## **Elevators**

Twelve floors commercial building has hired you to test new elevators system. There are three main requirements:

- 1. Two elevators are available, the closest one to the customer will arrive, if not busy.
- 2. The maximum carry weight capacity is 900 kg or 10 people.
- 3. The fifth floor is occupied by a foreign embassy and could be accessed only after passing an access card

## 1. Main Functionality

- 1.1 From the first-floor press call button, verify that one of the elevators started to move, arrived to the floor, doors are opened
- 1.2 Press the buttons in the elevator to see how it is reacted. Especially the button "call service" to verify if it's connected with the service.
- 1.3 I time the arrival time of the elevator; I do this procedure 3-4 times calling it from the same floor to see if it completes the order in the same time interval.
- 1.4 I get in the elevator and press the ascending floors to see if it stops where you indicated, the same do to descends the floors.
- 1.5 I get in the elevator and press the 5<sup>th</sup> floor to see if it will take me there (access to this floor is only with a chip).
- 2. Safety
- 2.1 I get in the elevator with other 9 persons to see if it works (check if it's corresponded the maximum carry weight capacity).
- 2.2 When we go up and down, I ask a few people to make movements to check how sensitive it is and if it stops or continues to go up/down.
- 2.3 I time the opening and closing time of the door, I do it to check if 5 people manage to get on the elevator.
- 2.4 I check when a person goes up in that time when the doors close, how the sensor reacts at that moment.
- 2.5 I check the behavior of elevator when I block the door.
- 2.6 I'm try to open the door when its works and/or stopped.
- 2.7 Test the elevator behavior in different situations like pour water on the floor and over the buttons, smoke inside, burn papers or wooden sticks.
- 2.8 Emit the earthquake inside.

## 3. Load

- 3.1 I check how responsive an elevator is when the other one is busy: I call it, I don't go up, when the doors are close ask somebody on another floor to call it.
- 3.2 In the elevator press different floor buttons to verify the logic of way. For example, if I'm in the 3th floor and press floor 7 and immediately press button floor 1, logically its first up to  $7^{\rm th}$  floor and after to down to the first.
- 3.3 Call the elevator with other persons on different floors at the same time.