



Logo not final.

Unroll

A game by Team Donert

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1.0 Introductory Narrative: The Legend of the Ambulent Scroll

As life plays out and becomes history, some moments are deemed important enough, epic enough, to be written into story. This frivolity comes with the benefit of keeping history safely recorded. Of course, humans are vain, entertainment-driven creatures, and in a bid to up the alluringness of these stories, combined the magic of the unknown with the science of literature and created a literal living record of history: The Ambulant Scroll. A thinking, inhuman storyteller, the scroll's text is written on magical paper, which gives life to the ink that drapes over it, allowing it to create visual, vivid adventures upon its page in real time for audiences. Unfortunately, the scroll was not well taken care of, and one day, it was left open on a wet stone platform... and not picked back up! Due to its age, the scroll was weak and susceptible to being dissolved. As water seeped into the paper of the scroll, it too was imbued with the magical effects. The water droplets grew, mitosized, spread out through the folds and rolls, and suddenly: LIFE! The dissolvent force was born, and it was hungry. It's voracious appetite demanded the paper, and the ink too. But even in its frailer age, the Ambulent Scroll could still fight back: it had a failsafe! Congealing the ink that made up some of its words and transmogrifying this gloop, it created an inky body that would serve as its protector. Suddenly, history's pulse inevitably restarts, past becomes present, and now, we find this legend of the humble inkblot that must protect its home from the dissolvent forces yet unwritten. The way its story, and all the stories depending on it, ultimately go—back into the safe warmth of sentience for another day, or away, scrubbed into oblivion, nixed from the collective memory of its creators by arrogant oversight—is up for you to decide... The scroll has a story within it, waiting to be told. Will you expel its loneliness? Will you protect its breath? Will you **unroll** it?

2.0 What does any of that mean?: Conceptual Intent

Unroll is a fast-paced, auto-scrolling arcade bullet hell shooter based around direction, distance and size. These themes factor into the main gameplay, which involves flying through an expandable (but finite) play area, changing directions by running into things, and knocking back enemies to keep them away from the player's objective resource, which they must keep safe in order to win the game. The player plays the role of a sentient blot of ink living within the text of an ancient scroll, and must protect its contents from enemies made of dissolvent. The player accomplishes this by firing bullets to stun enemies or by bouncing into them to knock them back. The player can unroll the scroll, opening up the play space to access more of the words which they need to save from enemy destruction. The player wins by passing over all the words, keeping them nicely, freshly inked. If they take too much damage from enemies (who sit in place and fire bullets at them) or let too many words get erased by enemy fire, they lose. The game is designed for someone looking for short bursts of action, challenge and thrill that can be replayed and mastered. The game will most likely be PC only, although it could work with a controller due to its simple up/down movement and one-button control scheme.

Features:

- Hectic, fast-paced bullet-dodging action
- Randomized—each playthrough will be different, but always a fair challenge
- Difficulty is determined by the player—unroll the scroll to pump up the intensity when you're ready
- Easy to learn, but takes precision and reflex to perfect
- Challenge yourself—go for the highest score you can get, or just try to complete the game at your own pace

3.0 Target Player

Unroll is meant to appeal to players who look more for fast-paced action, surprises and chaos, with the addition of challenge, as opposed to slower paced, methodical games. Destruction, excitement, and challenge, but with a hint of thinking-ahead and strategy that's present enough to add tension to the game but not so much that it makes the player slow down too much.

These player motivations take form in the following elements of gameplay:

- Action, excitement = dodging enemy fire, bouncing off of things to regain momentum
- Surprise, challenge = randomly spawning enemies that attack the player and their main resource
- Strategy = navigating area to get to words, paying attention to word object and enemy locations, choice on which way to expand playspace

The game is meant to appeal to fans of shooters and bullet hells, both of which enjoy the feeling of simple destruction of enemies, as well as an increasing number of projectiles moving around the screen to dodge. It should also appeal to those who enjoy more arcade game-like experiences: usually short games with increasing challenge and the ability to earn and maintain high scores. The intended simplicity of the game, alongside its theming, is emphasized in its simple, squishy hand-drawn aesthetic and limited color palette of mostly blues.

