

# Olympus Run - GDD

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# Game Design:

## The Elevator Pitch

A curious Human has set foot on Mount Olympus, infuriating the Gods. In this endless runner the player must escape mount olympus avoiding the wrath of the gods, Zeus and Poseidon.

## Player Experience Goals

- Players will switch roles after each run until all players have played as a Runner and a God
- Overall Score will decide the winning player.

As the runner:

- The Player will have to:
  - survive as long as possible to increase their score.
  - achieve milestones to increase their score.
  - avoid projectiles from the gods to survive as long as possible.
  - avoid traps set by the gods in order to survive as long as possible.
  - switch between lanes to avoid projectiles and traps set by the gods.

As the gods:

- Players will have to:
  - set traps to kill the runner.
  - shoot projectiles at the runner to end their run.
  - collaborate their attacks to end the runner's run as soon as possible.

## Storyline

A curious man has set foot on the sacred grounds of mount olympus. Infuriating the gods he must escape from mount olympus before he meets his end.

## Appearance

- Isometric view.
- Larger view of the lanes for the gods.
- Angle of the camera limits the runner's view of the lanes.

## Interaction

The player will use touch controls to interact with the game.

As the Gods:

- Each god will have 4 attacks mapped to a button. The player can tap a button to switch between attacks.
- The player will tap the area of the screen they want the attack to appear at.
- During ultimate events both players must tap the screen multiple times to trigger an ultimate attack.

As the Runner:

- The player will swipe left to switch lanes in the left direction.
- The player will swipe right to switch lanes in the right direction.
- The player will tap the screen to jump over obstacles placed by the gods.
- The player will swipe down to roll/slide under obstacles placed by the gods.

## Game rules

### Game world rules:

A player controls one runner.

- A runner can move into one of three lanes, by moving left or right.
- A runner can jump over or slide under obstacles.
- A runner will always move forward.
- A runner can pick up items as they move forward.

A player controls a God.

- A God can choose between four attacks.
- A God can place their attack in any of the lanes in front of a runner.
- A God can fire a projectile at the runner.
- A God can place a fence in front of a runner.
- A God can place a trap in front of the runner.
- A God can place a wall in front of the runner.
- A God's attacks will have a cooldown period of 5 seconds.

### Gameplay rules:

- The speed of the run will increase the longer the runner has survived.
- If a god hits the runner with one of their attacks they will earn points.
- If a god kills the runner with one of their attacks they will earn extra points.
- A runner will earn points by picking up items.
- A runner will earn points based on the distance they ran.

- The runner will be swapped out with a god player when they die, the god player will now run the level.
- Scores will be compared when every player has completed a run as both a god and a runner.
- The winner will be the player with the highest score based on their total as a runner and a God.

## Tutorial

As a runner the player will be shown how to change lanes, jump and slide/roll to avoid obstacles. Arrows will be used at the start of the stage to show the direction of the swipe to achieve these actions.

### Game balance

Balancing the game will require playtesting. Write down some ways you can make your game harder or easier.

We will be analyzing player data taken from play tests each week. We will assess survival time, number of points and other stats to determine playability of our game. And balance accordingly from there.

## Features Sprint One:

### RWM Features

**Feature Name:** [Project Setup + Assets](#) (5 points)

**Link to JIRA:** [AA-1](#)

**Feature Description:**

Setting up the base project in Unity and including the necessary assets we need to begin the project.

**Conditions of Satisfaction:**

1. Set up a 3D unity project using an appropriate version.
2. Import the assets.

**Feature Name:** [World Scrolling](#) (5 points)

**Link to JIRA:** [AA-2](#)

**Feature Description:**

The game is started and the floor starts to move. The floor scrolls towards the player. The floor scrolls faster overtime. The floor never ends and scrolls continuously.

