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# project\_automotion / PLC\_1 [CPU 314C-2 PN/DP] / Program blocks

# Main [OB1]

Main Propertie	s						
General							
Name	Main	Number	1	Туре	OB	Language	LAD
Numbering	automatic						
Information							
Title	"Main Program Sweep (Cycle)"	Author		Comment		Family	
Version	0.1	User-defined ID					

Main				
Name	Data type	Offset	Default value	Comment
<b>▼</b> Temp				
OB1_EV_CLASS	Byte	0.0		Bits 0-3 = 1 (Coming event), Bits 4-7 = 1 (Event class 1)
OB1_SCAN_1	Byte	1.0		1 (Cold restart scan 1 of OB 1), 3 (Scan 2-n of OB 1)
OB1_PRIORITY	Byte	2.0		Priority of OB Execution
OB1_OB_NUMBR	Byte	3.0		1 (Organization block 1, OB1)
OB1_RESERVED_1	Byte	4.0		Reserved for system
OB1_RESERVED_2	Byte	5.0		Reserved for system
OB1_PREV_CYCLE	Int	6.0		Cycle time of previous OB1 scan (milliseconds)
OB1_MIN_CYCLE	Int	8.0		Minimum cycle time of OB1 (milliseconds)
OB1_MAX_CYCLE	Int	10.0		Maximum cycle time of OB1 (milliseconds)
OB1_DATE_TIME	Date_And_Time	12.0		Date and time OB1 started
Constant				

### Network 1: Belt Conveyor 4m-2

```
%DB22
"IEC_Timer_0_
DB_15"

%I3.3
"Diffuser_
sensor_12"

Time

IN Q
T#30000ms

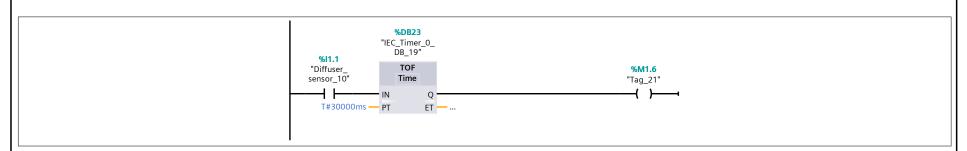
PT ET ...
```

Symbol	Address	Туре	Comment
"Diffuser_sensor_12"	%I3.3	Bool	
"Tag_20"	%M1.5	Bool	

# Network 2: Belt Conveyor 4m-2

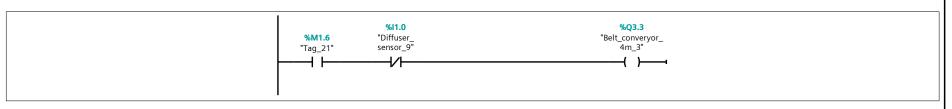
Symbol	Address	Туре	Comment
"Belt_converyor_4m_2"	%Q3.2	Bool	
"Diffuser_sensor_8"	%10.7	Bool	
"Tag 20"	%M1 5	Rool	

### Network 3: Belt Conveyor 4m-3

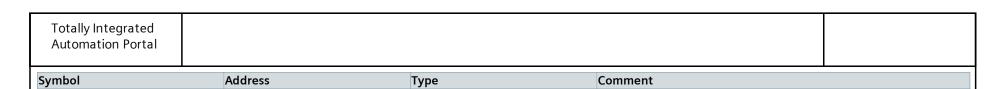


Symbol	Address	Туре	Comment
"Diffuser_sensor_10"	%I1.1	Bool	
"Tag_21"	%M1.6	Bool	

### Network 4: Belt Conveyor 4m-3



Symbol	Address	Туре	Comment
"Belt_converyor_4m_3"	%Q3.3	Bool	
"Diffuser_sensor_9"	%I1.0	Bool	
		'	

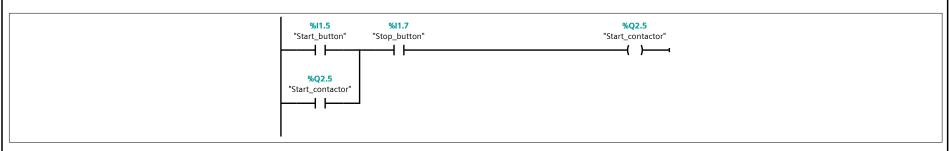


Bool

#### Network 5: Start

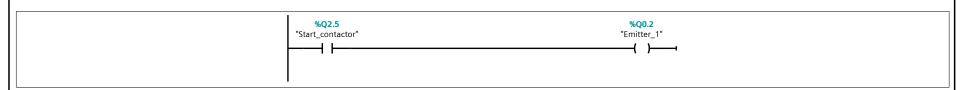
%M1.6

"Tag\_21"



Symbol	Address	Туре	Comment
"Start_button"	%I1.5	Bool	
"Start_contactor"	%Q2.5	Bool	
"Stop_button"	%I1.7	Bool	

