Use Case: Elevator Request

Primary Actor: Passenger

Scope: Elevator Control System

Level: User goal

Preconditions: There is no elevator on the current floor.

Success Scenario:

1. Passenger select press the “Up” or “Down” button on the floor.
2. The selected button illuminates and remains illuminates until an elevator arrive the current floor.
3. The bell rings and the door open for 10 seconds.
4. After 10 seconds, the bell rings again and the door closed.

Extensions:

1. Door keeps open.
   1. Passenger press the “Open door” button in the elevator.
   2. The door remains open beyond its default period.
2. Door close early.
   1. Passenger press the “Close door” button int the elevator.
   2. The door can be closed prematurely.

Use Case: Elevator Move ToThe Specified Floor

Primary Actor: Passenger, Elevator

Scope: Elevator Control System

Level: User goal

Preconditions: Passenger enters the elevator

Success Scenario:

1. Passenger choose a destination floor in the elevator.
2. The Elevator Control System controls the elevator to start move.
3. The display shows the current floor of the elevator.
4. The Elevator stopped at destination floor.
5. The bell rings and the door open for 10 seconds.

User Case: Help Request

Primary Actor: Passenger

Scope: Elevator Control System

Level: User goal

Preconditions: Passenger pressed “Help” button int the elevator

Steps:

1. The Elevator Control System receive help signal from elevator.
2. The passenger is connected to building safety service through a voice connection.
3. If there is no response from building safety within 5 seconds or if there is no response from the passenger.
4. A 911 emergency call is placed.

UseCase: Door obstacles

Primary Action: Passenger

Scope: Passenger, Door

Level: User goal

Preconditions: The door is open

Steps:

1. The light sensor is interrupted when door is closing.
2. The control system stops the door from closing and opens it.
   1. If this occurs repeatedly over a short period of time.
   2. A warning is sounded over the audio system and a text message is displayed.

Use Case: Fire

Primary Action: Passenger

Scope: Passenger

Level: User goal

Preconditions: The Elevator Control System receives a “Fire” alarm signal.

Steps:

1. TheElevator Control System commands all elevators to move to a safe floor.
2. An audio and a text message are presented once the safe floor is reached.

Use Case: Overload

Primary Action: Passenger

Scope: Passenger, Elevator

Level: User goal

Steps:

1. The Elevator Control System receive the “Overload” alarm signal from an elevator.
2. The elevator does not move and an audio and a text message are present.
3. After load is reduced, attempt to move again.

Use Case: Power Out

Primary Action: Passenger

Scope: Passenger

Level: User goal

Steps:

1. The Elevator Control System receive a “Power Out” alarm signal.
2. Backup power start.
3. All elevators moved to a safe floor and passengers are asked to disembark.
4. An audio and a text message are presented.