

Spearloom Game Design Document



Game Design Document

By: 5 Frames Games

V3.0

Changelog

Date(s)	Version	Editor(s)	Changes
22/07/2024	V0.1	Javier Cody	- Created first draft. - Added basic ideas.
23/07/2024	V0.2	Javier Cody Traveen	- Continued establishing mechanics, and game contents. - Finished the overview section. - Started establishing gameplay systems. - Level Editor design requirements.
24/07/2024	V0.3	Javier Cody Traveen	- Continued with Marketing Research. - Continued with Game Loops. - Heavily elaborating on player mechanics. - Expanded Player Controls - Made a Heading 4 to further categorise sections
28/07/2024	V0.3.1	Traveen Cody	- Added air resistance contention - Reworked game pillar explanation, and added a 4th pillar - Reworked narrative to give the main character and player a goal - More Marketing additions
29/07/2024	V0.4	Javier Cody Traveen	- Finished game loops. - Grammar and formatting check. - Finished competitor analysis
30/07/2024	V0.5	Javier Cody	- Continued sound design. - Formatting check. - Finished Marketing - Revision of GDD to make it clearer

Date(s)	Version	Editor(s)	Changes
5/08/2024	V0.6	Javier	- Established level mechanics. - Reworking into a fantasy theme, as per word from other designers.
6/08/2024	V0.6.1	Javier Traveen	- Reworking aspects to fit a fantasy theme. - Rewording grapple mechanics to stop mentioning a claw - Reworking Grapple system to fit in new launch mechanic - Added moved emergent gameplay heading into player system
7/08/2024	V0.6.2	Javier	- Changing some titles/names before the pitch presentation.
12/08/2024	V0.7	Javier	- Changing things based on feedback of the teacher panel.
13/08/2024	V0.7.1	Traveen	- Added basic descriptions of menus
14/08/2024	V0.7.2	Javier Traveen	- Final lookover before submission. - Reworked sound design part. - Removed most mentions of "level" and replaced them appropriately. - Changed heading font for easier readability - Finally named the game and protagonist - Added Title image
19/08/2024	V1.0	Cody	- Finalised last remaining yellow text sections. - Reread and fixed inconsistencies. - Ready for full production.

Date(s)	Version	Editor(s)	Changes
20/08/2024	V1.0.1	Cody	- Made some additions to marketing section
16/09/2024	V2.0	Traveen	- Replaced Crouching with Sliding - Removed the zip wires, one-way walls and tree conveyors - Changed "Unique Mechanics" in each chapter to "New Mechanics" - Moved auto grapple down to New Mechanics of Chapter 1
17/09/2024	V2.01	Cody	- Added in link to the Polish Design Document
2/12/2024	V3.0	Javier, Traveen	- Fully updated GDD with current design

Documentation Notes

- Text in **bold** indicate variables or controls that may be exposed in the engine
- Text in *italics* indicate commentary, such as inspirations for certain mechanics
- Text in **yellow highlight** indicate placeholders or unconfirmed design ideas

Table of Contents

Changelog.....	1
Documentation Notes.....	3
Table of Contents.....	4
Overview.....	6
Elevator Pitch.....	7
Game Overview.....	8
Setting Overview.....	8
Selling Points.....	8
Pillars.....	9
Get Player into the Zone.....	9
Recognise Player Exploration and Mastery.....	9
Clear Understanding of the Moment.....	9
A Team of Equal Trust.....	9
Gameplay Systems.....	10
Player Systems.....	10
Ground and Air Movement.....	10
Jumping.....	10
Bunny Hopping.....	10
Sliding.....	10
Wall Interactions.....	11
Wall Sliding.....	11
Wall Jumping.....	11
Wall Bounce.....	11
Grapple System.....	12
Shooting and Latching.....	12
Swinging.....	12
Controls while Swinging.....	12
Reeling.....	12
Launching.....	12
Other Player Mechanics.....	12
Player Death/Respawn.....	12
Emergent Gameplay Quirks.....	13
Maximising Frequency of Speed Impulses.....	13
Maximising Speed Preservation.....	13
Player Controls.....	13
Input Bindings.....	13
Other Game Mechanics.....	14

Camera.....	14
Speedrun Timer.....	14
Dialogue.....	14
Game Loops.....	15
Core Game Loop.....	15
Grapple Loop.....	15
Room Loop.....	16
Level Progression Loop.....	16
Chapters & Rooms.....	17
World Layout.....	17
Rooms.....	17
Chapters.....	17
World Mechanics.....	17
Bloomies.....	17
Differing Collision Surfaces.....	17
Spikes.....	17
One-Way Platforms.....	17
Mushroom Springs.....	17
Grapple Beams.....	18
Switches.....	18
Keys.....	18
Moving Blocks.....	18
Chapter Visuals.....	18
Design Philosophy.....	18
Visuals & Lore.....	18
UI & Accessibility.....	19
User Interface.....	19
In Game.....	19
Menus.....	19
Title Screen.....	19
Main Menu Screens.....	20
Pause Menu.....	21
Options Menu.....	22
Level Editor.....	23
Tiling.....	23
Tilesheet Window.....	23
Brush Tiling.....	23
Tile Randomizer.....	23
Rule Tiling.....	23
Tile Layering.....	24

Controls and Variables.....	24
Room Settings.....	24
Object Placement.....	24
Navigation Nodes.....	24
Export/Save.....	24
Scene Graph.....	25
Look & Feel.....	26
Mood Board and Influences.....	26
Visual Design.....	26
Sound Design.....	27
Music.....	27
Action-Based SFX.....	27
World SFX.....	27
Menu SFX.....	27
Marketing Research.....	28
Competitor Analysis.....	28
Research Takeaways.....	36
Genre's Market Status.....	37
Target Audience.....	37
Game Selling Points.....	37
Personas.....	38
Appendix.....	39
Bibliography.....	39
Pipelines.....	39
Room Creation.....	39

Overview

Genre	Platformer (Momentum/Puzzle)
Platform	PC
Point of View	2D, Side-On
Setting	Fantasy
Mood	Mysterious, Adventurous
Target Audience	Platformer/Indie fans looking for a novel platforming experience

Elevator Pitch

Grapple around a fantasy townscape to find a cure for your ailing friend.

Game Overview

Spearloom is a 2D momentum-based platformer where players must traverse and swing through levels with the use of a grapple spear. The game revolves around **Kimiko**, as she explores a world filled with many obstacles, hazards and challenges.

Setting Overview

The player character is **Kimiko**, a ninja who uses a spear that acts as a grapple. Her spear is a family heirloom, passed down from generations. She uses her spear to launch around various obstacles, in search of a cure for her ailing friend **Izumo**.

The player finds themselves in a grand fantasy city. This town is loomed over by a giant sakura tree, and as such is filled with smaller sakura trees as a motif, contrasting with the western architecture.

Selling Points

The main target audience for the game are fans of platformer and indie games, but are looking for a more novel platforming experience. These fans would get into the game because of the following selling points:

- The main selling point would be Grapple spear mechanic, and its launching and swinging capabilities. The levels and environments would complement this and showcase the true limits of the mechanic.
- The fantasy theme, and the world setting having western architecture mixed with eastern motifs would establish the world's identity, and how it would stand out to the players, which captivates them into playing more of the game.