#### Network 6: Emitter 1



Symbol	Address	Туре	Comment
"Emitter_1"	%Q0.2	Bool	
"Start_contactor"	%Q2.5	Bool	

#### Network 7: Emitter 2

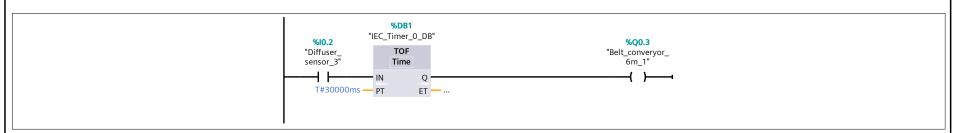


Symbol	Address	Type	Comment
"Emitter_2"	%Q0.1	Bool	
"Start contactor"	%Q2.5	Bool	

#### **Network 8: CNC Start**

Symbol	Address	Туре	Comment
"Diffuser_sensor_1"	%10.0	Bool	
"Machining center_start"	%Q0.0	Bool	

### Network 9: Belt Conveyor 6m



Symbol	Address	Туре	Comment
"Belt_converyor_6m_1"	%Q0.3	Bool	
"Diffuser_sensor_3"	%I0.2	Bool	

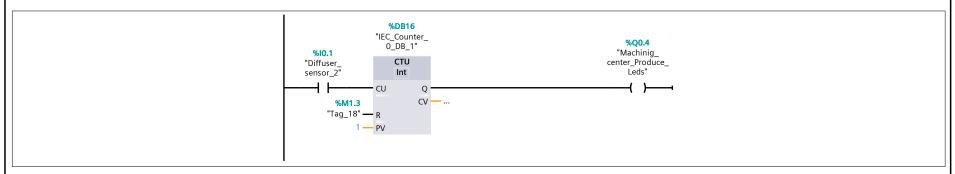
### **Network 10: CNC Producing lids**



Address	Туре	Comment
%M1.3	Bool	
%I1.3	Bool	
%I3.5	Bool	
	%M1.3 %I1.3	%M1.3 Bool %I1.3 Bool

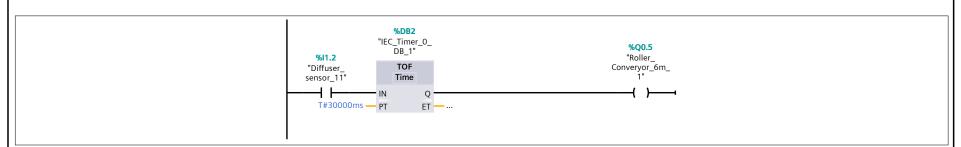
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### **Network 11: CNC Producing lids**



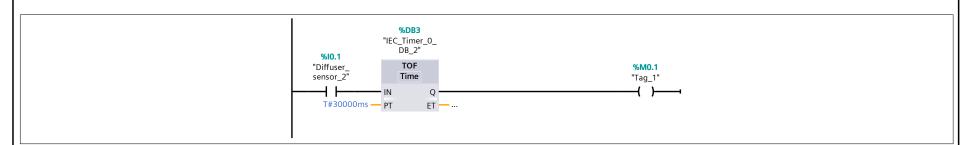
Symbol	Address	Туре	Comment
"Diffuser_sensor_2"	%IO.1	Bool	
"Machinig_center_Produce_Leds"	%Q0.4	Bool	
"Tag_18"	%M1.3	Bool	

#### Network 12: Roller Conveyor 6m



Symbol	Address	Туре	Comment	
"Diffuser_sensor_11"	%I1.2	Bool		
"Roller Convervor 6m 1"	%O0 5	Rool		

#### Network 13: Belt Conveyor 4m-1

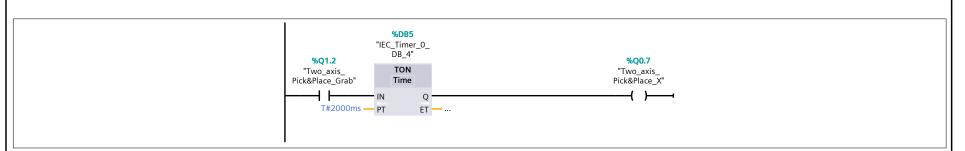


l	Symbol	Address	Туре	Comment
l	"Diffuser_sensor_2"	%I0.1	Bool	
١	"Tag_1"	%M0.1	Bool	

#### Network 14:

Symbol	Address	Туре	Comment
"Belt_converyor_4m_1"	%Q2.6	Bool	
"Diffuser_sensor_4"	%10.3	Bool	
"Tag_1"	%M0.1	Bool	

### Network 15: Two Axis Place (1) Motion in X



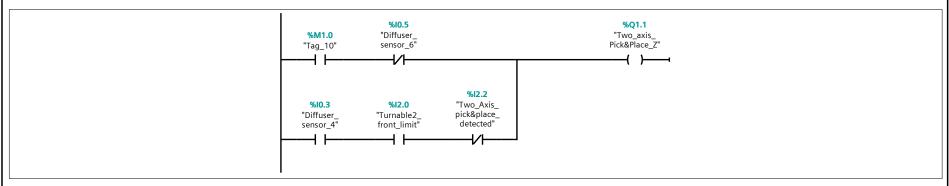
Symbol	Address	Туре	Comment
"Two_axis_Pick&Place_Grab"	%Q1.2	Bool	
"Two_axis_Pick&Place_X"	%Q0.7	Bool	

