Mass Flux

DESIGN DOCUMENT

By Aizin for the 2022 Pirate Software Game Jam



**Introduction**

**Game Summary Pitch**

Summary Fill in.

**Inspiration**

**Cocktail wizard**

**Player Experience**

Fill in.

**Platform**

The game is developed for HTML5 web-browser based play.

**Development Software**

* GameMaker IDE Version: 2024.6.0.157 Steam
* Aseprite for graphics and UI
* FamiStudio and Anvil Studio for all music and SFX

**Genre**

To be decided

**Target Audience**

Without heavy or complicated ideas, and intuitive-to-grasp mechanics, this game is marketed to at least **casual game players** CONT. Fill in

**Concept**

**Gameplay overview**

Fill in.

**Theme Interpretation (Sacrifice Is Strength)**

**Fill In**

Fill In. ***Resummarize Fill In.***

**Primary Mechanics**

|  |  |
| --- | --- |
| **Mechanic** | **Animated Mockup**  ***(Art not necessarily final)*** |
| **Walls** a  A stopping force to prevent a player too large to access a certain area. Otherwise to simply restrict movement. |  |
| **Spikes** a  When a player cell walks on top of a spike, that cell will die and further simplify the player mass. |  |
| **Holes** a  The player mass can walk freely over a hole as long as at least one cell is on a floor tile. If the entire mass is over the hole, the entire player mass dies. |  |
| **Fruit** a  If a player cell moves over a fruit, it will eat the fruit and generate a new cell on the ***opposite side***of the mass it is a part of. |  |

**Secondary Mechanics**

|  |  |
| --- | --- |
| **Mechanic** | **Animated Mockup**  ***(Art not necessarily final)*** |
| **Independence** a  If two player masses happen to separate, they will still move synchronously but interact with the environment independently. If then connected again, the two masses will join to act as one. |  |
| **Set Spikes** a  When a player cell walks on top of a set spike, ***after moving off*** of it, it will then become a regular spike trap |  |

**Art**

**Theme Interpretation**

Fill In.

**Design**

Fill In



*\*Not an actual puzzle/level, merely a full example of the tileset and art style\**

**Audio**

**Music**

Fill In

**Sound Effects**

Fill In

**Game Experience**

**UI**

Fill In

**Controls**

**Keyboard**

Arrow keys / WASD  
**Mouse**

Left Click

**Development Timeline**

**MINIMUM VIABLE PRODUCT**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **Assignment** | **Type** | **Status** | **Finish By** | **Notes** |
| 1 | Design Document |  |  | Jul 31, 2024 |  |
| 2 | Create player and wall assets |  |  | Jul 31, 2024 | Prototype for GDD is done |
| 3 | Main menu theme |  |  | Jul 31, 2024 | Can be really short, player won’t be on main menu for long |
| 4 | UI / Main menu |  |  | Jul 31, 2024 | Button UI, screen transition, title screen |
| 5 | Level theme |  |  | Jul 31, 2024 | Should be more substantial and not annoying |
| 6 | Simple player movement |  |  | Jul 31, 2024 | Move single cells around and collide with walls |
| 7 | Complex player movement |  |  | Jul 31, 2024 | Multi cell masses act together to collide with walls |
| 8 | Spikes and holes with player interactions |  |  | Jul 31, 2024 | Implement spike and holes mechanics |
| 9 | Fruit interaction |  |  | Jul 31, 2024 |  |
| 10 | Special effects |  |  | Jul 31, 2024 | Dust particles during movement |
| 11 | Player animation |  |  | Jul 31, 2024 | Idle blinks, movement polish |
| 12 | Sound effects |  |  | Jul 31, 2024 | Player movement, UI interaction |
| 13 | Pause menu |  |  | Jul 31, 2024 | Access to the main menu or resetting the level |
| 14 | Level select menu |  |  | Jul 31, 2024 |  |
| 15 | Level design (1-7) |  |  | Jul 31, 2024 | Create levels 1 through 7 |
| 16 | Level design (8-15) |  |  | Jul 31, 2024 | Create levels 7 through 15 |
| 17 | Any extra polish |  |  | Jul 31, 2024 |  |
| 18 | SUBMIT |  |  | Jul 31, 2024 | Create Itch Page and upload |

