

AMATEUR HOUR

Design Document for:

unprofessional Olympics

Go Big or Go Home

Game Website:

<https://amateur-hour1.itch.io/unprofessional-olympics>

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Design History

Version 0.1

In this non-playable version, we collected our finished prototypes of each minigame so that we could test them before adding assets.

Version 1.0

Our first playable version adds a game manager and life system, along with basic assets.

Game Overview

Philosophy

Inspiration

We were largely inspired by the WarioWare series of games and wanted to replicate the frantic difficulty of those games. We decided to theme our game on the Olympics because we thought that the large variety of events would give us ample options for our minigames.

Our Development Goals

Due to the time constraints of the course and our team's lack of experience in game development, we wanted to focus our effort into six simple minigames. We feel that this will provide a good impression of the overall feel of our game and is a good example for what would come if we were able to allocate resources to a more full version of the game.

Common Questions

What is the game?

Unprofessional Olympics is a WarioWare-style minigame collection with frantic time constraints and ramping difficulty. Gameplay starts with an easy version of each of our six minigames, then will randomly select increasingly difficult versions of games. Gameplay continues until the player fails a certain number of minigames, ending the game and displaying the count of passed minigames as a score.

Why create this game?

We created this game out of a shared appreciation for the minigame collection genre. While brainstorming potential ideas for this project, we all wanted to steer away from overly simple ideas like platformers, so a minigame collection was very appealing to us. There has been a lack of recent successful releases in this genre, so we hope to change that trend.

What do I do in the game?

You control an elite athlete who has been entered to compete in every single Olympic event. Your goal is to win as many events as possible before you are disqualified.

What's different?

Unprofessional Olympics is a fast paced game that caters to players of all skill levels. Novice players can have fun and enjoy the variety of unique minigames while more experienced players can test their skill by achieving the longest win streak. Players will be tested on their reflexes as well as their ability to adapt to different situations within these minigames. These minigames are randomized so each play through will feel different. Additionally, these minigames start off relatively easy and simple. However, as the player progresses, the difficulty of these minigames are also increased to make the game more challenging. Players will have to think quickly in order to achieve a high score.

Feature Set

General Features

Six Unique Minigames

2D Graphics

Gameplay

Unique Inputs for each Minigame

- Basketball: Use your mouse to select the undefended teammate to pass the ball to
- Soccer: Navigate your goalkeeper with your left and right arrow keys in order to block the shot from the opposing team
- Speed shooting: Try your hand-eye coordination in speed shooting as you aim with your mouse a wobbly reticle to take down five targets within the time limit
- Slalom: Guide your character through down the slope and as you try to pass through each gate
- Sprinting: Test your dexterity as sprinting will see how fast you can alternate your key presses to reach the finish line
- Long jump: This even is all about timing as you try to jump just before the penalty to gain as much distance as possible

Ramping Difficulty

As you complete each set of events, the difficulty ramps up as each event becomes faster and harder to complete.

Endless Gameplay

The end of this game comes when you fail your first event and you get caught for faking it.

High Score Chasing

The nature of the game is to see how far you can go. As you play the game more and more, you get used to each mini-game allowing you, the player, to increase your score higher than the last. The natural progression of the player's skill is meant to generate competitiveness with oneself as well as with other players.

The Game World

Overview

The setting of our game takes place in an international sporting event where thousands of athletes compete against each other in order to win medals and push the boundaries of mankind. Similar to an olympic event, every competitor is a representative of his or her own country. The competition is fierce and only the most qualified athletes are capable of winning a medal. Winning one of these challenges is already an incredibly accomplishing feat that will bring fame to the winner and his or her country. Athletes are allowed to compete in multiple or even all of the competitions in the event, which pushes the competition even further. Whoever is able to win the most medals in the event is deemed the most athletic person in the world.

Event Variety

With thousands of competitors attending this event, there are many different sports that cater to their competitive drive and passion. Each of these events have their own gameplay mechanics and artwork which makes each of them challenging and unique. You can compete and outspurt your opponent in a race, make clutch plays in soccer, shoot targets in the blink of an eye and more!

Endless Competition

As you compete in the events, other competitors are quickly adapting and improving in attempts to claim the medal for themselves. Every competition feels different because the competition improves and thus the difficulty increases. Only those who are on top of their game and constantly improving are able to win. Do you have what it takes to stay victorious?