4.0 Gameplay Objectives & Progression

4.1 Progression

The game's objective is to ink all the words on the scroll, which are represented by in-game objects that start translucent and become opaque when the player moves through them. They must pass over all words on the scroll, as well as prevent enemies from destroying them. Every time the player inks all words currently visible on the scroll, they are able to unroll the scroll in both directions, revealing more words to pass over and more enemies to avoid. While game progression is meant to be linear in this form, the player can force the scroll to unroll in a direction before they've inked all the current words by bouncing off the same border multiple times in a row.

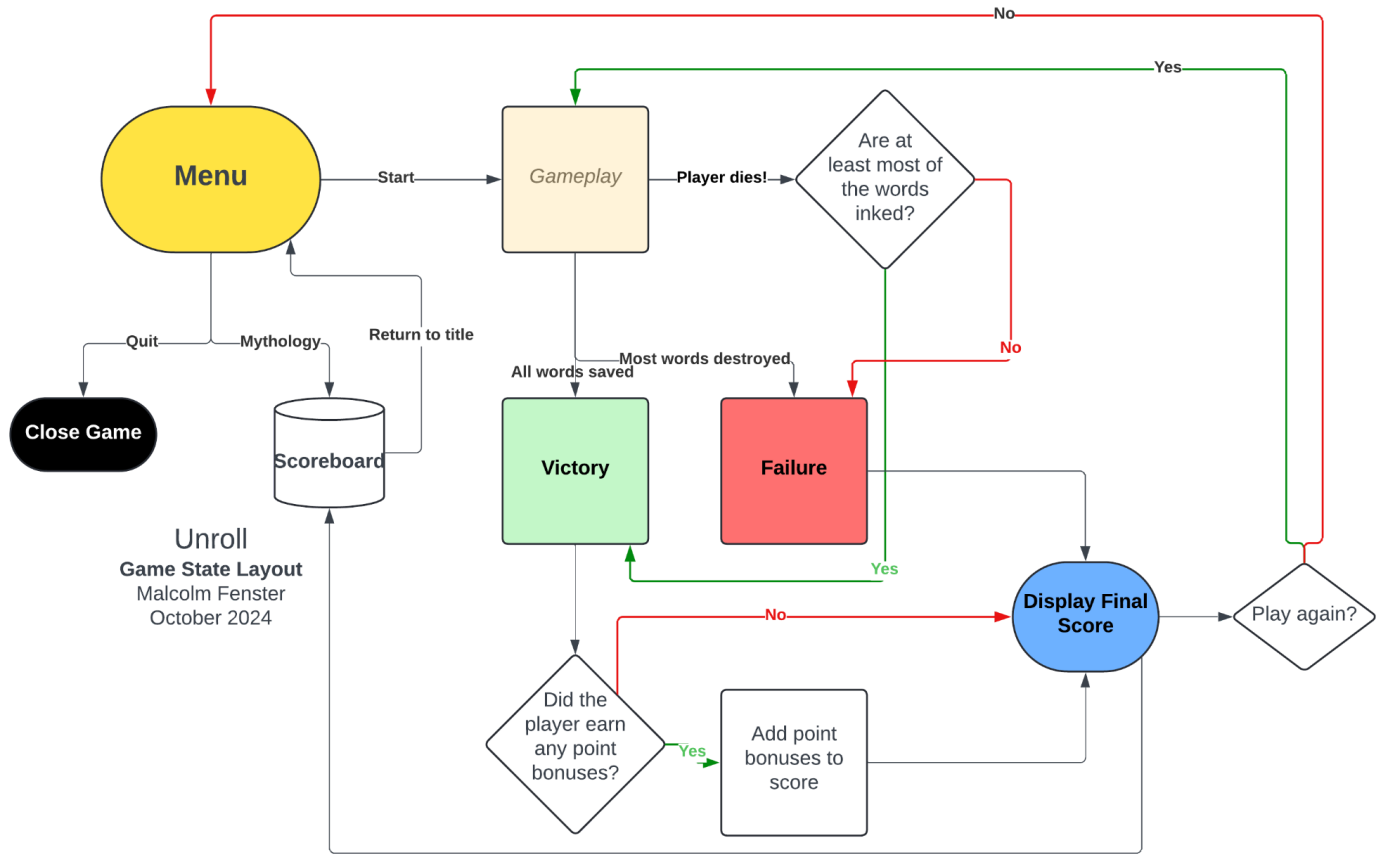
4.2 Game Objective and Possible Outcomes

The player must have all words across the entire scroll (play area) inked (protected) at the same time in order to win. They can, however, win if they die while **at least 90%** of the words are **inked at the same time**. However, if the total number of words inked simultaneously is below this 90% threshold, death results in a loss.

