Design Document

Section 1:

The Robo Sport board game will serve a variety of purposes. First and foremost, Robo Sport is a game, and as such, it should serve to entertain and to challenge the human players who use it. The game will consist of clever computer AI's who are capable of beating a human player, but who are not so clever that a skilled human player could not beat them. The game will also provide a platform for multiple human players to face-off against each other, or to join forces against a team of computer AI's. The emphasis on strategy and the variety of game play will cater to a user who is interested in both entertainment and mental stimulation. Beyond these general purposes, Robo Sport will solve several problems that a real life board game version would face.

Implementing the Robo Sport board game as a software system will allow for advanced additional functionality that would not be possible on a real life game board. One major advantage the computer game will have is "the fog of war" which hides aspects of the game from the current player's field of view. This creates the additional challenge of locating the other team's robots on the game board. Teams of robots must work together to "see" beyond each of their own visual ranges, allowing them to strategize together against the other team(s). Another major advantage that is offered by a software system is the ability to track and record game statistics. Without having to record anything at all, the human player is kept informed of everything currently occurring in the game. Once a game is finished, statistics will be uploaded to a server, allowing players to track the progress made amongst different teams of robots.

The existence of the Robo Sport board game in a computerized form will address a number of areas that the real life version cannot compensate for. Computer AI's and "the fog of war" are two aspects which will make this game challenging. Users who wish to improve their skills in strategical thinking will find that these two elements alone provide a level of difficulty which would not be possible without the computer. Users can select from a number of different computer AI's, each of them challenging the user in a different way based on their implementation. This will allow the user to strategize against different kinds of game play, enabling them to improve their level of strategical thinking in many different scenarios. A user can also improve their strategy with or against other human players. Two to three users can play on a team against two to three teams controlled by computer AI's. Two, three, or six users can also join a game and play solely against one another. The variety of ways in which the teams or players can be organized will provide colourful gameplay that does not become boring or repetitive for those who wish to use it.

The game will be designed for use by a variety of demographics. Firstly, the game will be limited to people who are familiar with using a computer. Secondly, it will target people who play computer games for the purpose of entertainment. The game also extends beyond entertainment to target strategists who are looking to improve their skill in strategy based games. People looking to challenge themselves can play against a variety of computer AI's, as well as in a variety of different ways. In an ideal scenario, the game is designed for a user who is looking to challenge themselves in a multitude of different ways, as well as to sit down and enjoy a game.