The Physical World

Overview

Describe an overview of the physical world. Then start talking about the components of the physical world below in each paragraph.

The following describes the key components of the physical world.

Event Locations

Track Field: The track field contains the area used for the long jump and the track for the sprinting event.

Soccer Field: This standard soccer field is used exclusively for the soccer event.

Shooting Range: The range is a closed off area with a sand flooring and dead bushes akin to the ranges found in deserts. The shooting range is used for the speed shooting event.

Alpines: The snowy mountains are the perfect location for winter events despite it being nowhere near Christmas yet. It is used for events and by the public so during the slalom event, you will often see a snowman made by people enjoying the snow.

Basketball Court: The arena's basketball court is the setting for our basketball event. Despite its appearance, it is one of the most popular basketball venues in the world.

Transitions

The game is a collection of minigames, so after each minigame, the character will swiftly transition to another minigame. During this transition, the player is shown the number of minigames they have completed so far and their remaining lives.

Scale

The characters, environments, and objects of the game are scaled 1:1 according to the real world. Since our game takes place in an olympic-like event, we wanted to replicate our minigames to accurately represent sporting events at an olympic.

Objects

Each minigame contains its own set of objects relevant to the event.

See the "Objects Appendix" for a description of all the objects found in the world.

Time

Each event (minigame) will have a countdown timer that will serve as a time limit for the player. The timer will reset at the start of each event. Time limits do not affect time limits from other events.

Rendering System

Overview

Unprofessional Olympics will be rendered as a 2D game with sprites hand-drawn by developers in the team. The sprites will then be used on Unity's 2D sprite renderer in order to animate various actions that occur within the game.

2D Rendering

Unity Game engine will be used to render the 2D sprites within the game.

Camera

Overview

Every minigame uses a fixed camera that fully captures the objects in the game.

Game Engine

Overview

The Unity game engine is used for the production of this game.

Core Functionality

All game mechanics will be running on the Unity engine and input from the player is managed via Unity's New Input System.

Collision Detection

Unprofessional Olympics utilizes collision detection to detect whether the win/lose condition has been fulfilled. In Long Jump, there is an invisible wall that contains collision detection that will detect if the player passes the penalty line where they can no longer jump and invoke the lose condition. In Sprinting, there is an invisible wall that acts as a trigger for crossing the finish line, invoking the win condition.

Game Characters

Overview

Eric Gen is a normal citizen that came to watch the Olympics and see people compete for the gold medal. However due to a misunderstanding, he ends up being roped into the event itself. Now he must compete in a series of events and try to take home the gold medal for himself.

User Interface

Overview

The user input for this game will be done utilizing the mouse and keyboard as this game is meant to be played on a computer desktop. Each event will either utilize one or the other and in the case of the keyboard, only select keys will be used for each minigame.

Main Menu

At the main menu, the player will be given options to:

- Start a new game
- Modify game settings
- View the game's credits
- Exit the game

Pause Menu

When a minigame is paused using the Esc key, the player will be given options to:

- Quit the run and exit to the main menu
- Modify game settings
- Return to the game

Game Controls

- Mouse: Used to aim and shoot in the speed shooting event, and to pass the ball in the basketball event
- Left + Right arrow keys: Used to move the character to block the ball in the soccer event
- W + S keys: Used to navigate in the snowboarding event
- X + C keys: Used alternatively to move the character in the sprinting event
- Space bar: Used to jump in the long jump event

Musical Scores and Sound Effects

Background Music

Our background music track is intended to contribute to the game's frantic and energetic gameplay. The choice for the background music track is "Racing Sport Rock" by Infraction - No Copyright Music on Youtube.

Sound Effects

Sound effects were added to most minigames to provide a larger sense of immersion. Added sound effects include footsteps and wind in most minigames, and gunshots in the speed shooting minigame.

Sound Design

We designed the sounds of the game to keep the player engaged in each minigame and not draw their attention away from the quick tasks. All minor sound effects are quiet and should not jarr the player.

Single-Player Game

Overview

The player will go through a set of mini-games that test various skills such as hand-eye coordination and dexterity in the setting of competing Olympic events. These events will get increasingly more difficult as the player continues to beat each event.