Pillars

Get Player into the Zone

Focus on the core player control and mechanics

The player should be able to quickly understand the controls and smoothly get into a flow. To achieve the best immersive experience, pauses in gameplay should be kept to a minimum.

Any mechanics and movesets that bring the player out of the *zone* should be avoided. Mechanics and movesets that reinforce the player's focus should be encouraged.

Recognise Player Exploration and Mastery

Focus on the world/level systems and layouts

The game should be easy to pick up, yet hard to master. As an incentive for the players to improve, their exploration and mastery over the game should be rewarded.

Levels would need to recognise “out of the box” thinking and exploration. They should be rewarded with a collectible. Other potential rewards are a trigger to skip some level segments, or even award extra challenging rooms. Alongside the level design, there could be systems such as game timers to encourage speed running and competitive play.

Clear Understanding of the Moment

Focus on UX and visual/aural feedback

We should consider a combination of different feedback avenues (through visuals and sound) to help the player clearly recognise what is going on.

To further reinforce this, a plethora of accessibility settings would be ideal.

A Team of Equal Trust

Focus on team and project management

The project is being made by a team of 5 made up of designer and programmer streams. However, most team members also have experience with various skills such as pixel art. The team size and experience creates an opportunity for an equal trust system.

Those with stronger experience in certain disciplines may have more standing to back up their opinions, but everyone still is trusted enough to hear each other out. Everyone is also equally expected to manage their own time, as long as everyone is made aware of their objectives and tasks.

Gameplay Systems

Player Systems

Ground and Air Movement

The player is able to **move left** and **move right** in the ground and in the air. The degree of movement between the ground and air are different, with air movement being considerably more freeform.

- **Base acceleration** - The player's acceleration when using the move left/right controls
- **Ground Top Speed** - The maximum speed the player can reach when without preserving previous momentum
- **Friction** - Would slow the player down. Takes the form of ground friction and air resistance.

Jumping

The player can perform a **jump** to gain height. This jump will launch the player into the air and allow them to traverse a level. Gravity will also be present, sending the player downwards after they jump.

For the purpose of game feel, the **speed the player falls** down should be an exposed variable.

Bunny Hopping

Before landing on the ground, a small window of time from when the player is in the air and when they land, the player can perform a **Bunny Hop**. A Bunny Hop launches the player a short height while maintaining their momentum. If the player fails their Bunny Hop, they lose their momentum.

For the purpose of game feel, the **window of time** for a bunny hop & the **distance from the ground** for a hop to be activatable should be exposed variables.

Sliding

The player is able to **input a slide** on the ground. This sets the player on a **set speed** for a **short moment of time**.

While sliding, the player is still able to jump out of the slide, or throw their spear during the slide.

Wall Interactions

Wall Sliding

When the player is on a wall they will begin to wallside. The player will fall while they slide, but at a slower rate than normal. Once a player falls back onto the ground, they stop wall sliding.

When using the crouch input while wall sliding, the slide speed is increased by a **crouch-slide multiplier**.

Wall Jumping

While on a wall, the player can wall jump, resulting in a unique jump that sends the player in the opposite direction of the wall they were just on.

Wall Bounce

If the player has a large amount of momentum and hits a wall. They will be able to perform a wall bounce. In the **window of time** between them approaching and touching the wall, the player will be able to tap the jump input to bounce them off the wall with their current momentum and reflected direction.

Should a player miss the window for a wall bounce, they will begin to wall slide like normal, losing their momentum and changing the jump to a regular wall jump.

Grapple System

Shooting and Latching

The player **can aim the grapple** in 8 directions. This is done on a PC with a mouse, while on a gamepad it is done with the right joystick. Tap the **grapple key** to shoot it out.

When shot, the hook travels at a **constant speed**, trying to latch onto any surface, object or enemy in its path.

The grapple has a **maximum distance**, If it fails to latch onto anything, it returns to the player.

Swinging

Once the hook is latched onto something, the player will start swinging on the rope in a circular arc.

If the player is **too close** to the hook, it automatically unlatches and the player preserves any directional momentum they have.

Controls while Swinging

The player can swing towards their directional input, creating a short burst of speed. If the player taps the jump input, the hook unlatches and the player performs a midair jump. Any directional momentum they had is preserved when this happens.

Reeling

The player, when hooked on a spear, can reel up or down, which will respectively shorten or lengthen the rope's length.

Launching

While the hook is latched onto something, the grapple bind is changed to a **launch bind**. Tapping the launch bind would launch the player towards the hook with a **strong impulse of speed**, that is additive with the existing momentum. This would also retract the hook.

Other Player Mechanics

Player Death/Respawn

When the player falls out of the map or collides with a dangerous obstacle, they will die. When the player dies, the current room will reset and the player will respawn at the appropriate entrance to the room.

Emergent Gameplay Quirks

Maximising Frequency of Speed Impulses

Players would want to make sure they can gain speed through activating as many impulses of speed as possible. The main mechanic for the player to take advantage of is the [grapple launch](#).

Maximising Speed Preservation

Players would want to make sure any kind of excess speed they gain could be preserved for as long as possible.

For example, after the player uses the [grapple's launch](#) to gain massive speed, the player can preserve that speed by [bunny hopping](#) and [wall bouncing](#) when against a floor and wall respectively. The player can also achieve preservation of momentum through [swinging around](#) with the grapple.

Player Controls

- Keyboard:
 - Aiming the spear is primarily done with the mouse
 - Actions have only 1 binding to them
- Gamepad:
 - Aiming the spear is done with the right joystick. If it isn't being used, it will instead follow the player's movement input direction
 - All non move-aim actions are put into two buttons/triggers within a similar position on the gamepad
 - The left joystick serves as both general plate movement and for reeling the player up/down

Input Bindings

Action	Keyboard + Mouse	Xbox
Move Left and Right	A and D	L Joystick
Jump	Space	A / X
Slide	S	B / Y
Aim Spear	Mouse cursor	R Joystick / L Joystick
Shoot Spear	Left click	R Trigger / R Bumper
Reel Up and Down	W and S	L Joystick
Pull Spear		L Trigger / L Bumper

Other Game Mechanics

Camera

The camera system will lock to the bounds of the current room, never exceeding them. If the room is larger than the camera's size, then the camera will scroll as the player progresses.

The camera will scroll in the direction the player is facing, attempting to keep ahead of the player, so that the player is on a third of the screen, while the following two-thirds are visible ahead of them.

Speedrun Timer

Once a level begins, a speedrun timer will activate and track the amount of time the player spent in the chapter. It can be displayed in the UI through a toggle in the settings menu. When a player dies and resets, the timer will still count up.

When a chapter is complete, the timer will stop, and the player will be shown a sum of their playtime along with their collected "Bloomies" and total deaths.

