GNOME ALCHEMIST
DESIGN DOCUMENT

By TheGamingBuddies for the 2024 Pirate Software Game Jam

Introduction

Game Summary Pitch

GNOME ALCHEMIST is a deckbuilding rogue-like game about a gnome, fighting evil knights by throwing dangerous and exotic potions at them.

The player can craft each potion by choosing between different ingredients each round, increasing their potency by processing them and ultimately brewing the most dangerous potion possible. But not all potions are helpful! Cutting an explosive mushroom, crushing poisonous herbs or mixing in too dangerous ingredients together can result in more danger for the player than for the enemies!

Between combats the player gets the chance to further increase the stats of the wagon or getting new ways of altering their potion recipes. Together with random enemy encounters and bosses every playthrough in this game is unique and fun!

Inspiration

Slay the Spire

"Slay the Spire" is a deckbuilding rogue-like and was one of our biggest inspirations for making this game. The idea of building a deck out of certain cards over time and optimizing around that is a lot of fun for us so we wanted to create something similar. Adding passive upgrades in the form of perks and items and having a choose-your-own-path world map are major aspects we wanted to see in our game as well.

Potion Craft

In "Potion Craft" every ingredient has a certain aspect (e.g. "fire", "ice" etc.) by combining the different aspects you create a potion which inherits all of these aspects. We were especially interested in their physics system, dragging items onto the screen. Mashing and cutting is one of the most fun parts of the game for us so we wanted this featured in our game as well.

This game also represents a great way of dealing with alchemy and potions with most often suboptimal items due to lacking resources and forcing the player to make the best of what they have left in their inventory. Brewing potions with interesting aspects due to weird item choices and dealing with it somehow is a great way of having fun.

Player Experience

The player must decide which ingredients out of his inventory he wants to use to brew potions to defeat all enemies. Every combat he draws a random assortment from his available ingredients, which are determined by the upgrades for the wagon. The player needs to manage his ressources like health, make tactical decisions on which enemy to attack first with which potion and they need to learn what effect which potion has. By not telling the player on how to achieve certain effects, we want to encourage the player to try out different combinations of ingredients, creating positive or negative effects in the process.

Platform

The game is being optimized to run natively in a web browser, but optionally can also run as a standalone app on current Windows systems. Linux systems can also be supported in the standalone version.

Development Software

- Godot V4.2.2

- Blender V4.2

- Wonderdraft V1.17

- Audacity V3.4.2

External Assets

- some 3D-Assets are from synty store
- some sounds are from Sonnis Game Audio GDC
- some sounds and the music are from GameDev Market

All external assets are licensed for commercial use.

Genre

- Roguelike

- Deckbuilder

- Singleplayer

- Crafting

Target Audience

Players with interests in classic rogue-like games with random encounters will have the most fun with our game. Our focus is not on being competitive as a player but rather making a fun single player game. We think people who like figuring out game mechanics and optimizing their inventory and economy will have a blast playing. The deck-builder aspect makes the game even more replayable.

Concept

Gameplay Overview

The player takes control over a small gnome, trying to get away from his hunters in his stolen wagon. Each round they have resources like HP and inventory items to manage. Before the round starts, the player can choose between different nodes inside a path on the worldmap. There are quite a few different nodes to choose from (Combat, Shop, Elite Combat, Rest, Item) and most of them are visible to the player at all times between the rounds. Choosing the right path is crucial to win at the end.

In the beginning of a regular combat round the player draws from their sack of ingredients randomly until all slots inside the inventory are full. Additional items will be added over the course of the round so it's difficult to plan much ahead in time.

During combat the players get the chance to either refine or combine the ingredients to potions. Adding different items to a potion can result in different aspects and damage. After brewing, they can decide on which enemy they want to throw the potion on, dealing damage and or applying status effects.

The enemies attack on a set timer which is being displayed underneath the health bar. Every enemy has its own timer so the player can make tactical decisions on which enemy to focus first or deal with later. Enemies might also have resistances, so choosing the right potion for each enemy is key to success.

Theme Interpretation (Shadows and Alchemy)

Our storytelling is about a secret group of "Shadow Knights" that are influenced by this theme. The enemy knights are shadow creatures and not humans. They have a dark visual with shadow effects and some of them even have abilities referencing shadows.

Alchemy is the main gameplay mechanic. The player (gnome) steals an alchemist's wagon and has to fight off the chasing knights who want the wagon back. So the gnome tries to fight them with the only thing that was in that wagon: ingredients to brew potions.

