

Make A Bid

Use Case Description

Primary Actor:

- The primary actors will be all human players participating in the game, they will be placing bids to try and have the robot reach the target in the least amount of moves.

Stakeholders and Interests:

- The Stakeholders in making a bid are all human players, with their interest being trying to make the lowest possible bid to win the target chip for the turn, with the hope of eventually winning the game.

Preconditions:

1. The board has been set-up successfully so it can show the information of each player throughout the game.
2. The difficulty level of the board is chosen by the players (since it affects the size and design of the board).
3. The player data must be initialized and any computer players must be set up.

Postconditions:

1. After the first bid is made the timer starts and bidding continues until the timer stops.
2. After all bids are made the players must each move the robot to prove that their bid is valid.

Main Success Scenario:

- This success scenario is described as all players making a bid and tracking it so the player can prove it valid on their turn. For this we assume the user makes the first bid and that we have at least one computer player.

1. The user makes the first bid.
2. The system saves which player made the bid.
3. The system starts the timer.
4. Each player inputs bids until the timer ends.
5. The system has the computer players calculate their bids.
6. System saves which players made each bid.
7. System informs players when the timer has ended.
8. The system has the user prove their bid.
9. User gains the target chip.

Alternative Flows:

- The points in the main success scenario where alternative flows may branch off goes as follows.
- Alternative Flow #1: ** If all players are human. The main success scenario would change as follows:

1. The user makes the first bid.
2. The system saves which player made the bid.
3. The system starts the timer.
4. Each player inputs bids until the timer ends.
5. System saves which players made each bid.
6. System informs players when the timer has ended.
7. The system has the user prove their bid.
8. User gains the target chip.

- Alternative Flow #2: ** If the lowest bid is not valid. The main success scenario would change as follows:

1. The user makes the first bid.
2. The system saves which player made the bid.
3. The system starts the timer.
4. Each player inputs bids until the timer ends.
5. The system has the computer players calculate their bids.
6. System saves which players made each bid.
7. System informs players when the timer has ended.
8. The system has the user prove their bid.
9. User cannot prove bid valid.
10. System asks the player with the next lowest bid to prove it's valid.
11. Player with the lowest valid bid gains the target chip.

Special Requirements

- There are no special requirements for making a bid.

Exceptions:

- Player inputting a bid of 0 or a negative number is not valid and cannot be saved.

Open Issue

- Exactly how the computer player will calculate bids in a fair manner based on the selected skill.