

Eggness Game Design Document

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- 1. Introduction
 - a. Plot

Mr. and Mrs. Eggness were taking a walk at their local park. They had no idea that **Crack Pot** was secretly plotting a plan to kidnap Mrs. Eggness. Crack Pot fell down the stairs of his luxurious mansion in **Kitchenvenia**. Crack Pot's doctor advised him to take a lot of proteins to recover from his injury. He therefore wanted to cook Mrs. Eggness and eat her, as she looked delicious. As Mr. Eggness was old and his wife was quite younger than him, Crack Pot only wanted to kidnap Mrs. Eggness as she looked more nutritious.

So, Crack Pot kidnapped **Mrs. Eggness** when the couple was taking a walk in the park. Eggness failed to stop Crack Pot and his gang from kidnapping her!

Eggness is now on a mission to get his wife back! He will need to move through Kitchenvenia and beat members of his gang to open a path to Crack Pot's mansion.

- b. Setting

The game is set in the present day time.

- c. Mindset

Hasty, tense and survival mindset!

- d. Genre

2D action RPG

- 2. Player Controls
 - a. General 2D Platform Movement



Eggness is a 2D platform game, which means that the player will expect to use general 2D platform controls. The player will be able to:

1. Run left
2. Run right
3. Jump up (roll in midair)
4. Jump in either direction
5. Crouch (Static crouch only)
6. Use Mid-air dash
7. Use Static directional aim

b. Mid-air Dash

The **mid-air dash** will look similar to **Mega Man's** mid-air superman style movement. The player will be able to **push a button and dash for a short distance in the direction in which he/she is facing**. The dash will not be a long one and the player will be able to move only a few units in the forward facing direction. The dash should not be using **Unity Physics**, to achieve its goal, as it can create unnecessary complications.

Please make sure to leave some space **for special functionality**, which may be added into the dash according to various abilities.

c. Static crouching



At any given time, the player will be able to use the **down button** to initiate **static crouching**. This will help the player **dodge high projectiles**.

