

Game Description

1DV437 Introduction to Game Programming

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Tower Defense

Game objectives

My game project is a strategy game called Tower Defense. The game takes place in a 3d world where the computer spawns enemy troops once every round in the top of the map. The troops move along a route of nodes until they reach the final node and the game is lost.

The player's objective is to build defense structures along the route in the green areas, (see the sketch below), to shoot down the enemy before they reach their goal at the bottom of the map. When doing so the player is rewarded gold to enable more construction.

The level will consist of ten rounds which gradually will increase in difficulty. If successful the player will win after shooting down all the enemies in the last round and will then get the option to restart the game.

Feature List

Builder

- The player controls a hovering builder object by moving it with the right mouse button.
- Can construct defense structures in the green areas of the map.
- Its movement is restricted within the map.

Defense structures

- Will be one or several towers with one unique ability, (frostbolt or arrow etc...).
- The towers will cost a predefined amount of gold to construct.
- The towers will have a predefined range, damage and fire rate.
- Construction will not take any time.
- If there is enough time I will add traps and spells too.

Enemies

- The enemies will consist of skeletons and one final boss.
- They won't have any attack damage.
- They will have movement speed.
- They will have a predefined health that increases every round.
- Last round will be a more difficult boss.

Camera

- Will be controlled by keys, ('a', 'd', 'w', 's'), horizontally and vertically along the x- and z-axis.

Game Controller

- Option to start the game.
- Option to restart the game.
- New level text in the start of a round in the center of the screen.
- Text for dispenseable gold amount saved up.
- A text the congratulates in case of victory.

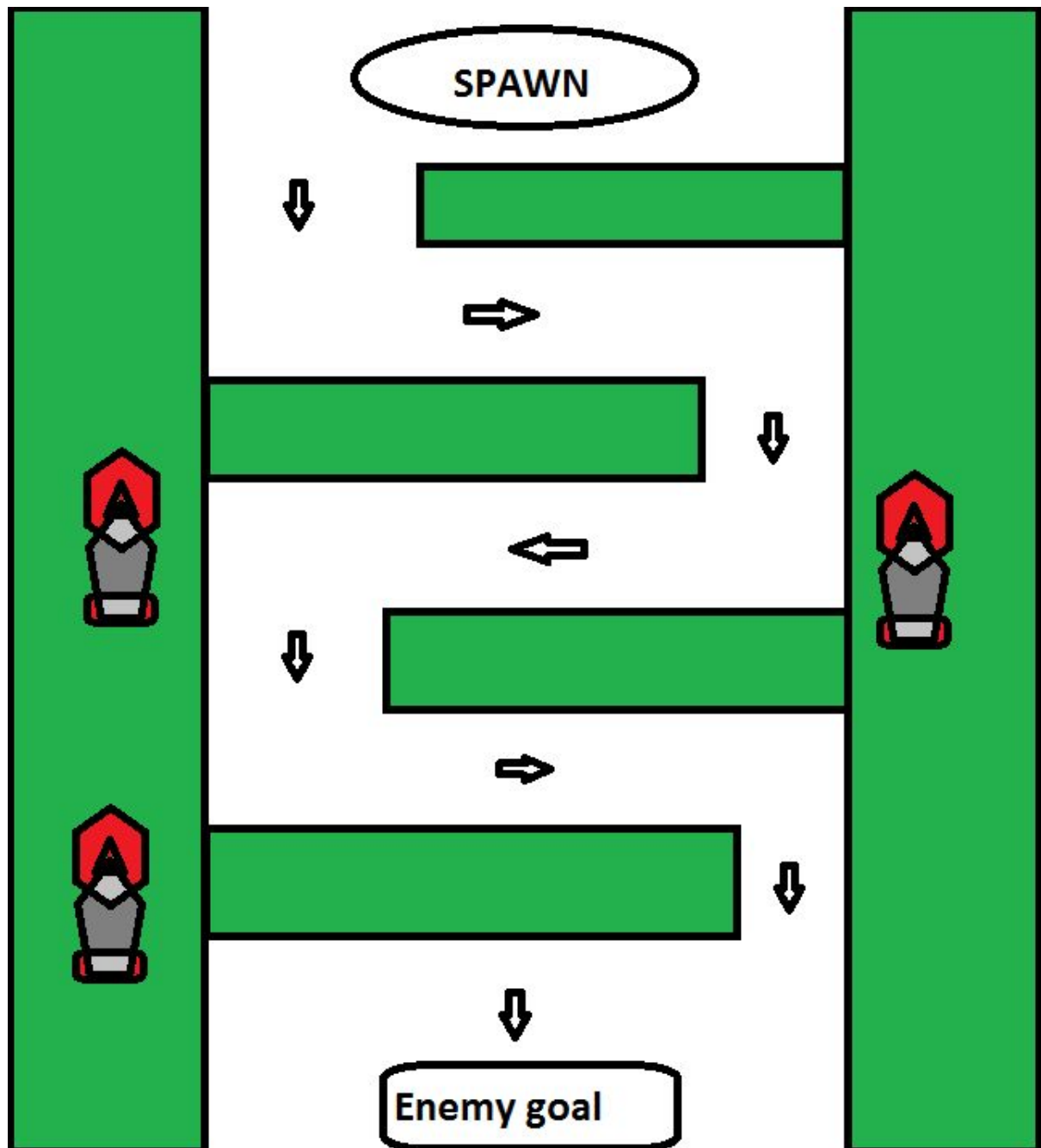
VFX and sounds

- Lightings from above and below.
- Visual magic effects and sounds for tower attacks.
- Running skeletons.
- Textures for every object.

Game World

- 3d world with a plane.
- Enemy impassable elevated ground that creates a route from enemy spawn to enemy goal. The elevated ground marks the area for which the builder can construct defenses.

Prototype



Assets

I will use assets from the unity store.

Magic effects:

<https://www.assetstore.unity3d.com/en/#!/content/21927>

Skeleton enemy:

<https://www.assetstore.unity3d.com/en/#!/content/30659>

Boss:

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<https://www.assetstore.unity3d.com/en/>

Environment:

<https://www.assetstore.unity3d.com/en/>

Defense tower:

<https://www.assetstore.unity3d.com/en/#!/content/53793>