Elevator Control System

Requirement:

Name	Select Floor
Description	Let users input a target floor.
Actors	User
Trigger	Button
Preconditions	The elevator has installed input buttons.
Basic flow	Once the user push down a button, it will return the number of the floor.
Exceptions	Elevator has broken.
Postconditions	None

Name	Operate
Description	Let elevator move to the target floor..
Actors	None
Trigger	Users have push down at least one button.
Preconditions	The elevator has installed input buttons.
Basic flow	When the elevator get the input, the target floor button is turned on, and the door is closed. Then elevator begins to move toward the target floor.
Exceptions	Elevator has broken.
Postconditions	None

Name	Stop
Description	Let elevator stop work after users leave.
Actors	User
Trigger	When the elevator arrives the target floor.
Preconditions	When the elevator arrives the target floor.
Basic flow	When the elevator arrive the target floor, the button light is turned off, and the door open, After the users leave the elevator, the door close.
Exceptions	Elevator has broken.
Postconditions	None

User	Button	System

User → Button: Push down a button

Button → System: AddFloor(int)

System: MoveUp()/MoveDown()

System: Sleeping = false, Moving = true

System: TurnOnLight(int)

System: CloseDoor()

System: MoveUp()/MoveDown()

System: Loop Check List<int>Floor to match current Floor

System: Sleeping = true, Moving = false

System: OpenDoor()

User → System: Leave the elevator

System: TurnOffLight(int)