#### Network 16: Two Axis Place (1) Motion in Z



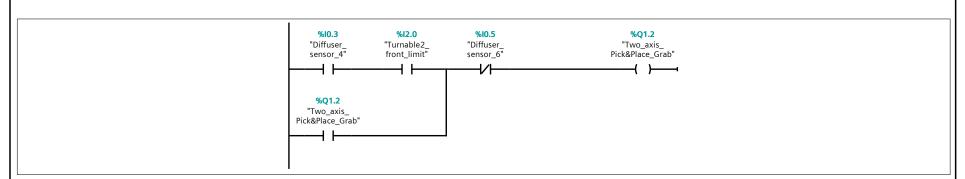
Symbol	Address	Туре	Comment
"Tag_10"	%M1.0	Bool	
"Two_axis_Pick&Place_X"	%Q0.7	Bool	

#### Network 17: Two Axis Place (1) Motion in Z



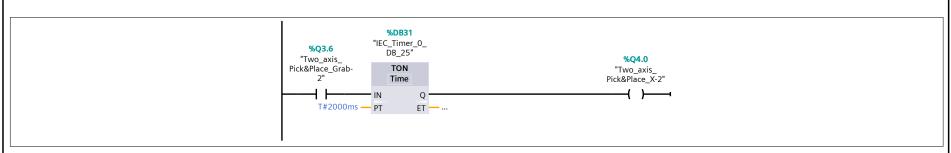
Symbol	Address	Туре	Comment
"Diffuser_sensor_4"	%10.3	Bool	
"Diffuser_sensor_6"	%10.5	Bool	
"Tag_10"	%M1.0	Bool	
"Turnable2_front_limit"	%12.0	Bool	
"Two_Axis_pick&place_detected"	%I2.2	Bool	
"Two axis Pick&Place Z"	%O1.1	Bool	

### Network 18: Two Axis Place (1) Grabbing



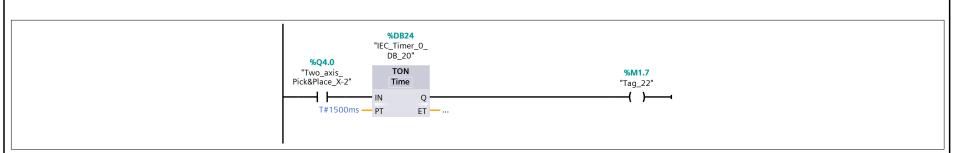
Symbol	Address	Туре	Comment
"Diffuser_sensor_4"	%10.3	Bool	
"Diffuser_sensor_6"	%10.5	Bool	
"Turnable2_front_limit"	%12.0	Bool	
"Two axis Pick&Place Grab"	%O1.2	Bool	

### Network 19: Two Axis Place (2) Motion in X



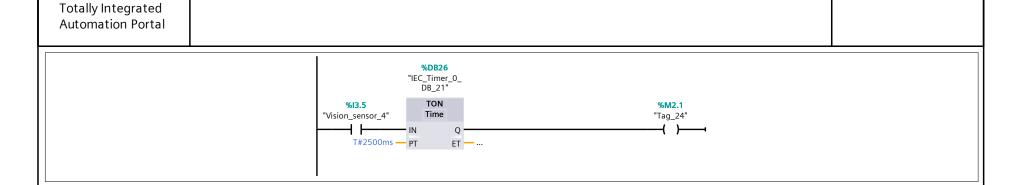
Symbol	Address	Туре	Comment
"Two_axis_Pick&Place_Grab-2"	%Q3.6	Bool	
"Two axis Pick&Place X-2"	%Q4.0	Bool	

### Network 20:



Symbol	Address	Туре	Comment
"Tag_22"	%M1.7	Bool	
"Two_axis_Pick&Place_X-2"	%Q4.0	Bool	

### Network 21: Two Axis Place (2) Motion in Z & Grabbing



Comment

Type

Bool

Bool

Network 22: Two Axis Place (2) Motion in Z & Grabbing

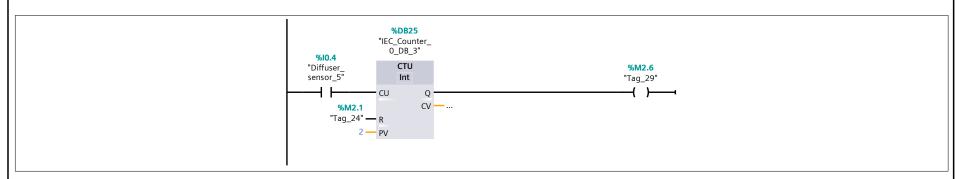
Address

%M2.1

%I3.5

**Symbol** "Tag\_24"

"Vision\_sensor\_4"



Symbol	Address	Туре	Comment
"Diffuser_sensor_5"	%IO.4	Bool	
"Tag_24"	%M2.1	Bool	
"Tag_29"	%M2.6	Bool	

