Project Movement

CSE 481 D

John Fu

Chaos Gao

Jason Gao

Alan Huang

Eli Matamoros

Revision: 0.0.2

Overview

- ➢ **Theme / Setting / Genre**
  - ○ 2D platformer with futuristic/abstract setting

- ➢ **Core Gameplay Mechanics Brief**
  - ○ Movement abilities to gain speed with unrestricted movement
  - ○ Level-based platformer
  - ○ Speedrun Timer tracking how long it takes to complete levels

- ➢ **Targeted platforms**
  - ○ PC

- ➢ **Monetization model (Brief/Document)**
  - ○ Monetization Type: One-time Purchase

- ➢ **Project Scope**
  - ○ Game Time Scale
    - ■ $0 - 100
    - ■ 2-3 Months
  - ○ Team
    - ■ John Fu
      - ● Combat Prototyping + UI
    - ■ Chaos Gao
      - ● Levels
    - ■ Jason Gao
      - ● Movement + UI
    - ■ Alan Huang
      - ● Art + Movement
    - ■ Eli Matamoros
      - ● Art + Movement
  - ○ Licenses / Hardware / Other Costs - Under $100
  - ○ Total Costs: Under $100
    - ■ Employee costs: $0
    - ■ Licensing: <$100

➢ **Influences (Brief)**
  ○ Super Mario
    ■ Video game
    ■ Level based movement game. You need to slash the enemies and dodge the obstacle during the gameplay
  ○ Cup Head
    ■ Video game
    ■ You have a choice between playing fast or slow through the levels. You do this by dashing.
  ○ CSGO Surf and BHop
    ■ Video game
    ■ Skill-based movement across maps with a focus on fast completions, with speed capped much higher than in normal gameplay
    ■ Techniques arise naturally from mouse and keyboard input to gain speed
  ○ Ultrakill
    ■ Video game
    ■ Focuses primarily on movement techniques that makes the game fast paced.

➢ **The Elevator Pitch**

A level based 2d platformer, with momentum mechanics allowing for maximum player skill expression and aiming to be the fastest platformer ever.

➢ **Project Description**

Our project is a level-based platformer that has movement abilities to continually gain speed with unrestricted movement. The player will make use of a set of abilities that affect the character's movement and change their speed and direction. These abilities will include techniques like bhopping, wall jumping and more to conserve the momentum of the player.

Market Analysis

- ➢ **Intended Audience**
  - ○ Platform game players who love challenge
  - ○ Players who are not familiar with platformers but want to play a game with interesting movement
  - ○ Children and adults
  - ○ Smaller audience (~100)
- ➢ **Other Games/Media**
  - ○ Cyberpunk Edgerunners
  - ○ Source Surf + Bhop
    - ■ Difficult to learn, limited visual flair, sense of progression is wholly internal
    - ■ Only a few mechanics with a lot of techniques arising from that, potentially less exciting
  - ○ Mario
    - ■ Can sometimes be too simple
    - ■ Can't go fast

What sets this project apart?

- ○ 2D game that is focused on speed and momentum, going fast
- ○ Easier to approach for newer players with ability based movement system
- ○ 2D instead of 3D movement makes it simpler as well

Theoretical Marketing Strategy

In post now, since we didn't focus on marketing, this is what our marketing strategy might theoretically have looked like.

- ➢ **Instagram/TikTok**
  - ○ Make at least weekly posts advertising game, showcasing development and progress, linking to devlogs on website
  - ○ Could use the mobile game advertisement-style promotional videos (example in presskit on website)
- ➢ **Reddit**
  - ○ r/udub had no posts from teams CSE 481D this quarter, but in the past some posts have gotten up to 100+ upvotes
    - ■ Important to include visual preview/gif/video on the post so it is immediately visible to people browsing and seems more interesting (people more likely to click in)
    - ■ Needed to start posting earlier, tried to make a post advertising beta3 but it was held for moderator review (and the r/udub moderators aren't actively moderating)
  - ○ Other subreddits to advertise on, r/playmygame, r/indiegames

➢ **Youtube**
  ○ Upload faux speedruns to potentially reach some viewers and have them check out the game
➢ **Website**
  ○ The only marketing aspect that was actually done. Would have been worth it to shill it more aggressively (get more people to visit it). Would have been worth it to spend more time on the visual design of the website (but as a team our web development skills are poor).
  ○ Kickstarter Mockup
  ○ Press kit - would have been nice to have this earlier
  ○ Key visual - Lacking anyone with art experience on our team. Spending more time on the key visual to be more eye-catching and appealing could have been helpful.

