# Game Design Document

## Game title

<What title would appear on the box, App Store, Steam, itch.io, etc. Can you come up with a title that is unique, descriptive, funny, or clever? It does not have to be all of these things, but it probably should be more than one of these things>

## Summary of game’s story, focusing on gameplay

<What is the backstory to your game? I hope the bad guy hasn’t kidnapped your girl!!!! Having a deep, coherent backstory can help ground all of the elements of the game>

Pick up coins, get to the end, cash in, score.

## Intended systems

<What can you do in the game? How do enemies function? What are the goals? What are the mechanics? What features do you need to implement?>

Run and Jump, enemies move left to right, jump on them to defeat, get to the end of the level, need to make player character jump and move smoothly and collect pick-ups.

## Intended audience

<Who is this game for? Casual gamers or hardcore gamers? Men, women, or both? Indie gamers or AAA gamers? It is critical to identify the intended audience in order to target that audience for playtesting and marketing>

Casual players, all ages and genders

## 2-3 similar games

<Even the most unique and unusual games have similarities with existing games, even if the similarity is only how unusual the game is! What games are most similar to this game. Listing the specific features where appropriate>

## Unique selling points

<Is this game doing something that no other game has done before? Is this game combining known features in a unique way?>

## What’s enjoyable/positive about this game?

<Why should I play this game?>

## MVP Milestones

<What milestones do you want to achieve for your game MVP by week 8

* Core player controls complete
* Core gameplay elements complete
  + Example of enemy AI / interaction
  + Example puzzle

>

Week 1 - Complete research, what type of game you want to make, what tutorials you’ll use for research, where to source assets

Week 2 – White box level design, attempt basic movement with basic shapes (e.g. cubes, spheres etc.), start screen function, lose/win functions, restart function, score GUI.

Week 3 – Attempt enemy functionality, defeat of player character, defeat of enemy character, enemy movement, enemy spawn, enemy despawn off screen.

Week 4 – Attempt to add art assets to level design, attempt to add music and sound effects

Week 5 – Polish all elements and any additional functionality

## Final Submission Milestones

<What milestones do you want to achieve by the final submission at the end of week 11

* Complete Game Loop (Title Screen / Start Menu / Pause / Win / Lose / Restart / Quit)
* Polished controls
  + Should be refinement of MVP, not a substitute
* Polished game mechanics
  + Should be refinement of MVP, not a substitute
* Polished presentation
* Quality (3rd party) assets (including sound)
* Bug free
* FUN!!!

>

Completed and playable build, bug free and functioning code

## References

1. Unity 5 2D Platformer Tutorial - Part 1 - Setup, Animations

Gucio Devs

<https://www.youtube.com/watch?v=oK_NzdVSxaQ&list=PLq3pyCh4J1B2va_ftIthSpUaQH0LycRA->

1. How to make a 2D Platformer - Basics - Unity Tutorial

Brackeys

<https://www.youtube.com/watch?v=UbPiCgCkHTE&list=PLPV2KyIb3jR42oVBU6K2DIL6Y22Ry9J1c>

1. <https://forum.unity.com/threads/accessing-the-sprite-renderer-to-flip-the-sprite-c-solved.381804/>

# How to make a 2D Platformer - Tiling - Unity Tutorial 4A

Brackeys

<https://www.youtube.com/watch?v=CwGjwnjmg2w&list=PLPV2KyIb3jR42oVBU6K2DIL6Y22Ry9J1c&index=4>

# How to make a 2D Platformer - Tiling - Unity Tutorial 4B

Brackeys

<https://www.youtube.com/watch?v=77zdOaUGguc&index=5&list=PLPV2KyIb3jR42oVBU6K2DIL6Y22Ry9J1c>

1. Double Jumping & Finding The Ground - Unity 2D Platformer Tutorial

Gamesplusjames

<https://www.youtube.com/watch?v=2akPDnmSfu8&list=PLiyfvmtjWC_Up8XNvM3OSqgbJoMQgHkVz&index=3>

1. Shooting Shots

Unity tutorials

<https://unity3d.com/learn/tutorials/s/space-shooter-tutorial>

1. Boundary

Unity tutorials

<https://unity3d.com/learn/tutorials/projects/space-shooter-tutorial/boundary?playlist=17147>

1. Creating Hazards

Unity tutorials

<https://unity3d.com/learn/tutorials/projects/space-shooter-tutorial/creating-hazards?playlist=17147>

# Unity Spawn Prefab at Position Tutorial C# Easy

I Unity 3D tutorials

<https://www.youtube.com/watch?v=M_xXmpI0GYs>

1. Moving the Camera

Unity tutorials

<https://unity3d.com/learn/tutorials/projects/roll-ball-tutorial/moving-camera?playlist=17141>

1. Counting points and displaying the score

Unity tutorials

https://unity3d.com/learn/tutorials/projects/space-shooter-tutorial/counting-points-and-displaying-score?playlist=17147