|--|

Main [OB1]

Main Properties									
General									
Name	Main	Number	1	Туре	ОВ	Language	LAD		
Numbering	Automatic								
Information									
Title	"Programa principal (ciclo de	Author		Comment	Automação da cena Elevator	Family			
	varredura)"				(Advanced) do Factory I/O.				
Version	0.1	User-defined ID							

Name	Data type	Default value	Comment
▼ Input			
Initial_Call	Bool		Initial call of this OB
Remanence	Bool		=True, if remanent data are available
Temp			
Constant			

Network 1: Lógica de comunicação

Inclui bibliotecas necessárias para a comunicação do PLC com o simulador.

```
#FC9000

"MHJ-PLC-Lab-Function-S71200"

EN ENO
```

Network 2: Lógica de emergência

Lógica para ativação dos botões de emergência e reset.

```
%Q1.0 "Down"
                                             %Q1.2
"Warning Light"
                                                                                                                      %Q0.0
"Esteira 0"
   %I2.1
"Emergency"
    -//⊦
                                                   %Q1.4
"Reset light"
  %l1.7
"Reset"
                           %I2.2
"Auto"
                                                 %Q1.0
"Down"
                                                                                                                      %Q0.1
"Esteira 1"
                                                                       "DB".M[16]
                            <del>-</del>1/}
                                                                                                  -( s )-
    ⊢⊢
                                                   -( s )-
                                                                          -( s )-
                                                                                                                          -( R )-
                                                                                                                        %Q0.2
                                                                                                                       "Esteira 2"
                                                                                                                        %Q0.3
                                                                                                                      "Esteira 3"
                                                                                                                         -( R )-
                                                                                                                    %Q0.5
"Esteira Elev."
                                                                                                                         -( R )-
                                                                                                                        %Q0.7
"Up"
                                                                                                                        %Q1.1 "Slow"
                                                                                                                         -( R )-
                                                                                                                     "DB".Ligado
                                                                                                                         -( R )--
                                                                                                                      %Q1.3
"Start light"
                                                                                                                         -( R )-
                                                                                                                      %Q1.5
"Stop light"
                                                                                                                         -( ℝ )-
                                                                                                                                            FILL_BLK
                                                                                                                                FALSE — IN
                                                                                                                                                    OUT — "DB".M[0]
                                                                                                                                           COUNT
```

Network 3: Lógica de acionamentos

Lógica para os botões de Start e Stop e do acionamento automático.

Totally Integrated **Automation Portal %I1.6** "Botão Start" "DB".Ligado **-(** s **)**-%Q1.3 "Start light" (s)_ %Q1.4 "Reset light" -(R)-%Q1.5 "Stop light" **-(** R **)**− **%I2.0** "Botão Stop" **%I2.2** "Auto" "DB".Ligado -(R)-%Q1.3 "Start light" -(R)-%Q1.4 "Reset light" -(R)-%Q1.5 "Stop light" **%I2.2** "Auto" "DB".Ligado **-(** s **)**--Network 4: Lógica do processo "DB".Ligado "DB".Ligado "DB".M[1] \dashv P \vdash "DB".M[0] Network 5: Passo 01 - Habilitar a primeira esteira **%Q0.0** "Esteira 0" "DB".M[1] %Q0.5 "Esteira Elev." **-(** s **)-%DB2**"Time 1" Time "DB".M[2] "DB".M[1] -(R)-TIME#2S — PT Network 6: Passo 02 - Caixa carregada no elevador **%I2.4** "Entrada Elevador" **%I2.5** %M0.1 "DB".M[2] "Sobre Elevador" "Carregando" %DB3 **%I2.4** TON Time "Entrada Elevador" %M0.1 %Q0.0 "Carregando" "Esteira 0" _(R)_ Q-TIME#50MS — PT ET — T#0ms %Q0.5 "Esteira Elev." _(R)_ %M0.1 "Carregando" —(R)— "DB".M[2] —(R)— "DB".M[3] **--(** s **}--**