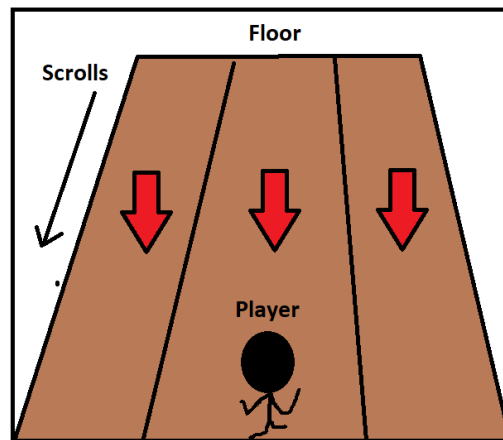


Figure 1:

**Conditions of Satisfaction:**

1. The player sees a floor sprite appear on screen
2. The player sees their character sprite appear on screen.
3. The player sees the floors moving down and their character moving forward.
4. The player sees the floors speed is gradually getting faster.
5. After a certain amount of time the player notices the floor is no longer increasing in speed as it gradually increases up to a maximum.
6. The player realises that the floor/path has no ending.

**Feature Name:** [Player 1 Lane Changing](#) (5 points)

**Link to JIRA:** [AA-3](#)

**Feature Description:**

There are three lanes that the player can occupy. The player can switch to a lane left of them by swiping left. the player can switch to a lane right of them by swiping right.

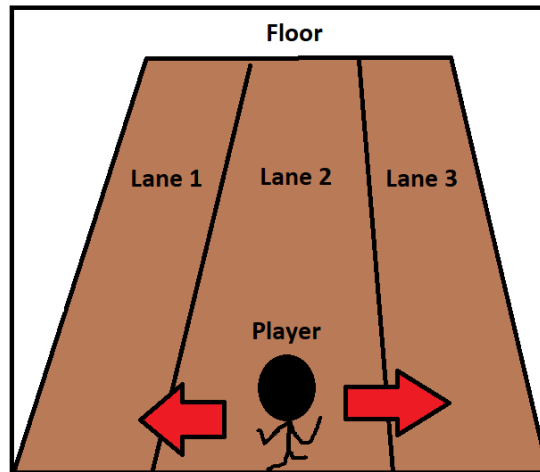


Figure 2:

**Conditions of Satisfaction:**

1. The floor is split into 3 lanes.
2. The player spawns in the centre lane.
3. The player swipes right on the screen, the player's character moves to the right hand lane.
4. The player swipes right again and notices they cant go further right
5. The player swipes left on the screen, the player's character moves from the centre lane to the left side lane.
6. The player swipes left again and notices they cant go further left

**Feature Name:** [Player 1 Jumping](#) (5 points)

**Link to JIRA:** [AA-4](#)

**Feature Description:**

The player can jump vertically by tapping the screen. the player cannot switch lanes while jumping. A player can only jump once until they are grounded again.

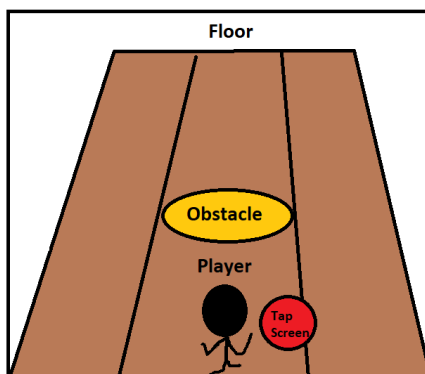


Figure 3:

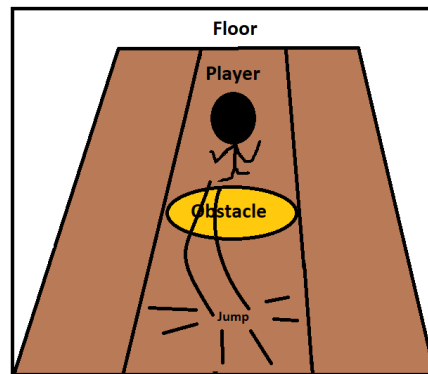


Figure 4:

**Conditions of Satisfaction:**

1. The player character appears on screen and begins moving forward.
2. The player taps the screen.
3. The player notices their character jumping into the air and landing back on the ground after a short distance.
4. The player taps the screen to jump again.
5. The player taps the screen while the character is mid jump, the player notices the character cannot jump while already in the air.

**Feature Name:** [Player 1 Sliding](#) (5 points)

**Link to JIRA:** [AA-5](#)

**Feature Description:**

The player can swipe down on the screen to perform a slide/roll. The player can slide under certain obstacles while sliding. A player cannot jump or switch lanes while sliding.