Primary Mechanics

Pre round

The player can choose different routes to reach the target, every node along the way is an event, the type is determined by an icon. There are combat encounters, passive upgrades, shops for stocking up or upgrading, unknown events with positive or negative effects on the player's economy.

A skull signals an encounter and a chest gives the player the opportunity to get an upgrade. The player traverses the path from left to right and can only choose the nodes from the current position.

Combat

The primary focus during combat is on the player's inventory. Starting with four items, every few seconds four new ingredients get added to the inventory until it's full. In the beginning the player only gets mushrooms, a very basic ingredient for damage. Over the course of multiple encounters and upgrades more ingredients get unlocked so more combinations for potions are possible.

Items can be used by simply dragging them out of the inventory into the scene. A 3D object gets spawned and can be dropped anywhere above one of the three stations.

Ingredients can then be dropped on one of the three main stations. The first one there is the cutting stations. Slicing your ingredients can change the damage modifier for the brewing process, which can make your final potion deal more damage (or less, depending on the ingredient). The cutting process can also alter the aspect condition.

Ingredients can only be sliced ones and only whole items can be sliced at all.
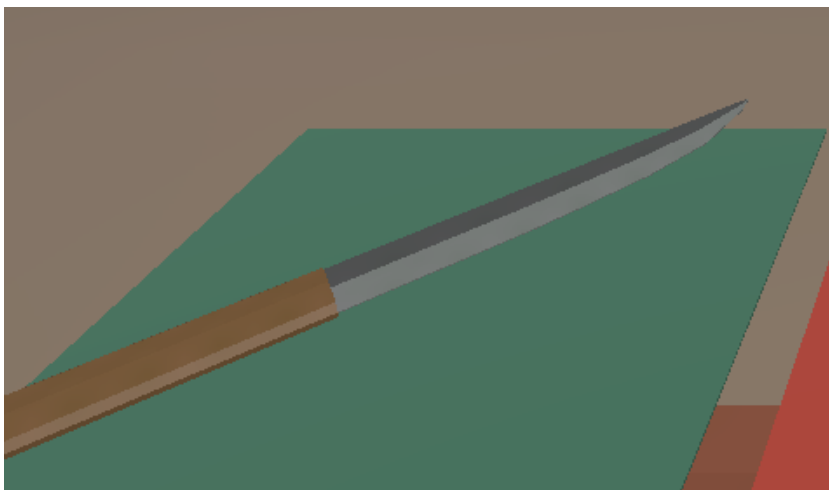
Next station is the crusher. Items dropped here get crushed into small pieces also modifying the aspect multiplier for the potion and possible aspects. Crushed items can not be modified any further.

The combiner takes multiple ingredients, processed or not and lets the player brew a potion when clicking on the "brew" button. The potion strength gets calculated from the multipliers from the items that got put in. The aspect also gets applied.
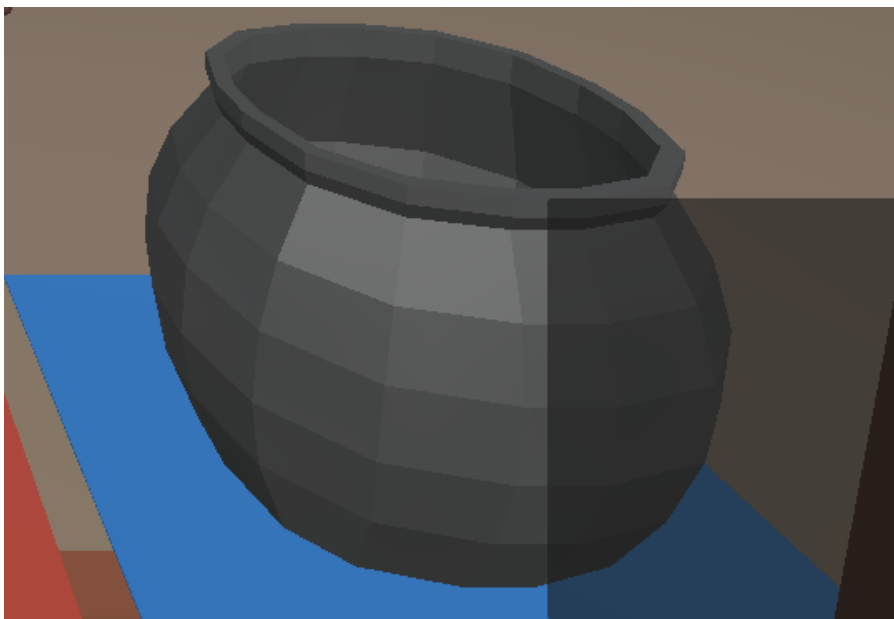
Aspects

Every ingredient has a default aspect, damage multiplier and an aspect condition. These stats are not directly visible for the player but have to be explored by experimentation. The damage multiplier and aspect condition can be altered by cutting or crushing, but this does not always increase the value of the ingredient.

