**Own Issue Project Proposal**

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| Name : | *Hugh Thompson* | | |
| Provide an overview of what your program is intended to do. | It will be a game where you the player are controlling two separate robots going through a series of procedurally generated rooms, beating enemies, if an entire stage made up of multiple of these rooms is cleared, a monetary reward is given, which can be used to upgrade the robots and their weapons to continue and try harder stages that earn more money if cleared. The object is to gain the most money possible. | | |
| What are the steps the program needs to complete to be effective?  /  What are the specifications that need to be met? | *The object of the game is to make the largest amount of money possible; money is earned by clearing out stages.*  *To do so two robot objects will be created that can be controlled one at a time through the WASD keys but independently, and they player may switch which one of these robots they control at a time using the v key. These robots will have stats regarding damage taken and weapon. The weapons will have different aspects that will be loaded in from external storage.*  *The player will then move one or the other of the robots through a procedurally generated room where they will encounter enemies that they will battle, they will battle by firing bullets at each other is real time combat, if hit, the player will take damage, and the enemy will lose health, until one has been defeated. Enemies will be loaded in form data in external storage. If all enemies are beaten in a room, another room will be able to be moved onto, this loop repeats until all rooms in that stage are cleared. Whereby the player is taken back to the main menu and a reward of money is given. The player may also retreat by returning to the beginning room and leave the stage without any reward. The player may also be beaten if both of their robots are destroyed, if so, the player is displayed with a game over screen, and an opportunity to resume from the last save point at the main menu.*  *The player will then have the chance to repair the damage to their robots and upgrade them and their weapons using the money they have earnt before attempting another randomly generated stage. The all pertinent game data is also saved at this stage.*  *This process as above outlined are in an infinite loop , so unlimited stages will be available to play.* | | |
| Identify the Complex Programming Skills you intend to include and how you intend to use them. | 1. *External libraries* | | |
| 1. *classes* | | |
| 1. *complex data structures* | | |
| 1. *persistent storage* | | |
| What will be the biggest challenges you will face with this project? | The room generateion algorithim.  The enemy “AI” algorithim. | | |
| Status: | Approved Rejected | | |
| Teacher: |  | Date : |  |