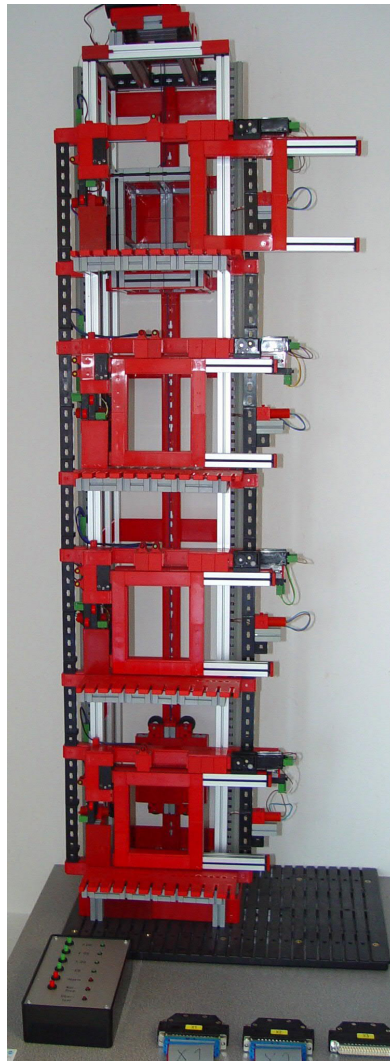


Elevator C (4 floors)



The elevator consists of a cage with counterweights, a pit and four floor units, each one containing a pneumatic driven sliding door, call buttons and colored control lamps to indicate the moving direction of the cage. In addition to this there is a control panel, realizing the operating options from inside the cage. In essence, these are selection buttons to choose a floor, an alarm button, an emergency stop and the ability to choose a mode of operation, where the lift is controlled exclusively from outside the cage. The simulated process shows the elevator being brought from a basic position to one of the floors, by operating the control panel or one of the call buttons, and after opening and closing the sliding door being ready for the next sequence: After operation one of the call buttons, indicated by a signal lamp, the cage is brought in a slow-fast-slow-movement, being controlled by mechanical switches depending on the distance, to the chosen floor. The sliding door gets opened and remains open, until the programmed loading time is over. A one way light barrier controls the entrance to prevent, in a real case persons or things that are in the danger zone of the door, from getting hurt. After closing the sliding door, the cage gets moved to the next chosen floor, where the sequence of opening and closing the sliding door occurs in the same manner. A miniature compressor for the pneumatic driven sliding doors is integrated in the model.

Inputs / Sensors

Variable Name	Direction
x0 Elevator on floor 1	Input
x1 Elevator on floor 2	Input
x2 Elevator on floor 3	Input
x3 Elevator above floor 1	Input
x4 Elevator below floor 2	Input
x5 Elevator above floor 2	Input
x6 Elevator below floor 3	Input
x7 Floor 1 - Door open	Input
x8 Floor 1 - Door closed	Input
x9 Floor 2 - Door open	Input
x10 Floor 2 - Door closed	Input
x11 Floor 3 - Door open	Input
x12 Floor 3 - Door closed	Input
x13 Light barrier floor 1	Input
x14 Light barrier floor 2	Input
x15 Light barrier floor 3	Input
x16 Call button floor 1	Input
x17 Call button floor 2 up	Input
x18 Call button floor 2 down	Input
x19 Call button floor 3	Input
x20 Elevator control - floor 1	Input
x21 Elevator control - floor 2	Input
x22 Elevator control - floor 3	Input
x23 Elevator control - alert	Input
x24 Elevator control - emergency stop	Input
x25 Simulation overload	Input
x26 Elevator on floor 4	Input
x27 Elevator above floor 3	Input
x28 Elevator below floor 4	Input
x29 Floor 4 - door open	Input
x30 Floor 4 - door closed	Input
x31 Light barrier floor 4	Input
x32 Call button floor 3 up	Input
x33 Call button floor 4 down	Input
x34 Elevator control floor 4	Input

Outputs / Actuators

Variable Name	Direction
y0 Drive upwards	Output
y1 Drive downwards	Output
y2 Drive slowly	Output
y3 Door floor 1 - open	Output
y4 Door floor 1 - close	Output
y5 Door floor 2 - open	Output
y6 Door floor 2 - close	Output
y7 Door floor 3 - open	Output
y8 Door floor 3 - close	Output
y9 Call display floor 1	Output
y10 Call display floor 2 - upward	Output
y11 Call display floor 2 - downward	Output
y12 Call display floor 3 - downward	Output
y13 Indicator display floor 1	Output
y14 Indicator display floor 2	Output
y15 Indicator display floor 3	Output
y16 Drive direction display - downward	Output
y17 Drive direction display - upward	Output
y18 Elevator control - Indicator display floor 1	Output
y19 Elevator control - Indicator display floor 2	Output
y20 Elevator control - Indicator display floor 3	Output
y21 Elevator control - alert	Output
y22 Elevator control - emergency stop	Output
y23 Elevator control - overload	Output
y24 Door floor 4 - open	Output
y25 Door floor 4 - close	Output
y26 Call display floor 3 - upwards	Output
y27 Call display floor 4	Output
y28 Indicator display floor 4	Output