There are four aspects in total: fire, ice, poison, and light. If an ingredient with the aspect condition "prime" gets added to the brewing pot the aspect gets activated. Some ingredients come in prime condition by default, some have to be cut or crushed to achieve this effect. Not all ingredients can become prime. A potion with an aspect applies the correlating debuff onto the target.

Enemies

After brewing the potion it can be applied to the enemy.

First the player can highlight a target by clicking on it. Two arrows mark the current target. After that, clicking the potion makes the gnome throw it in the direction of the enemy to apply damage and possible debuffs. All enemies provide statistics by hovering over the effects and bars:

Name	Effect on Enemy	Effect on Player
Hitpoints	How much damage an enemy can take before being considered dead.	How much damage the player can take before the game is game over.
Dexterity	Affects the enemy timer. The timer indicates when the next action is taken. The time is the enemies dexterity value multiplied by a multiplier, which depends on the chosen action.	Affects the time until the player's inventory gets refilled.
Strength	How much damage the enemy deals. The damage is multiplied by an action dependent multiplier.	Is a flat bonus to the damage the player deals. The main damage shall come from the potions.
Defense	Decreases incoming damage by a flat amount.	Decreases incoming damage by a flat amount.
Speciality	Enemy special effects, actions that do not damage the player, are calculated from this value.	The strength of the players potions and the amount of ingredients that spawn in your inventory are influenced by this stat.

Enemy statistics are predetermined, but can be modified by the player's potions, applying debuffs, and by enemy special abilities.

The player's statistics are predetermined and can be modified by passive upgrades and debuffed by enemy special abilities.

Art

Theme Interpretation

Since we had to make a game in a short time that also looks good, we decided to work with a so-called trimsheet to display the simplest kind of colors. If we had unwrapped and processed each asset differently, it would have taken too much time. and because we only use a single texture for many of them, we were able to reduce the memory by having each one refer to only one texture.

Design

With performance and standardization in mind, the idea for the design wasn't far off, and we decided to do low poly 3D because it consumes little performance and is also quick and easy to edit, and it still looks good on a low-poly 3D object with a single color thanks to a trim sheet.
When designing the enemies, we wanted to do something that is easy to understand and a bit cute, but also has a certain degree of seriousness because they are still enemies that you are fighting. For example, the knights don't wear normal clothes or have a normal skin tone like the archers and the farmers, but are completely pitch dark, which is also supposed to be an allusion to the shadows because they are not normal creatures like humans, but something more evil.

Audio

Music

The background music should contrast the more hectic gameplay with a relaxed and minimalistic fantasy style.

Ambient Sound and Effects

In combat ambient sounds caused by the wagon and it's pursuers will add to the rush and hecticness, while the more funny sounds emitted by the enemies help the lightheartedness of the game.

Game Experience

UI

The UI is minimalistic, an old-style white font on translucent backing for better readability and easy navigation.

Controls

<u>Keyboard</u>

Escape for pausing the game

<u>Mouse</u>

Gameplay and menuing are mouse only

Minimum Viable Product

Name	Completed
Design document	DONE
Enemies (attack, timer, die)	DONE
Ingredients (aspects, damage)	DONE
Inventory (store and refill ingredients)	DONE
Potions (damage dependent on ingredients, effects depend on ingredients)	DONE
A combat scene	DONE
An overworld (choose your path)	DONE
UI	DONE
Passive upgrades	DONE

Beyond

Name	Completed
Animations	PARTIAL
Sounds	PARTIAL
Different scenes (reward, main menu, etc.)	DONE
Random enemies	DONE
End boss	Not Started
Passive upgrades show on cart	Not Started
Different characters to choose	Not Started
Different combat scene designs	Not Started
Different overworld map layouts	Not Started
A shop for passive upgrades and ingredients	Not Started
Better deck management	Not Started
Random encounters on overworld map	Not Started
Save/load ongoing runs	Not Started
VFX	Not Started