Project Proposal

for

Zombie Onslaught

Version 1.0 approved

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Revision History

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| **Name** | **Date** | **Reason For Changes** | **Version** |
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|  |  |  |  |

# Business Requirements

## Background

Most players rely on luck to win a game. For instance, a player may rely on being random in their attacks to trick their opponent into choosing the wrong attack. This play style is frowned upon within the video game industry, so better mechanics need to be introduced

## Business Opportunity

There is an opportunity for a different type of a game in the market, one which doesn’t encourage this playstyle. We propose a game which have the player lay traps as their main attack. We believe this should make the game less random since the player is forced to bait their enemies into their traps

## Business Objectives and Success Criteria

Our main objective is to create a game with enough interest in players to come back for more.

Our success depends on the number of players we gained after the initial release and if we can maintain that size in the future

## Customer or Market Needs

As mentioned, most games encourage the random playstyle. As a result, they don’t last long since they are too easy to beat, so players lose interest fast. This game should be able to hold player interest due to the added challenge that our game mechanics will introduce

The player should be able to:

1. Be a hero
2. Attack with mine traps
3. Defeat their enemies by having them walk over traps

To play this game, players will need a Windows or Apple environment with VPython installed, since this game will be developed in VPython programming language

## Business Risks

Due to not having projectile-based attacks that most casual action games have, we anticipate a lack of user acceptance. To mitigate this, we will need to make the traps more appealing. We could do this by adding nice visual effects to them

Also, due to having no projectile attacks, the game could be too hard to play. We shall mitigate this by decreasing the game’s difficulty by either changing the number of enemies or their speed

# Vision of the Solution

## Vision Statement

We believe that by playing this game, players can gain the essential skills of prediction and planning. These are skills that will be useful to players in real life situations and should benefit their lives in the long run

## Major Features

We will have:

1. A survival level
2. A hero with a way of defending himself
3. A zombie horde

The hero will be placed in a room full of zombies running around mindlessly. The objective is to defeat all of them with his land mines

## Assumptions and Dependencies

It is assumed that this game can run on a Windows or Apple environment with VPython installed and fast hardware. It is also assumed that this game will be single player, single level campaign

# Scope and Limitations

## Scope of Initial Release

For this game, we want to at least implement:

1. The hero model, his basic movement, and attack functions
2. A level with one clear condition, which is to defeat all the enemies
3. The enemies and their movement function

## Scope of Subsequent Releases

In subsequent releases of the game, we can extend the game by adding more clear conditions and enemy attacks/AI

## Limitations and Exclusions

In our initial release of the game there will be one level, with more mechanics introduced as time permits. This level we are going to implement will simply be a large field, with no extras. Also, character models won’t be too fancy, since they are based on the basic shapes from VPython

# Business Context

## Stakeholder Profiles

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stakeholder** | **Major Value** | **Attitudes** | **Major Interests** | **Constraints** |
| Supervisor (the Instructor) | Conformance to educational standards | Expects the product to be documented | Expects product to demonstrate a basic understanding of computer graphics. Also expects the product to be playable | Use of VPhyton programming language |

## Project Priorities

|  |  |  |  |
| --- | --- | --- | --- |
| **Dimension** | **Driver** | **Constraint** | **Degree of Freedom** |
| Schedule | TBD by the Supervisor |  |  |
| Features | All features to be implemented |  | Additional game mechanics will be implemented if time permits |
| Quality | All tests must pass |  |  |
| Staff | Due date TBD by the Supervisor | Maximum team size is 1. This programmer is the developer and tester |  |
| Cost | None – No budget since the work is free |  |  |

## Operating Environment

*The game will run locally on a Windows and Apple environment with VPython installed*

*The game should also have effective memory management, so there should be no lag in the gameplay, however, the overall performance of the game depends on the type of hardware the game is installed in - It is recommended that the game runs on a computer optimized for speed*