State Machine Diagram
FinalStateMachine

initialization

ev_initialize /
elev_set_motor_direction(-1)

ev_floorSensorActive /
elev_set_motor_direction(0)

normalOperation

ev_activeDirection /
elev_set_door_open_lamp(1),
elev_set_button_lamp() [All for current floor],
timer_start(),

stop

unloading

ev_timerIsTimeOut /
timer_stop(),
elev_set_door_open_lamp(0)

ev_activeDirection /
elev_set_motor_direction()

moving

ev_stopButtonUnpressed /
timer_start()

ev_arrivedAtTargetFloor /
elev_set_motor_direction(0)

ev_stopButtonUnpressed

ev_stopButtonPressed /
elev_set_button_lamp() [ALL],
elev_set_motor_direction(0)

emergencyStop

elev_get_floor_sensor_signal: == -1

Elev_get_floor_sensor_signal: != -1 /
elev_set_door_open_lamp(1)

emergencyStopBetweenFloors

emergencyStopInFloor