

# Maze Game Use Cases

**Use case:** Start game.

**Primary actor:** Player.

**Goal in context:** To start the game and display the map.

**Preconditions:** The player is currently on the main menu of the game.

**Trigger:** The player presses the start game button.

**Scenario:**

1. The player starts the game
2. The game launches to its main menu with all available buttons
3. The player presses the difficulty button
4. The player selects their desired difficulty and returns to the main menu
5. The player selects the start game button
6. The system changes the game to it's "playing" state

**Exceptions:**

1. Player is in the "playing" game state

**Priority:** Essential, must be implemented

**When available:** ASAP

**Frequency of use:** Every time the game is played

**Channel to actor:** Via main menu interface

**Secondary actors:** Computer peripherals

**Channels to secondary actors:** Wired to computer

**Open issues:**

1. Should we be able to restart the game from within the "playing" state?
2. Should the game auto start after choosing difficulty?

**Use case:** Pause game.

**Primary actor:** Player.

**Goal in context:** To pause the game during the “playing” state.

**Preconditions:** The player is currently in the “playing” state of the game and it isn’t already paused.

**Trigger:** The player presses the pause game button.

**Scenario:**

1. The player has started the game.
2. The player clicks the pause button.

**Exceptions:**

1. Player is in the main menu.

**Priority:** Not essential, can be made late in development.

**When available:** Only after a timer is added, since there would be no need to pause otherwise.

**Frequency of use:** Every time the game is played (and player wants to pause).

**Channel to actor:** Via in-game user interface.

**Secondary actors:** Computer peripherals.

**Channels to secondary actors:** Wired to computer.

**Open issues:**

1. Should pause be implemented if we have no timer?
2. Will users want it to prevent inputs from going through when they want to take a break?
3. Should it be a button on the UI or bound to a keyboard key? Maybe both?

**Use case:** Move the player.

**Primary actor:** Player.

**Goal in context:** To move the player character to a new cell.

**Preconditions:** The player is currently in the “playing” state of the game and it isn’t paused. Also, a movement input has been pressed on the keyboard

**Trigger:** The player presses a movement key.

**Scenario:**

1. The player navigates through the main menu to select difficulty and start the game.
2. The player chooses a cell to move to that is not a wall.
3. The player presses a key that is bound to movement and their character moves.

**Exceptions:**

1. Player is in the main menu.
2. Game is paused.
3. The cell that the player is trying to move to is a wall

**Priority:** Essential, must be implemented

**When available:** ASAP

**Frequency of use:** Every time the game is played

**Channel to actor:** Bound key

**Secondary actors:** Computer peripherals

**Channels to secondary actors:** Wired to computer

**Open issues:**

1. Need to handle cases when the player moves into a wall, enemy, or goal

**Use case:** Restart game.

**Primary actor:** Player.

**Goal in context:** To restart the game from the beginning.

**Preconditions:** The player is currently in the “playing” state of the game or in the end screen.

**Trigger:** The player presses the restart game button.

**Scenario:**

1. The player starts the game
2. The player realizes part way through that they want to restart
3. The player presses the pause button
4. The player hits the reset button
5. The game starts back from the beginning of the “playing” state

**Exceptions:**

1. Player is in the main menu.
2. Game is not paused.

**Priority:** Optional, but medium priority (above timer)

**When available:** After movement and core mechanics are added

**Frequency of use:** Every time the game is played, and the player wants to restart

**Channel to actor:** Bound key / UI button

**Secondary actors:** Computer peripherals

**Channels to secondary actors:** Wired to computer

**Open issues:**

1. Should the map be the same or different when restarting?

**Use case:** End Game.

**Primary actor:** Player.

**Goal in context:** Game ends and takes player to “end game” screen.

**Preconditions:** The player is currently in the “playing” state of the game and inputs a move command

**Trigger:** The player gets hit by an enemy or their score goes below zero

**Scenario:**

1. The player starts the game
2. The player enters a move command
3. The player hits an enemy (or a trap that brings their score below zero)
4. The game switches to the “end game” screen and displays the players score.

**Exceptions:**

1. Player is in the main menu.
2. Game is paused.

**Priority:** Essential, must be added.

**When available:** After movement is added.

**Frequency of use:** Every time the game is played.

**Channel to actor:** Bound key.

**Secondary actors:** Computer peripherals.

**Channels to secondary actors:** Wired to computer.

**Open issues:**

1. What do we want to display when the game ends?