Take a Turn

Primary Actor: Player

Stakeholders and Interests:

- *Human Player:* After the Computer AI calls out the time limit, there will be a Text on the bottom saying “Your Turn”, otherwise it will say “Computer’s Turn”. When it says “Your Turn”, that is when the player can interact with the game board and move the robots.

- The computer AI: When it shows “Computer’s Turn”, the game will run it’s algorithm that will enable it to make a change in the robot’s position on the board or call-out the time limit for the player, depending on the situation of the game.

- *IT staff: Wants a player to have a satisfactory experience running their game.*

Preconditions:

- The Player's computer is capable of running the game.

Success Guarantee (Postconditions):

- Player is aware of the difficulty and accessibility settings chosen. The system runs the game according to the player’s selection.

Main Success Scenario:

1. The user starts the game with 1 human player and 3 computer player.[Alt1:Use uses any other combination]
2. The game will randomly choose in the beginning, if it's “Your Turn”-(player’s turn) or “Computer’s Turn”, also select a random “Target-Space”.

3. If the first move of the game says “Your Turn”, then the player will need to do all the estimations and Enter the number of steps in a box on the right and click “Submit”.[Alt 2:Player does not enter number in step]
4. The “step-limit” value gets posted on a Box right side of the UI, under the name “Target Step”.
5. Now it will show “Computer’s Turn”, the algorithm will run and try to come up with a step-limit value less than or equal to the step-limit given by the Player, if it fails, the turn goes to the next Computer Player.
6. The second Computer player or second player Human takes a turn and repeats step: 5.
7. The third Computer player or third player Human takes a turn and repeats step: 5.
8. The fourth Computer player or fourth player Human takes a turn and repeats step: 5.
9. It will show “(Player Name) Show Step”, then that player will be able to interact with the board and show the steps for the robot to get to “Target-Space”, if done by with the same number of steps as “Limit step”, then this player wins the round.
10. A small box on the top-right will keep track of which player wins which round and will be updated at the end of each round.
11. Then a second “Target-Space” is randomly selected, and step: 5 to step: 8, repeated.

Target-Steps = The minimum number of steps the first player says they can get the robot to its Target-Space from its initial place.

Target-Space = A specific position on the board with the same color as one of the robots.

Alternative Flows:

1.Alt1 - User uses any other combination

- As long as there is at least one human player and not more than 4 other players.

- Continues use case

2.Alt2 - User does not enter the number in the step box.

- System continues from use case 5.

Exceptions:

- If at any time the system is unable to process a selection by the player the use case is exited.

Special Requirements:

- Options or features must be provided for the visually impared while moving robots in showing steps to ensure all information is interpreted accurately

Open Issues:

- How will we implement the special accessibility features and what are the common types?