathway to cave entrance)
- Cave
 - Bats (move up and down towards player)
 - Snakes (swarm in numbers, and slow)
 - Boss: Basilisk (opens pit of snakes that blocked the sewers)
- Sewers
 - Rats (nothing)
- City
 - Tigers
 - Bears
- Castle
 - Polar bears (boss wave)
 - Mickey Lemming (gives character rocket launcher)

Secrets

Secrets are found in rooms that are not required to travel throughout the story. They jutt out from normal paths, sometimes there are walls that can be broken, but these will always have some visual indicator, not just be completely random. Some may be hidden behind difficult rooms. Secrets can give small perks such as bonus health, bonus damage, a small boost in xp, or for some of the more difficult ones, alternate weapons. Potentially a collectible in these secret zones that can be traded in, or something along those lines. Secrets mainly exist to incentivize exploring.

NPCs

There are a few NPCs you can interact with in the world, however not very many. They may offer short dialogues, but there are no dialogue choices you make, and there are no shop NPCs. Potentially in the Tunnel area you can meet Lemming NPCs which feature small amounts of utility, however they are not necessary to progress in the game. These NPCs could offer skill respects, trading of secret collectibles, as well as potentially a fast travel system(only if the world becomes too large and/or cumbersome to travel through.) All enemies will be based on real animals. [INSERT FRIENDLY NPC IDEAS]

- Lemmings
- Muskrats
- Caracals

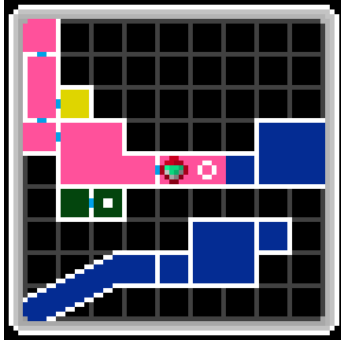
How do the NPCs fit into the story? [EXPLAIN]

Backtracking

There will be a decent amount of backtracking involved in the game. Players will be teased with rooms in the earlier zones that are just out of their reach, but once they get more movement abilities they can reach them with ease, and access new secrets or progress further in the story. Ideally the world will be very interconnected with at first a seemingly linear world that then opens up with paths in between zones, and areas in-between other areas that you could not access at first.

Minimap

Minimap is unlocked shortly after the start of the game in the Tundra area after an encounter with a wandering NPC. Map is logged automatically by entering a room which is then added to your map. Minimap consists of simple squares on a grid to depict the map. Icons may be located on squares denoting save points or other locations of interest. Rooms may not be exactly to scale.



Reference image

Environment

Art

The art will be 2d, flat geometric shapes as to avoid spending too much development time on the art. There will be unique tilesets for each map region, as well as a unique animated background

Tundra

Forest

City

Tunnel (between forest and city, because lemmings live in tunnels in the winter)

Reference Games

Matthew has never played a metroidvania, so here are games for him to check out to understand the genre.

- Super Metroid(must)
- Hollow Knight
- Environmental Station Alpha(probably closest to our game)
- Touhou Luna Nights
- Bloodstained Ritual of the Night