Documentation Aiming Turret

Instructions:

Left click to place the AI and the player

Please don't place them too near to one another, such as on top of each other

Then adjust the sliders to adjust the desired variables

Press shoot, the game will first calculate (calculating…) the shot and then display it (simulating…). The AI will ALWAYS hit the player, however, depending on what settings are chosen, this may take longer if the player is very fast and the ai very slow

The program will write "Done" and the required clockwise AI angle at the bottom left of the screen once the simulation is done

Reflection:

This method is designed to show how the calculation is done. If this was made for a game, I would speed up the calculation phase by not limiting it to frame rate. This will calculate the collision point almost instantly and I would remove the development graphics such as the directional line and simulated movement objects. For the purpose of the brief, I left the slow calculation in to show my method of solving this brief.

Please note, the big squares are simply spawn points. The big square for the player represents where the player is starting, and the smaller square it makes represents the player moving. The big square for the AI represents a stationary AI turret, and the small square it spawns represents a bullet it is shooting.