If 75% of the total words have been erased by enemies, the player **instantly** ends the game in failure.

Upon winning the game, the player will receive any earned point bonuses, which are added to their final score. The player's score simply gives an idea of how well they did. There is a personal leaderboard for each instance of the game, showing highest score and fastest time, but there will likely not be an online, global leaderboard.

5.0 Game Layout



From the start screen, the player immediately jumps into the game. The game's play area is always the same geometry-wise, but the dynamic elements within it create a different "level" of sorts each playthrough. The core gameplay loop involves **flying around, avoiding or attacking enemies, flying into words to save them from enemy fire, and expanding the play space by unrolling the scroll**. The game either ends in victory or failure. Victory requires at least saving 90% of the words, while failure only requires that the player dies before they can do that. There are also both **extreme**, instant state definitions for victory and failure: the player saving 100% of words for victory, and the player letting most words be erased for failure. Once the gameplay has ended, the player will be shown their final score for that playthrough (along with point bonuses added if they achieved victory AND earned any). After that, they can either restart the game and begin a new run immediately or return to the main menu.

6.0 Mechanics and Systems

6.1 Visual Design Document

[View the visual design document here.](#)

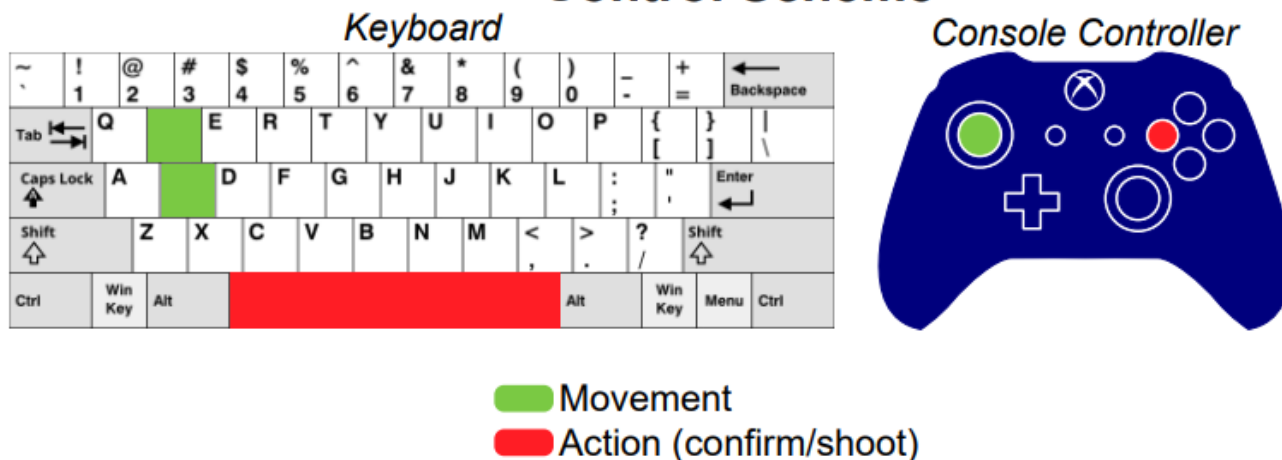
6.2.0 Systems List

6.2.1 Movement

The player controls an avatar that automatically scrolls left and right, with the direction itself being dynamically switched through player action.