Core Gameplay Mechanics

Also see the [movement design document](#)
➢ **Movement Technique**
  ○ The player can bhop without any equipment to preserve their momentum
  ○ Every time the person completes a successful movement technique it builds some kind of combo meter that accumulates momentum. If the player messes up the movement tech, then they lose all their built up momentum.
➢ **Movement Abilities**
  ○ The player can use movement abilities like dashing to move through the level. The better the player gets at executing these movements the more momentum they can gain and the faster they will be. There are various enemies and obstacles throughout the game that can potentially slow the player down causing them to rebuild their momentum.
  ○ See the [movement design document](#)
➢ **Level-based 2D Platformer**
  ○ The goal for the player is to reach the destination of each level as fast as possible. There are enemies and obstacles that will block your way in the middle. The player can go back to the previous check-point in this specific level and restart the process with original speed if he/she is defeated.
  ○ The levels will be designed based on our story background. As the level increases, the player can acquire better equipment and get faster. At the end of each level, the player will face a boss. To defeat the boss, you need to dodge the hit and move to a specific place to deal damage

Story and Gameplay

> ➤ **Story**
>
> ○ Futuristic, potentially cyberpunk setting about a person who gets implants and needs to go fast.

> ➤ **Gameplay**
>
> ○ Intro Hook
>   - ■ Put a soft tutorial with platforms that are placed in a way that forces the user to perform a bhop or use other movement abilities in order to progress.
> ○ Core Loop
>   - ■ The core loop of the game involves the player navigating through levels while making use of available movement abilities. They will dodge obstacles in the process of going through the level. There will be checkpoints in each level. After completing a level, the player will be shown the time it took them to complete it.
> ○ Progression
>   - ■ The game will focus on skilled and speedy movement, so the player should be improving at moving the character, and this will be part of the game progression as well.

Assets Needed

- ➢ **2D - Pixel Art**
  - ○ Sprites
    - ■ Player character (unnamed speedrunner)
    - ■ Level Art
      - ● Tilesets
      - ● Background layers
  - ○ UI
    - ■ Instead of using art assets for UI, just use built in UI components to create buttons and menus
    - ■ Key Visual/Logo will appear in menus
- ➢ **Sound**
  - ○ Sound List (Player)
    - ■ Character Movement Sound List
      - ● Jumping
      - ● Abilities - Dashing, Super Jump, Wall Jump
    - ■ Character Hit / Collision Sound list
      - ● Hitting an obstacle
      - ● Landing
    - ■ Character on Injured / Death sound list
      - ● Death
- ➢ **Code**
  - ○ Character Scripts (Player Controller)
    - ■ Player controller
    - ■ Abilities scripts
  - ○ Ambient Scripts (Runs in the background)
    - ■ Timing script, effects, environmental modifiers
  - ○ User Interface scripts
    - ■ Title Screen, Settings Menu, Level Select, End Screen Menu, Pause Menu
- ➢ **Animation**
  - ○ Environment Animations
    - ■ Parallax backgrounds
  - ○ Character Animations
    - ■ Player
      - ● Idle, run, jump, use ability, slide on wall
    - ■ Zones
      - ● Checkpoint particle visual effects

Schedule

- ➢ **Gain Familiarity with Godot**
  - ○ Week 3
    - ■ Each group member completes some Godot tutorial

- ➢ **Basic Virtual Prototype**
  - ○ Week 4
    - ■ Player controller basic
    - ■ Playground/sandbox level
    - ■ Begin UI - HUD

- ➢ **Framework Finished**
  - ○ By Week 6
    - ■ First level finished
    - ■ Have a system for making levels with different elements
    - ■ Movement mostly complete
    - ■ Some animations
    - ■ Add UI elements - Main menu, stopwatch, cooldowns

- ➢ **Finish MVP**
  - ○ March 1st
    - ■ Movement Complete
    - ■ 8 levels
    - ■ UI complete - menus, HUD

Scrapped Ideas

Design elements which were removed/not implemented during the development process. They appeared in the previous version of the design doc, so check there for more details. Further development on Project Movement could potentially explore these avenues.

- ➢ **Combat**
  - ○ We envisioned a system where the player might deal damage based on how fast they were moving, or have defeating enemies play into the ability system by perhaps recharging abilities or granting boosts.
- ➢ **Enemies**
  - ○ Related to having combat, we abandoned the idea of having enemies to fight (increased complexity in implementation and asset creation).
- ➢ **Story**
  - ○ Our original plan for the Intro Hook to be more exciting was to have some story-based initial scene, where the player loses all their abilities and gets them back as they go through the game. No further development or design happened story-wise, so this was also dropped.
- ➢ **Equipment**
  - ○ Originally, we thought to have a large set of abilities, including scrapped ones like glider, grappling hook, etc. We thought it would be too powerful if the player had access to all abilities at all times, and thought it could be interesting to force the players to choose only a subset to use at one time. This could also lead to different level design considerations and be an element in the progression of the game (unlocking new abilities). Dropped due to prioritization on implementing other stuff first, and complexity of implementation.