**BEYOND (if ahead of schedule / extra time)**

|  |  |  |  |
| --- | --- | --- | --- |
| Undo |  |  | At any point, the player may undo their move, any movement, creation, or destruction of a player cell is reversed |
| Extra levels |  |  |  |
| Settings Menu |  |  | Volume slider, fullscreen toggle |

Brewing/Shopping (1st person)

Gameplay Loop (Top-Down)

4:3 aspect ratio

Game Start -> Lore (show town in the distance, player's intention to make it there during the night) -> pass out -> wake up in town -> talk to mayor -> meet brewmaster -> meet herbalist -> choose abilities -> fight -> cycle ->

Player spawns at night

Fighting shadows during the night

Top-down view, bullet hell/survivor style Start with basic ability Instead of HP night cycle uses a "pass out bar". When it fills up you pass out and finish the night part of the game. When enemies hurt you they raise your pass-out bar. 2/3 types of enemies. Small shadows are just obstacles and bigger ones that you collect after defeating. When you defeat big enemy shadows you collect their "spirits"—a few different types of spirits to collect.

**Enemies // Time-based spawns with no enemy cap**

1. Small shadows (melee). Run towards the player. Raise pass-out bar if they touch you. Low HP.

e.g. 5 small shadows per second

2. Small shadows (ranged). Run towards the player until they are in range to shoot then stop. Shoot shadow orbs (1) at the player. Raise pass-out bar if they touch you or hit you with the orb. Very low HP.

e.g. at 1 minute, 2 small ranged shadows per second

3. Big shadow (generic). Run toward the player and shoot shadow orbs(2/3) at the same time. Drain the pass-out bar if they touch you or hit you with orbs. Medium HP. Drop generic spirits when killed.

4. Big shadow (special). Run towards the player and use special abilities at the same time. The type of special ability depends on the type of shadow. Arcane lines in front of the shadow drain the pass-out bar if they hit the player. Light circles drain the pass-out bar if they hit the player. High HP. Drop special spirits, depending on the type, when killed.

Potentially have fire, frost, and lightning special shadows depending on the amount of work we have. That would also make them drop the special spirits which would make the cocktail-making part even more complicated.

**Alternate idea**

Make enemies based on alcoholic beverages. Have them drop spirits based on the type of drink they were and all of them have different effects.

1. Rum shadow

2. vodka shadow

3. tequila shadow

4. whiskey shadow

5. Apricot liqueur shadow

6. Cherry brandy shadow

Depending on how often the big shadows spawn make it so that you only collect a bit of spirit from each one so that you need to kill more to collect enough for 1 dose to use during the day.

**Abilities**

Basic //Chosen (as occupation)

1. Lightning line attack. Shoots in front. It does damage to the first enemy hit. (Potentially all enemies in a line, depending on the code complexity).Lower damage but faster cooldown.

2. Small ice circle. Creates a small circle of ice around the player. It does damage to all enemies it hits. (And slows them down?) Medium damage but longer cooldown.

3. Fire cone. Creates a small cone of fire in front of the player. It does damage to all enemies it hits. Higher damage but medium cooldown.

You start the night cycle by picking 1 ability to have that night (unless you can pick more based on your cocktail bonuses)

Advanced // Spirits need to be mixed

1. Light beam. A medium-range beam of light rotates around the player and deals damage to enemies hit. Longer cooldown.

2. Arcane explosion. An explosion in a circle that does large amount of damage to every enemy hit. longer cooldown.

3. Shadow dash? The player dashes forward a short distance. Immune to damage during that time? Long cooldown. Only active ability?

4. Blackout. The player drinks his ultimate shot which fades the screen, wipes all enemies and "teleports" him to a random location. Also raises pass out bar ~~or reduces pass out bar maximum~~. No spirits gained.

**Brewing cocktails during the day**

First-person view looking at a cocktail shaker while deciding what ingredients to put in. Start each day with a small amount of money. Use the money to buy basic cocktail ingredients. Then use the ingredients you have + the spirits you collected during the night cycle to brew cocktails. Depending on what you use you make a different cocktail with benefits for your next night cycle. Alternatively, you can sell the cocktails and have more money for the next day cycle. So there is a choice to make where you decide if you want to be stronger for the next night cycle or have more money for the next day cycle. Each spirit you add to the cocktail enhances the effects of basic ingredients but adds more alcohol %. For each cocktail you decide to drink for your next night cycle, you start with the pass-out bar higher, depending on how much alcohol % the cocktail had.

