

## Zenon Back to the Future

Phoenix Young

Spring 2020

COSC 729

The goals and objectives for this project are to create a fighting game that will have the user run around the level defeating enemies until their health runs out or a goal is achieved of finding the hidden item. Health chests and power ups will be found along the way. The purpose of this game is for an enjoyable experience!

MODELING:



Envision a space that looks other worldly. A place full of cliffs, water, and aliens. It will be a place of other worlds and space ships. Expect to see the unexpected. It will be a 3<sup>rd</sup> person avatar that the user will be controlling. She will be able to pick up weapons if hers breaks and fight enemies along the way. I plan to use a lot of models from the Unity Asset store, making sure to use products that are free. Grass, rocks, and water will be added to the modeling to make it seem more of a realistic world. In addition rocks, and alien plants will be added to the surrounding structures to add detail to the game.

The avatar will have proximity sensors to parts of the model where if you step on the model, it will react with something else in the scene, such as a door.

There will be aliens in the game that will have attack if you come within a certain distance to you it will be able to move and attack you. If it attacks the avatar the avatar's health will decrease. However there will be power ups, within the level to increase the health if it gets too low. To defend them self, the avatar will be able to swing a weapon at the enemies, and if the weapon breaks the avatar can interact with the scene to grab a new weapon.

Vision:

The incorporation of manmade objects such as buildings, statues, and small plants to add detail to the project. The use of the textures and alien patterns will add to the detail of the game and the individuality of levels to come.

Sound:

Sound will be coming from various elements in the scene. From different objects, portals, ships. However, most of the sounds will be coming from the avatar, as she steps, walks, jumps, and attacks enemies.

Animation:

Most animation, will come from the avatar, and the enemies. They will each have different random movements as they attack the avatar. There will also be small animations of the environment in the scene such as moving platforms.

### **Interactivity:**

There will be triggered events in the project will include crushing a chest to regain health, crushing empty chests to find the one that has a help item, picking up weapons from special platforms after the user has broken theirs, as well as standing on sensors to open doors etc.

A large portion of interactivity will also come from how the user avatar interacts with the enemy avatar. The avatar and the aliens are fighting for world domination. In the 1<sup>st</sup> level the alien enemies are blocking the entrance to a gate in the game that leads the user to the next level. The interaction will be implemented by using meshes. If the user's avatar walks into the mesh of the enemy, the enemy avatar will turn around and attack within the mesh. The enemies will attack based on what level you are on. In the first level there will only be one kind of enemy, that could charge the user, and in the second level the enemy will spit acid at the user. The user avatar, will interact with the enemy avatars by modeling her animation to attack enemies with her staff weapon. If she is attacked and hit by an enemy then her health bar will go down as a result.

Sensors:

Some of the sensors will be how the interactivity with the avatar occurs. Many actions occur due to proximity sensors.

Avatars:

Avatar will include the 3<sup>rd</sup> person character that the user will be controlling. In addition to that the other 10 avatars will come in the form of the enemies for her to defeat. The enemies will come in the form of attacking aliens.

Extra:

This game will be made with unity with the help of the Unity Asset Store.

The lights in the game will follow the "sky" map that is shown in the sky and follow shadows as such.

Timers will be implemented in the animation of the environment in the game. They will be set to move on timers.

Keyboard functionalities go hand in hand with the avatar animation. The keyboard will be used to control the avatar, from walking to jumping. The mouse will be used for head movement and clicking of the mouse will control attacking.

Therefore as mentioned the input devices are the keyboard and the mouse.