## Use Cases related to AI

|  |  |
| --- | --- |
| **Flow of Events for Seeking** | |
| Use Case ID | ucA001 |
| Objective | AI controlled panel moves into position to strike puck |
| **Precondition** | *Puck must be in AI’s half, not moving towards the goal* |
| **Main Flow** | 1. *Puck moves to intercept rear of puck* 2. *Velocity changes if puck hits walls or for other direction changes* |
| **Alternative Flows** | *N/A* |
| **Post-condition** | *AI paddle is in position to strike puck* |

|  |  |
| --- | --- |
| **Flow of Events for AI Strike** | |
| Use Case ID | ucA002 |
| Objective | AI Paddle strikes the puck |
| **Precondition** | *Paddle must be behind puck* |
| **Main Flow** | 1. *Extends* uc*A001* 2. *Angle of impact required for goal shot is calculated* 3. *Paddle accelerates to strike puck* 4. *Paddle strikes puck* |
| **Alternative Flows** | *N/A* |
| **Post-condition** | *Puck moves towards other goal* |

|  |  |
| --- | --- |
| **Flow of Events for AI Defense** | |
| Use Case ID | ucA003 |
| Objective | AI Paddle defends goal |
| **Precondition** | *Puck is in enemy half* |
| **Main Flow** | 1. *Likely angle of approach from puck’s current location is calculated* 2. *Paddle blocks goal from likely angle of approach* |
| **Alternative Flows** | *N/A* |
| **Post-condition** | *N/A* |