Introduction

The goal of this project is to make a digital version of the game of Barricade, also known as Malefiz, in which one to four people can play against each other or computerized opponents. The digital version of this game will also provide accessibility for people with colorblindness.

Problem Statement

We are trying to make a game with an intuitively designed, easy to use GUI that 1-4 people can play. The game should be accommodating to individuals who have color deficient vision. We plan to tackle this by having different color profiles for different types of vision impairment and also give the option to overlay shapes on the pawns to help vision impaired players distinguish between different player's pawns. The game will also have computer opponents of various difficulties, allowing players to play on their own. Users will have the ability to save a game and restart it later.

Stakeholders & Key Interests

Stakeholders	**Key Interests**
Players	Start a game and play until someone wins. Save a game to play at another time. Play a game with other players and or computer opponents. Choose the difficulty level of computer opponents
Vision impaired players	Have color profiles to aid them and also shapes to help them further distinguish between different players.
Ravensburger	Digitization of the game would allow for further marketing and sales or could be viewed as competition

Users & User-Level Goals

User	Goals
Player	Start a game, move pawns, block other players' progress by moving towers, restart the game at any time, start a game from a saved session, select the color palette of the game board, select the number of players, select the difficulty of computer opponents

Summary of System Features

The system will start a new game on request from the user. The system will provide an option to select a color profile as per their need or taste for each new game. The system will allow the user to select the number of players and the number of computer opponents for a game, as well as the difficulty of the computer opponent(s). The system will display the game board, towers, pawns, and die. The system will provide the functionality of the die. Once the game has started the system will allow the players to take turns rolling the die in order to move their pawns and towers and play the game until a winner is decided. The system will return a pawn to its starting position if another pawn ends its turn on the same space of the game board. When a pawn ends a move on a tower, the system will give that pawn's player the opportunity to move that tower to any unoccupied space on the board that is not the throne or in the bottom row of the board. The system will provide the ability to exit the game at any time and later resume the most recently saved game. Once a player wins, the system shall stop the game and declare the winner. The system will then prompt the player to play another game or exit. If the player exits the game before it has been completed, the system shall prompt the player to save the game progress or exit immediately before terminating.

Project Risks

One difficult part of this project will be giving the user the ability to save a game and restart it later

Another difficult part of this project will be designing and implementing the difficulties of the computer opponents and how they will play the game, as these opponents should be able to play with a degree of strategy in order to present an appropriate challenge to the human players