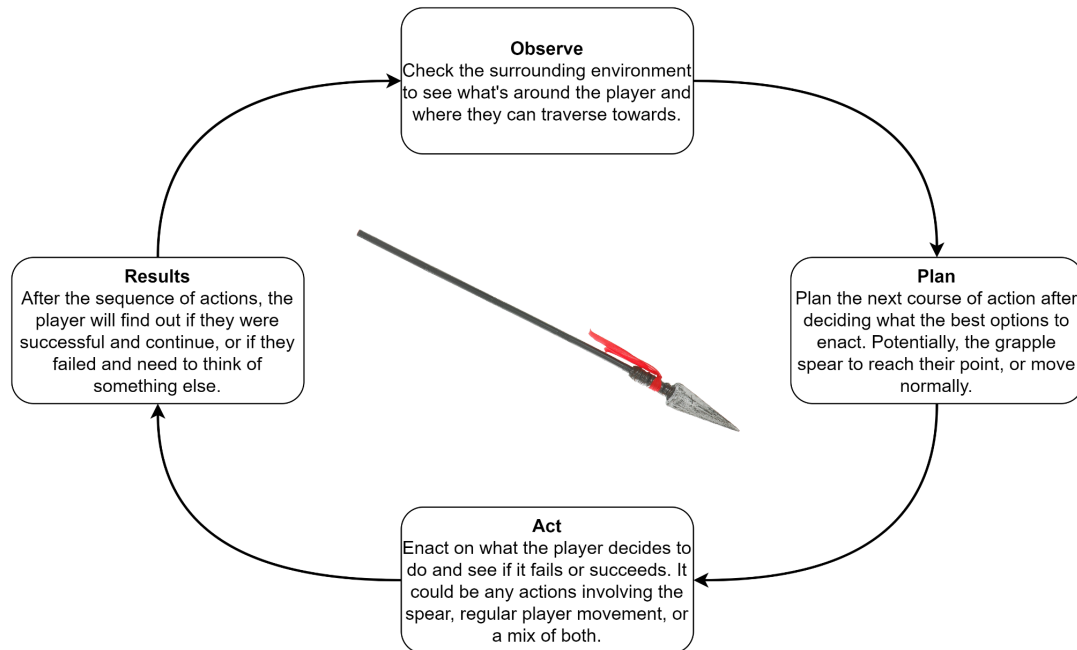
Dialogue

The dialogue system will be relatively simple, only having a few dialogue sections per chapter. It's generally following what's happening in the story, and not long character moments.

Game Loops

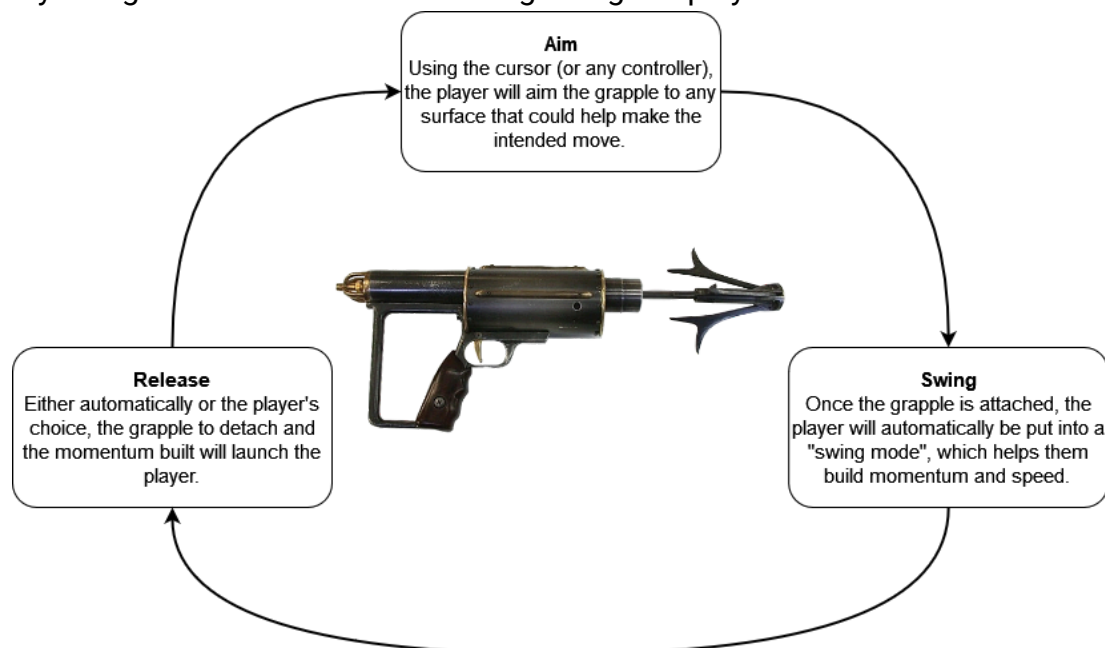
Core Game Loop

The core game loop follows the “universal” core loop of the four basic stages: Observe, Plan, Act, and Results. The core loop is based around the player movement, both normally and regarding the core mechanic: the “Grapple Spear”.



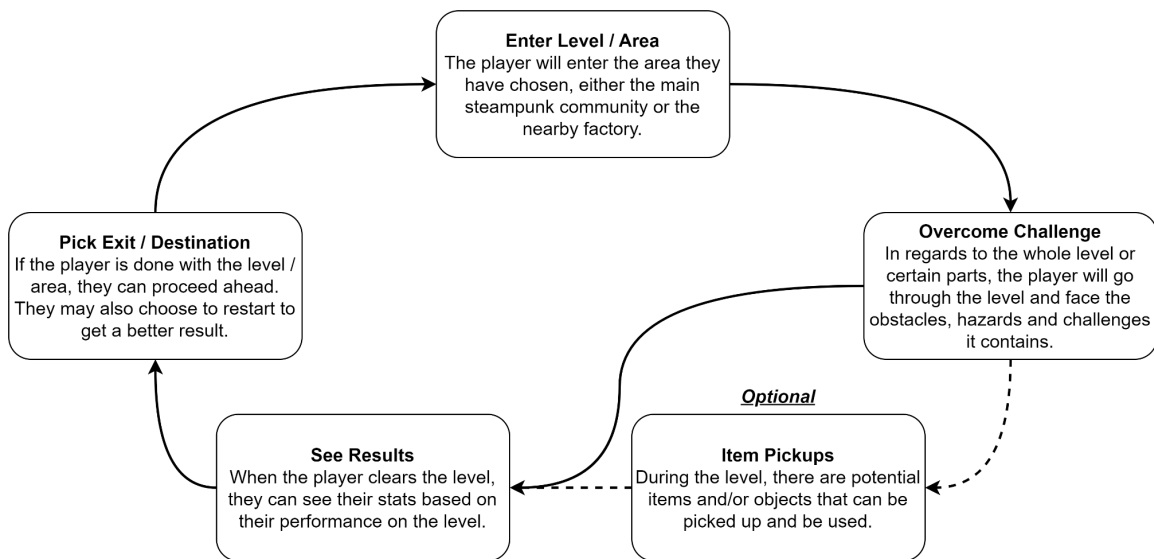
Grapple Loop

This game loop revolves around the core mechanic: the “Grapple Spear”. This is mainly in regards to the mechanic during mid-gameplay.



