VISION DOCUMENT

Ricochet Robots Project

Group #6:

McDonald, Brianna
Younis, Faisal
Modi, Jinesh Piyush
Chikwati, Ngoni Nigel
Juwaheer, Yudish

INTRODUCTION:

This project is aiming to build a computerized version of the Ricochet Robots board game. That should allow the user(s) to play a game involving 4 players, at least one of whom must be a human, and the remaining 3 players could be computer players.

PROBLEM STATEMENT:

- The actual board game would be much harder to setup, and it might be very common to lose some parts. It is also not possible to play the game if there isn't more than one player present since that the game cannot be played alone.
- Our system will allow all key stakeholders to be able to start, play, save, and load the game. This will allow more **indulgence** for players to stop playing whenever they want and continue at the stage, they stopped last.

STAKEHOLDERS & KEY INTERESTS:

STAKEHOLDERS	KEY INTERESTS
Players	To win the game, to move robots on the board, to determine target.
Team Members	Maintenance of system, educating users, adding new functionalities, programming the UI.
Professor	Provide advice, point out mistakes, suggest better implementations.
Distributors/Gaming Websites	Responsible for selling and publishing the game after being officially released.

USERS & USER-LEVEL GOALS:

USER	GOALS
Players	Start Game, play game, get a hint, save game, load game, select difficulty level, select color deficiency vision option.
Computer Players	Play game, beat other players, deduce strategies, move robots.

SUMMARY OF SYSTEM FEATURES:

- The system shall allow the user to start a new game.
- The system shall allow the user to save the game.
- The system shall allow the user to load already saved games.
- The system shall allow the user to activate vision deficiency function.
- The system shall allow flipping over one target chip and placing it faceup on the centerpiece of the gameboard.
- The system shall allow moving the robot matching the color to the target space.
- The system shall allow moving any robot to the "**multicolored vortex**."
- The system shall allow moving any other robot while getting a robot to a target place.
- The system shall allow the robots to move in any direction, but only vertically or horizontally, with no "brakes." Once a robot has been set in motion, it moves straight and cannot stop or change its direction until it hits an **obstacle**.
- The system shall count the number of movements a player does.
- The system shall give the option of stopping or making another move if the robot moves to an obstacle.

PROJECT RISKS:

- Fully and correctly providing both the difficulty settings (Easy/Hard). Since that, it is difficult to implement a sophisticated AI for the game due to the game complexity and time constraint.