***Iteration 1- Group 11***

***Introduction:***

In this project we aim to build Computerized version of the board game, Ricochet Robots. This game will involve 4 players, from which at least one would be human, and the remainder will be computer players. It would have 2 difficulty setting and 2 boards, simple board, complex board.

***Problem Statement:***

The fundamental problem we are solving is to create a digital game that has all the functionalities from the physical board game; in order to make it more convenient and accessible. During the course of action, our team will solve some difficulties such as finding an efficient algorithm to allow different variations on the number of CPU and human players, provide suggestions to the human player of what block to play, and finding the solution of Winner.

***Stakeholders and Key Interests:***

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| Stakeholders | Key Interests |
| Human Player | Playing the game and trying to win the game. |
| Company | Do the player like this game or not. And encourage the players to buy the game |
| Mark Hatcher and Assistants | Supervise the development of the game during the period of the semester. |
| Environmentalists | Make better use of the resources by saving the cardboard and plastic pieces. |

***User and Goals:***

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| User | Goals |
| Human Player | New game, Previous game, select difficulty level, Take a turn, Win the game, select colour |

***Summary of System Features:***

• The system shall provide a suggestion of the squares to choose.

• The system shall be able to validate a move.

• The system should allow the placement of valid blocks into the game board.

• The system shall announce the winner.

• The system shall count the number of points.

• The system shall display final scores.

• The system shall provide the option to play again.

• The system shall provide an option to restart a game.

• The system shall skip player’s turn without valid move.

• The system shall set the difficulty of all the CPUs based on the selection.

• The system shall provide a button to pause the game.

***Project Risks:***

1. Displaying the colour and the board on the screen.
2. Managing the player turns and keeping the score card up to date.
3. Changing different level of difficulty.
4. Studying the colour deficiency.