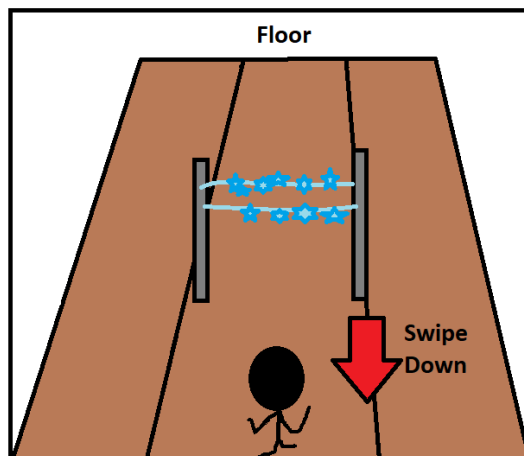


Figure 5:

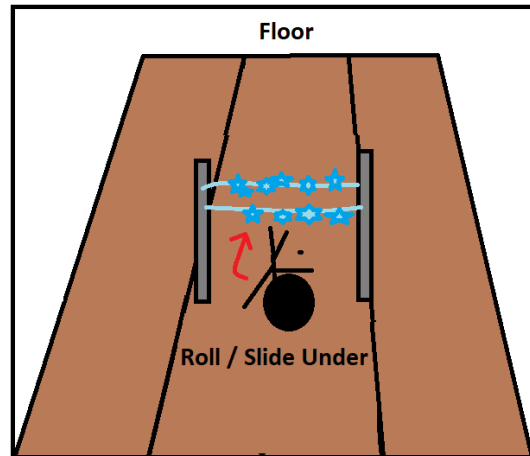


Figure 6:

**Conditions of Satisfaction:**

1. The player character appears on screen and begins moving forward.
2. The player swipes down on the screen.
3. The player sees their character perform a slide/roll before standing back on their feet and continuing their run.
4. The player swipes down on the screen to slide/roll.
5. The player swipes down again while their character is mid slide, the player notices the character cannot roll again until it's finished the initial slide.
6. The player notices there is an electric fence and is not fast enough to react to it and the in-game character takes damage.
7. The player notices another electric fence and decides to slide/roll and the player continues running this time without taking damage.

## OGT Features

**Feature Name:** [Game Server](#) (15 points)

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**Link to JIRA:** [AA-9](#)

**Feature Description:** The server is started, and the Host and Client instances connect to it. The Host sends a message to the server, the server sends the message to the Client, and the Client returns it back to the server, which the server returns it to the Host. This is repeated until the server turns off, or the Host and/or Client disconnects.

**Conditions of Satisfaction:**

- Have a Host server and Clients that can connect, that is compliant with Unity.
- Have messages be sent back and forth between the Host and Clients.

**Feature Name:** [Online Data Collection](#) (15 points)

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**Link to JIRA:** [AA-10](#)

**Feature Description:** As the player(s) play the game, data from their stats, such as how long the runner lived, is stored. This data is stored and then sent to an Anvil database. This data is used to compare how our players are doing during the game.

Stat 1	Stat 2	Stat 3	Stat 4
10	1	30	1
44	1	20	1
70	2	10	2
180	4	2	10
11	1	90	6

Figure 7:

**Conditions of Satisfaction:**

- As the players connect and play, the game collects data on their gameplay.
- This data is sent onto the Anvil server at the end of the game.
- The Anvil server takes this information and stores it in a table.



**Feature Name:** [Online God Players Attack \(Avoid Obstacle\)](#) (15 points)

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**Link to JIRA:** [AA-11](#)

**Feature Description:** The God players have a birdseye view of the runner. They drag the Avoid obstacle to the front of the player, placing it down in front of them to force them to go around it.

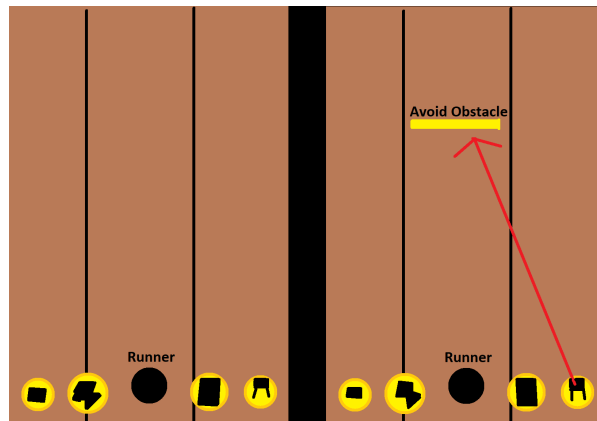


Figure 8:

**Conditions of Satisfaction:**

- A God player is connected.
- They can see slightly ahead of the runner.
- They press the avoid obstacle option.
- They drag it somewhere in front of the runner.
- They let go of the obstacle, and it is placed down on that spot in front of the runner.
- They tried to drag the obstacle again but realised there was a timer on the obstacle option preventing them from putting the obstacle down.