### Network 23: Two Axis Place (2) Motion in Z & Grabbing

```
%M2.6
"Tag_29"
"Tag_23"
( )
```

l	Symbol	Address	Туре	Comment
l	"Tag_23"	%M2.0	Bool	
l	"Tag_29"	%M2.6	Bool	

### Network 24: Two Axis Place (2) Motion in Z

```
%I0.2

%M1.7 "Diffuser_ sensor_3"

Wi3.6

%I0.7 "Two_Axis_ Pick&Place_ Z-2"

Wi5.6 "Two_Axis_ pick&place of the pick place of the pick pla
```

Symbol	Address	Туре	Comment
"Diffuser_sensor_3"	%10.2	Bool	
"Diffuser_sensor_8"	%10.7	Bool	
"Tag_22" "Tag_23"	%M1.7	Bool	
"Tag_23"	%M2.0	Bool	
"Two_Axis_pick&place_detected-2" "Two_axis_Pick&Place_Z-2"	'%I3.6	Bool	
"Two_axis_Pick&Place_Z-2"	%Q3.4	Bool	

# Network 25: Two Axis Place (2) Grabbing

```
%IO.7

"Diffuser_ %M2.0

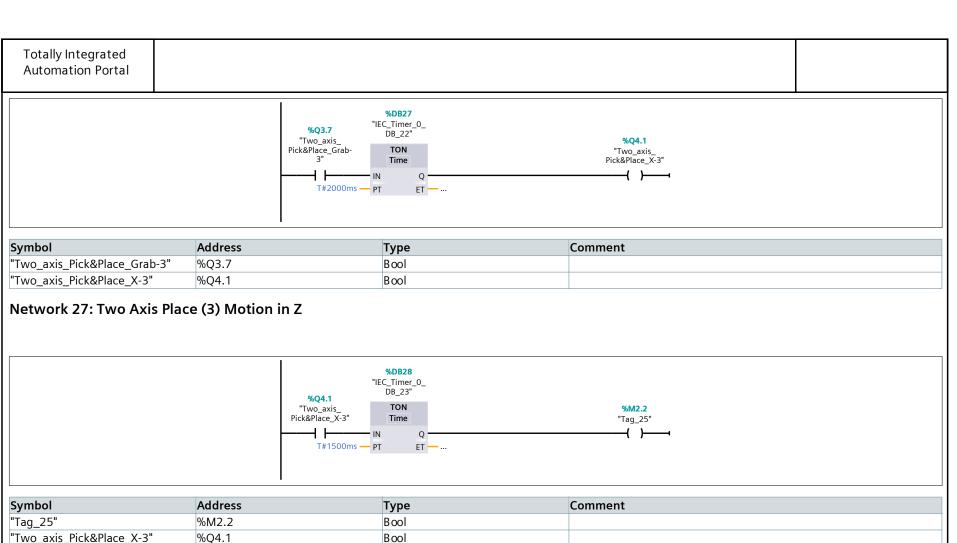
"Diffuser_ Pick&Place_Grab-
sensor_8"

"Two_axis_
Pick&Place_Grab-
2"

"Two_axis_
Pick&Place_Grab-
2"
```

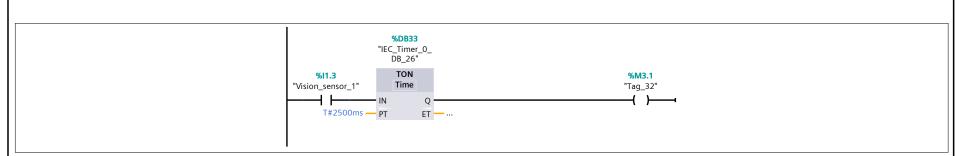
Symbol	Address	Туре	Comment
"Diffuser_sensor_3"	%10.2	Bool	
"Diffuser_sensor_8"	%10.7	Bool	
"Tag_23"	%M2.0	Bool	
"Two_axis_Pick&Place_Grab-2"	%Q3.6	Bool	

## Network 26: Two Axis Place (3) Motion in X



Symbol	Address	Туре	Comment
"Tag_25"	%M2.2	Bool	
"Two_axis_Pick&Place_X-3"	%Q4.1	Bool	

### Network 28: Two Axis Place (3) Motion in Z & Grabbing



Symbol	Address	Туре	Comment
"Tag_32"	%M3.1	Bool	
"Vision_sensor_1"	%I1.3	Bool	

### Network 29: Two Axis Place (3) Motion in Z & Grabbing

```
%DB32
                   "IEC_Counter_
0_DB_5"
  %10.4
                        CTU
"Diffuser_
sensor_5"
                                                                                       %M2.7
                        Int
                                                                                      "Tag_30"
                                                                                        <del>(</del> )-
                   CU
                               Q
                              CV — ...
      "Tag_32" — R
             2 — PV
```

