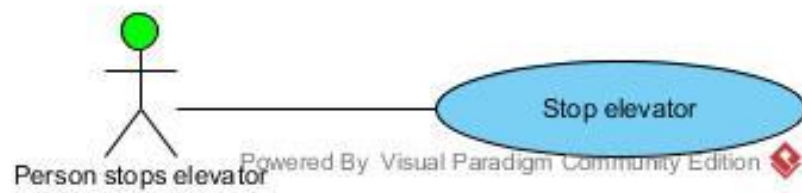
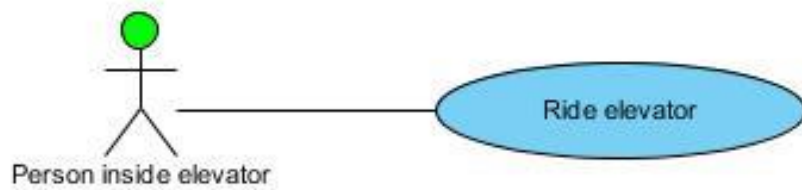
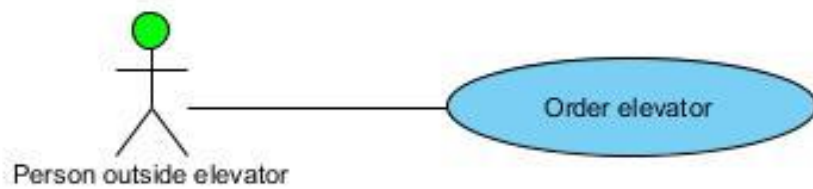
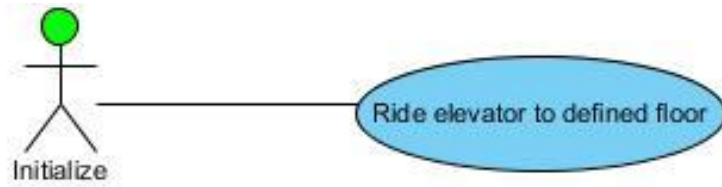

USE-CASE



Powered By Visual Paradigm Community Edition



Initialize

Precondition:

- Power off
- Stop-button is not pressed in

Trigger:

- System is turned on

Main success scenario:

1. Drives to a floor if elevator is not in a defined state
2. Elevator stop on a floor

Extensions:

- 1.1 If elevator is in a defined state, it stays on the current floor

Guarantee:

- The elevator is in defined state

Order elevator:

Precondition:

- The elevator is in a defined state and initialized
- Stop-button is not pressed in

Trigger:

- UP/DOWN-button is pressed

Main success scenario:

1. UP/DOWN-button lights up
2. Elevator drives to floor where order is made
3. Elevator stop
4. The doors open and are held open for 3 seconds
5. Lights in UP/DOWN buttons turns off

Extensions:

1. If elevator is in the same floor as where order is made, the doors open and stay open for 3 seconds

Guarantee:

- The elevator reaches its designated floor, given that the stop-button is not pressed

Ride elevator:

Precondition:

- The elevator is in a defined state and initialized
- Stop-button is not pressed in
- The elevator has at least one passenger

Trigger:

- One of the 4 order buttons are pressed

Main success scenario:

1. Order button lights up
2. Elevator drives to ordered floor
3. Elevator stop
4. Doors open and are held open for 3 seconds
5. Floor lights indicate what floor the elevator is on
6. Orderlights turns off

Extensions:

Guarantee:

- The elevator reaches its designated floor, given that the stop-button is not pressed

Stop Elevator:

Precondition:

- The elevator is in a defined state and initialized
- Stop-button is not pressed in
- The elevator has at least one passenger

Trigger:

- Stop-button is pressed

Main success scenario:

1. Elevator stops
2. All orders are removed
3. Lights in all order buttons turns off
4. Light in stop-button turns on

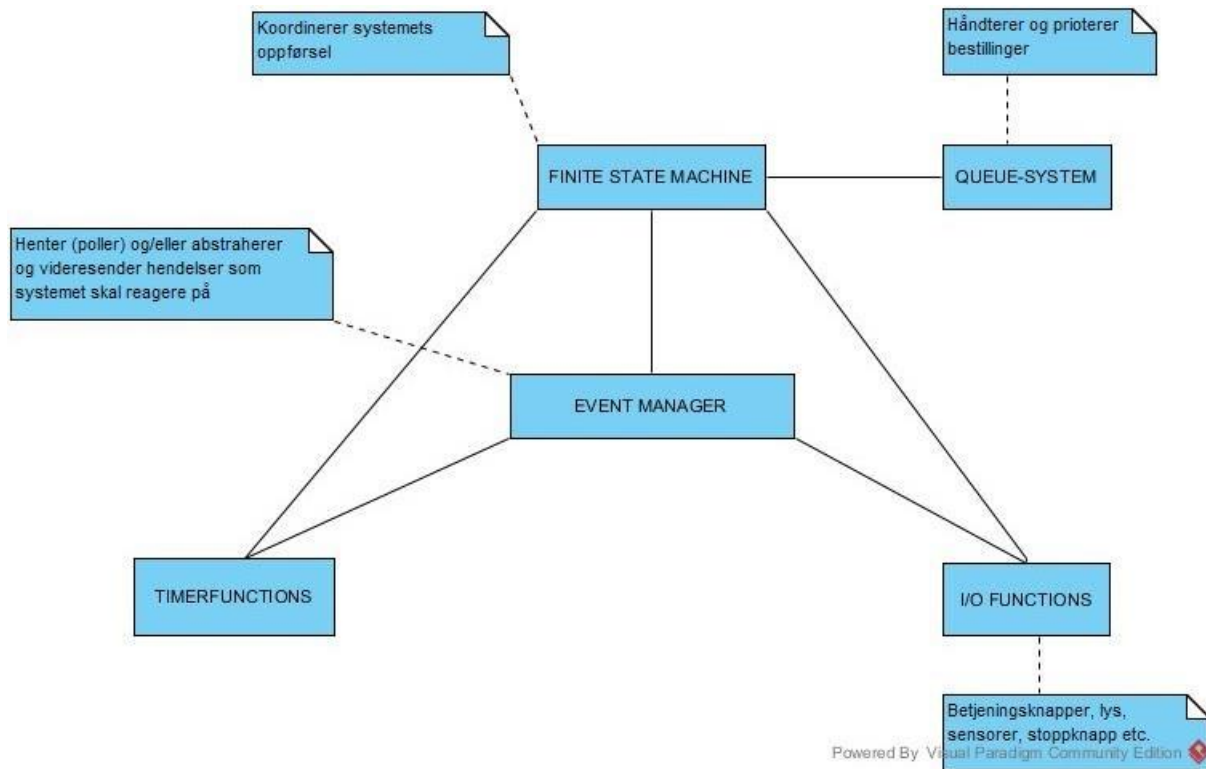
Extensions:

- 1.2 Door opens if elevator is on a floor when stop-button is pressed
- 1.3 Elevator is still while waiting for order
- 2.1 Elevator does not receive new orders while stop-button is pressed in

Guarantee:

