USER MANUAL

Elevator System

Group 16
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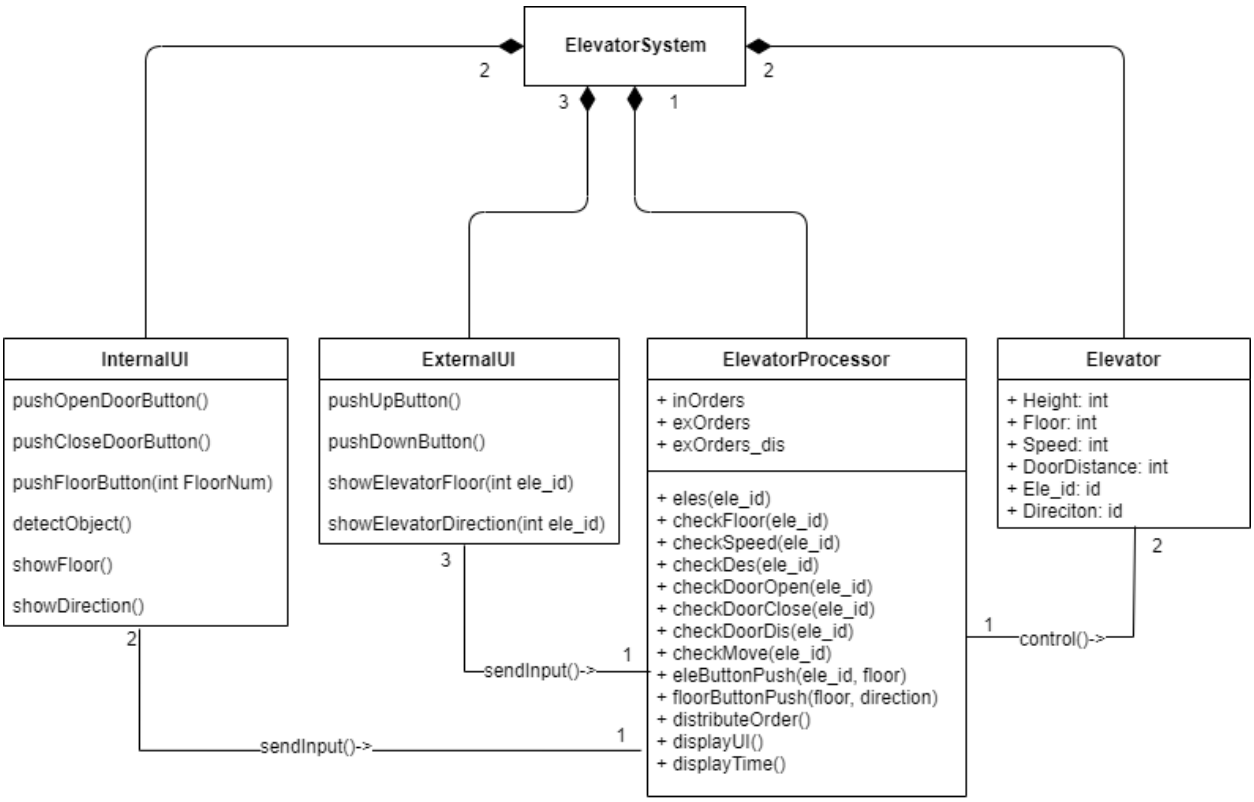
System Architecture

The system architecture is shown below:



User Manual

External UI

On each floor there is an External UI which is shown below (Figure 1):