- ◆ Player's horizontal movement is automatic and constant
- ◆ Player can control vertical movement with up and down arrows, W/S keys, or analog stick (depending on controller)
- ◆ Horizontal direction is changed whenever the player collides with an enemy or border

Control Scheme



(excerpt from visual design document above)

6.2.2 Enemies

Enemies are defined as movable, but non-self-forcing objects that continuously populate the playspace as the game progresses and hinder the player's progress by firing bullets at them and their objective objects (see words).

- ◆ An enemy has seven variables that can be changed through enemy type variation:
 - Shape** (how the enemy looks)
 - Bullet type** (determines what type of bullet they shoot out)
 - Vision radius** (how far out they can detect nearby words or the player)

- iv. **Fire rate** (how often they fire a bullet)
- v. **Knockback distance** (how far they get knocked back by player bouncing, in a measurement unit that goes a small distance per unit (comparable to cm, which is what will be used as the comparable unit from hereon))
- vi. **Stun time** (how long they're stunned by player bullet for before they can shoot again)
- vii. **Danger level** (how dangerous the enemy is to face; used for spawning purposes and as a general idea for how much damage their bullets should do)
- ◆ Enemies can be in three states:
 - i. **Idling** (not shooting, nothing in its vision to shoot at)
 - ii. **Active** (shooting at a target—from the moment the target enters its vision until the target leaves its vision, either through *it* moving, the *enemy* moving, the target being destroyed, or the enemy becoming stunned)
 - iii. **Stunned** (the enemy spins around in place rapidly and doesn't fire at anything. Starts with being hit by player bullet, ends after amount of time)
- ◆ Enemies will shoot at the nearest/first word they can see, unless the player is in their sight. They will *always* choose the player over words.
- ◆ Enemy bullets deal a set amount of damage to both the player and words, said amount related to their danger level.
- ◆ There are six different enemy types, defined in the section below.

6.2.3 Objective Resource: Words

Words are the resource objects which are spread across the entire playspace, each with their own health bar. **It's the goal of the player to protect all of them from enemy fire by moving over them.**

- ◆ Words spawn throughout the full play space (controlled random locations)
- ◆ Words have 3 states, associated with their health:
 - i. **Inked** (full health or > half health)
 - ii. **Faded** (half health to no health)
 - iii. **Erased** (health gone)
- ◆ Words spawn at half health, regain full health when the player moves over them, and lose health when shot at or passed over by enemies
- ◆ A word contributes to the player's objective while inked, doesn't while faded, and contributes to losing after being erased

6.2.4 Player Weapon

While enemies will swamp the playspace in damaging bullets, the player has a weapon of their own to fight back with: **a homing bullet that can stun enemies.**

- ◆ Player can fire a bullet with the spacebar/action button

- ◆ Player has a cooldown for how often they can fire the bullet, shown by a growing blot of ink under them that flashes when full to indicate they can fire a bullet
- ◆ Bullet will home in on closest enemy, but will splat and be destroyed if it doesn't hit an enemy in a short amount of time
- ◆ When a bullet successfully hits an enemy, it will stun them, preventing them from shooting at the player for the duration of their respective stun time



Isn't Stunned



Is Stunned

When the enemy is stunned, they will be visibly more opaque (as opposed to transparent to give the effect of them being like water spills on a page) and will spin in circles aimlessly instead of pointing at their closest target.

6.2.5 Health Attributes

Both the player avatar and word objects have their own health bars which must be managed.

