Use-case descriptions

# UCD 1 – Call elevator

*Precondition*:

* ­Elevator in initialized state
* Stop-button not held in

*Trigger*: Call-button in given floor is pressed

*Success-scenario*:

1. Call-button lights up, and the order is registered.
2. Call-button light stays lit and order is awaiting in queue.
3. The elevator arrives at the floor it’s ordered from.
4. The elevator stops, if the floor is next in queue.
5. Door opens, open-door indicator lights.
6. Call-button light goes out.
7. Order is removed from queue.
8. After 3 seconds of open door, the door closes, open-door light goes out.
9. Elevator stays still with door closed in an initialized state.

*Extensions*:

4a: The elevator doesn’t stop (another order precedes it)  
4a.1: Jump to step 2.

General exception: Stop button is pressed: Go to stop operator Use-case  
*Requirements for success*:

Same as preconditions

*Minimal guarantee*:

Elevator stops

# UCD 2 – Passenger travelling in elevator

*Precondition*:

* Stop button not pressed
* Elevator in initialized state

*Trigger*: Oder-button inside elevator pressed.

*Success-scenario*:

1. Order-button inside elevator lights up.
2. Order is placed in queue.
3. Order-button inside elevator stays lit.
4. Elevator starts moving.
5. Elevator arrives at designated floor and stops.
6. Order-button light inside elevator goes out.
7. Door opens, open-door indicator lights up.
8. Order is removed from queue.
9. After 3 seconds of open door, the door closes, open-door light goes out.

*Exceptions*:

Trigger exception: Elevator’s position and requested floor is the same: Jump to step 8.

General exception: Stop button is pressed: Go to stop operator Use-case

*Requirement for success*:

Same as preconditions

*Minimal Guarantee*:

The elevator stops.

# UCD 3 – Stop-button operator

*Preconditions*:

None

*Trigger*: Stop button is pressed

*Success-scenario*:

1. The elevator stops
2. All orders are deleted, and further orders are ignored.
3. Stop button is released.
4. The elevator stays in place.
5. Orders can be registered again

*Exceptions*:

1a: Elevator is in an uninitialized state.  
1a.1: Elevator enters an initialized state and stops. Proceed with next step.

1b: Elevator is not in-between floors.  
1b.1: The door opens for as long as the button is pressed. Proceed with next step.