

|                       | Ship  | CPlayer   | SPlayer  | Junk  | Ping  |
|-----------------------|---|---|--|---|---|
| <b>Use Case</b>       | Ship Collides with Object                                   | Player is Moving  | Player Boards Enemy Ship   | Junk is Generating                            | Ping is Despawned                           |
| <b>Actor</b>          | Ship  | Player  | Player   | Game Controller                               | Ping  |
| <b>Pre-condition</b>  | Ship and Object are moving towards each other               | Player is spawned in  | The Ship is in boarding range, Boarding conditions are met and Player is in Pilot's Seat | Game Controller is Functioning Correctly      | Ping currently exists                       |
|                       |   | Player is moveable state  |  |   |   |
| <b>Post Condition</b> | An interaction occurs                                       | Player position is altered  | Ship begins boarding mechanism and auto docks onto Enemy Ship                            | Junk is spawned in                            | Ping is Destroyed                           |
| <b>Events</b>         | 1. Ship and Object hit                                      | 1. User presses the movement hot keys   | 1. Player activates boarding mechanism from Pilot's seat                                 | 1. Game Controller spawns the Junk            | 1. Ping exists for a certain amount of time |
|                       | 2. Interaction case happens                                 |   |  |   |   |
|                       |   |   |  |   |   |
| <b>Use Case</b>       | Ship is Generating  | Player is Shooting  | Player Detaches Weapon   | Junk Collides with Object                     |   |
| <b>Actor</b>          | Game Controller   | Player  | Player   | Junk and Object                               |   |
| <b>Pre-condition</b>  | Game Controller is Functioning Correctly                    | Player is able to fire  | Player is within the detachment range  | Object and Junk are moving towards each other |   |
|                       |   |   |  |   |   |
| <b>Post-condition</b> | Ship is spawned in  | Projectile is spawned in  | 1. Weapon is detached from the Ship  | An interaction occurs                         |   |
|                       |   |   | 2. Player is holding the Weapon  |   |   |
| <b>Events</b>         | 1. Game Controller spawns the Ship                          | 1. User presses the fire hot key  | 1. Player presses the detach weapon button   | 1. Junk and Object hit                        |   |
|                       |   |   |  | 2. Interaction case happens                   |   |
|                       |   |   |  |   |   |
|                       |   |   |  |   |   |
| <b>Use Case</b>       | Ship Regenerates Shield                                     | Player is taking damage   | Player Attaches Weapon   |   |   |
| <b>Actor</b>          | Ship  | Player  | Player   |   |   |
| <b>Pre-condition</b>  | The Shields have been damaged                               | The Player has health greater than 0  | Player is within attachment range  |   |   |
|                       |   |   |  |   |   |
| <b>Post-condition</b> | The Shield Are slowly repaired                              | The Player has taken damage   | 1. Weapon is attached to the ship  |   |   |
|                       |   |   | 2. Player is no longer holding the Weapon  |   |   |
| <b>Events</b>         | 1. Ship Shield is damaged                                   | 1. Player is struck by a projectile   | 1. Player presses the attack weapon button   |   |   |
|                       |   |   |  |   |   |
|                       |   |   |  |   |   |
| <b>Use Case</b>       | Ship is Destroyed   | Player Dies   | Player Takes a Seat  |   |   |
| <b>Actor</b>          | Ship  | Player  | Player   |   |   |
| <b>Pre-condition</b>  | Ship's hull value is above zero                             | The Player has health greater than 0  | 1. The Player is within the range of the seat  |   |   |
|                       |   |   | 2. Seat is currently unoccupied  |   |   |
| <b>Post-condition</b> | Ship's hull value has become zero and the Ship is destroyed | The Player's health has reached zero and the Player instance has been destroyed | The Player has taken the seat  |   |   |
| <b>Events</b>         | 1. Ship Takes Damage  | 1. Player takes damage  | 1. Player presses the button to sit  |   |   |
|                       |   |   |  |   |   |