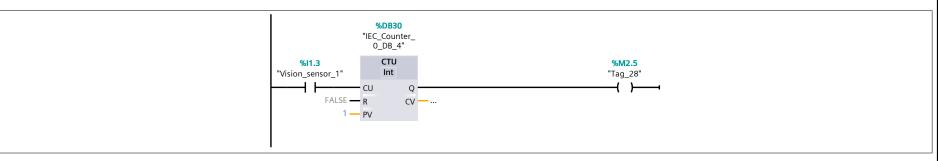
Symbol	Address	Туре	Comment
"Diffuser_sensor_5"	%10.4	Bool	
"Tag_30"	%M2.7	Bool	
"Tag_32"	%M3.1	Bool	

### Network 30: Two Axis Place (3) Motion in Z & Grabbing

```
%M2.7
                                                                        %M2.4
"Tag_30"
                                                                        "Tag_27"
 -//|
```

Symbol	Address	Туре	Comment
"Tag_27"	%M2.4	Bool	
"Tag_30"	%M2.7	Bool	

### Network 31: Two Axis Place (2) Motion in Z & Grabbing

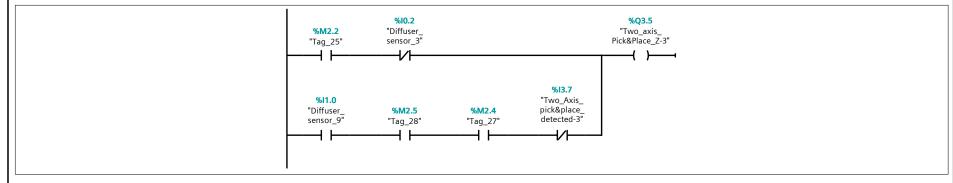


Symbol	Address	Туре	Comment	
"Tag_28"	%M2.5	Bool		

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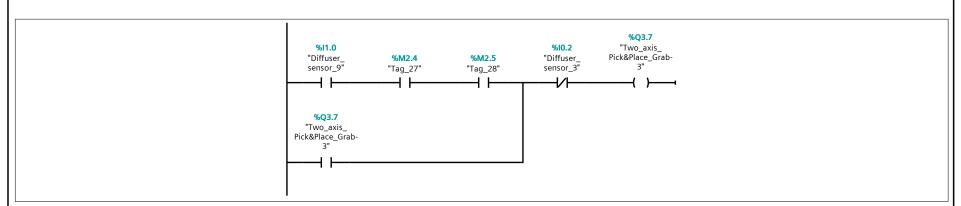
Symbol	Address	Туре	Comment
"Vision_sensor_1"	%I1.3	Bool	

#### Network 32:



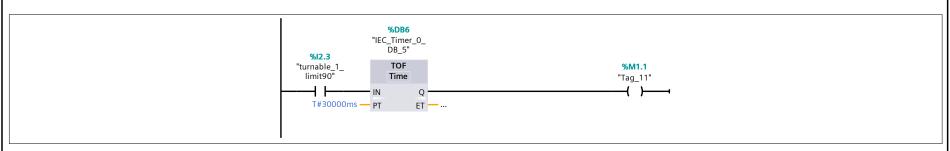
Symbol	Address	Туре	Comment
"Diffuser_sensor_3"	%10.2	Bool	
	%I1.0	Bool	
"Tag_25" "Tag_27" "Tag_28"	%M2.2	Bool	
"Tag_27"	%M2.4	Bool	
"Tag_28"	%M2.5	Bool	
"Two_Axis_pick&place_detected-3"	%I3.7	Bool	
	%Q3.5	Bool	

### Network 33: Two Axis Place (3) Grabbing



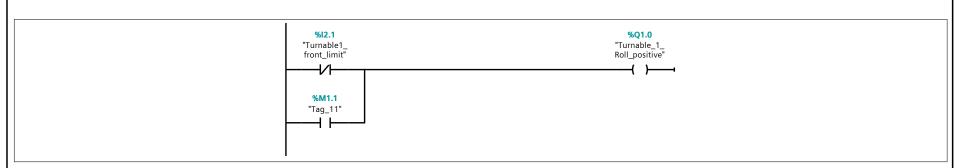
Symbol	Address	Туре	Comment
"Diffuser_sensor_3"	%10.2	Bool	
"Diffuser_sensor_9"	%I1.O	Bool	
"Tag_27"	%M2.4	Bool	
"Tag_27" "Tag_28"	%M2.5	Bool	
"Two_axis_Pick&Place_Grab-3"	%Q3.7	Bool	

#### Network 34: Turnable 1 Roll (+)



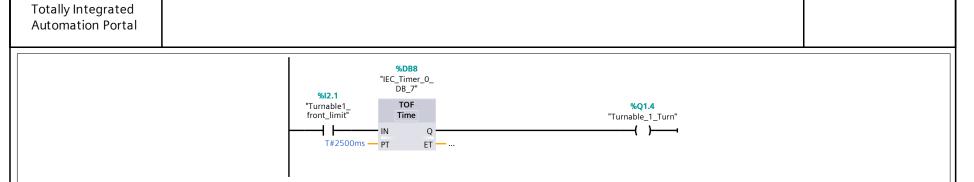
Symbol	Address	Туре	Comment
"Tag_11"	%M1.1	Bool	
"turnable_1_limit90"	%I2.3	Bool	