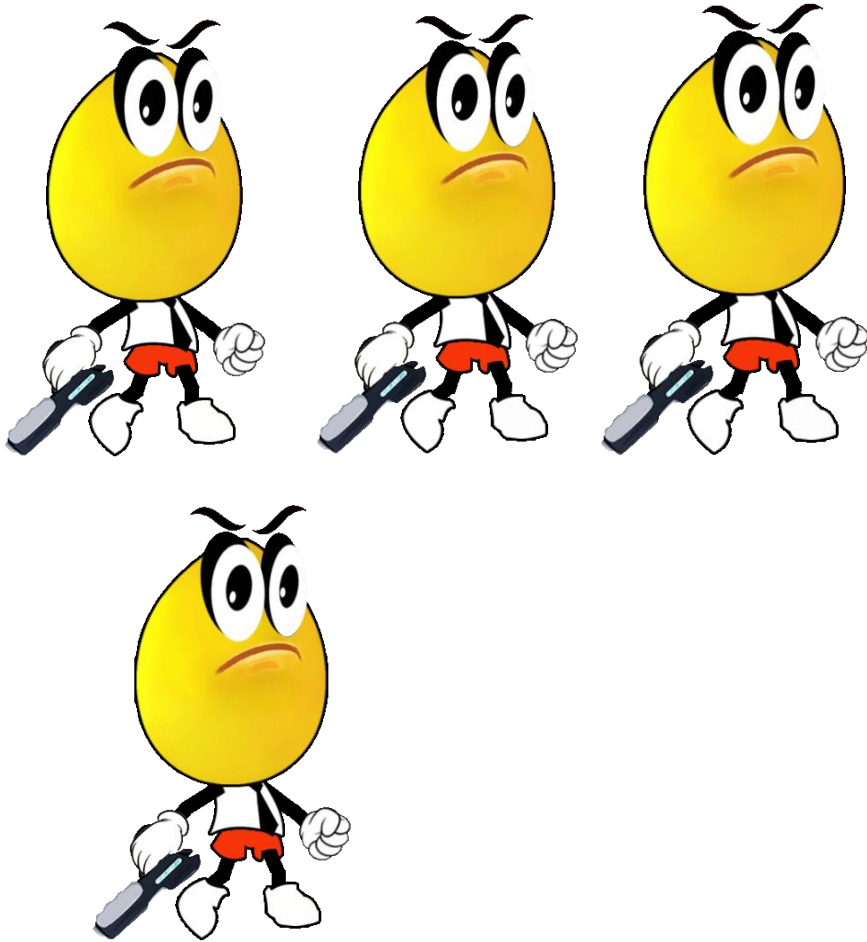
d. Allowing timed parrying

The player will be able to use **timed parrying to jump kill or jump dodge** certain **objects or projectiles**.

e. Player ability to score

The player will add to his/her score by **eliminating enemies** that appear on **each level**. **The final score** will be based on time and number of **hits taken**. **Perfect runs** will score more points.

f. Directional shooting



Above animations are to give a general idea of how the 8 directional aiming will look like and isn't a representation of the final versions.

The player will be able to shoot in 8 directions:

1. Left
2. Right
3. Up
4. Left up
5. Right up
6. Left down
7. Right down
8. Down

The player can shoot while running or by using the **static directional shooting** button. The player can also shoot while crouching in either direction.

g. Platform jumping

The player will be able to:

1. **Jump on platforms** that he/she can **reach** by jumping
2. **Stick to moving platforms.**
3. **Use crouch on select platforms to move to lower platforms.**

h. Ability Bar

The ability bar will be a bar underneath **the player's hp** and will be responsible for allowing the player to use **weapon abilities**. The weapon used will determine the **filling speed** of this bar once depleted. The player can use **ability exactly** once **after the Ability Bar is totally full**. Using a **single ability** will **deplete** the entire bar.

i. Hurt Hp System

Eggness will have an **old-school health and hurt system**, similar to the ones found in **Cuphead**. Here are the hp rules:

1. The player **will start with exactly 3 hp**, with the option to add an **additional hp** with the use of a **purchasable item**.
2. The player will not be **able to use anything** (other than **rewarded videos**) to get hp back.
3. **1 hp** will be deducted **every time** the player **gets attacked** successfully by any **Enemy character**.
4. **1 hp** will be deducted **every time** the **player fails to successfully make a jump**. This will be the game's **fall damage**.

Eggness hurt system will have the following rules:

1. **Hurt system** will start as soon as the **player gets hit by any enemy attack**.
2. Player will start **blinking similar** to the effects seen in **Sonic and Cuphead**.
3. Player will **remain invulnerable** during the **blinking stage** and **no attack will be registered on the player**.
4. The player will **receive a snap back force** when **attacked by an enemy on ground**.
5. The player will **receive an upwards force** when **player gets damaged from fall damage**.
6. **Blinking and invulnerability** will last for a **few seconds only**. Preferably only **1 and a half seconds**.
7. **Player will immediately start taking damage** if within the **collider of any enemy or fall** as soon as **blinking effect stops**.

8. **The player will be given directional control for fall damage only, and no inputs will be allowed for any ground enemy attack.**

j. Player sounds

<https://freesound.org/people/Fabrizio84/sounds/457965/>

<https://freesound.org/people/Artmasterrich/sounds/345433/>

<https://freesound.org/people/ecfike/sounds/135796/>

Footstep sounds: <https://freesound.org/people/vtkproductions.com/sounds/131561/>

3. Scoring

a. Ways to score

The player can **score** by:

1. **Killing enemies**
2. **Parrying projectiles**
3. **Killing bosses**
4. **Destroying special structures**
5. **Perfect runs**

b. Perfect runs

Any run from the start to the end in which the player **does not take any damage**. Effects the overall **grade** of the player.

c. Grading

Grading depends on how **well the** player has performed in the level and is calculated by:

1. **Time taken to complete the level**
2. **Number of hits taken**
3. **Number of parries performed**
4. **Overall Skill level** (Based on number of enemies killed, but hidden from the player)

d. Extra coins

Coins will be scattered **throughout each level** and will be used by the player to **purchase equipment**. Although they will be a **collectible item**, they will by no means affect the **overall grading** of the player.