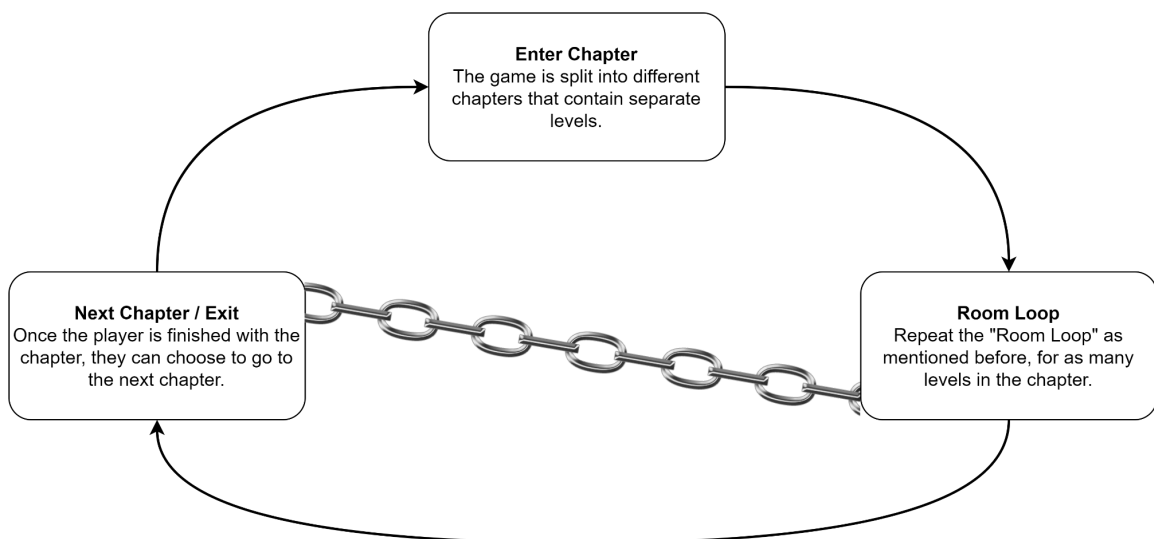
Room Loop

This meta loop covers what generally happens to the player when going through a specific level (or room).



Level Progression Loop

This level progression loop covers what happens when players go through all the levels, referencing the previous "Room Loop".



Chapters & Rooms

World Layout

Rooms

Small sections that serve as platforming challenges. These rooms act similarly to checkpoints since players will respawn at the entrance to their current room.

Chapters

Rooms are organised and chained together to form a linear progression with some side exploration rooms. Each set of rooms is referred to as a Chapter.

World Mechanics

Bloomies

Inspiration: Celeste's Strawberries.

Collectible spirits called "**Bloomies**" are scattered across the world, and serve as optional pickups for completionists. They may be placed as rewards of challenging sections, or hidden away to be discovered by players looking out to explore the rooms.

Once a Bloomie is picked up, it won't count as fully collected until the player becomes fully grounded for a few seconds.

Differing Collision Surfaces

There are various surfaces around the game that the grapple can't latch onto, and various other surfaces that can be grappled onto.

Spikes

Spikes are a level element that will harm the player, forcing them to restart if they come in contact with it.

If placed off-screen from the camera, they could also function as pitfalls.

One-Way Platforms

The game features different types of one-way platforms that the player comes across with, where they can be passed through while being able to stand on them when approaching from above. Despite this, they can be grappled onto from any direction.

Some platforms can move in a set path, while others remain stationary.

Mushroom Springs

These mushrooms are native to the forest and even grow inside the tree. They can either be on the floor pointing up or on the walls pointing inwards. When the player goes up to them, they can bounce the player in the direction of its position.

The mushroom bounce would be akin to a bunny hop.

Grapple Beams

These grapple beams consist of a line of grapple tiles that allow the player to grab onto it and swing across the room. Additionally, players can pass through the beam without colliding into it. It can be positioned vertically or horizontally.

Switches

These are visual targets where the spear can hook onto to activate it to perform a specific action. The switch can be linked to various objects to do specific events, such as moving a block, activating a timer, or turning on/off spikes; to name a few.

Keys

The player must collect all the keys in order to trigger an event (such as moving a block, or opening a door). However, if the player leaves the room or dies without collecting all the keys, they reset and must be collected again. Once all the keys are collected, the event will stay activated for the rest of the chapter.

Moving Blocks

These are blocks that move on a pre-set path whenever it is in an active state. The block can take on any appearance (via a visual tilemap) and can be used as a platform, a door, a moving set of spikes, and even rudimentary animations. It can also be toggled to respawn on death.

The game's animation player can be used on this object for various capabilities: including custom set paths, automatically loading when the room is entered, and making it loopable. There are also two other variants to this block: an always active platform, and a block that needs to be triggered by a switch.

Chapter Visuals

Design Philosophy

The overall intent of the first chapter is introducing the basic mechanics and actions that can be done with the spear, and teaching the player about the spear.

Visuals & Lore

The first chapter would take place in a castle town, where an East Asian motif is mixed with Western world architecture. It's generally a city filled with cherry blossom trees, mixed-themed buildings and other East Asian imagery.

UI & Accessibility

User Interface

In Game

In-game UI will be minimal and at default only show a speedrun timer and a Bloomie collection count.

Menus

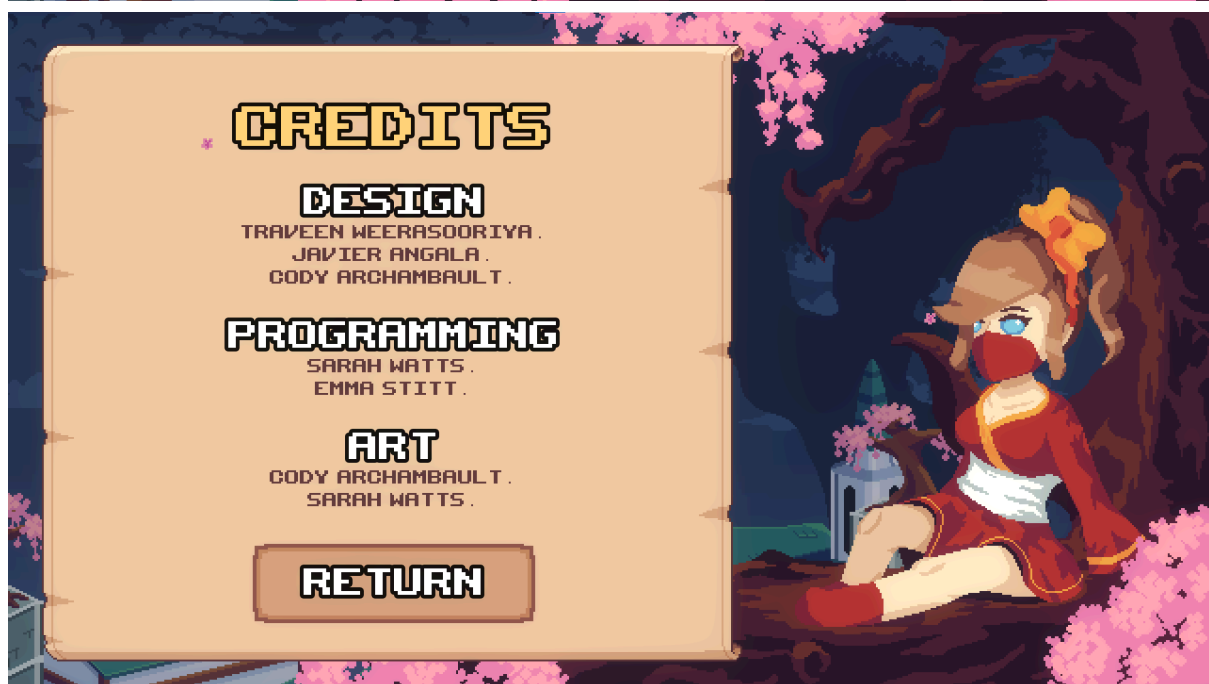
Title Screen



- Background imagery of the forest and giant tree viewed from the town.
- Game title
- Prompt saying "Press any button"

Main Menu Screens

We don't want to bury the game or its functions deep into menus, so each system is one click away after going through the title screen.



