Interfaces to Test

Forth Interpreter

* Interprets the scripts for AI robots
* If we can not interpret the Scripts our AI do not work correctly and our game is not playable with non-human players.

Board Position

* Controls the movement of the robots and directions they face as well as keeping track of distance and direction relative to other robots
* If the robots are moving incorrectly then the entire game is not able to be played correctly.
* If the relative distance and direction are not working correctly then it will effect many other functions such as the mailboxes will not be accurate, shooting will not work correctly.

Game Board

* Contains all important information about what is happening on the game board and determines if the action being attempted is allowed (i.e. moving to a certain space). It is also in charge of updating the game statistics as the game progresses.
* If robots are able to move or shoot to spaces they should not be able to reach (out of bounds or out of their range) our game is not performing correctly.
* If the statistics being recorded are either being recorded incorrectly or not at all, the statistics at the end of the game will be displaying incorrect information.

Referee

* In charge of starting and maintaining the game, if anything is changed on the game board the referee must update the game board to show this change.
* Game will be confusing if the game board is not being updated correctly. If a team quits but all their robots are still present on the board then other players will be confused on treat these dead robots as if they are still playing them game.

Game Initializer

* Controls the setup display of the game board such as the starting position of the robots and the game board size.
* If the setup is wrong, then the game will not have started correctly which can lead to many errors as the game progresses. If the game board is not the right size (too big or too small) or the robots did not start in the right positions on the board leading to them not being able to proceed with the game correctly because the setup was wrong.

Robot Controller

* Manages the requests from the npc and pc controllers.
* Dictates players ability to interact with their robots, if the robot controller is allowing players to interact incorrectly (i.e. shoot when they have no shots left) or is not allowing players to interact correctly (i.e. not allowing to shoot on own space) then the game is not only confusing for players but works incorrectly.

Robot Library Socket

* Handles all communication between the robot library and the system through JSON files. The socket retrieves the robot AI as well as the robot statistics from the robot library and passes on end of game statistics to the robot library.
* If we can not get AI scripts from the robot library our AI robots will not work and our NCP players will not be performing correctly.