

Use Case Description “Take a Turn”

Use case	Take a Turn
Primary Actor	User
Secondary Actor	None
Stakeholder and Interests	Users – Placing the bids, moving robots, collecting tokens.
Pre-conditions	The user has successfully completed the process of setting up the game.
Post-conditions	A specific coloured robot is moved to a specific marked square. A player collects the chip at the end of the turn. The system updates the score of each player.
Main Flows	<ol style="list-style-type: none"> 1. The system selects a round chip at random, which identifies which robot needs to be moved, and the specific marked square, and displays this to the user (<i>Alternative Scenario: No chips available</i>). 2. The system allows the users the opportunity to get a hint. 3. The users elect to see a hint (extension use case: <i>See a Hint</i>), or the users decline, and the use case continues. 4. The system allows a user to announce that he or she is ready to place a bid. 5. The system asks that user to place their bid (<i>Alternative scenario: User can't place any bid</i>). 6. The user places their bid. 7. The system begins a timer for one minute. 8. The system allows remaining users to place a lower bid within the time limit. 9. Users place lower bid within the time limit (<i>Alternative scenario: Users fail to submit bid on time</i>) 10. The time limit end and the system announces which user placed the lowest bid and asks them to show their path. 11. That user shows their path 12. The system confirms that the path is valid and took the declared number of moves. (<i>Alternative Scenario: User fails to show a valid path</i>) 13. The system informs all users that the successful player has been given the chip.

	14.The system updates the number of chips the player has collected.
Alternative Flows	<p>Alt1: No chips available to select.</p> <ul style="list-style-type: none"> The system declares the player with the highest number of chips as winner of the game. <p>Alt2: The user can't place any bid.</p> <ul style="list-style-type: none"> The system waits for user to place a bid for 5 mins, if no bids are placed, the system takes the round chip back and places a new one. <p>Alt3: Other users couldn't response with a smaller number of steps within the required time.</p> <ul style="list-style-type: none"> The first player shows his steps and collects the chip. <p>Alt4: The player with smallest number of steps stated can't show a correct path.</p> <ul style="list-style-type: none"> The player with the second smallest number of steps stated shows their steps and collects the chip. If the second player fails as well, then the player with the third smallest bid shows and collects the chip and so on.
Exception	<ol style="list-style-type: none"> If a player closes the program at the middle of the game, the system recognizes and shows a message if the user wants to save the game or finish it? If the user wants to save the it the system will save the game progress. Otherwise the system announces the player with the highest number of collected chips as winner.
Special Requirements	<ol style="list-style-type: none"> Asks for the level of difficulty from the users. Provide support for people with vision deficiency.
Open Cases	<ol style="list-style-type: none"> How to implement the AI moves and bids? What if the user wants to play with multiple AIs? How to confirm that AI doesn't call the first bid always?

Note: The user can disable the hint from the settings option while setting up the game. If the user wants can enable back the hint option for any particular turns in the take a turn use case.