Totally Integrated
Automation Portal

Network 7: Passo 03 - Sobe elevador para nível 01 e coleta placa

```
%Q0.7
"Up"
                      %I1.1
"N1 (high)"
"DB".M[3]
  \dashv \vdash
                          <del>-</del>1/1-
                                                                                                 -( s )-
                                                                                                %Q1.1 "Slow"
                         %I1.0
                       "N1 (low)"
                                                                                                 -( s )--
                                                                                                %Q1.1 "Slow"
                         %I1.1
                      "N1 (high)'
                                                                                                 -( R )-
                                              %l1.1
"N1 (high)"
                      %I1.0
"N1 (low)"
                                                                                                %Q0.7
"Up"
                                                                                                 -( R )-
                                                                                                %Q0.1
                                                                                              "Esteira 1"
                                                                                                 -( s )-
                         %I2.7
                     "Sen. Placa 1"
                                                                                              "DB".M[4]
                                                                                                -( s )-
                                                                                              "DB".M[3]
                                                                                                -( R )-
                       %DB5
"Timer 3"
                         TON
Time
"DB".M[4]
                                                                                              "DB".M[5]
                                                                                                 -( s )-
      TIME#2S — PT
                                 ET — T#0ms
                                                                                              %Q0.1
"Esteira 1"
                                                                                                 -( ℝ )--
                                                                                              "DB".M[4]
                                                                                                 -( ℝ )--
```

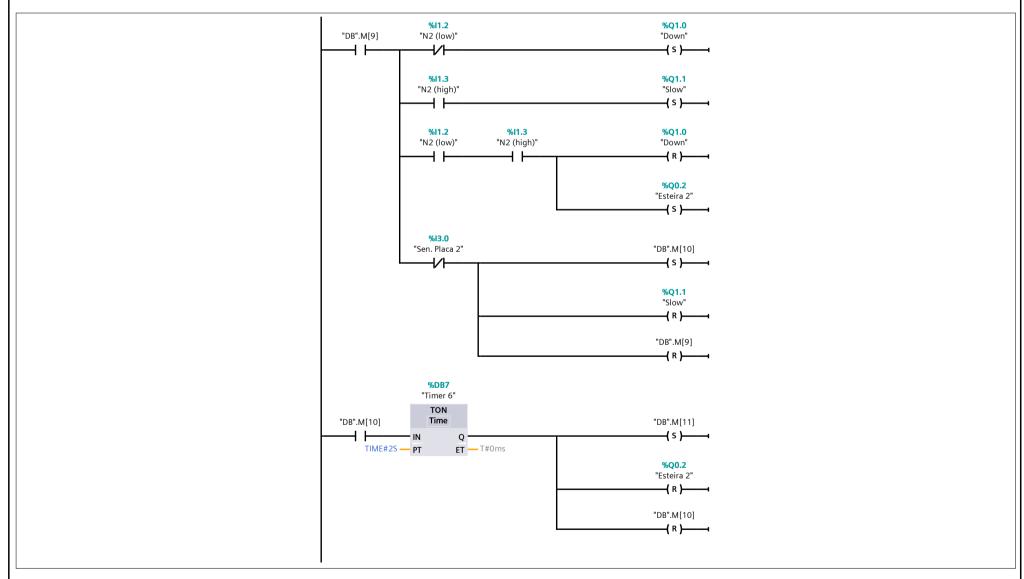
Network 8: Passo 04 - Sobe elevador para nível 02 e coleta placa

```
%l1.3
"N2 (high)"
                                                                                         %Q0.7
"Up"
"DB".M[5]
                         -1∕1-
                                                                                           ( s )–
                     %l1.2
"N2 (low)"
                                                                                         %Q1.1 "Slow"
                                                                                          -( s )-
                                                                                         %Q1.1 "Slow"
                        %I1.3
                     "N2 (high)"
                                                                                          -( R )-
                                           %l1.3
"N2 (high)"
                     %l1.2
"N2 (low)"
                                                                                         %Q0.7
"Up"
                                                                                          -( R )-
                                                                                       %Q0.2
"Esteira 2"
                                                                                          -( s )-
                        %13.0
                    "Sen. Placa 2"
                                                                                       "DB".M[6]
                         -1∕1-
                                                                                         -( s )--
                                                                                       "DB".M[5]
                                                                                          -( R )−
                        %DB4
                      "Timer 4"
"DB".M[6]
                        Time
                                                                                       "DB".M[7]
  TIME#2S PT ET T#0ms
                                                                                       %Q0.2
"Esteira 2"
                                                                                       "DB".M[6]
                                                                                          -( R )-
```