Pause Menu

Inspiration: Celeste pause screen

When pausing the game, the screen would be overlaid over the game screen with a translucent dark background. The contents are labelled in white bold text with black outlines.

The Pause menu options are centred on the screen:

- Resume Game
- Options
- Restart Chapter
- Return to Menu



Options Menu

The settings menu would be overlaid on a translucent dark background. The options are labelled in white bold text with black outlines.

Changing any of the settings will automatically

- Fullscreen mode Toggle
- Pixel Size
- Audio Sliders
 - Master Volume
 - Music Volume
 - SFX Volume



Level Editor

A developer tool used for the purpose of streamlined level design, specialised for the requirements of our game.

Tiling

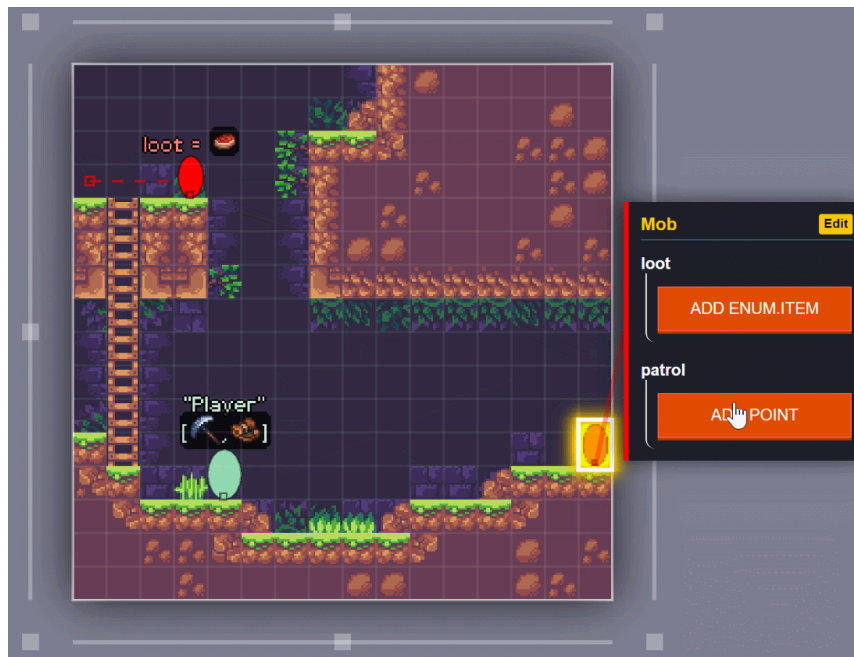
The main use case for the Level Editor. Tiling relates to the placement of tiles within a room, along with a set of options and tools used to streamline placement for the purpose of rapid level creation.

Tileset Window

On the left hand side of the level editor, a list of tilesets will be displayed. Developers can choose a tileset to use for the layer. Tiles when clicked are selected for the brush. If multiple tiles are drag-clicked, all effect tiles are combined into one brush.

Brush Tiling

When developers have selected what tiles to use, they are able to paint those tiles into the scene, using their selected tiles as a brush.



Tile Randomizer

A toggleable option for when multiple tiles have been selected. Instead of the brush consisting of all selected tiles, the brush will use one tile and randomly swap to another each time one tile is placed.

Rule Tiling

Rule tiling is the creation of a set of premade brushes that when placed, change what tile is used depending on surrounding tiles. This tool will be used to streamline placement of terrain or large objects.

Tile Layering

Tiles can be separated into different layer maps which determine the sorting order that they are rendered. Developers can create as many layers as they want, and can toggle what layers have collision.

There are also some special layers. One such layer would be for entities, this includes enemies and the player along with rules such as pathfinding. Other special layers include background and foreground layers which are for parallaxing, exist outside of the tile system and are purely visual.

Controls and Variables

The control consists of rules and developer tools that affect the creation of rooms or the placement of obstacles such as enemies or respawn positions.

Room Settings

Room size, Room connections, etc.

Object Placement

Objects such as enemies, respawn positions, obstacles, etc, are placed in their own layer. Unlike the tile layers, this layer operates in sub-tiles, allowing developers to place objects within those sub-tiles for more precise placement.

Navigation Nodes

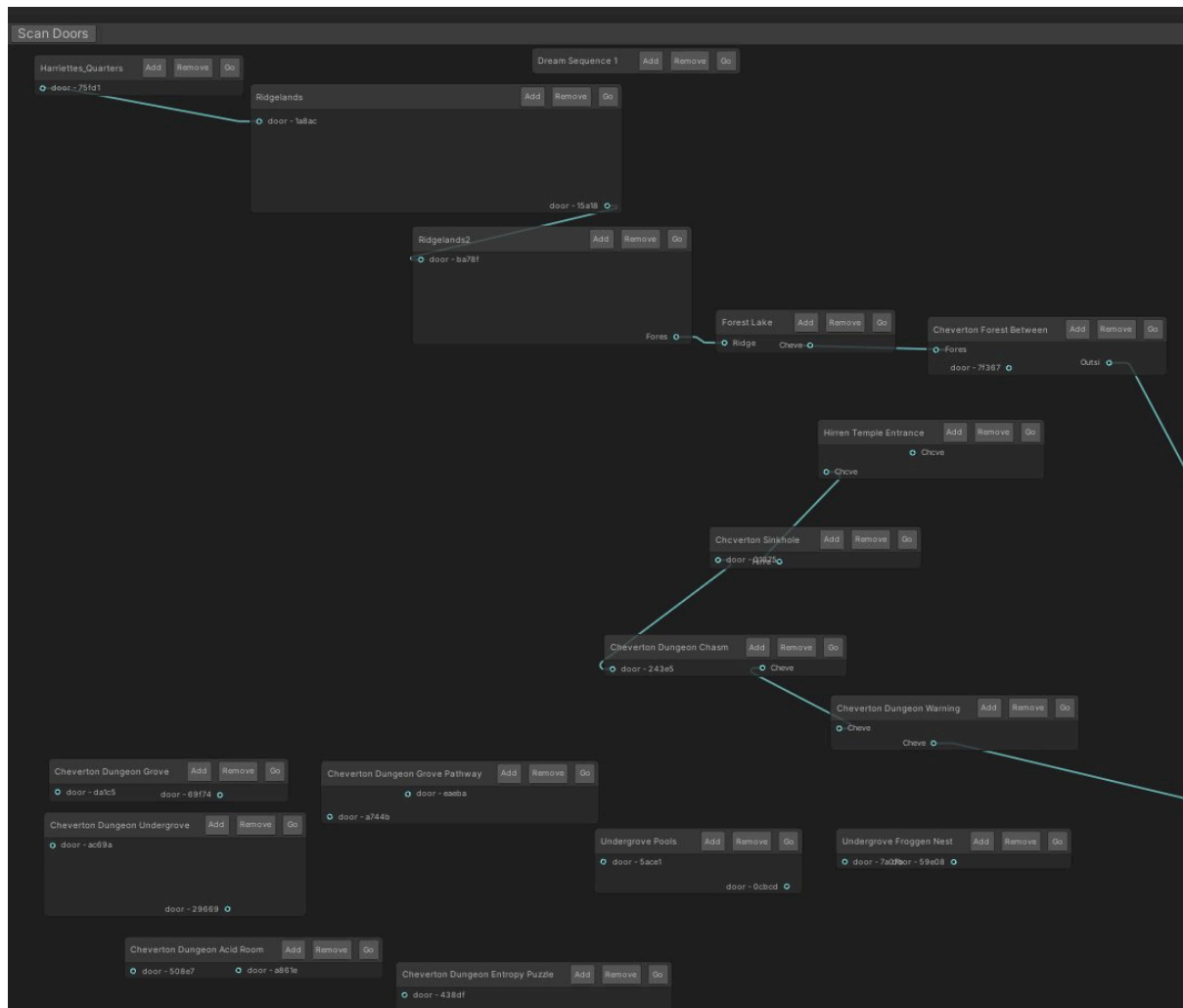
Some objects such as enemies may require special rules in order to properly function. These functions are expressed through “Navigation Nodes”. For example, an enemy who needs to patrol between 2 points, may require 2 nav nodes that represent these points.