Story

Our protagonist has come to view and enjoy the spectacle that is the Unprofessional Olympics. True to the name of the event, it is indeed unprofessional. The protagonist somehow gets roped into the Olympics and will have to compete in the events and win or else he looks like a fool.

Minigames

Long Jump

The player must time their key press in order to jump before the penalty line and as close to it as possible. Passing the penalty line or jumping too early will result in a failure.

Sprinting

The player must mash two keys, alternating key presses between the two keys. The player succeeds if and only if they complete the sprint in the allotted time.

Basketball

The player is presented X teammates to which he may pass the ball to. All but one of the players is being guarded.

The player succeeds if they click on the open teammate in the allotted time. Any other action or inaction will result in a failure.

Speed Shooting

After a starting cue, the player is presented X randomly placed targets. The player must “shoot” each one by clicking on each one with the crosshairs.

The player succeeds if they destroy all X targets in the allotted time. Missing a target or failing to finish in the allotted time will result in a failure.

Soccer

The player must control the goalie by moving it left and right to block the incoming shot. Unsuccessfully blocking the shot will result in a failure.

Slalom

The player must navigate through X gates by moving their character vertically across the screen.

The player succeeds if they reach the finish line. Missing a gate will result in a failure.

Length of Gameplay

Each minigame will last less than fifteen seconds, with most lasting closer to five seconds. The game persists until the player fails X minigames. The expected length of a full game varies depending on the skill of the player. If the player has fast reflexes and is quick to adapt to different situations, then games can last well over 10 minutes. Otherwise, games typically last around 3-5 minutes

Win Condition

While each minigame has its own win condition (described in the Minigames section above), there is no formal win-condition for the game as a whole. The game ends when the player fails X number of minigames, at which point they will be shown their score and may start over from the beginning again. We hope that this approach motivates players to compete with themselves or others for the highest score.

Objects Appendix

Overview

This appendix contains descriptions of every object in the game, sorted by minigame.

Long Jump

Runner

This is a visual representation of the player's position to indicate when the player needs to jump.

Track

The track will help the player identify when the proper timing is to jump, based on the markings on the ground. If the player does not correctly time their input, the player fails the minigame.

Speed Shooting

Target

These are randomly spawned in six possible locations on the screen. When they are shot by the player, they are destroyed.

They were created to look like the official targets used in the 25m Rapid Fire Pistol Olympic event.

Basketball

Blockers

The blockers are an obstacle that stands in front of the team mates to the player. If the player passes the ball to a teammate that has a blocker in front of them, they will lose the minigame. There will be two blockers spawned per round, each standing in front of a different teammate. The blockers are wearing black uniforms.

Teammates

The person that the player wants to pass the ball to. There are three teammates that spawn in but two of them will be guarded by a blocker. The player will have to pick the teammate that does not have a blocker in front of them. The teammates are wearing blue uniforms.

Sprinting

Sprinter

The sprinter is a representation of the player. The sprinter will move faster or slower depending on how quickly the player is correctly doing alternating button presses. The player will win the sprinting minigame when the sprinter passes the finish line.

Finish Line

The finish line represents the line the sprinter must cross to win the minigame.

Soccer

Shooter/Kicker

The person at the top of the screen is designated as the character that kicks the ball towards the goal.

Ball

The ball moves at different speeds and angles towards the goal in a downward trajectory. The final destination of the ball determines whether the player has passed or failed the minigame.

Goal

The player must defend the ball from entering the goal. If the ball touches the back of the goal, then the player has failed the minigame.

Goalie

The player controls the goalie located at the bottom of the screen. The goalie can move horizontally. The win condition of this minigame is for the player to move the goalie and prevent the ball from entering the goal.

Slalom

Gate

The gates must contact the player's character in order to succeed in the minigame. If any gate gets past the player without touching him, the game fails.

Mockup Appendix

Overview

This appendix contains early mockups of each minigame.