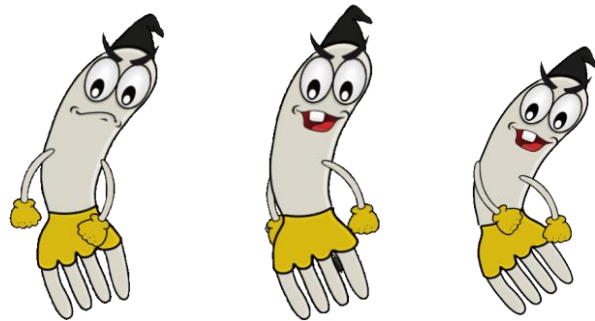
e. Time pars

Each level will have a **time par**, which will be **hidden from the player**. The player will score a **perfect A+ grade** if he/she manages to par the time.

Time par depends on the **level** and its **complexity**.

4. AIs (Forkman Levels)

a. Forman Boss Battle



This battle will take place after the player has completed **the Run n' Run** from **Forkmen, playing area**.

Player will enter the area from the **left side** of the screen with **the jumping animation**. Once **grounded** a **'Fight'** sound **will play** with **animated text**.

The **boss** will have exactly **3 stages** and each stage will have its **own attack pattern**.

The Battle will take place on a **wooden dining table**, with **kitchen equipment visible** in the background. **The environment** will be according to the style the **environment artist and concept artist's** liking.

i. Stage 1

During **stage 1**, **forkman** will **bounce around** the stage, occasionally **bouncing of walls**. The purpose of the forkman is **to damage the player by colliding** with the player.

Occasionally, **forkman will stop** at **any point** in the stage. Forman will **fire a fork towards** the player in the **general left and right** direction. The fork movement will be similar to that of a **bullet**, and will **be straight**. The player will have **no choice** but **to jump or crouch (Depends on functions)** to **avoid** taking damage.

This stage of the forkman will have **exactly 250 hp**.

ii. Stage 2



During stage 2 forkman will take out **two forks** from his **pocket and deploy** them similar **to lightsabers**. He will also **increase in size** and **have a cool blinking effect** while **increasing in size**. He will **hold** these forks on **either hand** and **point them downwards**. Forkman will have exactly the **same movement** pattern as **stage 2**, albeit have a **larger collision box** to make this stage **more difficult**.

Stage 2 will have **300 hp**. The forkman will be **slight faster** in his **movement** but will not have **any static attacks** this time, because the stage might **get too difficult to complete**.

iii. Stage 3

The forman will **deploy a mini helicopter/hover copter** or something similar to hover **above the stage**. He will **occasionally drop to ground level** in an attempt **to collide with the player**. During this stage the forman will **hover above the stage** and only **drop randomly** when **above the player**.

This stage will have **200 hp**.

b. Music

The music for the scene will be <https://audiojungle.net/item/battle/22853168>

Landing sound is: <https://freesound.org/people/uEffects/sounds/207868/> or
<https://freesound.org/people/farbin/sounds/36790/> or
<https://freesound.org/people/InspectorJ/sounds/352180/>

Going up sound is: <https://freesound.org/people/Matvej/sounds/157890/>

Shooting sound is: <https://freesound.org/people/Isaac200000/sounds/184650/>

Victory sound is recorded and available on trello server

The thud sound for UI stamps will be: <https://freesound.org/people/farbin/sounds/36790/>