Export/Save

Developers should be able to save their level and export it as a scene. That scene should then be loadable if the developer wishes to edit it. Furthermore this scene should connect to the scene graph.

Scene Graph

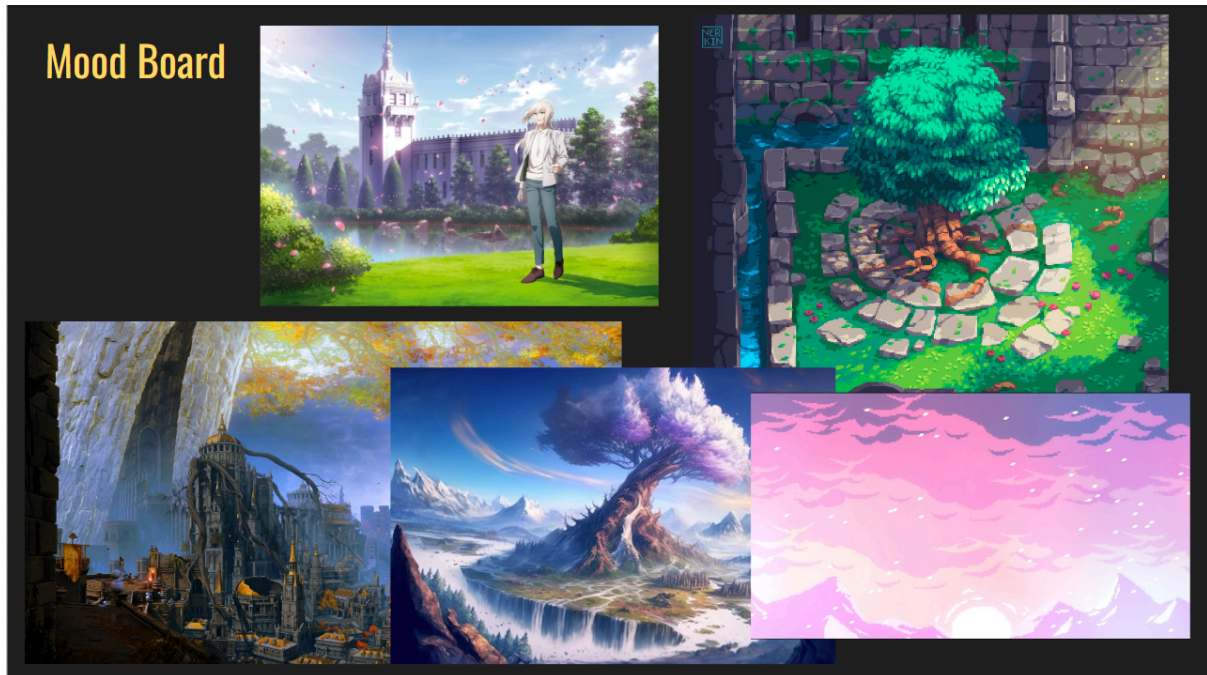
A scene graph that allows designers to connect rooms together using a node system. Each room should display the room's name as well as the number of connections in said room + the direction of its connection.



Look & Feel

Mood Board and Influences

This is a general mood board for the themes and feel of our game, planning to use pink and white hues and generally use a lighter tone, while mixing the imagery and inspirations that is planned.



Visual Design

The game will be made in a resolution of 640x360, the player character will be at a scale of 32-48 pixels large. This is done to keep the player size to a minimum while still keeping them readable, that way the player can see more of the environment and are able to react to upcoming platforming challenges.

Art Bible link: [Mover in the plane Art Bible](#)

Sound Design

Music

The game's music mainly correlates and is meant to complement the fantasy theme. As for the genre, it's reminiscent of orchestral music. Several locations in the game would have variations of the same genre, but with different vibes/emotions being the main tone for each location.

One instance surrounds the castle's town, as it should implement instruments that have an East Asian motif, or can closely resemble such a motif. The mood should represent the environment of the commune, so it aims for a more positive-feeling music piece, than something negative or fast-paced and rock-hard.

For the forest area (mainly the big tree), there are two potential routes: one could be whimsical and only use instruments such as flutes and other stringed-instruments to represent a peaceful environment and mood, or the other route could be a more fast-paced, drum heavy music piece to signify the little amount of time the player's character (supposedly) has to save their friend.

Action-Based SFX

These sound effects are more focused around the player and potentially, other entities in the levels.

The spear would have a couple of sounds for the following functions: for shooting the spear, latching onto a surface, swinging, pulling the spear, and releasing it. Some sounds may be unique to themselves, while others may need to share with one another.

World SFX

In the castle town area, there would hypothetically be a bunch of NPCs roaming around the area; as such generic sound effects for background chatter would be used in these parts, alongside other generic sounds for footsteps. This intends to make the area feel like a real place.

For the forest area, there should be sounds of leaf rustling, birds chirping, and branches potentially bending when being stood up. Various wood sounds are also played when the player steps on them.

Menu SFX

In the menu screens, when the player clicks on the buttons, a sound that would be similar to a star sparkling/twinkling would play to signify the option was pressed (this is to align with the recurring fantasy theme); an echo effect may also be implemented to connect with the "vaguely" mysterious vibe.

Marketing Research

Competitor Analysis

Celeste

Jan 25, 2018



2D-Platformer, Puzzle-Platformer

Celeste is a Pixel Art platformer centered around a young girl named Madeline in her journey to climb a mountain. Players will climb, dash, and jump their way across obstacles, as they progress through the game.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

Maddy Makes Games - Size: Small (1-6)

Publisher

Self Published



Platform Availability

Switch, PS4, Xbox One, PC

Supported Languages

English, French, Italian, German, Spanish, Japanese, Portuguese, Russian, Chinese (Simplified)

Base Price

\$29.50 AUD



Est. Steam Revenue

Net: \$25 Million, Gross: \$85 Million

Steam Reviews

91,352 - 97% Overwhelmingly Positive

Metacritic Scores:

Meta Score: 92 - User Score: 8.7

Reviews

Celeste is a surprise masterpiece. Its 2D platforming is some of the best and toughest since Super Meat Boy, with levels that are as challenging to figure out as they are satisfying to complete.