Long Jump



Figure M.1.1 - Early Mockup of Long Jump

Speed Shooting

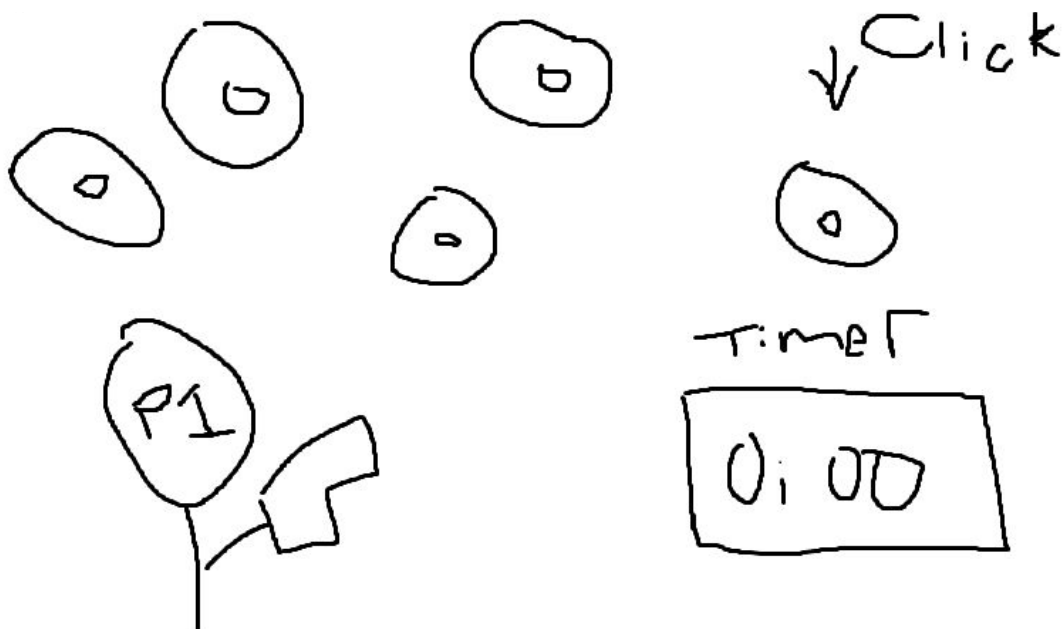


Figure M.2.1 - Early Mockup of Speed Shooting

Basketball

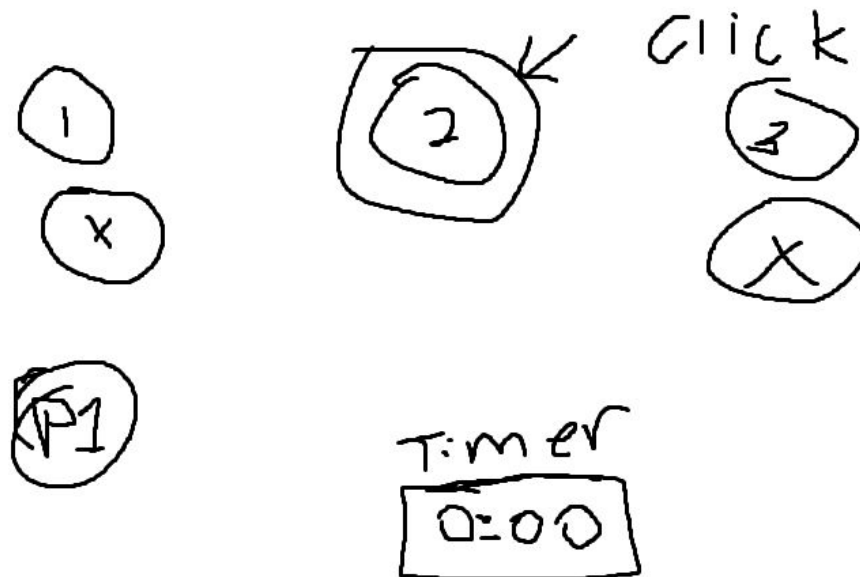


Figure M.3.1 - Early Mockup of Basketball

Soccer (Originally Table Tennis)