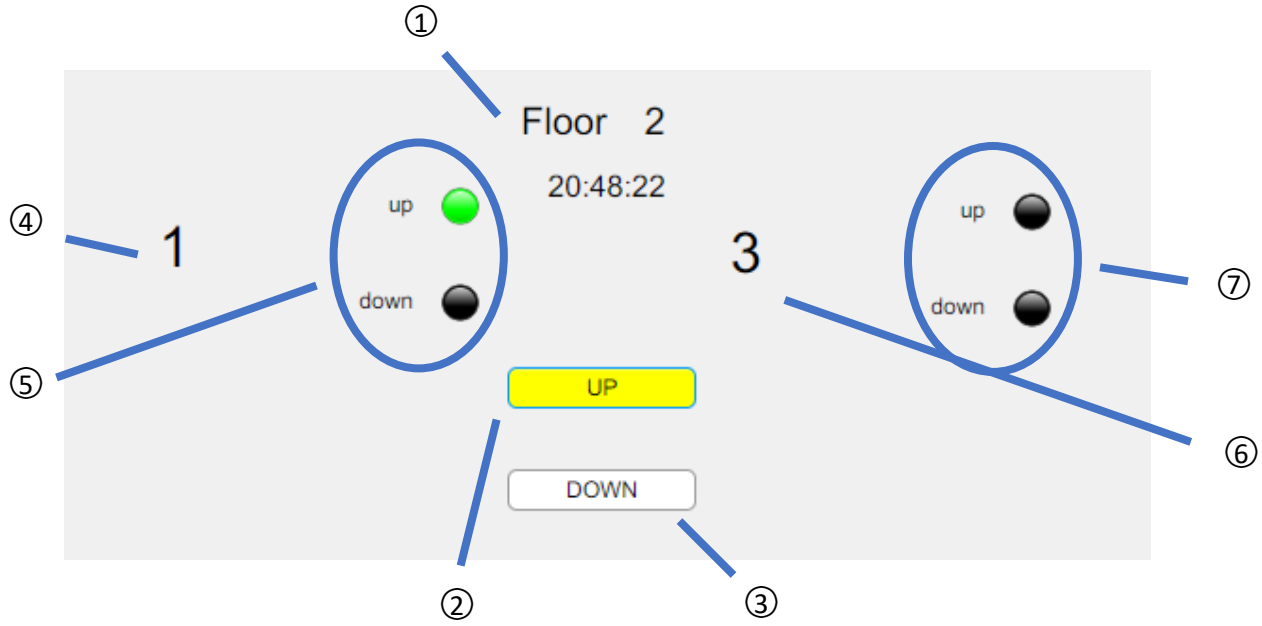


Figure 1

External UI Components

- ① "Floor number". This is the floor number of this floor.
- ② "Up". Clicking on this button will lighten the button and let the system know that there is request to going up. When an elevator come for response, the button's light will be off.
- ③ "Down". Clicking on this button will lighten the button and let the system know that there is request to going up. When an elevator come for response, the button's light will be off.
- ④ "Elevator 1's current floor". This is the current floor number of elevator 1.
- ⑤ " Elevator 1's current direction". This is the current moving direction of elevator 1. If the lamp 'up' is lightened, elevator 1's direction is up. If the lamp 'down' is lightened, elevator 1's direction is down. If neither of two lamps is lightened, elevator 1 is idle.
- ⑥ "Elevator 2's current floor". This is the current floor number of elevator 2.
- ⑦ " Elevator 2's current direction". This is the current moving direction of elevator 2. If the lamp 'up' is lightened, elevator 2's direction is up. If the lamp 'down' is lightened, elevator 2's direction is down. If neither of two lamps is lightened, elevator 2 is idle.

Internal UI

In each elevator there is an Internal UI which is shown below (Figure 2):

