



Chandler Mendoza-

Edwards, Kylun Robbins, Tung Dinh

Eastman, Elijah

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# Overview

## Theme / Setting / Genre

- 2D Platformer
- Casual with some difficulty
- Fictional world

## Core Gameplay Mechanics Brief

- Control of Gravity
- Specific Item Needed for Progression
- Double Jumps
- Wall Slides
- Timer Challenges

## Project Scope

- Time Scale
  - The game will be developed over the course of six weeks.
- Teams
  - Core (4 person team)
  - Developers
    - Kylun Robbins
      - Responsible for implementing gameplay features
    - Eli Edwards
      - Responsible for level design
    - Chandler Mendza
      - Responsible for visual and audio design
    - -Tung Dinh
  - Marketing
    - Chandler Mendoza
      - Creating a game trailer for immediate release
      - User testing and gathering opinions/criticism

#### Influences

- VVVVVV
  - Video Game
  - Influences taken from this game is the puzzle 2D platformer

- Gravity flip feature inspired by this game

## - Super Meat Boy

- Video Game

- The level by level format as well as the obstacles/environment being the "enemies" of the game is used which is how we viewed our level design.

## The elevator Pitch

2D platformer with a variety of gameplay movement features that incorporates puzzles to require fast and slow paced problem solving.

## Project Description (Brief):

Famine Fighters is a challenging 2D-puzzle-platformer with different mechanics that make gameplay different for everybody. There are three characters for the player to control at a time, each character has their own specific ability that gives them their own benefits. The player is able to control gravity, as well as often implemented 2D platformer movements. Our gravity mechanic will allow levels to be completed in various ways, allowing the player to complete the level how they see fit.

We also offer a timer system which will track how long it takes the player to complete a level. How fast they complete it will correspond with different medals, pushing the player to complete each level as fast as they can.

## Project Description (Detailed)

Our game, Famine Fighters, is a 2D-puzzle-platformer that takes place in a bright and vibrant environment. This game will challenge the player to learn new concepts and apply that skill in the game. The movement for Famine Fighters will allow players to have a diverse moveset, such as double jumps, wall slides and even changes of gravity. This allows for there to be different ways to complete each level.

To increase playtime and replayability, we are offering timer challenges to the player which will challenge them to master movement to complete the levels in the fastest time that they can. The player will be rewarded for their speed in terms of medals that go alongside the level completion. The medals range from gold to bronze and each level will have a different time to achieve each level.

At the beginning of the game the level design will be focused around one mechanic at a time, allowing the player to master each mechanic before getting further into the game. As the player progresses through the game, the levels will become more complex, making the character need multiple mechanics to complete a level.

Due to the difficult areas of the game, we will provide quick respawns for the character at the start of whatever room that they are in. This will allow the player to quickly retry levels over and over, allowing them to improve and quickly learn from mistakes made.

# What sets this project apart?

- Control of gravity as well as regular 2D platformer movement
- Timer Challenges
- Unique puzzles (items needed to progress to the next level)
- Multiple main heroes to choose from

## Core Gameplay Mechanics (Detailed)

## - Character Swapping

The player will be able to swap between three characters that have their own special abilities to help solve each puzzle.

## - Control of gravity

Use a specific keyboard input character to change gravity There will be various puzzles that require gravity to be reversed and changed back. This will flip the character, as well as some items, but the layout of the world will remain the same.

## - Specific item needed for progression

There will be various moments where a specific item, such as a key will be needed to advance to the next area.

In the level, there will be a door clearly sealed with a lock that will need a key in that area in order to open, allowing the player to progress.

#### - Double Jumps

There will be double jumps which allow the character to increase their height to reach higher positions.

## - Sliding down wall

Player will have the ability to slide down walls at a slower rate to help them navigate the levels better

## 

The character, Not Finn, will have the ability to dash horizontally a set distance. This will be used to avoid traps or clear gaps in levels.

## - Timer Challenges

There will be a clear indication before the level begins on achievements that could be gotten by completing the level under certain times.

# Story and Gameplay

# Story (Brief)

Choose one of three characters who is deemed the cities hero to return everybody's food which was taken by the evil food thief.

# Story (Detailed)

After hearing that all of the cities fruits were taken by the unnamed villain, the city calls on one of three heroes to get their fruits back. This villain has been terrorizing the city and leaving dangerous traps and obstacles behind them to make it impossible to catch him.

The hero team has the necessary skills to travel through the difficult rooms created by the villain. As the hero starts to get further and further along, he realizes that the rooms become more complex, until ultimately, he faces a final gauntlet of obstacles before returning everybody's prized fruits.

Upon defeating the boss, the player discovers that the villain had a lot more depth to him, as he was not stealing the food to hurt everybody else, but to help his own family. Upon hearing this, the hero decides to give some fruit to the villain, but still returns it to the rest of the city.

# Gameplay (Brief)

2D Puzzle Platformer using platforming elements and an achievement system.

# Gameplay (Detailed)

This will be a level by level game where the player is presented a room to complete and using various platforming elements, such as double jumps and gravity control will get past obstacles to reach a door to progress the level. The player will be able to switch between the three heroes to access each unique ability.

# Win Condition (Large Scale)

To "win" the game, the player must complete all the levels to defeat the masked villain.

## Win Condition (Small Scale)

To "win" each level, besides completing it, their will be a timer to keep track of how long it takes you to complete the level. The quicker the time the better the medal you get (gold, silver, or bronze). You can also attempt to beat the developers quickest time.

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## Sample Level

Assets Needed

- 2D

- Textures provided from free unity asset store
  - https://assetstore.unity.com/packages/2d/characters/pixeladventure-1-155360
- Heroes:



- VR Blues
- Change of Gravity
- Not Finn
- Dash Ability
- TMNF (Teenage Mutant Ninja Frog)
- Double Jump
- Villain:



- Traps:



- Touching a trap will cause the character to respawn at the beginning of the level with the timer still progressing.
- Food (Power-ups)
  - Add an extra level of health
- Sound
  - Music while playing
  - Sound effects for power ups
  - Death sound effects

- Level completion sound effects
- Different sound effects for each character
- https://freesound.org/
- Code
  - Character Scripts (Player Pawn/Player Controller)
    - Player Movement
      - Directional
      - Jump and double jump
      - Wall slide
  - Ambient Scripts (Runs in the background)
    - Power up scripts
    - Items to unlock next level

# Schedule

## - Week 1

## - Prototypes

- Movement
- Gravity change
- Items to unlock doors
- Power ups to increase health

# - Week 2

- Demo
  - Finish one level
    - Puzzle
    - Uses all gameplay features
    - Various traps

# - Week 3 & 4

## - Alpha

- Finish 10 levels that are connected
- Having starting menu complete and working
- Timer System

# - Week 5

- Beta
  - Improvements based on feedback

# - Week 6 & 7

- Final Release
  - Fine Tune
  - Bug Testing
  - Prep for final release