

Team Foxtrot
1242 Quaker St.
Golden, Colorado, 80401

February 24, 2020

Professor Mark Baldwin
Head Publisher of CSCI477
Colorado School of Mines
1500 Illinois St.
Golden, CO 80401

Dear Mr. Baldwin:

This week, Team Foxtrot has made significant progress in developing the design for our game, Shiva. The team spent most of this week fleshing out some of the core mechanics and features of our game that the rest of the project will be built around. As detailed by our project plan, we have two different pieces of progress to show off: Map generation and object development.

Currently work is being developed in separate game maker projects, which will be combined together once the mechanics are more finished.

If you launch the GameMaker project within the "ShivaGeneration" folder in the submission, it will generate the basic hex tile board which the game is played on. Currently, it only generates two types of tiles: the "Colony" tile, and "Plains" tile. The board starts by generation 1 Colony Tile in the center of the board, and has scripts written which will create rings of tiles around the colony. The script used is modular, and can be used to alter the game board size if necessary. Now that this basic generation is finished, it will be easy to finish generation by adding different types of tiles by replacing plains tiles on the board.

If you launch the GameMaker project within the ObjectTesting folder within our submission, you will see the work that has been done to lay the groundwork for all the entities within our game world. Compiling the code in this project will bring up a screen showing examples of the different mechanics that have been tested and implemented. We have developed features regarding the soldiers, turrets, aliens, and some traps within our game:

- In the top left of the game screen for the ObjectTesting project you will see a test for Soldiers. Clicking on the soldier will open a dialog with details about the unit, and clicking on any of the objects on screen will open similar dialogs. For the soldier testing, clicking "Change Weapon" will change the weapon the soldier is holding, and clicking the "Attack" button will set the

soldier to attack mode and start firing on the alien. Each weapon has different damage, attack speed, and projectile speed stats. The logic behind the projectiles is reused for the turret examples below the soldier testing.

- Below the soldier testing is the manual turret testing. Clicking the plus button below the turret will allow the user to select a soldier they would like to be posted on that turret. Clicking the soldier next to the turret will make that soldier be put on the turret and allow the turret to fire on the alien. Clicking the new x button will remove the soldier from the turret and prevent the turret from attacking.
- Below the manual turret testing is automatic turret testing, which simply has an automatic laser turret which can always fire on an enemy even without a soldier posted on it.
- Below the automatic turret testing is a quick test on the sprite direction. It shows the unarmed soldier rotating in a circle. This lays the groundwork for movement mechanics later on, where having a selected target and angle will show the desired sprite for the direction the unit is moving in.
- In the top right is some melee damage testing. Clicking the attack button lets the alien start attacking, and has it's sprite animation move in time with its attack speed.
- Below the melee testing is movement testing, featuring an alien selecting a target (the turret across from it) and moving toward it. Moving through the trap (barbwire) slows down the alien.

These are just a few parts of our overall game but have been developed now because the functions and mechanics will be core to the game flow of Shiva.

Thank you for taking the time to look at our progress. We feel we are still on track with the timeline that we have laid out in our project plan. We have laid good groundwork with map generation and object testing and will now be moving on to combining the two projects we have made and further developing how our units interact with the board and other entities.

Sincerely,

Jared Schneider and Kai Mizuno

Team Foxtrot

480-739-8800 / 720-318-1646

jschneider@mymail.mines.edu / kmizuno@mymail.mines.edu