Cocktail brewing mechanic

2 types of basic ingredients you can buy. Juices and additives. Juices increase the number of additives you can use in your cocktail. Each cocktail can have a maximum of 3 different juices. Each juice also increases the number of spirits you can add by 1.

Juices

1. Orange juice. Increases the number of additives you can use by 1.

2. Blueberry juice. Increases the number of additives you can use by 1.

3. Lime juice. Increases the number of additives you can use by 2.

4. Strawberry juice. Increases the number of additives you can use by 2.

5. Tonic water. Increases the number of additives you can use by 3.

6. Pineapple juice. Increases the number of additives you can use by 3.

Additives

1. Ginger. Fire damage related buffs. Increases the fire cone size slightly and reduces the cooldown of the ability.

2. Hot peppers. Fire damage related buffs. Increases the size of the fire cone slightly and increases the damage it deals.

3. Cucumber. Frost related buffs. Increases the size of the frost circle and increases the amount it slows the enemies.

4. Mint. Frost related buffs. Increases the damage of the frost circle and it now freezes enemies in place for 2 seconds instead of slowing them. (Option 2 - Increases the damage of the frost circle and lowers the cooldown).

5. Olives. Lightning related buffs. Slightly increases the damage of the lightning beam and adds another beam to every cast.

6. Elderflower. Lightning related buffs. Makes lightning beam pierce through enemies and adds another beam.

7. Honey. Generic buffs. Slightly increases all damage you deal and slightly increases move speed.

8. Grenadine. Generic buffs. Reduces the amount of the pass-out bar filled by enemy attacks.

9. Tomato. Reduces the amount of alc% each spirit adds by 4%.

**Spirits**

For each juice as the base of the cocktail you can add 1 dose of spirits. As a baseline each dose of spirits doubles the effects of a random additive. Then each spirit does someting unique as well.

1. Generic Spirits. adds 10% alc . Increases all the damage you deal and reduces all cooldowns slightly. Increases the sell price of the cocktail by 40.

2. Light spirits. adds 15% alc. Enables the player to pick the light spell to use during the night. Increases the sell price of the cocktail by 55.

3. Arcane spirits. adds 17% alc. Enables the player to pick the arcane spell to use for the night. Increases the sell price of the cocktail by 70.

Each % of alc a cocktail has fills up the pass-out bar by 1 at the start of the night. (Base pass-out bar is 100)

Drinking 2 cocktails allows you to use 2 basic abilities during the night. Drinking 3 cocktails allows you to use 3 basic abilities during the night.

**Shopping**

At the start of each day get some money (from the mayor) to buy ingredients. (100) (Increase the amount of money you get in the day based how much time you survived during the night?) Each juice and additive you use adds half of its buy value to the cocktail value. Each spirit you use increases the value further.

Pricing

1. Orange juice - 10

2. Blueberry juice - 10

3. Lime juice - 20

4. Strawberry juice - 20

5. Tonic water - 40

6. Pineapple juice - 40

7. Ginger - 30

8. Hot peppers - 50

9. Elderflower - 30

10. Mint - 50

11. Olives - 30

12. Coffee - 50

13. Honey - 20

14. Grenadine - 50

15. Tomato - 70

Items in the shop rotate randomly. Only 4 juices and 5 additives are availible each day.

**Aditional features**

You can buy a shot glass in the shop for 50. You can only put 2 different spirits in the shot glass. This allowes you to use the shot ability during the night but instantly fills your pass-out bar by the amount equal to the alc% that the spirits in the shot added up to. After a shot has been used it increases amount of damage you deal with the coresponding ability (light/arcane) for the rest of the night.

You can add ice cubes to the cocktail before you mix it. For each ice cube you add reduce the alc% by 1% and reduce the potency of the cocktail by 5%. Max 5 ice cubes?

You can buy additional upgrades in the shop. Like larger pass-out bar, baseline more damage, increased move speed...