

#### Completing Part 1: 1 Hour

Time spent updating and reading through their part 1 project. We will need to fix some of their game over implementation.

#### AI: 5 Hours

Time spent working on the AI that will act as an opponent for a single player. This includes time changing the flow of the program to allow for a non-player opponent, the work on the actual AI firing (easy, medium, hard), and game setup for a non-player opponent. The medium AI and changing program flow are likely to be the two largest timesinks.

#### Custom Addition: 9 Hours

This is time that will be spent on the development of our custom addition. This will include the ability for a user to have their ships automatically placed on the board without needing to manually place each ship. This will also be useful for the implementation of the AI players. Additionally, we will add a few “power-ups” that will appear randomly on the board at the beginning of the game. This will probably just be a few special spaces that, when hit, will reward the player with a random upgrade to their next shot or possibly reveal the adjacent spaces. We expect these custom additions to take at least 9 hours to implement.

#### Miscellaneous: 12.5 Hours

Any time spent doing things not specified above. Including meetings. We expect to have 2 meetings. Our first meeting was around a half hour and the following meeting will be about an hour.

#### Total: 27.5 Hours