

# Game Documentation: StaySafe

## Game Overview

- Game Name: StaySafe
- Theme/Concept: Inspired by the idea of tackling viral diseases.
- Objective: The player must tackle randomly appearing viruses using a syringe controlled by the character, while surviving as long as possible to achieve the highest score.

## Game Features:

### 1. Player Character:

- A man sitting on a syringe, controlled by the player.

### 2. Enemies:

- Viruses that appear randomly in the scene.

### 3. Score System:

- The score increases with every second the player survives.

### 4. Environment:

- A clean, minimal 2D interface resembling a medical or health-themed setting.

## Gameplay Mechanics

### 1. Player Movement:

- The player moves the syringe to avoid collisions with the viruses.
- Movement is smooth and responsive, controlled by arrow keys or touch input.

### 2. Virus Behavior:

- Viruses spawn randomly in different locations and move towards the player at varying speeds.
- Difficulty increases over time as more viruses appear.

### 3. Scoring:

- The score counter increments every second while the player survives.

## Development Details

- Engine Used: Unity 2D
- Programming Language: C#

- Assets:
  - Free sprites for the syringe, man, and viruses from the Unity Asset Store.
  - Background: Light, simple textures to enhance the theme.
- Audio:
  - Background music and sound effects for virus appearances and collisions.

### **Challenges and Solutions**

- Challenge: Random virus spawns making the game unfair.
  - Solution: Limited spawn areas to balance gameplay difficulty.
- Challenge: Controlling movement for better gameplay experience.
  - Solution: Adjusted rigid body physics for smoother player movement.

### **Future Improvements**

1. Add power-ups like shields or temporary virus immunity.
2. Include a high-score leaderboard.
3. Introduce levels or waves with increasing difficulty.
4. Implement touch-screen support for mobile devices.

### **Conclusion:**

StaySafe provides a fun yet thought-provoking gameplay experience while raising awareness about staying vigilant during viral outbreaks. It's simple to play, engaging, and challenges players to survive for as long as possible.