The buckle up sound will be: <https://freesound.org/people/GFL7/sounds/276959/>

Launching sound before stage 3 will be: <https://freesound.org/people/NHMWretched/sounds/151858/>

Helicopter thud sound will be: <https://freesound.org/people/qubodup/sounds/151624/>

Stage 3 helicopter sound will be: <https://freesound.org/people/alegemaate/sounds/413655/>

Stage 3 landing sound will be: <https://freesound.org/people/JohanDeecke/sounds/369529/>

Stage 2 Fork deployment sound will be: <https://freesound.org/people/alanmcki/sounds/461017/>

c. UIs

i. GameOver

The game over screen will be displayed whenever the **player dies** during the **forkman battle**. The screen will display the **forkman card**, a **retry button** and an **exit button**

ii. Victory

The Victory screen will contain the **Egnes character**, **forkman card** with **eliminated stamp**, a **retry**, and an **exit button**.

5. Forkman Run n' Gun (Enemies)

Music for this section will be: <https://audiojungle.net/item/action-claps-and-drums/19497052>

a. Forkman minions

These will be **small fork people** that will drop to **ground level**. They will **enter the playing area** from the top of the screen. They will have **small hover helicopters** that will guide them to **ground level**, similar to a **function of a parachute**. The animations that these minions will have are given below. Also, the list below will give an idea of the **movement patterns** of these **NPCs**.

1. Flying down
2. Landing on Ground after Flight end
3. Running

4. Jumping
5. Landing on ground after jump end
6. Vanishing/Death

These types of enemy will:

1. **Collide with the player** and **register 1 hp damage** every single time. They can **collide anytime** with the player.
2. **Will not vanish/die after collision** with player every single time. They will **carry on** their **original path** even after colliding with player
3. Have **exactly 2 hp**.
4. **Run toward player** after **landing** in an attempt to **collide**.
5. **Stop and jump** over **obstacles**.
6. **Will not change direction** after taking one after landing.
7. **Change direction only when they are in danger of falling**.

The spawn points will be **decided according to the level made**. If the player **stays at one point** for too long, **multiple spawn points** must turn on.

These minions will have sound for:

1. Flight
2. Dying.
3. Occasional laughing sounds when moving
4. Landing on ground after flight completion
5. Before jumping.
6. Landing after jumping.
7. Changing direction.

b. Spearmen

These NPCs will **behave exactly like the Forkman** except:

1. They will not **enter the screen from the top**.
2. They will hold a fork as a spear.
3. They will be **slightly faster** in their movement.
4. Will not **collide with obstacles**. They will simply pass through them.

c. Forkman Plate Guy

These enemy types will have a **plate stand** (Static or Flat) next to them. They will occasionally take a **plate from the stand** and **throw it towards the player**.

The plate that is shot will:

1. Inflict exactly **1 hp** of damage on the player.
2. **Will not Collide with any collider** that is on the screen **and shatter**.
3. **Disintegrate into smoke if it hits the player**.
4. **Cannot be destroyed** by the player bullets.

The Plate guy will:

1. **Have 4 hp**.
2. **Vanish/die** after **hp runs out**.
3. Shoot the plate after **intervals of 2 -3 seconds**.

The animations for this entire character will be:

1. **Dancing when idle**
2. **Take plate from stand**
3. **Hold plate in hand** with either one of both hands
4. **Throw plate in a bowling action** and stand without plate for less than a second.

The sounds will be for:

1. **Plate shattering**.
2. **Plate revolving sound**.
3. **Throwing**.
4. **Picking up sound**.

d. Fork Wheels

Fork wheels will be a **small sized enemy NPC** that will **run across platforms** in an **attempt to collide** with the player. This enemy type **cannot die** and will consist of a machine part and a **forkman part**.