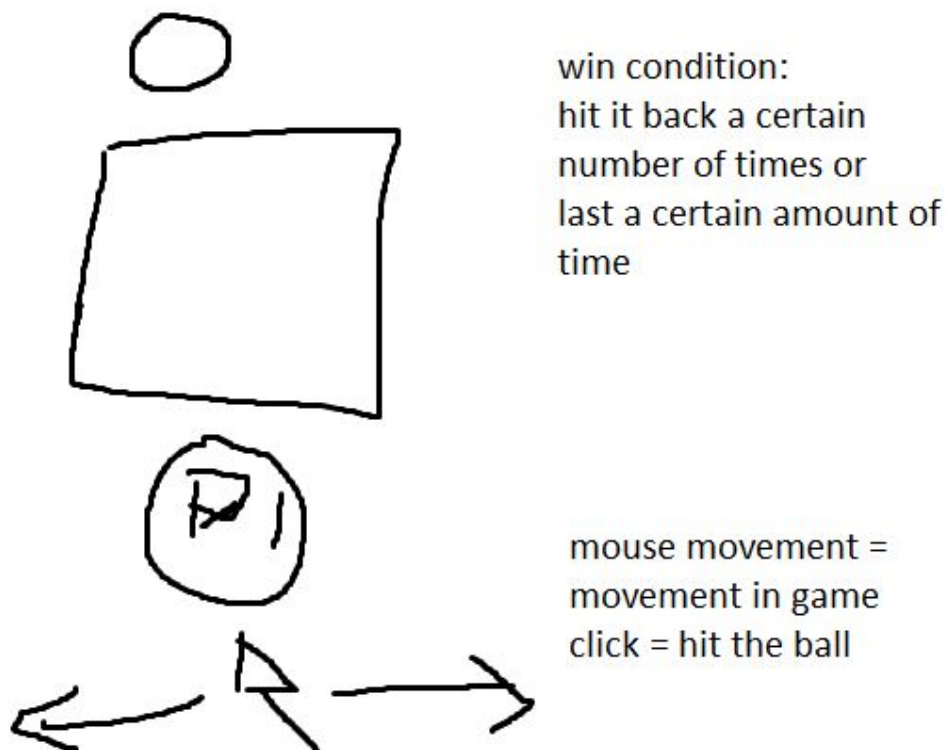


Figure M.4.1 - Early Mockup of Soccer

Slalom

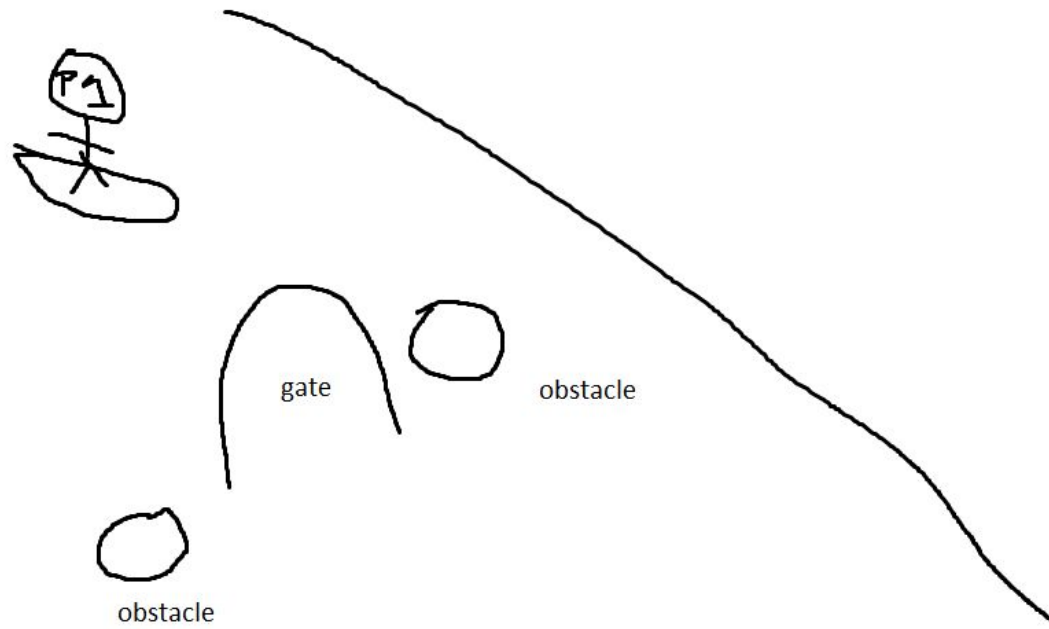


Figure M.5.1 - Early Mockup of Slalom

Asset Appendix

Overview

In this appendix we will list all of the game's assets that were not created by our team, along with their source.

Assets

Our background music track "Racing Sport Rock" by Infraction was retrieved from No Copyright Music on Youtube.

All sound effects were retrieved from the collection of free sound files provided each year by the Game Developers Conference.