

Use Case UC2: Computer Play

Primary Actor: The game system itself

Stakeholders and Interests:

- Other (Human) Players: Wants the computer player to fill in the role of a missing human player. Wants the computer player to adhere to the chosen computer difficulty. Wants play to be passed to the next player in the turn order once the computer player has finished its turn
- Other (Computer) Players: Wants play to be passed to the next player in the turn order once the current computer player has finished its turn

Preconditions:

- A game is currently active
- The game settings have enabled computer player(s)
- The player play has been passed to (as dictated by the turn order) is flagged as a computer player

Postconditions:

- Play is passed to the next player (as dictated by the turn order), or the game ends if the completed move caused the previous player to win

Main Success Scenario:

- 1: The game checks the turn order to pass play to the correct player
- 2: The player up next is selected to take their turn
- 3: The game notifies the players on whose turn it is
- 4: The game checks if the selected player is a computer or a human
- 5: Upon verifying that the selected player is a computer, the game system checks the computer player's difficulty setting

7: Based on the difficulty setting, the game system selects a legal move for the computer player to perform

8: The computer player performs the chosen move and the board is updated to reflect it. Possible moves include all moves a human player could do, such as moving a frog, placing a bridge, or using a special card if any are available and useable

9: The turn is considered complete, play is passed to the next player in the turn order, and the turn order is updated

Extensions:

1a: The game has just begun

1: The player considered “first” is always chosen initially on game start. Notably, this player can never be a computer player

4a: The player is human

1: Refer to “Take a Turn” use case

8a: The completed move causes the computer player to win the game

1: All play is paused as the game is now over. The game displays the victor to all other players

Special Requirements:

- None. All actions are done without input from the human player

Technology and Data Variations:

- None