# Design Document for:

# Candelina

a light game

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# Game Overview

### What is Candelina?

Candelina (working title) is a retro-style 2D gothic horror platformer that prioritizes fast and precise platforming through obstacle-and enemy-laden levels that feature multiple branching paths. The gameplay is a hybrid between *Ninja Gaiden*'s timed rush levels and *Castlevania*'s precise and punishing movement. The player controls Wyckliffe, a little wax homunculus with a candle for a head, which provides the only constant light source in the game. Most of the screen is dark, and the player can only see obstacles within the circular radius of light that Wyckliffe's flame offers. However, Wyckliffe will not burn forever, and the player's field of vision gradually diminishes on a set timer, the game automatically ending when Wyckliffe's flame goes out.

### Design Philosophy

Candelina is a game that encourages players to play through a level multiple times in order to beat it, rewarding practice and familiarity with a game feel that grows progressively smoother the more time a player spends with a given level. Replay value is derived from a high capacity for optimization and accommodating various playstyle preferences, with the branching routes within a level offering different types and ratios of enemies and platforming challenges for players to experiment with. In addition, the mansion Candelina takes place in offers a rich environment that is aesthetically rewarding to explore, with each area featuring unique art, enemies, and atmosphere. Although it will be impossible to design a game without one or two objectively optimal routes, the goal is to design a variety of routes that play towards different skills and require players to experiment with how well they handle certain mechanics and environments they enjoy and feel more comfortable engaging with.

Candelina is a game fundamentally about hypervisibility and constant anxiety, in which players nevertheless work to build feelings of comfort and mastery within a hostile system. It fuses the critical disempowerment aspect of the horror genre with the mechanical delight derived from technical mastery of a system, creating—if such a thing is possible—a gothic horror tale with an unlikely infusion of hope.

# **Mechanics**

### Core Loop

Candelina is a relatively simple 2D platformer emphasizing speed and precision. Players navigate levels from a fixed beginning along several branching paths with several different endings and connecting points, punctuated by the occasional boss (the lineup of which changes depending on the player's route through the game). Candelina, unlike other popular 2D platforming titles such as Super Mario Bros., features no combat. The core gameplay loop focuses entirely on movement, prioritizing avoidance of enemies over direct confrontation. Levels are designed around introducing enemies in spaces that showcase their attack/movement patterns and instruct players in how to dodge, and then reusing enemies in more challenging contexts comprised of varied terrain and the addition of other enemies/environmental mechanics.

The game's unique defining feature is its lighting system. The player's candlelight tracks them around the screen, creating a radius of light, outside of which the player cannot see. While this radius is nearly big enough for the player to see the entire screen at the start of each level, it will gradually deplete in accordance with the level timer. The longer the timer runs, the smaller the player's range of vision becomes. In turn, the narrowing range of vision encourages cautious exploration in order to avoid unseen hazards, and the occasional leap of faith as the radius becomes too small to effectively see by. This system will ideally necessitate players attempting a level multiple times before beating it, and teaching themselves a more optimal run through this repetition.

In order to mitigate the potential frustration caused by this gameplay style, other light sources are introduced on the game's standard difficulty in the form of unlit candles the player passes along the way. As the player passes one of these unlit candles, it automatically lights on contact. These candles provide a fixed radius of light that does not decay with time and is preserved in between lives. This means that areas that a player has already explored will remain lit, allowing them to move through these areas even more quickly without worrying about the lack of visibility they dealt with on their first run. This, combined with periodic checkpoints, encourage exploration and experimentation while remaining engaging and balanced for player enjoyment.

Candelina's loss condition is the player's flame being extinguished. This causes them to lose one life and be returned to the last checkpoint they reached until they run out of lives, at which point they will experience a game over. The game over state, similar to Castlevania, replenishes the player's lives to their base value and places the player back at the beginning of their most recent level—however, all environmental candles will return to their unlit state on a standard-difficulty game over. There are a handful systems by which the player's flame can be extinguished:

- The level timer, displayed in the top left corner of the UI, depleting to 0.
- Clearly indicated instant-kill obstacles, such as water hazards and pitfalls.
- A subsystem tentatively called "entropy", tracked via single variable represented by a meter at the top of the screen. Various mechanics can disturb the flame (continuously sprinting, standing in exposed wind, taking hits from enemies, etc.), increasing entropy. Generally these mechanics have compounding effects if they occur in close succession, visually indicated by a wobbling effect on the animated flame in the UI. If entropy grows more quickly than the flame can stabilize itself, the candle will go out. However, due to

the timed nature of the game, the player cannot afford to stand still and wait for the flame to stabilize for very long.