- Tom Marks (IGN)

Gestalt: Steam & Cinder

July 16, 2024



Action-Adventure, Metroidvania

Gestalt: Steam & Cinder is an action-adventure game set within the steampunk city of Canaan. Join Alethia in her journey to discover secrets hidden within the city, and combat dangerous horrors along the way.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

Metamorphosis Games: Small (3)

Publisher

Fireshine Games



Platform Availability

Switch, PS4, Xbox One, PC

Supported Languages

English, French, German, Spanish, Japanese, Portuguese

Base Price

\$29.50 AUD



Est. Steam Revenue

Net: \$140k, Gross: \$200k

Steam Reviews

405 - 81% Very Positive

Metacritic Scores:

Meta Score: 73 - User Score: 6.4

Reviews

Exploring a diverse steampunk world, mastering the surprisingly rich combat, and filling out the smartly-designed skill tree. Gestalt: Steam and Cinder is a joyful journey into nostalgic metroidvania action, and a great start for a potential franchise.
- Steve Watts (Gamespot)

Pseudoregalia

July 29, 2023



3D-Platformer, Metroidvania

Pseudoregalia is a retro-inspired 3D-Platformer/Metroidvania. Play as Sybil as she navigates a castle through numerous platforming challenges and gains new abilities.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

Rittzler - Size: Small (1-6)

Publisher

Self Published



Platform Availability

Windows PC

Supported Languages

English

Base Price

\$8.79 AUD



Est. Steam Revenue

Net: \$861k, Gross: \$1.1 Million

Steam Reviews

9,384 - 97% Overwhelmingly Positive

Metacritic Scores:

Meta Score: N/A - User Score: 7.4

Reviews

Pseudoregalia is a must-play 3D platformer. The adventure boasts a lovingly crafted world developed with a strong sense of appreciation for the genre.
- Orpheus Joshua

Owlboy

November 2, 2016



2D Puzzle-Platformer, Adventure

Owlboy is a story-driven platform adventure game, where you can fly and explore a brand new world in the clouds! Pick up your friends, and bring them with you as you explore the open skies.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

D-Pad Studio - Size: Small (6)

Publisher

Self Published



Platform Availability

Switch, PS4, Xbox One, PC

Supported Languages

English, French, Italian, German, Spanish, Japanese, Portuguese, Russian, Chinese (Simplified & Traditional), Polish, Norwegian, Korean

Base Price

\$29.50 AUD



Est. Steam Revenue

Net: \$1.5 Million, Gross: \$3 Million

Steam Reviews

3,358 - 86% Very Positive

Metacritic Scores:

Meta Score: 88 - User Score: 7.6

Reviews

Owlboy shines thanks to surprisingly a charming cast of unlikely heroes whose bittersweet journey is among the best I've experienced in recent years. The relationships between characters in both story and gameplay that makes Owlboy something truly special. - Chloi Rad (IGN)

Neon White

June 17, 2022



3D-Momentum-Platformer, FPS

Neon White is a single-player speedrunning FPS where you can sacrifice your guns for godlike parkour moves.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

Angel Matrix - Size: Small (1-6)

Publisher

Annapurna Interactive



Platform Availability

Switch, PS4, Xbox One, PC

Supported Languages

English, French, Italian, German, Spanish, Japanese, Korean, Polish Portuguese, Russian, Chinese (Simplified & Traditional), Turkish

Base Price

\$36.95 AUD



Est. Steam Revenue

Net: \$5.5 Million, Gross: \$12 Million

Steam Reviews

13,035 - 98% Overwhelmingly Positive

Metacritic Scores:

Meta Score: 89 - User Score: 8.3

Reviews

It is never lost on me that I'm not getting any younger. But if Neon White had its way, I wouldn't age a day. As far as propositions go, that's pretty damn intoxicating.
- Ari Notis (Kotaku)

Ori Will Of The Wisps

March 11, 2015



2D Action-Platformer, Metroidvania

Ori & The Will Of The Wisps sees the you embark on an exotic adventure where you'll encounter towering enemies and challenging puzzles on your quest to unravel Ori's destiny.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

Moon Studios - Size: Large (50-100)

Publisher

Xbox Game Studios



Platform Availability

Switch, Xbox One, PC

Supported Languages

English, French, Italian, German, Spanish, Czech, Danish, Dutch, Finnish, Hungarian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Chinese (Simplified & Traditional), Swedish, Turkish

Base Price

\$39.95 AUD



Est. Steam Revenue

Net: \$55 Million, Gross: \$74 Million

Steam Reviews

119,916 - 96% Overwhelmingly Positive

Metacritic Scores:

Meta Score: 90 - User Score: 8.9

Reviews

Moon Studios has taken an excellent foundation and made even more out of it. Its many new elements expand on and add to the first game's fun without bogging it down or becoming overcomplicated.
- Brandin Tyrrel (IGN)

Pepper Grinder

March 29, 2024



Action-Adventure, 2D-Platformer

Pepper Grinder is an action-packed 2D adventure blending traditional platforming with an alternate drilling mode that allows you to dive in and out of the earth like a dolphin swims through water.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

Ahr_Ech - Size: Small (1)

Publisher

Devolver Digital



Platform Availability

Switch, PS4 & PS5, Xbox One, PC

Supported Languages

English, French, Italian, German, Spanish, Japanese, Korean, Polish, Portuguese, Russian, Chinese (Simplified & Traditional), Turkish

Base Price

\$21.95 AUD



Est. Steam Revenue

Net: \$152k Million, Gross: \$245k

Steam Reviews

598 - 87% Very Positive

Metacritic Scores:

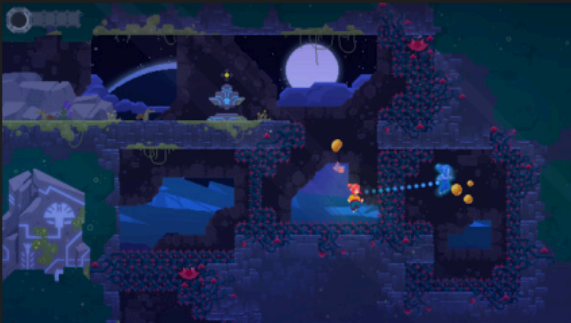
Meta Score: 78 - User Score: 6.8

Reviews

Pepper Grinder is still a fun, novel and sparky breed of platformer, and one that will regularly make you break out in more smiles than anguished grimaces.
- Katharine Castle (Rock, Paper, Shotgun)

TetherGeist

Coming Soon



2D-Platformer, Puzzle-Platformer

TetherGeist is an upcoming 2D Puzzle-Platformer centered around a unique teleportation mechanic. Enjoy challenging levels as you discover the world and watch Mae's story unfold.