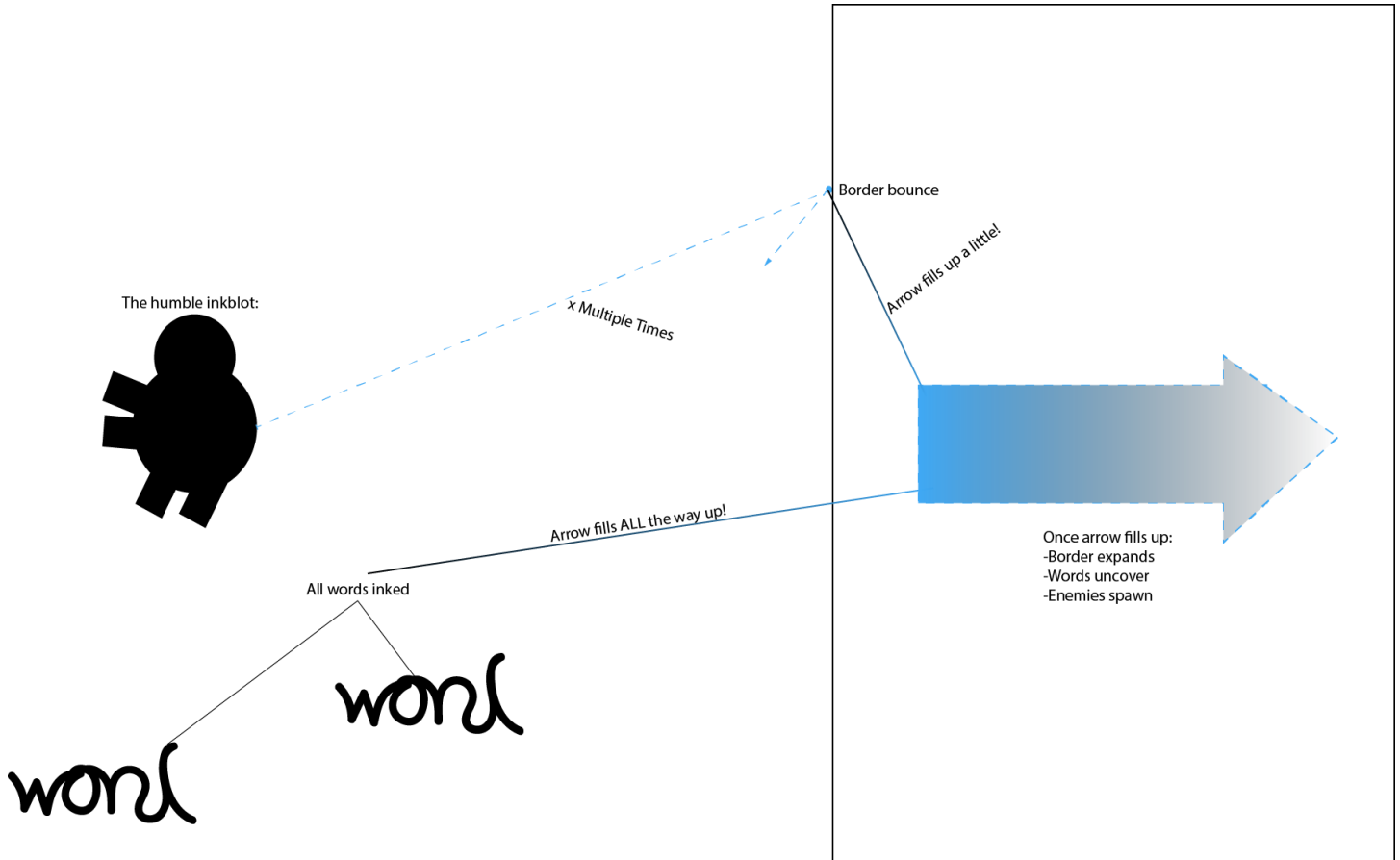
- ◆ Player's health is shown on the UI, visually represented as three hearts
- ◆ Player takes damage from bouncing off enemies or being hit by enemy fire and **cannot regain health**
- ◆ Words have their own health bars, which appear under them
- ◆ Words lose health from enemies firing at them or passing over them, and regain full health when the player passes over them while they're under half health (when over half health, the player passing over them does nothing)
- ◆ The player has 66 HP, with enemy bullets doing a set amount of damage based on the danger of the enemy
- ◆ Words have a max health of 30, with enemy bullets doing their respective damage amounts and enemies sitting on top of them doing 1 damage for each second the enemy is there

6.2.6 Unrolling the Scroll (Playspace Expansion)

As the game takes place on a rolled up scroll, the game progresses by way of the player bouncing off of the borders of the playspace to further unroll it, revealing more words to save and enemies to deal with. **This progression, while linear, can be forced via player action.**

- ◆ The scroll can be unrolled up to three times each to both the left and right

- ◆ Expands when the player bounces off the borders of the scroll after one of two conditions are met (which are shown by an arrow over the border pointing in the direction it can expand):
 - i. When all words currently visible are inked, the borders will immediately become unrollable
 - ii. If the player hasn't inked all currently visible words, they can force-expand the borders prematurely by repeatedly bouncing off them to make the arrow indicator appear (fills up in direction it's pointing until its full)