### Network 35: Turnable 1 Roll (+)



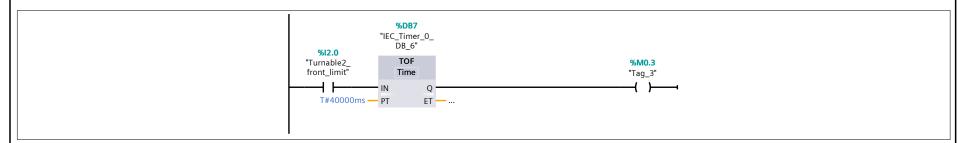
Symbol	Address	Туре	Comment
"Tag_11"	%M1.1	Bool	
"Turnable1_front_limit"	%I2.1	Bool	
"Turnable_1_Roll_positive"	%Q1.0	Bool	

### Network 36: Turnable 1 Turn



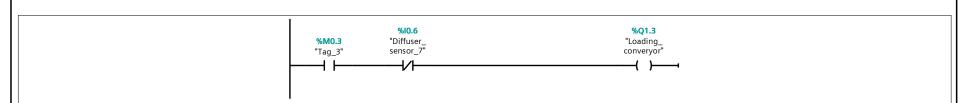
Symbol	Address	Туре	Comment
"Turnable1_front_limit"	%I2.1	Bool	
"Turnable_1_Turn"	%Q1.4	Bool	

### **Network 37: Loading Conveyor**



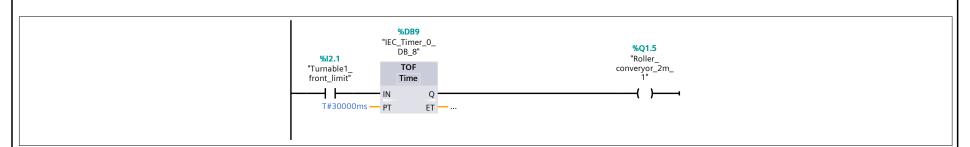
Symbol	Address	Туре	Comment
"Tag_3"	%M0.3	Bool	
"Turnable2_front_limit"	%12.0	Bool	

### **Network 38: Loading Conveyor**



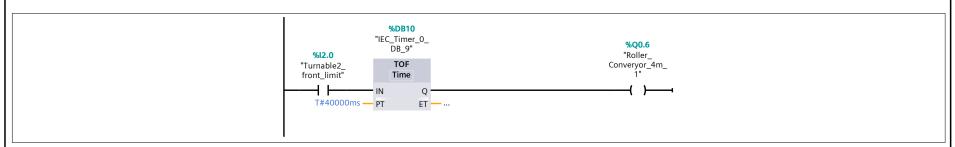
Symbol	Address	Туре	Comment
"Diffuser_sensor_7"	%10.6	Bool	
"Loading_converyor"	%Q1.3	Bool	
"Tag_3"	%M0.3	Bool	

### Network 39: Roller Conveyor 2m



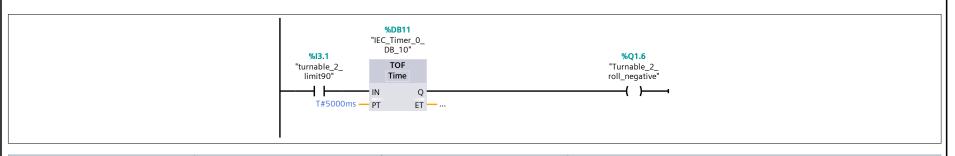
l	Symbol	Address	Туре	Comment
ı	"Roller_converyor_2m_1"	%Q1.5	Bool	
	"Turnable1_front_limit"	%I2.1	Bool	

### Network 40: Roller Conveyor 4m



Symbol	Address	Туре	Comment
"Roller_Converyor_4m_1"	%Q0.6	Bool	
"Turnable2_front_limit"	%12.0	Bool	

### Network 41: Turnable 2 Roll (-)



Symbol	Address	Туре	Comment
"turnable_2_limit90"	%I3.1	Bool	
"Turnable_2_roll_negative"	%Q1.6	Bool	

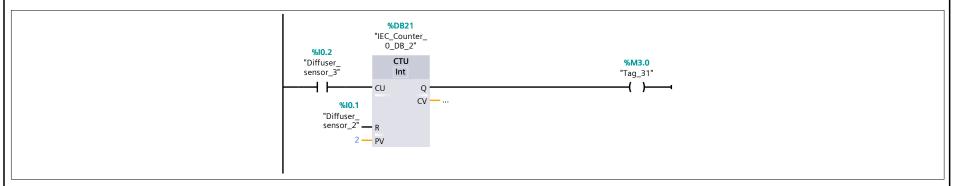


#### Network 42: Turnable 2 Roll (+)



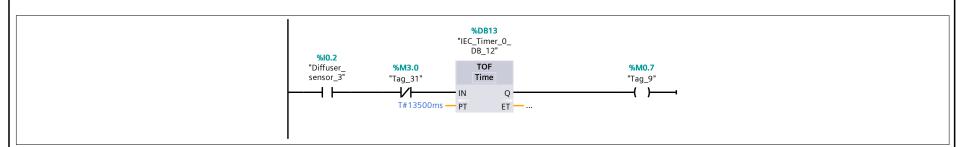
Symbol	Address	Туре	Comment
"Turnable2_front_limit"	%12.0	Bool	
"Turnable_2_roll_negative"	%Q1.6	Bool	
"Turnable_2_roll_positive"	%Q2.2	Bool	