Due to the ways in which the "entropy" mechanic differs from a conventional health bar, there are currently no plans for a mechanic replenishing the player's light a la a "health pickup". This is in line with the desire to encourage repetition and exploration.

#### Controls

Candelina is inspired by the platformers of NES era and as such features very simplistic controls. Candelina utilizes only eight buttons: a directional pad (four buttons), two "action" buttons (a la the A and B buttons of an NES controller), a "start" button, and an analog for the NES "select" button.

The default control scheme of the game on a computer keyboard is as follows:

- A/D: Directional movement. A moves the character left, D moves the character right.
- W: Up (in menus). In-game, holding this button allows players to ascend ladders and ropes.
- S: Down (in menus). In-game, holding this button causes the character to crouch. Crouching does not currently reduce the player's hurtbox (the sprite is not reduced in height by more than a few pixels), but serves to cancel out of sprint and allow the player to consistently turn without moving.
- *J:* Jump. The movement keys are disabled while the player is airborne. Consequently, the character jumps in a fixed arc a la classic *Castlevania*, allowing for three distinct directions: left, right, and straight up. Pressing jump a second time causes the player to double jump, which allows them to shift their direction once based on the direction they are holding when the double jump is initiated.
- *K:* Sprint. Tapping this button causes a player who is grounded and moving to enter a "sprint" state. During this state, the player's speed is heightened, at the cost of their ability to freely turn around. If the player presses jump while sprinting, their jump arc goes longer and farther. If the player presses crouch while sprinting, the sprint is immediately cancelled. Currently, this button has no function while airborne.
- Enter/Return: Start. In menus, this button automatically selects the option that advances to the next menu. This button pauses the game
- RShift: Select. This, along with J, selects the highlighted option in menus. It will also freeze the game timer without entering a pause state.

### Environmental Objects

Candelina is set in a gothic mansion and as such features many set pieces that are not only tonally consistent with the character's surroundings but provide several points for platforming challenges through environmental interaction.

• Rope: The main source of verticality in the game, ropes function as ladders that the player can scale. Players grab onto a rope by pressing up or down while occupying the same tile, and can grab ropes while in the air. Pressing jump will cause the player to leap off the rope.

- Chandeliers: Chandeliers serve as moving platforms that sink and swing in accordance with the player's momentum, a la the Jewel Man platforms from *Mega Man 9*. They also carry background candles for the player to light.
- Dumbwaiters: Dumbwaiters serve as vertically moving platforms within the game. They move at a constant rate between two vertically-aligned points and have a collidable top and bottom. They are multiple tiles wide and tall, allowing players to jump into and out of them.
- Gears: Horizontally-aligned gears can be found in the grandfather clock section of the game. They can be oriented left or right, and standing on the gear will slowly shift the player and any other entities in the direction the gear is turning.
- Wind and Rain: These hazards are more environmental conditions than interactive objects. Found at open windows and doors, exposed wind and rain will gradually shift the player in the direction of the wind. This can help or hinder platforming—having the wind at your back will move you faster, but remaining exposed for too long will gradually destabilize the flame.
- Wallpaper: Introduced and prominently used in the yellow wallpaper level (more elaboration in the environment section). Being behind wallpaper (or other, similar substances) displays tiles, enemies, and the player in silhouette, revealing hidden paths and alternate routes.

More objects will be added as development continues.

# Characters

### The Player

The player controls Wyckliffe, a small wax homunculus with a head in the shape of a candle. Wyckliffe's visual design is heavily stylized and is meant to be "cartoon cute" while still fitting into the gothic landscape of the game. Wyckliffe also retains a very simplistic motivation in a plot-light game: escape the hostile mansion in one piece, a la *I-Spy: Spooky Mansion*. Because of this, Wyckliffe is highly mobile, but still quite fragile. Due to the resemblance between Wyckliffe's candle dish and a tutu, Wyckliffe's animations are heavily inspired by the movements of ballet dancers. This give's Wyckliffe's movement an impression of grace and precision and should feel satisfying for the player to control.

#### **Enemies**

There are many enemies to be found in the landscape of *Candelina*, some only being found in specific levels and ares. None except the bosses are unique; all are replicable and run on fairly, simplistic easy-to-learn AI. This is largely a design consideration, as enemies serve to accentuate the platforming and make it more complex/challenging rather than staging direct combat-oriented encounters.