- ◆ Will activate any words uncovered by the expansion (state set to faded, half-health, can be interacted with)
- ◆ Number of new enemies spawned with each expansion related to the number of expansions
- ◆ Type of enemy spawned is randomized but it's more likely to spawn enemies with higher danger levels further into the game
- ◆ Once scroll has been fully unrolled, bouncing off borders do nothing additional and merely act as a non-harmful way to switch direction

6.2.7a Score

The player's skill is rewarded with points that are added to a score (shown on the UI).

The player earns points for important gameplay actions, with smaller and more frequent actions (like bouncing off enemies) giving less points, while larger, game progressing actions (like expanding the playspace) give more.

Score-Affecting Actions	
Action	Point Change
Bouncing off of enemies	+100 points for the first enemy in a game bounced off of, then 10 points less for each bounce afterwards (+90, +80, +70...) until they earn no points. This means the player only earns points for the first ten enemy bounces in each game.
Bouncing off the borders of the scroll	If bouncing unrolls the scroll, +200 points . (Otherwise, no points are awarded)
Inking (moving over) words	For each word: +150 points for the <i>first</i> time inked, then +75 for every <i>additional</i> time inked.
Enemy destroys a word	-150 points

6.2.7b Bonus Points

If the game ends in victory, the player will earn point bonuses added to their final score if they've accomplished the prerequisites for them.

Score Bonus Achievements	
Achievement	Bonus Point Addition
Saving all words	If the player inked every word in the entire game without dying after the 90% threshold, and NO words were erased by enemies, the player is awarded +600 bonus points .
Inking words only once	For each word that was only inked once (meaning it never took enough damage to require being inked again, and the player never moved over it again, regardless of whether they needed to or not), +150 bonus points .
Losing less than a third of their health (<22 points of health, or one of the three hearts)	+99 bonus points .

Losing 6 or less points of health ever (health doesn't go below 60)	+300 bonus points.
Clear time bonus	+500 bonus points if they win the game in under two and a half minutes. 100 points are removed from this addition every 30 seconds after two and a half minutes.

6.2.8 Game Ending States

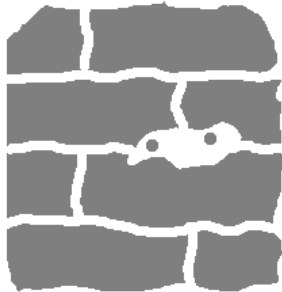
There are two possible outcomes for the game to end: **the player wins, or the player loses.** Each outcome has *two unique ways to achieve it*, however (two ways to win, two ways to lose).

- ◆ Words inked and erased are kept track of by the game
- ◆ If all words are inked at the same time, the player ***instantly*** ends the game in victory
- ◆ On the flipside, if 75% or more of all words are erased, the player ***instantly*** ends in failure
- ◆ Dying does not necessarily mean losing, as ***if 90% of the words are inked when the player dies, it will count as a victory.*** Otherwise, it will count as a loss.
- ◆ Victory means the player is entitled to point bonuses being added to their final score for accomplishments. Failure means they get no point bonuses.

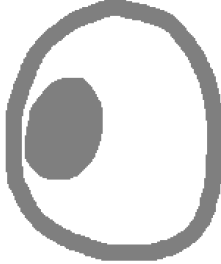
7.0 Enemy Compendium

The scroll's magic is unfortunately (in this case) indiscriminate in its animating magic, and it has given sentience to the very water that thins it as well. These creatures of dissolvent take several forms. **Seven**, in fact, as listed below:

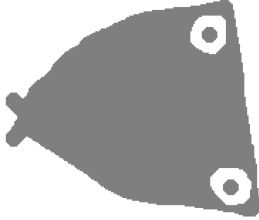
7.1 Wall

Wall - Always one of the first enemies to be spawned, with others spawning later in the game. Doesn't fire anything at the player, but will move up and down with the player to act as a roadblock and make them bounce in the other direction.	
Danger level	0. It fires no bullets and acts solely as a roadblock. That isn't to say it isn't still dangerous, as it can still damage words if positioned over it. That and they do slightly damage the player and can be annoying with their guarding. When dealing with walls, it's a game of keep-away.
Shape	 A series of connected, semi-rectangular blobs that make up the appearance of a brick wall, with two eyes protruding from a gap in the middle.
Bullet Type	NONE. Instead of firing any bullets, it can actually move on its own, and will intentionally try to move into the player's way to bounce them back.
Vision Radius	Far-sighted, meaning it can see the player all the way around the initial starting size regardless of where they would be within that space.
Fire Rate	N/A
Knockback Distance	10 cm
Stun Time	4 seconds. Stunning it stops it from following the player's vertical movement and forces it to stay in place.

7.2 Eye

Eye - Always one of the first enemies to be spawned, with others spawning later in the game. The simplest bullet-firing enemy.	
Danger level	1. This is the basic enemy, from which all the following build off of.
Shape	 Meant to be as simple looking as possible. A squishy circle with a hole in it, resembling an eyeball (filled in sclera with hollow pupil).
Bullet Type	A single, circular bullet, about the same size as the “pupil” in the enemy’s center, which moves continuously in one direction until it dissipates or hits something.
Vision Radius	Short-sighted, meaning it can see two objects length of distance ahead of it in any direction.
Fire Rate	1 bullet every 1.5 seconds.
Knockback Distance	10 cm
Stun Time	3 seconds

7.3 Creature

Creature - A surprising enemy whose attack follows the player up to a point and acts as a sort of tutorial for the more dangerous homing attack enemy (Bat; see 7.6).	
Danger level	2. Its homing attack is harder to avoid, but it's still intended to be easily avoidable. Its homing bullet also retracts instead of dissipating, and becomes harmless while retracting. It does, however, have a fast fire rate, so... watch out!
Shape	 An isosceles triangle, with its apex broken open to resemble the open beak of a bird, and holes at its two base points containing large eyes.
Bullet Type	A “tongue” that follows whatever the enemy is firing at, leaving a trail, and retracting when it reaches its max length or when it hits something.
Vision Radius	Short-sighted.
Fire Rate	Tongue goes back out a second after it's retracted.
Knockback Distance	5 cm
Stun Time	1.5 seconds

7.4 Pump

Pump - A stronger version of the eyeball enemy that fires multiple bullets out in quick succession.	
Danger level	3. This thing's bullets are fairly easy to dodge when it's just one far away. However, its harm increases when multiple of it are grouped together. Its rapid fire bullets and pinched snout shape also make it a risk to try bouncing off of it.
Shape	 An asymmetrical ovular shape with pinched edges, with one side being longer than the other. Supposed to resemble some sort of air pump that expands and contracts like a heart as it fires. Could also just look like a weird lemon.
Bullet Type	Tiny blobs, half the diameter of the regular circle bullets of the eyeball enemy. Move the same way, but at a faster speed. The enemy fires five out in quick succession.
Vision Radius	Near-sighted, meaning it can see up to the top and bottom of the screen if it's positioned directly in the center, so further than short-sighted enemies.
Fire Rate	Not even half a second between each bullet in the sets of five, but three seconds after every five bullets
Knockback Distance	20 cm
Stun Time	5 seconds

7.5 Cloud

Cloud - A large, light enemy that sprinkles out wavy bullets.	
Danger level	4. While it only fires bullets directly downwards, it still is firing more bullets successively than the pump enemy does, and this one doesn't stop unless there's nothing below it to get rained upon. Combine that with multiplicity and vertical dominance, and the player's in for a heap of trouble.
Shape	 A wide and vertically short blob with many curves, resembling a cartoony rendering of a cloud.
Bullet Type	Ovals, the same size as the eyeball's circle bullets but stretched vertically. While generally moving in one direction, they waver back and forth until they dissipate. Move at a brisk speed and do not dissipate upon hitting something but instead pass through them and continue until their time expires.
Vision Radius	Near-sighted.
Fire Rate	1 bullet every half a second.
Knockback Distance	30 cm
Stun Time	6 seconds