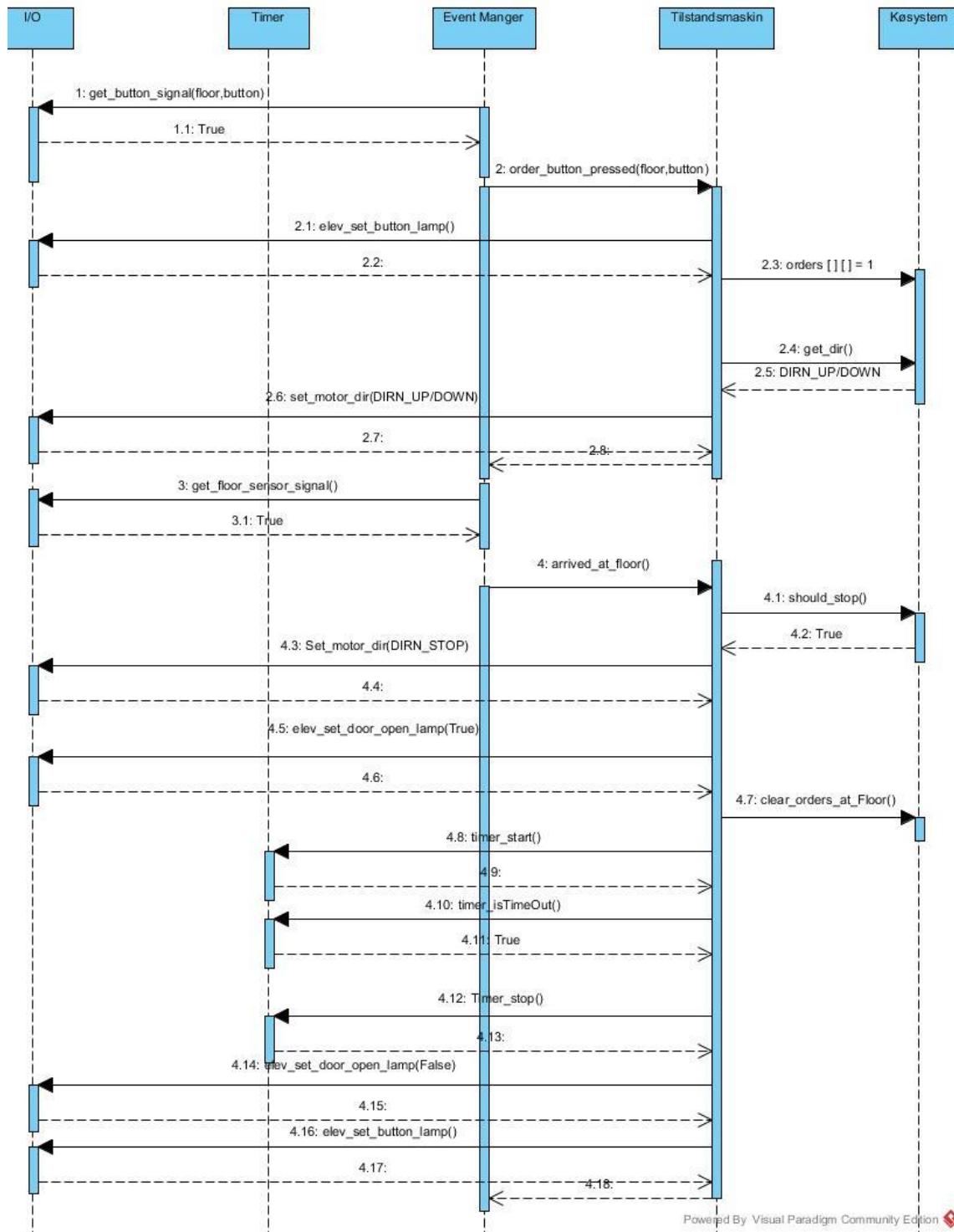
- Elevator does not move

COMMUNICATION DIAGRAM

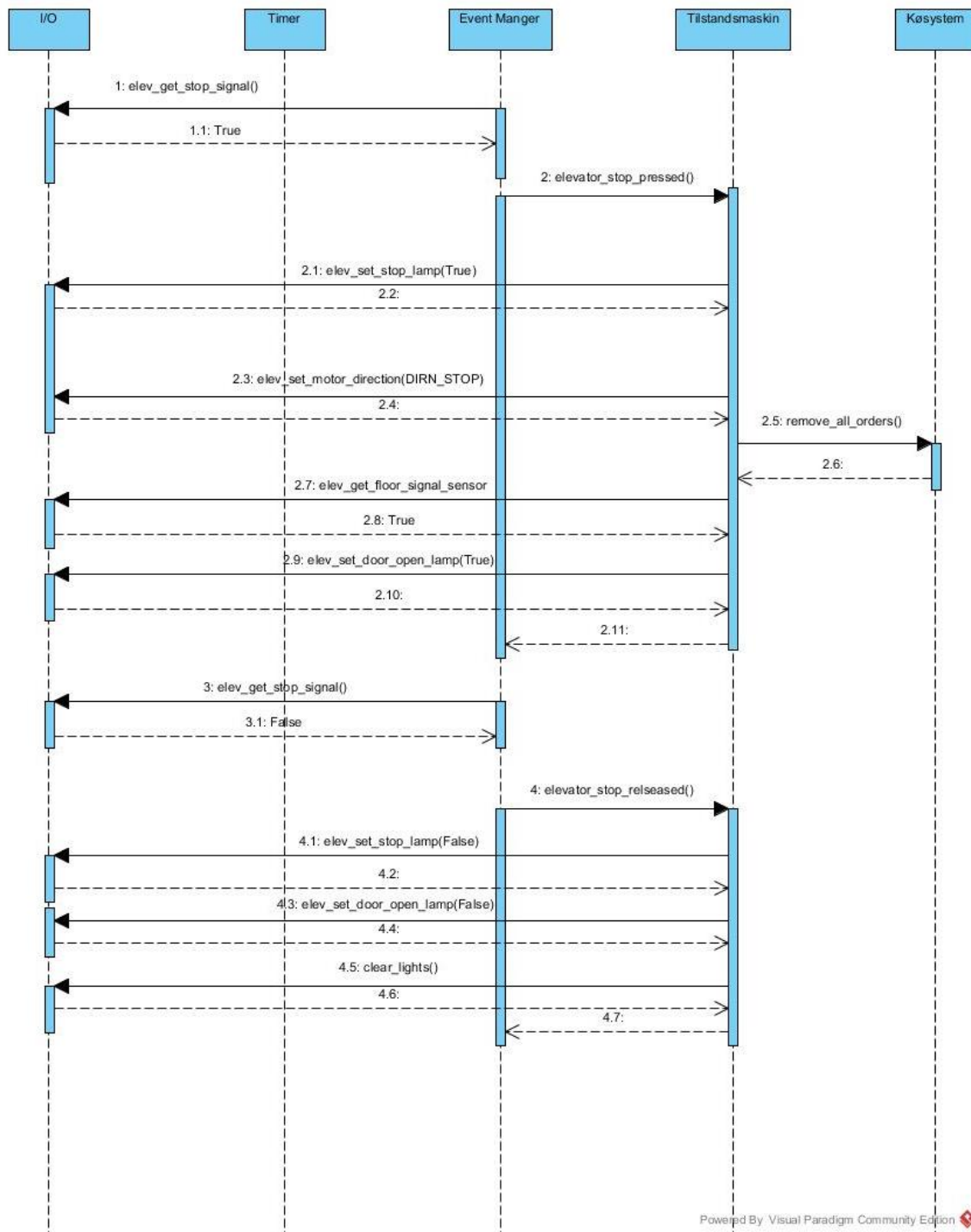


SEQUENCE-DIAGRAM

