



## Design Case Study - Elevator

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## Design Decisions

The system contains

- one elevator manager object
- one request scheduler object
- one object to command the motor
- one object to command the door of the cabin
- one object to command each light-button

Design decisions different from analysis

- Floor and Cabin Buttons are unified
- There is no difference between internal and external request

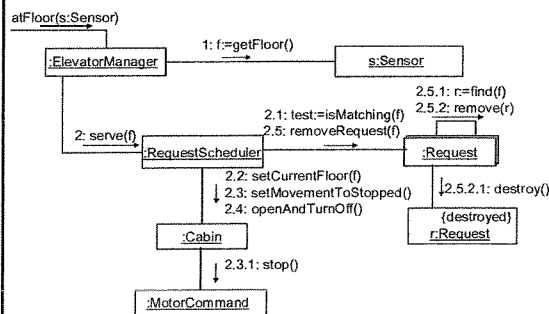


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- slide 2 -

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## Interaction Model: atFloor



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- slide 3 -

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## Pseudo-code atFloor

get floor from the sensor; (1)  
serve the floor (2)

method serve

check requests for this floor; (2.1)  
if there is a request for this floor {  
    set the cabin's current floor; (2.2)  
    set the movement of the cabin to stopped and stop the motor; (2.3, 2.3.1)  
    turn off the lights and open the door; (2.4)  
    find and remove request for this floor; (2.5, 2.5.1, 2.5.2)  
}

method removeRequest

find a request for the given floor (2.5.1)  
destroy the request (2.5.2, 2.5.2.1)

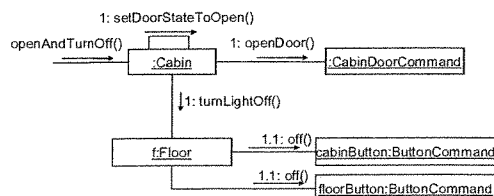


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## Interaction Model: openAndTurnOff Method



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- slide 5 -

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## Pseudo-code openAndTurnOff Method

open the door; (1)  
set door state to open; (1)  
turn lights off on floor and cabin button (1,1.1)



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- slide 6 -

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