7.6 Bat

Bat - A fairly dangerous enemy with large homing bullets, poses a serious threat to the player, but less so the words due to its sluggish attacks and focus on the player.	
Danger level	5. Large bullets that follow the player and ONLY the player, which don't dissipate for a good while. Hopefully that spells out their destructiveness succinctly.
Shape	 A blob that resembles the shape of a bat, similar to a rorschach test. Definitely NO resemblance to any superhero iconography or recently released album cover art that I have copious amounts of bias towards.
Bullet Type	A series of interlocking, jagged rings that moves towards whatever object the enemy is firing at. Like the player, starts moving slow but speeds up as it stays intact until it dissipates after a set length of time or hits something.
Vision Radius	Short-sighted.
Fire Rate	1 every 5 seconds.
Knockback Distance	60 cm
Stun Time	3 seconds

7.7 Bottle

Bottle - A tall enemy that shoots expanding bullets very slowly.	
Danger level	6. The last thing you want when rushing across the paper in order to save a small gaggle of fading text is to have one of these things shoot a rapidly ballooning bullet out in your direction with the force of a cannonball blast.
Shape	 A rounded-rectangular enemy, narrow but tall, with an inward curving tip at its front, sort of like the tip of a pen. It has a slot at its bottom, like the label of a bottle, housing three “pupils”.
Bullet Type	What initially appears to just be the tiny circle bullets the vase enemy fires quickly grow in size over the course of their life span, but slow down from their initial speed the further they go.
Vision Radius	Far-sighted.
Fire Rate	1 every 10 seconds.
Knockback Distance	25 cm
Stun Time	1 second

8.0 Aesthetic Direction

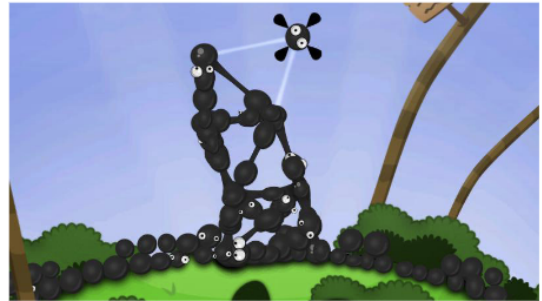
8.1 Visuals Overview

The game is set on a scroll of text, and thus should take on the appearance of one. The background has cracks and bumps along the paper, lined by scribbled words (blurred so that the player can focus solely on the actual elements of gameplay and it doesn't all blend in). The enemies are blobs dissolving the very paper, and should appear as see-through to reflect that. The player is an autonomous blot of ink, while the objective resource they need to protect from enemies are the words on the scroll. These words should stand out from the background words, conform to the shape of the overall background text, and be different words (lengths of words will affect the hitbox of the actual word object). The background text should also begin to fade and become more translucent over time if the player is losing, but not if the player is winning. The area outside of the scroll should take the appearance of a wooden table or a stone platform.

8.2 Aesthetic Inspirators

- **Scroll design** - The Torah (was born reformed Jewish, inspiration for game drawn from childhood experience), the puzzle game [Storyteller](#)
- **Color palette** - traditional ink on paper, the horror game [Bendy and the Ink Machine](#)
- **Character designs** - rorschach test blots, the rhythm game [Just Shapes and Beats](#)
- **Ink physicality** - goo in [World of Goo](#) or ink in [Splatoon](#)
- **Ink particle effects** - [Super Meat Boy](#)'s meat residue effects
- **Overall style** - "melty" big pixel art style similar to the animations of youtuber Planet Clue

8.3 Moodboard



8.4 List of Potential Fonts for Game (both UI text and Word objects)

- This one (EB Garamond)
- *Caveat Bold*
- Pangolin
- **Chelsea Market**
- Spectral
- Corben
- Fondamento
- Forum
- *I don't know what this fonts name is*

9.0 Content Summary

- Randomly generated, unique playthroughs
- Different enemy types
- Different bullet types
- Dynamic, player controlled spatial and difficulty increase
- Both lenient and extreme win and loss cases
- Scoring points and scoreboard
- REPLAYABILITY!!!