**Feature Name:** [Online God Players Attack \(Slide Obstacle\)](#) (15 points)

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**Link to JIRA:** [AA-21](#)

**Feature Description:** The God players have a birdseye view of the runner. They drag the Slide obstacle to the front of the player, placing it down in front of them to either dodge or go under.

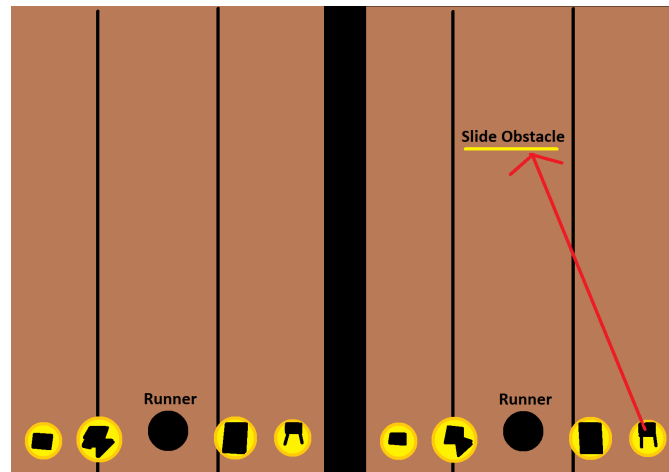


Figure 9:

**Conditions of Satisfaction:**

- A God player is connected.
- They can see slightly ahead of the runner.
- They press the slide obstacle option.
- They drag it somewhere in front of the runner.
- They let go of the obstacle, and it is placed down on that spot in front of the runner.
- They tried to drag the obstacle again but realised there was a timer on the obstacle option preventing them from putting the obstacle down.

## AI Features

**Feature Name:** [AI Lane Changing](#) (15 points)

**Link to JIRA:** [AA-12](#)

**Feature Description:** The AI is controlling the runner, with the runner in the middle lane. After a moment, it makes the runner character move into the leftmost lane.

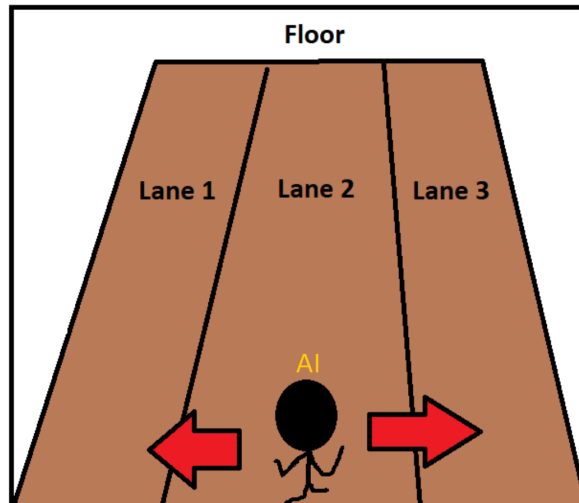


Figure 10:

**Conditions of Satisfaction:**

- The AI can access the abilities of the runner.
- Whenever the AI wants, it can make the runner change lanes, by making them strafe left or right.

**Feature Name:** [AI Jumping](#) (15 points)

**Link to JIRA:** [AA-13](#)

**Feature Description:** The AI is controlling the runner. After a moment, it makes the runner character jump over an obstacle.

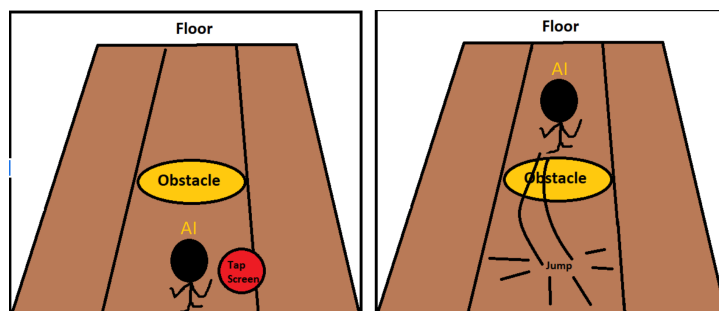


Figure 11 & 12:

**Conditions of Satisfaction:**

- The AI can access the abilities of the runner.
- Whenever the AI wants, it can make the runner jump, letting it avoid obstacles.