Identity



Publicity



Quality



Availability



Efficacy



Core Team

O. and Co. Games - Size: Small (1-6)

Publisher

Self Published



Platform Availability

PC

Supported Languages

English

Base Price

N/A



Est. Steam Revenue

N/A

Steam Reviews

N/A

Metacritic Scores:

N/A

Reviews

N/A



- **Level based progression** = games that focus on one mechanic and expand on it through different levels.
- **Chapter based progression** = games with a narrative focus in its progression.
- **Ability based progression** = games that progress by adding new mechanics.
- **Skill based progression** = games that progress in difficulty based on skill.

Research Takeaways

From the research obtained from the above analysis, we are able to ascertain patterns seen within our competitors and use it as a comparison in our game in order to influence design decisions and differentiate ourselves in marketing.

Our game is seeking to place itself in between skill based progression and ability based progression, as such we are interested in looking closer to as an inspiration for our own game design.

Since we are leaning towards momentum puzzles, we believe the level mechanic system and the “strawberry” system from that game lean well into the core of our design. Furthermore we seek to challenge the player through the use of optional content and provide progression in player skill.

Genre's Market Status

According to stats from [Gamalytic](#), the platformer genre is used in **7%** of steam games for **5569** games total. Out of all these games, only **9.4%** of them manage to reach over **50k+** in total revenue. However, these stats are skewed as **32.9%** of these games hit over **10k** copies sold, therefore we are able to glean that the low percentage in revenue distribution is affected by the **64.5%** of games that cost \$5 or less.

When filtering to the [same tags](#) as our closest competitor "Celeste", we see major changes in the sales distribution and review scores of these games. While the sales distribution for games of higher sale counts remains at a similar level, lower sale count games seem to be less common. Review score, interestingly, changes drastically when compared to the base genre. The revenue distribution of games similar to Celeste, appears to lean heavily into the positive skew, with **54%** of games having a score of **90%** or higher, furthermore, games that score between **80-90%** take up a further **25%** of games.

Target Audience

Spearloom is best targeted towards the following audiences:

'Middle Class' or some lower income consumers:

- Casual gamers: friends, families, housemates, streamers, audiences.
- Speedrunners/Challenge Runners: Streamers, Hardcore gamers.
- Families with dependents (12 - 18).
- Adults (18 - 25) with time to spare / relax - partnered or single.
- Housemates/friends aged 19 - 26 who enjoy challenging each other with games (incl. 'voyeur' friends who encourage play).

Game Selling Points

- ❖ Expansive game mechanics with room to challenge players.
- ❖ Easy to pick up, hard to master. (Low skill floor, High skill ceiling).
- ❖ Unique theming & aesthetics (The blending of a main Eastern motif, with additional western themes.
- ❖ Smooth character control, feels great to use.

Personas

John Hunter

age: 28
residence: New York City
education: College level
occupation: Editor
marital status: Single



Life is a challenge worth undertaking!

John spends most of their day working in their editing job from 9-5. When they finish, they like to spend their time with a challenging task.

Comfort With Technology

INTERNET



SOFTWARE



MOBILE APPS



SOCIAL NETWORK



Criteria For Success:

Overcome challenge and adversity

Needs

- Support from others
- To focus on the world around themselves

Wants

- Try new difficult activities
- Improve their skills & capabilities

Values

- Hard work & Dedication
- Perseverance
- Boldness

Fears

- Fear of failure
- Fear of the wilderness

This persona represents a customer who fits into our “Challenge runner” category of players. John Hunter is a player who actively seeks difficulty and wants to keep improving their skills. Our optional “Bloomies” mechanic is designed to accommodate for this type of player by providing offshooting paths in the level design that is built for the purpose of providing challenge.

Furthermore, the timer mechanic can accommodate a potential subtype of challenge player known as a “Speedrunner”. This timer can allow this player to try and complete the chapter as quickly as possible so that they can compare their time to other players.

Appendix

Bibliography

- Steam revenue database - [Celeste Revenue Calculator](#); Accessed: 24/07/2024
- Celeste IGN review by Tom Marks - [Celeste is a platforming masterpiece](#); Accessed: 24/07/2024
- VG insights Gestalt - [Gestalt: Steam & Cinder Steam Stats](#); Accessed: 24/07/2024
- Gestalt Gamespot Review by Steve Watts - [Gestalt: Steam & Cinder Review](#); Accessed: 24/07/2024
- Pseudoregalia steam stats - [Game Stats Pseudoregalia](#); Accessed: 24/07/2024
- Pseudoregalia Review by Orpheus Joshua - [Noisy Pixel Pseudoregalia](#); Accessed: 24/07/2024
- Owlboy IGN Review by Chloi Rad - [Owlboy is an exciting adventure with a lot of heart](#); Accessed: 25/07/2024
- IGN Ori Review by Brandin Tyrrel - [Ori & The Will Of The Wisps Review](#); Accessed: 28/07/2024
- Neon White Kotaku Review by Ari Notis - [Neon White really is as good as everyone says](#); Accessed: 28/07/2024
- O. and Co. Games youtube channel - [TetherGeist Youtube](#); Accessed: 29/07/2024
- Steam analytics from Gamalytic - [Gamalytic](#); Accessed: 30/07/2024
- Pepper Grinder Steam Page - [Pepper Grinder](#); Accessed: 20/08/2024
- Rock Paper Shotgun Pepper Grinder Review by Katharine Castle - [Pepper Grinder Review](#); Accessed: 20/08/2024

Pipelines

Room Creation

1. Create a room scene with the following configured nodes:
 - a. Tilemap
 - b. Room Bounds area
 - c. Player (with PlayerCamera)
2. Enable grid snapping and make the grid size 8px * 8px
3. Use the Tilemap and any additional assets to create the room layout
 - a. Minimum room size must be 40*23 tiles
4. Save the room under a Room_Backlog folder
 - a. This is so that individual rooms can be tested

Level object ideas

Level object ideas

Grapple Beams

- A line of grapple tiles that the player can pass through
- Can be vertical or horizontal

Bounce Pad

- Essentially a spring but of variable length
- Can launch player any of the cardinal directions (up, down, left, right) depending on orientation of bounce pad
- If these are also mushrooms, could have spores that indicate spring force and direction

Switches

- The spear can hook onto it
- When the player uses any of the swing release related actions (swing jump, spear pull and letting go), the switch gets activated and does things. (Linked to various objects to do various events)
- Example events: Move a block, make collisions disappear, turn on/off spikes, activate a timer, etc.

Variants

- Regular Switch (Can be toggled on or off)
- Permanent Switch (Switch stays on.)
- Timed switch (resets itself after a specific duration, with linked nodes also resetting)

Keys

- In a single room, there will be multiple keys around
- Player needs to get close to a key in order to collect it
- When player leaves the room or dies without collecting all keys, the keys reset
- Collect all the keys in the room to trigger an event (such as moving a block(example; celeste block moves to open the way after collecting all the coins) or opening a door)
- After collecting all keys, the event will stay activated for the rest of the current chapter

Moving Blocks

- Blocks that move in a pre-set path whenever it is active
- Use the visual/collision tilemap to configure how it looks
- Can be used as platforms, doors, moving spikes, and even rudimentary animations-
- Can toggle if the moving block's path resets on death
- Use AnimationPlayer for various capabilities (custom setup, load on startup, loopable, etc.)

Variants

- Always active platform
- Switch triggered Block (triggered after a switch/keys activate it)