#### Network 43: Emitter 3



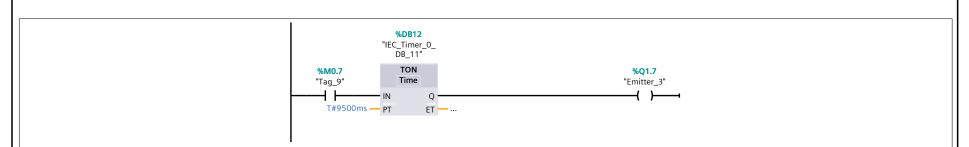
Symbol	Address	Туре	Comment
"Diffuser_sensor_2"	%IO.1	Bool	
"Diffuser_sensor_3"	%10.2	Bool	
"Tag_31"	%M3.0	Bool	

#### Network 44: Emitter 3



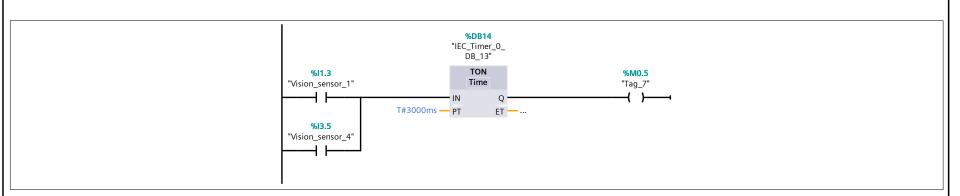
Symbol	Address	Туре	Comment
"Diffuser_sensor_3"	%10.2	Bool	
"Tag_9"	%M0.7	Bool	
"Tag_31"	%M3.0	Bool	

# Network 45: Emitter 3



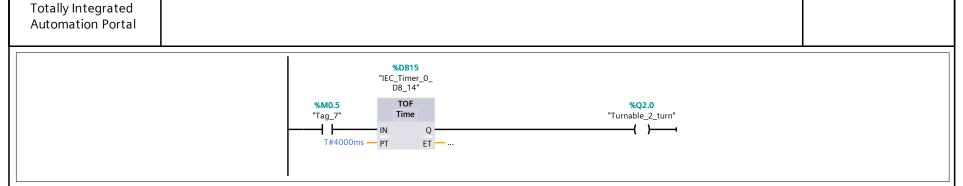
Symbol	Address	Туре	Comment
"Emitter_3"	%Q1.7	Bool	
"Tag_9"	%M0.7	Bool	

### Network 46: Turnable 2 Turn



Symbol	Address	Туре	Comment
"Tag_7"	%M0.5	Bool	
"Vision_sensor_1"	%I1.3	Bool	
"Vision_sensor_4"	%I3.5	Bool	

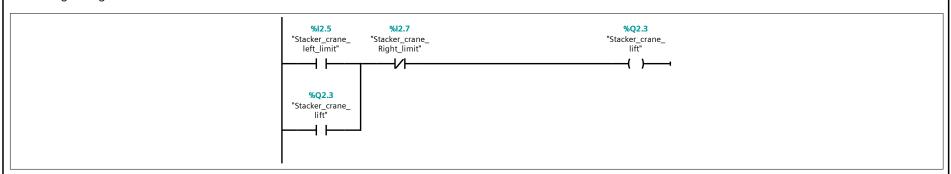
## Network 47: Turnable 2 Turn



Symbol	Address	Туре	Comment
"Tag_7"	%M0.5	Bool	
"Turnable 2 turn"	%O2.0	Bool	

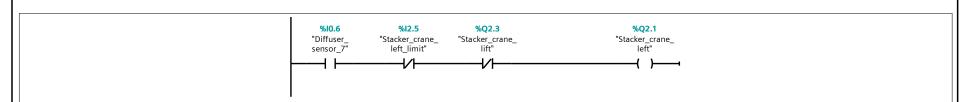
### Network 48: Stacker Crane lift

crane beginning



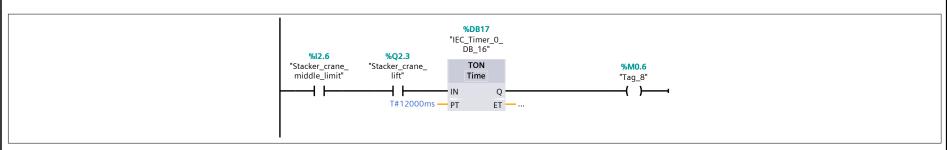
Symbol	Address	Туре	Comment
"Stacker_crane_left_limit"	%12.5	Bool	
"Stacker_crane_lift"	%Q2.3	Bool	
"Stacker crane Right limit"	%12.7	Bool	