Many enemies are directly inspired by famous works of gothic literature, albeit named and rendered in a more "cartoon cute" manner. Early enemy concepts are listed below:

- Stigmatism: A large, disembodied eyeball trailing viscera behind it. A very standard, laterally-moving enemy that can also drop off ledges. Inspired by the glassed-over eye in Edgar Allen Poe's "The Tell-Tale Heart".
- *Monty-Monty:* An ambular bottle with legs. Spawns on ledges above players and, once directly aligned with them, pours its contents onto the player's head. Inspired by Edgar Allen Poe's "The Cask of Amontillado".
- *Gran Paw:* A floating monkey's paw that grasps and immobilizes the player, curling its fingers around them one by one until it pinches their flame out. The player is required to mash buttons to escape. Inspired by the short story "The Monkey's Paw".
- *Mr. Seek:* Pursues the player from behind curtains and leaps out when he gets a bead on the player. The player can cling to curtain drawstrings to open the curtains and do away with Mr. Seek, at the risk of revealing something unsavory behind the open window. Inspired by a line in *The Curious case of Dr. Jekyll and Mr. Hyde.*
- *The Imp:* A squat, leaping gremlin enemy that pursues the player a la the Fleaman from *Castlevania.* Inspired by a concept popularized by Edgar Allen Poe, the "imp of the perverse".

#### Bosses

There are several bosses interspersed periodically throughout *Candelina*. Not every section culminates in a boss—only certain routes through the game will result in boss confrontations, although it is impossible to clear the game without running into at least a few.

At this phase, it is a design priority to avoid auto-scrolling and fixed-time segments in order to encourage different routes, strategies, and "quick kills" (as it were). All bosses will operate under the basic pattern of chasing the player through a predetermined course while periodically using attacks the player must avoid by navigating the terrain. Bosses will be fast and tough, but each will feature a mechanic or two by which the player will be able to take a risky diversion for the possibility of slowing the boss down. Ideally, this will make certain routes more feasible (or possible at all) by allowing the player to reach a certain area BEFORE the boss when this otherwise would not have been possible. This transforms boss segments into a race against a large enemy rather than completing an automatically-scrolling obstacle course.

Early boss concepts are listed below:

- *Moth Madame:* A Victorian woman made entirely of death's head moths, which will split up and pursue the player due to their being a light source. The moths are distracted by other forms of light. As such, this will probably be the first and only unavoidable boss encounter, as it integrates well with the introduction of the lighting mechanics.
- The Count: A nosferatu-like enemy encountered in the kitchens. The Count attacks the player by concealing himself in cabinets and leaping out, as well as chasing the player in mist form. The player can divert themselves from the primary route in order to spill ingredients, which The Count will temporarily stop in order to count.
- The Organ Grinder: A mysterious figure encountered during a level in which the player enters the inner workings of a massive organ. The Grinder plays the organ while the player is inside it, threatening to crush or harm them with the machinery.

#### Extra Characters

Early on in conceptual work for *Candelina*, the potential inclusion of extra characters featuring different mechanics and being either unlocked or released through DLC was considered. Concepts for alternate characters are rough and early, but are listed below for future use:

- Gordon: Gordon is a gourd (not quite a pumpkin, more of an autumnal squash) with a rough face carved into the front and a candle placed on the interior. This means that Gordon is slower, but more resilient, and will feature alternate movement options to compensate for his lack of speed (such as a "roll" which functions as a combination of Mega Man's slide and Samus's morphball form).
- *Grimly*: Grimly is an ambular skull with a melted candle resting atop. This precarious situation makes Grimly's flame more prone to entropy (perhaps the candle even wobbles while Grimly moves?), although Grimly is quicker and has more flexible movement options than either Wyckliffe or Gordon. Essentially, a "glass cannon" character.
- Gwain: Gwain is a pixie or sprite carrying a jar of fireflies. Instead of having a great deal of alternate movement options, Gwain can strategically release flies from within the jar on a directional sinusoidal trajectory in order to light unlit candles at a distance or view terrain ahead without being exposed to danger. This of course comes at the cost of light.

# **Aesthetic Direction**

#### Visuals

Candelina is a game with a highly distinct visual style. This is in part to enhance the core gameplay loop: many enemies, mechanics, and visuals that will only appear in a few areas of the game, sometimes going so far as to only feature on a single screen. This will serve as another way to reward players for route experimentation—a game that encourages repetition breeds in the core demographic a desire to play the game multiple times in different ways, and Candelina rewards players for this dedication in part with a rich array of set pieces that make the relatively small world of the game feel varied and alive.

In terms of visual style, *Candelina* heavily evokes the art of titles of the NES era, most particularly the classic *Castlevania* titles. Currently, the screen is rendered in an upscaled 256x240 ratio in order to accurately emulate the screen size of NES titles. The art utilizes the classic NES color palette, and most sprites are limited to three colors at a time. The art direction is almost painterly, forgoing distinct black outlines and solid block colors in favor of shading, blending, and pseudo-psychedelic contrasts of vivid colors. This serves to create a cohesive and striking artstyle as well as situating the player, enemies, and hazards firmly within the environment of the house.

