What we accomplished:

In this iteration, our main focus was on finishing the main functionality of the game with human players and implementing the load and save features. Since we only had the appearance of the complex board implemented last iteration, this iteration we finished it to allow players to actually play games with the complex board. This involved allowing the robots to move on the complex board, in particular, writing code that accounts for the coloured diagonal barriers on the complex board, and allowing players to play the full game on the complex board.

Additionally, we added functionality that allows a player to win the game. When a player reaches 50 points (or demonstrates 5 successful solutions), a window pops up saying which player won the game. This can also be tested by pressing the "End" button on the right panel while playing the game. When this button is pressed, the player who currently has the most points will win and the game will end. If two or more players are tied for the highest number of points, a window will pop up alerting players that the result of the game was a draw. Throughout this iteration, we also further refined the code from the last iteration so that playing the game works better now. We also created new robot icons to use in order to improve the appearance of the game.

Additionally, we also implemented the save and load bonus feature. The colour vision assistance bonus feature is also finished in our game as it was implemented in Iteration 2. This can be tested by selecting the "Enable Vision Assist" option when setting up the game. However, we did not get time to implement the Computer players or Hint functionality.

You can save your game while playing by clicking on the "File" drop-down menu in the top left corner of the window, then clicking on the "Save Game" option. This saves the game data to files called "saveFile.txt" and "boardSaveFile.txt". Then, when you click on the "LOAD" button in the main menu afterwards, your saved game will be loaded up and playable. The load and save feature works for both the Simple and Complex boards.

Additional Information:

Instructions for other use cases, such as moving a robot or demonstrating a solution, are available in the Help window, which can be accessed either by clicking on the "HELP" button in the main menu or while playing by clicking on the "Help" drop-down menu in the top left corner of the window and then clicking on the "How to?" option.

Note that the "STATS" button in the main menu opens a dummy frame and it is not meant to actually display statistics. This feature could be added in a future networked version of the game.

We have tested the game extensively using macOS and Windows operating systems. There has also been some testing done in Linux on a Labnet machine remotely using XQuartz. There will be some screenshots of our game uploaded to Github to ensure that you can see it.

How to compile and execute the .java files:

(1) Download 'Group6RicochetRobots.zip'

(2) Ensure the file hierarchy is maintained during extraction.

(3) Open Terminal/Command Prompt.

(4) Navigate to inside of the 'Group6RicochetRobots' folder where .java files are located.

(5) Compile the code using: **javac *.java**

 (6) To run, use the code: **java Game**

How to run the .jar file in 'Group6RicochetRobots' folder:

(1) Download 'Group6RicochetRobotsWithJar.zip'

(2) Ensure the file hierarchy is maintained during extraction.

(3) Open Terminal/Command Prompt.

(4) Navigate to inside of the 'Group6RicochetRobotsWithJarFile' folder where .java files and the RicochetRobots.jar file are located.

(5) To run the .jar file, use the code: **java -jar RicochetRobots.jar**