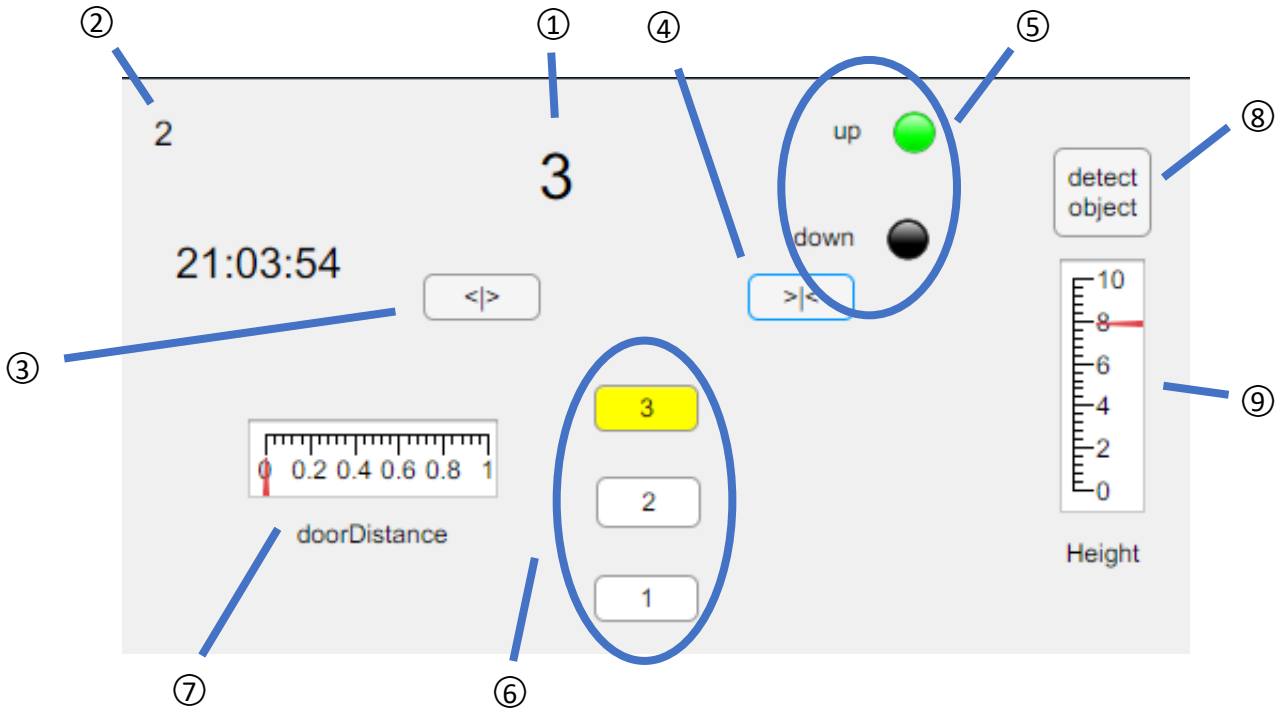


Figure 2

Internal UI Components

- ① "Floor number". This is the current floor number of the elevator.
- ② "Elevator number". This is the number of the elevator.
- ③ "Open door". Pressing on this button when the elevator is stopped will let it to open door. (First click equals to pressing down, and the second click equals to releasing.)
- ④ "Close door". Pressing on this button when the door is totally opened will let the elevator to close door. (First click equals to pressing down, and the second click equals to releasing.)
- ⑤ "Moving direction". This is the current moving direction of the elevator. If the lamp 'up' is lightened, the direction is up. If the lamp 'down' is lightened, the direction is down. If neither of two lamps is lightened, the elevator is idle.
- ⑥ "Floor button". Clicking on the button will lighten the button and let the elevator know that it needs to go to that floor when the elevator is idle or the floor is on the moving direction. If the

button is lightened and the floor is not the only one destination, clicking on the button can cancel the request and de-lighten the button.

- ⑦ “Door Distance”. This gauge simulates the status of the elevator’s door. ‘1’ means the door is totally opened, and ‘0’ means the door is totally closed.
- ⑧ “Object detected”. Pressing on this button when the elevator is stopped will let it to open door. It simulates the object detector between the door. (First click equals to pressing down, and the second click equals to releasing.)
- ⑨ “Height”. This gauge shows the current height of the elevator. Floor 1 is height 0, floor 2 is height 5 and floor 3 is height 10.