Candelina is set in a vast gothic mansion, and the environment design is meant to reflect this. Decorative and visual elements are drawn at a large scale in order to evoke the small stature of the player character and suggest the domestic yet creepy setting. The house is clearly falling into disrepair, with peeling wallpaper and crumbling stonemasonry, but the environment still feels dense and rich. Backgrounds broadly make use of more muted shades in order to distinguish intractable and collidable tiles from various decorative set pieces, particularly in parallax segments.

The game will feature many distinct areas and environments which may not all be showcased in any given run, incentivizing replays of the game with unique art and atmosphere. Planned environments are listed below:

- *The Study:* A massive library filled with towering bookcases and tiered mezzanines. The featured assets in the current demo are a mockup of the study. Likely the first level.
- *The Cellar:* A wine cellar filled with barrels, moldy stoneware, and layered wine cabinets. Montymonties can be found here.
- *The Gallery:* An art gallery in which the player must navigate around stained glass dividers, haunted paintings, and ominous statues.
- *The Baths:* A dilapidated bathhouse with mirrors, ornate tiling and tarnished brass pipes. Many water hazards can be found in this level.
- *The Kitchens:* A long kitchen featuring swinging cabinets, hanging blades, and stacks of filthy pots and pans.
- *The Organ:* A tremendous organ the interior of which the player must explore. The deeper they go, the more unsettling the visuals get: the scenery begins to blend with what appear to be living tissue and organs.
- *The Clock:* A massive grandfather clock in which the player must contend with spinning gears and a swinging pendulum.

- The Drawing Room: A well-decorated entertaining space featuring fine furniture for the player to navigate around.
- *The Greenhouse:* An overgrown greenhouse run wild with twisted vines, darkly beautiful flowers, and thorned plants.
- The Bedrooms: A series of bedrooms decorated with a sickly yellow wallpaper that shifts in form and produces silhouetted hostile figures for the player. Based on the famous short story "The Yellow Wallpaper".

### Audio and Music

This early in the design process, audio design is still in a highly conceptual state. Currently, the plan is to utilize soundboards and effects similar to what would have been available to designers for the original NES. However, there are ways in which the sound design for *Candelina* drastically departs from the classic NES audio style.

Even this early on, however, it is apparent that audio cues will be very important in a game that revolves around a diminishing range of sight. With that in mind, ideally the game is currently planned to support stereo sound, and sounds will roughly correspond with the side of the screen from which they are emitted. Much of the sound design will be invested into distinct sound bytes emitted by various enemies and interactive objects, so the player is able to recognize hazards they may not be able to see.

In order to avoid a cluttered soundscape for the game, the soundtrack will be distinct but sparse so as not to overwhelm what might be useful audio cues. Currently, the musical style is planned to be a combination of haunting classical/baroque motifs and atmospheric soundscapes.

The NES soundboard featured a limited number of audio channels, resulting in certain sounds/music overriding other sounds/music. While there are currently no plans to intentionally implement this limitation in *Candelina*, it is worth noting that segments in certain titles (such as the final level of *Mega Man 2*) utilize this limitation to great atmospheric effect and it is certainly an option to enhance the eerie vibe of the game.

# Engine

### **Framework**

Candelina is being programmed in the LÖVE2D framework, a game design library based in Lua. This is primarily due to the approachable nature of the framework for first-time and indie projects, its extensive and open-source libraries designed specifically for game design, its active community of independent developers, and its ability to easily publish to Steam and iOS. Candelina's nature as a retro-inspired title means that it is not technically-intensive, so the framework's limitations are currently not a concern. LÖVE2D is quite flexible and is a serviceable platform for the title.

### Levels

Candelina's levels are designed in Tiled, a third-party level editor that supports direct integration into LÖVE2D. They are comprised of a layer of background images, a layer of non-collidable decorative background elements that can be freely positioned, and a layer of collidable tiles. Entities such as enemies and the player, and intractable environmental objects, will also be added in their own layers. At this phase in development, optimal file structure and level-loading implementation are still being considered.

## Lighting

The lighting effect critical to *Candelina's* core loop is technically fairly simple. The halo of light asset exists as a lightly dithered, animated white circle on a black backround. The game's main code file contains a separate canvas onto which these light sources can be drawn and directly tracked to the location of their sources on other canvases. The blending mode of the canvas that houses the light graphics is set to "multiply", creating a black foreground with transparent halos that can be freely positioned and resized as needed.

### Platform

Currently, Candelina is planned to launch on Steam through LÖVE2D's native Steam support.