Scenario: order elevator

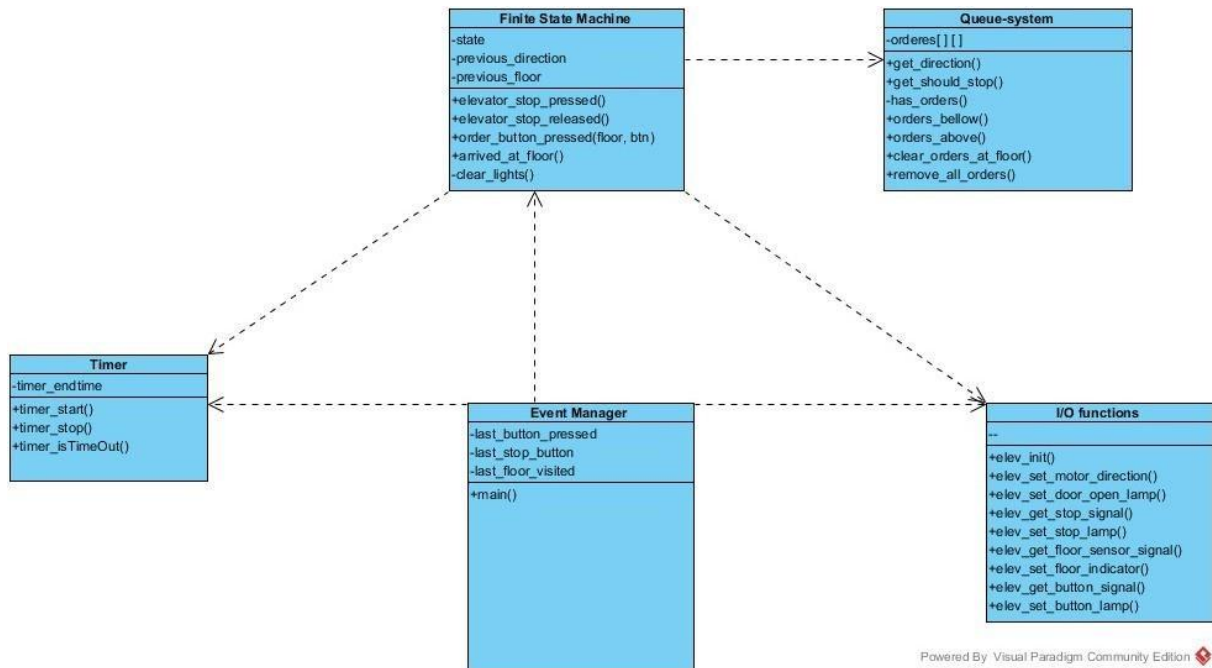


Scenario: Stop-Button is pressed at a floor

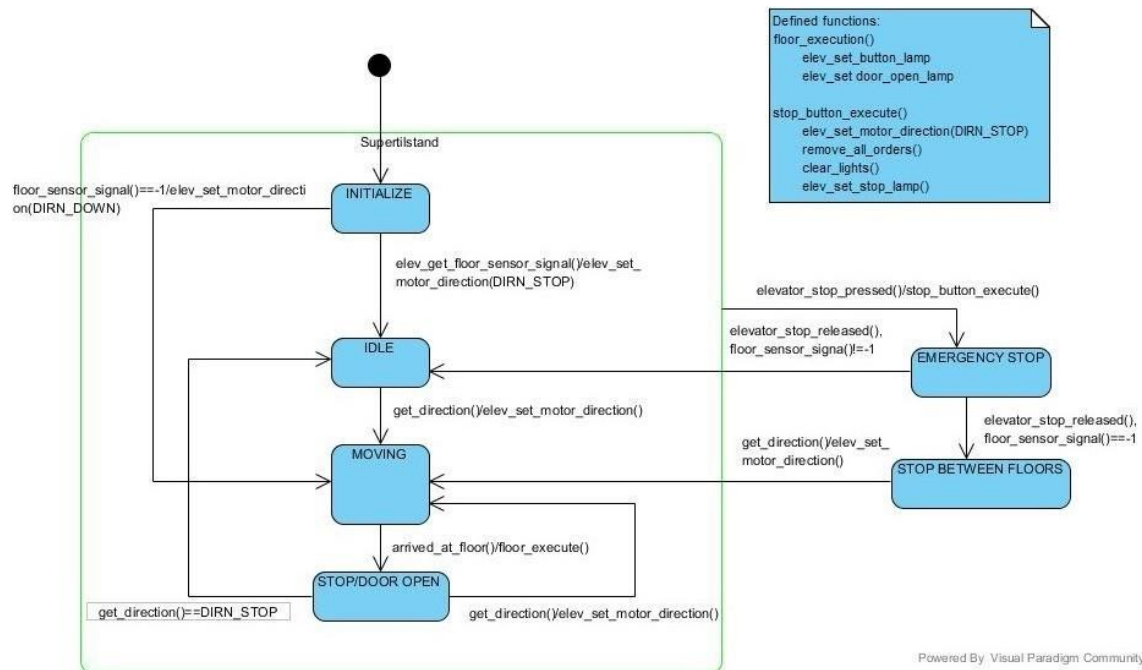


Powered By Visual Paradigm Community Edition

CLASS DIAGRAM



FINITE STATE DSDIAGRAM



Powered By Visual Paradigm Community Edition