

Use Case Name: “Take a turn”

Primary Actor: User(s)

Stakeholders and Interests:

-The user(s): player(s) should be presented with a clearly defined board and know what color robot piece belongs to them.

-The user(s): player(s) should be able to easily tell whose turn it is.

Preconditions:

-Game is setup properly and all 4 players (either user or computer) have been identified.

Success Guarantee(post-conditions):

-The player who goes first is prompted to start the game.

Main Success Scenario:

1. Randomly selected player 1 starts to play by selecting by randomly selecting a new target square
2. Play whose turn it is decides on the path of shortest distance between their robot pieces starting point and the target square.
3. Step 2 is repeated for each player.
4. Once every player has chosen a path, the winner is decided based on whichever player chose the shortest path to the target square.
5. The winner of each round is awarded 1 point.
6. Repeat step 1-5 until the first player is awarded 5 points.

Alternate Flows:

Alt Flow 1: There is a tie

1. In the event that more than one player guessed correctly, each player will be awarded a point.

Exceptions:

-If at any time the system is unable to properly determine which player is correct, no point shall be awarded.

Special Requirements:

-The game should give a hint of where to first move the robot piece. This can be enabled/disabled by the user.

-The user should be able to save a game and return to it later to complete it.

Open Issues:

- should every player be required to guess each round or should they just challenge if they believe they can beat the player who started the turn?
- should the option of hints be disabled by default in the hard difficulty?