The forkman will:

1. **Drive the fork wheels** machine similar to a **human driving** a unicycle.
2. **Be inside the fork** wheels machine and **be running it from the inside**

The fork wheels machine will:

1. **Rotate similar** to a huge wheel
2. **Try to collide** with the player.
3. **Move only between two points on a platform**.
4. Move two and fro between two points.

The animations will be:

1. **Cycling and rotation animations** for forkman and fork wheels.
2. **Stopping animation.**

The entire character will:

1. **Not stop** after **colliding** with player.
2. Will **never die** and **simply continue** without having any **effect of bullets.**
3. Be usually protecting a **single platform.**
4. **Stop** to change direction.

e. Fork Cannon

Fork Cannon will be a static weapon that will use a curve to shoot forks at the player similar to a way a catapult does. It will:

1. **Shoot fork bullets** towards the **player using a curve.**
2. **Have 10 hp.**
3. **Inflict collision damage.** Only when **player collides with cannon.**
4. Will **explode** and die.

f. Cylinder Bombs

Cylinder bombs will be **flying enemies** that will **drop on the player** once they are **exactly on top of the player.** **Damage will be explosion damage,** but **no blast** damage will be present. These types of enemies will have:

1. Have **2 hp**
 2. **Fall on the player** and **collide** with it to cause damage.
 3. If **shot** in air, will **explode** but will not **cause any blast damage.**
- g. Forkman Death Drop Fillers

These **enemies will start outside the screen.** They will exist right in between the **death drop gaps.** They will **hold a copter** and use that to **get in between the gaps.** They will **shoot a fork bullet** in the **general horizontal direction** of the **player,** usually to **force the player to jump to avoid** them. These types of enemies will:

1. **Have 15 hp.**
2. **Shoot fork bullets** at every **single jump.**
3. Will only **exist between** certain **death drop gaps.**

6. Eggness Weapon Mods and Abilities
 - a. Repeater + Energy Pulse

The repeater will be the **default weapon** that **Eggness will have**. It will be a **simple weapon** that **will fire bullets quickly** and will **come out of the gun**. The bullets will:

1. Inflict **1 hp** of damage.
2. **Never run out** of bullets.
3. Will fire about **10 bullets each second**.

The **energy pulse** will be the **standard special ability** that will be **equipped with the repeater**. The player can use the **energy pulse anytime** they feel like but only if **the ability bar is full**. The enemy pulse will:

1. **Inflict 10 hp** of damage.
2. **Place a 10 second cooldown** time on the ability bar.

b. Seeker Mod + Radial Pulse

The **Seeker Mod** will be a **simple mod for Eggness' weapon**. The **bullet will simply target the nearest enemy** on the screen from the **point of fire** and **move towards** the targeted enemy similar to a **missile that locks on**. The bullets will:

1. **Seek the nearest target** and **move towards him/her**.
2. **Move towards target** similar to a **missile**. In other words, **the bullets will not snap to the targets**.
3. **The bullets** must have a **clear path towards the target**. They will not pass **through the colliders!**
4. **The bullets must** disappear **after a while if stuck**.
5. **The bullets must continue on a straight path** if **target dies** or they cannot find a target.

7. Temporary Main Menu

a. Buttons

- i. **Play Button**
- ii. **Quit Button**
- iii. **Question Button**
- iv. **Audio Button**

The **title label** will also be present

b. Music

Main Menu Music will be: <https://audiojungle.net/item/power-up-action-energetic-sport-electronic/20900006>

8. Tutorial Level

a. Music

This Tutorial level music will be <https://audiojungle.net/item/percussion/23410921>

9. UI Rules

a. Complete Keyboard, Gamepad and Mouse Support

All menus must support keyboard, mouse and gamepad support. It is assumed that the game will also **feature touch support for all menus.** **Gamepad D-pad buttons** must also support **menu navigation.**

Keyboard buttons and all gamepad buttons standard **accept buttons** must be used. **Standard cancel buttons should** also work