**Feature Name:** [AI Sliding](#) (15 points)

**Link to JIRA:** [AA-14](#)

**Feature Description:** The AI is controlling the runner. After a moment, it makes the runner character slide under an obstacle.

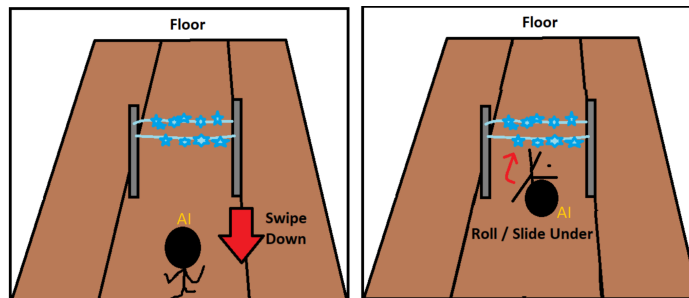


Figure 13 & 14:

**Conditions of Satisfaction:**

- The AI can access the abilities of the runner.
- Whenever the AI wants, it can make the runner slide, letting it dunk under obstacles.

**Feature Name:** [Switching to AI](#) (15 points)

**Link to JIRA:** [AA-15](#)

**Feature Description:**

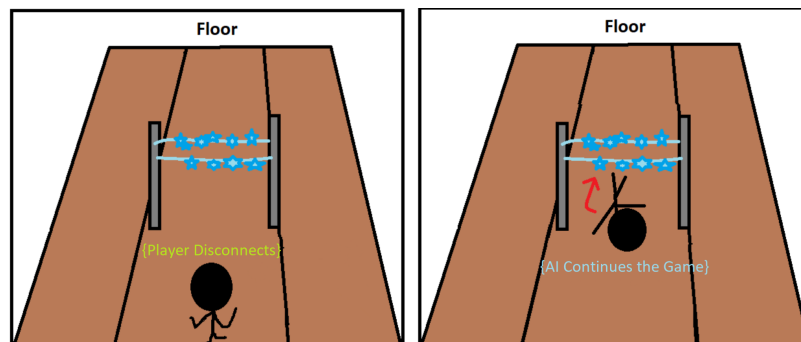


Figure 15 & 16:

**Conditions of Satisfaction:**

- If a user disconnects, the AI will take over the role they were currently playing.
- This is so the other player will be able to play the game by themselves.

**Feature Name:** [AI Attacks](#) (15 points)

**Link to JIRA:** [AA-16](#)

**Feature Description:** The AI can control the placing of traps and fire projectiles at the runner player.

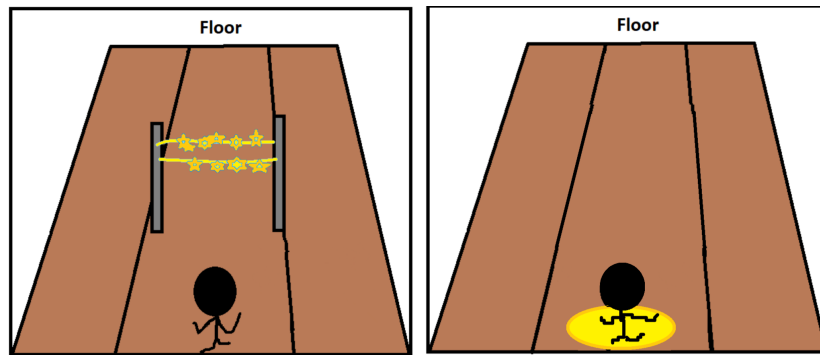


Figure 17 & 18:

**Conditions of Satisfaction:**

- The AI can access the abilities of the gods.
- The AI will aim to place the traps, walls, projectiles and fences appropriately to try and kill the running player.

Features Sprint Two:

## Useful Resources:

[Link to ARGO Requirements](#)

[Link to GDD Template \(page 2\)](#)