

# USE CASE: "SCORE VALIDATION"

*Ricochet Robots Project*

---

Group #6:

McDonald, Brianna  
Younis, Faisal  
Chikwati, Ngoni Nigel  
Juwaheer, Yudish

**Primary Actor:** Player

**Stakeholders and Interests:**

- Player: wants the game to work properly either with vision assistance enabled or disabled, be easy to use, entertaining, and possible to win.
- User: wants the game to be set up properly, and all the menus and settings to be functional together with the vision assist functionality.
- Parents: wants a child friendly game with ease of use to entertain.
- Team Members: wants to design vision assistance, implement it, and test the game to ensure it is working properly.

**Preconditions:** The player had bet the number of robots moves they intended to make and has already demonstrated their robot moves.

**Success Guarantee (Postconditions):** The robot has been successfully moved to its target space, which the system validated; thus, updating the score of the player who made the successful move.

**Main Success Scenario:**

1. The system checks whether a robot ricocheted at least once while the player was demonstrating his/her move. [Alt 1: No robot ricocheted at least once]
2. The system compares the number of moves initially bid with the number of moves made by the player. [Alt 2: Actual number of moves greater than initial]
3. The system recognises that the number of moves made and specified by the player is valid(i.e. less or equal to the number of moves bid).
4. The system updates the current score of the player through an incrementing mechanism and displays it to the player.
5. The use case for score validation ends, and the system allows for a new turn to begin.

**Alternative Flows:**

*Alt 1: No robot ricocheted at least once.*

1. The system recognises that no robot changed its direction through 90 degrees during the move demonstration and deemed the turn invalid.
2. Flow resumes at Main Success Scenario Step 5.

*Alt 2: Actual number of moves greater than initial.*

1. The system recognises that the actual valid number of moves is less or greater than the bid number of moves.
2. Flow resumes at Main Success Scenario Step 5.

**Exceptions:**

- If the system encounters an unexpected move which has not been programmed, then the use case ends.
- If at any time the user exits the system, then the use case ends.

**Special Requirements:**

- Proper accessibility features for people with colour deficiency must be implemented to care for them during a game.

**Open Issues:**

- How long should the current player be allowed to demonstrate their move before validating the score(move)?