CMPT 370 Executive Summary for Battle Bots

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Battle Bots is a program written by Makenzie Power, Haotian Ma, Ryan Tetland, William Revell and Mitchel Kovacs as the final project for the computer science class Intermediate Software Engineering. Battlebots is an arena based robot fighting game where humans and AI face off with teams of three robots with variable player amounts and board sizes to determine a victor. The game will be designed using JAVA and FORTH to run on linux based systems utilizing Eclipse, NetBeans, JSON, LibreOffice, Microsoft Powerpoint, Kate and Microsoft Word. For the game to function there are several important features that must be included. The user must have access to a help section, a program termination option, and must be able to navigate through the games interfaces. When setting up a game the user will be able to select the number of players in the game, the number of AI and humans, the board size in a 3-player game, and the team they want to play as. During gameplay the board will be initialized according to the previously chosen game options, randomly assign colours, and will correctly determine the turn order. Each robot will be able to scan, move and shoot using either AI code or input from the mouse and keyboard. There will be statistics shown during the game and game end screen will be shown upon completion as well as a stats screen at the end of the match. In the future versions of BattleBots we hope to include animation, sound effects, more advanced AI, networking, the ability to choose specific robots for their team and a customer feedback section. In the report we give a step by step run through of the game from the start-up screen through the game initiation and game play until the final score screen. There will be four actors in the game including the user, human players, robot players and robot librarian. A use case diagram has been included for each of the before mentioned actors. All actions are described in detail including their pre and post conditions along with the various scenarios associated with each of them. Lastly, there are 4 provided sequence diagrams and 6 GUI interfaces. The sequence diagrams show the step by step process through several important primary actions: team selection, a robot’s turn, game initiation and game run through display. The 6 GUI interfaces give the reader a visual representation of the start page, rules page, game options page, team selection page, game interface, result page and the statistics page.