**Progress Report**

**- Increment 2 -**

**Group Tanx**

# Team Members

**Name FSU ID github**

Andrew Thrash aft17 hashtagmurica

Alexander Gentry arg16b yugoslothia

Blake Antone baa16e BlakeAntone

Nolan Monahan nmm17b nmm17b

1. **Project Title and Description**

Project Title: Tanx

We are building a reimagined version of the Tanks game from Wii-Play, implementing a computer-based version that allows users to play through multiple levels of varying difficulty. The main differences between our version and the original will be the obvious omission of Wii-based technologies, but in actual gameplay we will build wholly new levels that allow the users to experience the game in a completely different way.

1. **Accomplishments and overall project status during this increment**

Level Design: The basis for 15 levels has been built and all of the elements for the future levels have been added to the game. this will allow extensive testing of all of the tank, AI, and level selection features and let the potential stretch goals for future levels to be achieved in increment 3

Menu: HTML and CSS code has been developed so that there is a functioning menu without a basic arcade look that is consistent with the level design. The menu provides options to play the game, select a level, and view the controls. The menu does not yet link to and start up the game.

AI: The computer enemies can move around randomly and fire randomly. They recognize bullet collisions as target hits and are killed upon collision. Will be working on how to import this test into an AI class in the future.

Player control: the player character can move around based on recognizing key input and mouse position. Player tank turret now rotates to reticle on mouse location. Added support for bullets shooting in the direction of reticle.

1. **Challenges, changes in the plan and scope of the project and things that went wrong during this increment**

As a team, we did not run into many major challenges through this increment, as we had previously developed a solid idea of what each of our workloads would be before the semester changed to remote teaching. We were pretty good at meeting multiple times a week to ensure the team was on the same page with what we wanted to accomplish. This allowed everyone to work independently while separate, but we stayed along the same lines as a team overall.

Challenges that occurred for the level design portion of this increment revolved mainly around finding proper elements with which the level could be constructed. To start, there was a lot of trial and error with resizing elements to better fit in the level. Once the level became to take a more defined direction, I could crop elements and move them about more freely so that they would better line up with the existing elements. This progression was attributable to the fact that I became more comfortable with the tools used to build the level through the increment and the more elements present, the easier it was to decide what was missing/would be a good addition.

The main challenge of the menu portion was familiarizing myself with html and css code which was an entirely new skill. Once the basics were understood the actual construction portion of the menu went quite smoothly. Small issues with this section included how to reference files to access desired and fonts and how to create a link that will launch the game. Moving into iteration 3 we should have ample time to figure out how to link the work done by other members into the menu to have a fully functioning product.

For the AI portion, there were a few challenges that I came across and overcame through this iteration. One of the more frustrating challenges I had in this increment was figuring out how to get the ai to move and let them move consistently. I worked around this by breaking the problem up into smaller, more manageable bits and working on implementing them alone. I ended up with code that I wanted and have made AI movement pretty consistent with what we want out of it. Another difficult task was getting bullets to kill/delete the AI from the level as many implementations have different ways of implementing this task. I finally ended up looking at a tutorial on how to implement collision detection and removing objects, which gave me the necessary idea to implement proper collision detection in the game. Lastly, one problem I am still facing even now, is getting the AI to shoot at the players position. I have looked out on the internet and have tried to find some function in phaser that can help me. However, it is difficult to find the exact question I need an answer for and I am know trying to make a bruteforce equation to ensure the bullets are fired appropriately for iteration 3.

1. **Team Member Contribution for this increment**
   1. *the* ***progress report****, including the sections they wrote or contributed to*
   2. *the* ***requirements and design document****, including the sections they wrote or contributed to*
   3. *the* ***implementation and testing document****, including the sections they wrote or contributed to*
   4. *the* ***source code*** *(be detailed about* ***which*** *parts of the system each team member contributed to and* ***how****)*
   5. *the* ***video or presentation***

Andrew Thrash — **Progress Report** sc. 1, 2, 3, 4, 5, 6, 7; **RD** sc. --; **IT Doc** sc. 1-5; **Source Code** all of Level Design folder; **Video/Presentation** edited video, level design runthrough, & future increment plans

Nolan Monahan — **Progress Report** sc. 3, 4; **RD** sc. --; **IT Doc** sc. --; **Source Code** the menu files folder; **Video/Presentation** Talked about state of project

Alexander Gentry — **Progress Report** sc. 3, 4; **RD** sc. 2; **IT** **Doc** sc. --; **Source** **Code** ai.html; **Video/Presentation** Spoke about state of project and demoed the ai.html code

Blake Antone — **Progress** **Report** sc. 3; **RD** sc. 1,3,6,7 ; **IT** **Doc** sc. --; **Source** **Code** Iteration2TankControls.html **Video/Presentation** Gave demo

1. **Plans for the next increment**

The next increment will begin with combining the new functionalities developed in this increment, as this will give us a more holistic view of what has been accomplished and what still must be accomplished moving forward.

Now that all of our goals for the basis of the game have been accomplished, we will use this transition from increment 2 to 3 as an evaluation tool to decide which stretch goals will be accomplished, will still be a stretch (but we are hoping to reach), and are a little too far out of our reach given the current state. We have lots of ideas for expanding small portions of the game moving forward, so the final product will likely look similar to the current product, but we intend to use the final increment to make it look and run better while adding some more exciting twists in gameplay.

1. **Link to video**

[*https://youtu.be/SIcRv0vTy1Y*](https://youtu.be/SIcRv0vTy1Y)