Network 9: Passo 05 - Sobe elevador para nível 03 e coleta placa

Totally Integrated **Automation Portal %I1.5** "N3 (high)" **%Q0.7** "Up" "DB".M[7] (s)-**%l1.4** "N3 (low)" **%Q1.1** "Slow" (s) **%l1.5** "N3 (high)" **%Q1.1** "Slow" -(R)-**%l1.5** "N3 (high)" **%I1.4** "N3 (low)" **%Q0.7** "Up" -(R)-**%Q0.3** "Esteira 3" **-(** s **)**− **%I3.1** "Sen. Placa 3" "DB".M[8] **-(** s **}**--"DB".M[7] **-(** R **}**--**%DB6**"Timer 5" TON "DB".M[8] Time "DB".M[9] **-(** s **)**--Q-TIME#2S — PT ET — T#0ms **%Q0.3** "Esteira 3" **-(** R **)**-"DB".M[8] **-(** ℝ **)**--

Network 10: Passo 06 - Desce elevador para nível 02 e coleta placa



Network 11: Passo 07 - Desce elevador para nível 01 e coleta placa

Totally Integrated **Automation Portal %I1.0** "N1 (low)" **%Q1.0** "Down" "DB".M[11] **-(** s **)**− **%Q1.1** "Slow" "N1 (high)" -(s)-**%l1.1** "N1 (high)" **%Q1.0** "Down" **%I1.0** "N1 (low)" -(R)-**%Q0.1** "Esteira 1" **-(** s **)**--"Sen. Placa 1" "DB".M[12] -1/1-**-(** s **)**− **%Q1.1** "Slow" -(R)-"DB".M[11] _(R)___ %DB8 "Timer 7" TON "DB".M[12] Time "DB".M[13] **-(** s **)**--Q-TIME#2S — PT ET — T#0ms **%Q0.1** "Esteira 1" **-(** ℝ **)**--"DB".M[12] **-(** ℝ **)**--Network 12: Passo 08 - Desce até o nível 0 e inicia processo de descarregar a placa **%I0.6** "N0 (low)" **%Q1.0** "Down" "DB".M[13] **-(** s **)**− **%I0.6** "N0 (low)" **%10.7** "N0 (high)" "Down" \dashv \vdash -(R)-%Q0.5 "Esteira Elev." -(s }-----"DB".M[14] **-(** s **}**--"DB".M[13] **-(** R **)**− Network 13: Passo 09 - Verifica se a caixa foi descarregada e reinicia **%I2.6** "DB".M[14] "DB".M[15] "Sen. Saída Elev." **-**//⊢ **-(** s **}**--"DB".M[14] -(R)-%Q0.5 "Esteira Elev." **%I2.6** "DB".M[15] "Sen. Saída Elev." **-(** ℝ **)**--"DB".M[0] -(R)-"DB".M[15] -(R)-Network 14: **%I0.6** "N0 (low)" **%l0.7** "N0 (high)" **%Q1.0** "Down" "DB".M[16] -(R)-Network 15: Lógica das luzes dos andares

Totally Integrated **Automation Portal** %I1.0 "N1 (low)" %Q1.6 "Floor 1" **%l1.1** "N1 (high)" **%Q1.6** "Floor 1" $\dashv \vdash$ **%l1.2** "N2 (low)" **%Q1.7** "Floor 2" \dashv \vdash **→** %I1.3 "N2 (high)" **%Q1.7** "Floor 2" -()---- **%l1.4** "N3 (low)" **%Q2.0** "Floor 3" \dashv \vdash %I1.5 "N3 (high)" **%Q2.0** "Floor 3"