|                       | Ship | CPlayer                                    | SPlayer  | Junk | Ping |
|-----------------------|------|--|--|------|------|
| <b>Use Case</b>       |      | Player Respawns                            | Player Leaves a Seat   |      |      |
| <b>Actor</b>          |      | Player                                     | Player   |      |      |
| <b>Pre-condition</b>  |      | 1. Player is Dead                          | 1. The Player is on a seat   |      |      |
|                       |      | 2. Player's respawn timer has reached zero |  |      |      |
|                       |      |  |  |      |      |
| <b>Post-condition</b> |      | Player is Respawned                        | The Player has left the seat                                       |      |      |
| <b>Events</b>         |      | 1. Ship respawns Player                    | 1. Player presses the button to leave                              |      |      |
|                       |      |  |  |      |      |
|                       |      |  |  |      |      |
| <b>Use Case</b>       |      |  | The Ship Activates the Engines                                     |      |      |
| <b>Actor</b>          |      |  | Player   |      |      |
| <b>Pre-condition</b>  |      |  | Acting Player is in the Pilot's seat                               |      |      |
|                       |      |  |  |      |      |
| <b>Post-condition</b> |      |  | The Ship Moves Forward   |      |      |
| <b>Events</b>         |      |  | 1. The Player uses Ship control input for activating the Engines   |      |      |
|                       |      |  |  |      |      |
|                       |      |  |  |      |      |
| <b>Use Case</b>       |      |  | The Ship Activates Thrusters                                       |      |      |
| <b>Actor</b>          |      |  | Player   |      |      |
| <b>Pre-condition</b>  |      |  | Acting Player is in the Pilot's seat                               |      |      |
|                       |      |  |  |      |      |
| <b>Post-condition</b> |      |  | The Ship Moves to the side or backwards                            |      |      |
| <b>Events</b>         |      |  | 1. The Player uses Ship control input for activating the thrusters |      |      |
|                       |      |  |  |      |      |
|                       |      |  |  |      |      |
| <b>Use Case</b>       |      |  | The Ship Fires   |      |      |
| <b>Actor</b>          |      |  | Player   |      |      |
| <b>Pre-condition</b>  |      |  | Player is in the gunner's seat                                     |      |      |
|                       |      |  |  |      |      |
| <b>Post-condition</b> |      |  | Projectile is Fired  |      |      |
| <b>Events</b>         |      |  | 1. The player presses the button to fire                           |      |      |
|                       |      |  |  |      |      |
|                       |      |  |  |      |      |
| <b>Use Case</b>       |      |  | Player Scans the Area  |      |      |
| <b>Actor</b>          |      |  | Player   |      |      |
| <b>Pre-condition</b>  |      |  | The Player must be in the Technicians Seat                         |      |      |
|                       |      |  |  |      |      |
| <b>Post-condition</b> |      |  | The Player has increased visibility                                |      |      |

|                | Ship | CPlayer | SPlayer   | Junk | Ping |
|----------------|------|---------|---|------|------|
| Events         |      |         | 1. Player uses input key to move the Player's perspective |      |      |
|                |      |         |   |      |      |
| Use Case       |      |         | Player Performs a Global Ping                             |      |      |
| Actor          |      |         | Player  |      |      |
| Pre-condition  |      |         | Player must be in the Technicians Seat                    |      |      |
|                |      |         |   |      |      |
| Post-condition |      |         | The Player creates a ping on a location or item           |      |      |
| Events         |      |         | 1. Player uses the input key to create a ping             |      |      |
|                |      |         |   |      |      |
| Use Case       |      |         | Player scans a Modules                                    |      |      |
| Actor          |      |         | Player  |      |      |
| Pre-condition  |      |         | 1. Player must be in the Technicians Seat                 |      |      |
|                |      |         | 2. The Scanner location is on a module                    |      |      |
| Post-condition |      |         | The Player is able to see the health of the module        |      |      |
| Events         |      |         | 1. Player clicks on a module                              |      |      |
|                |      |         |   |      |      |
|                |      |         |   |      |      |
| Use Case       |      |         | Player Repairs a Module                                   |      |      |
| Actor          |      |         | Player  |      |      |
| Pre-condition  |      |         | 1. The Player is within range of the module               |      |      |
|                |      |         | 2. The module is damaged                                  |      |      |
| Post-condition |      |         | The module is repaired                                    |      |      |
| Events         |      |         | 1. Player presses a button to repair                      |      |      |