### Network 49: Stacker Crane left



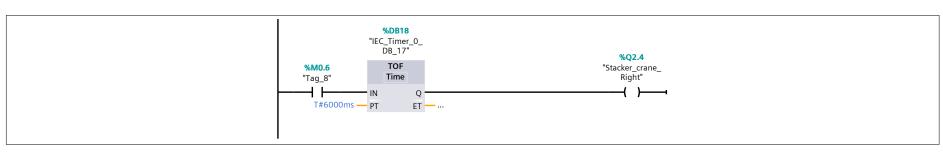
Symbol	Address	Туре	Comment
"Diffuser_sensor_7"	%10.6	Bool	
"Stacker_crane_left"	%Q2.1	Bool	
"Stacker_crane_left_limit"	%I2.5	Bool	
"Stacker_crane_lift"	%Q2.3	Bool	

### **Network 50: Stacker Crane Right**



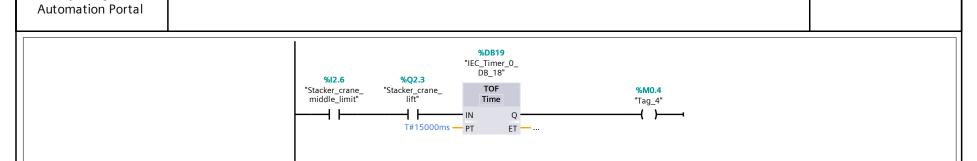
Symbol	Address	Туре	Comment
"Stacker_crane_lift"	%Q2.3	Bool	
"Stacker_crane_middle_limit"	%12.6	Bool	
"Tag_8"	%M0.6	Bool	

### **Network 51: Stacker Crane Right**



Symbol	Address	Туре	Comment
"Stacker_crane_Right"	%Q2.4	Bool	
"Tag_8"	%M0.6	Bool	

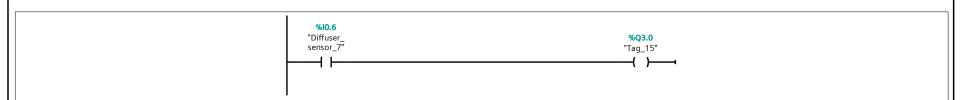
### **Network 52: Stacker Crane Position**



Symbol	Address	Type	Comment
"Stacker_crane_lift"	%Q2.3	Bool	
"Stacker_crane_middle_limit"	%12.6	Bool	
"Tag_4"	%M0.4	Bool	

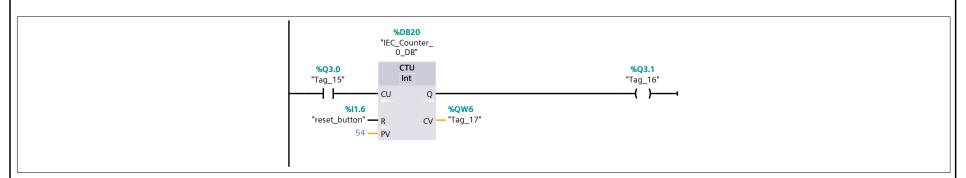
#### **Network 53: Stacker Crane Position**

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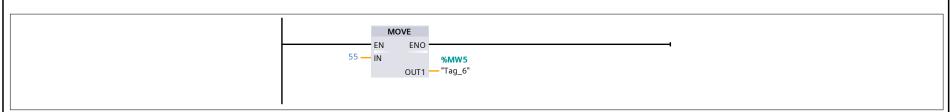
Symbol	Address	Туре	Comment	
"Diffuser_sensor_7"	%10.6	Bool		
"Tag 15"	%Q3.0	Bool		

#### **Network 54: Stacker Crane Position Counter**



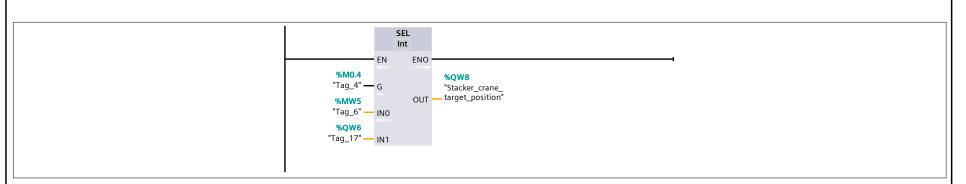
Symbol	Address	Туре	Comment
"reset_button"	%I1.6	Bool	
"Tag_15"	%Q3.0	Bool	
"Tag_16"	%Q3.1	Bool	
"Tag_17"	%QW6	Int	

#### **Network 55: Stacker Crane Position**



ı				
I	Symbol	Address	Туре	Comment
I	"Tag 6"	%MW5	Int	

### Network 56: Stacker Crane Position



Symbol	Address	Туре	Comment
"Stacker_crane_target_position"	%QW8	Int	
"Tag_4"	%M0.4	Bool	
"Tag_6"	%MW5	Int	
"Tag_17"	%QW6	Int	