Project 5 Documentation

**Basic Overview**  
Scene 1 -   
An admittedly plain main menu screen, consisting of button and text GUI elements. The button, when pressed, takes you into Scene 2 and starts playing the game’s music (made myself, via BeepBox).  
  
Scene 2 –

A top-down 2.5D perspective of a wooden box arena, containing two tanks. One controlled by the player using WASD + Space controls to move and shoot, respectively. The other tank controlled by a basic Random Number Generator ‘AI’, that performs a random movement action then shoots. When the player or enemy move or shoot, the action will play a related sound effect (both found on random sfx websites, I didn’t note which). When a tank’s bullet collides with the other tank, that tank is destroyed and you are sent back to the main menu (currently not functional).

**Code Overview**

Scene 1 -

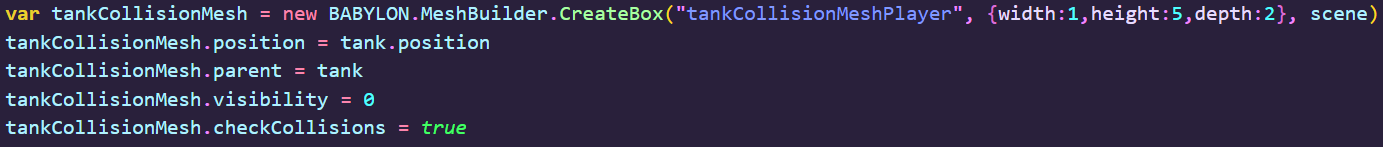
Being the more simplistic of the two, scene one contains minimal code to function, simply containing the code for a camera, the ‘music’ const, the game title, and the ‘start game’ button.  
  
Scene 2 -   
The more complicated of the two scenes, contains the code for a number of meshes to be made, sized, and parented as need, as well as the code for player functionality and the basic enemy ‘AI’ systems.

Player Movement functions off of a series of actionManagers, providing a variable that tells us the key being pressed.

A screen shot of a computer code

Description automatically generated

The collision system withing the game, while not functional, works using an invisible mesh which functions as a hitbox for the tanks. When this hitbox is intersected/overlapped by the opposing tanks bullets, the tank should be destroyed.



A computer screen shot of a blue screen

Description automatically generated

The scene also contains a shadow caster, and related lights, to provide a less-flat look to the game as you play.

A screenshot of a computer code

Description automatically generated

The AI tank’s ability to shoot is run through an asynchronous function which it’s other actions call on as they end.

A computer screen shot of a program code

Description automatically generatedA screenshot of a computer program

Description automatically generated

The AI tank’s functionality is run through a random number generator, where each outputted number results in an action, which is updated at the end of every bullet shot.



A computer screen shot of a program code

Description automatically generated