

Totally Integrated Automation Portal

Main [OB1]

Main Properties

General

Name	Main	Number	1	Type	OB
Language	LAD	Numbering	Manual		

Information

Title	SP7-10	Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Constant		

Network 1: SP7-10

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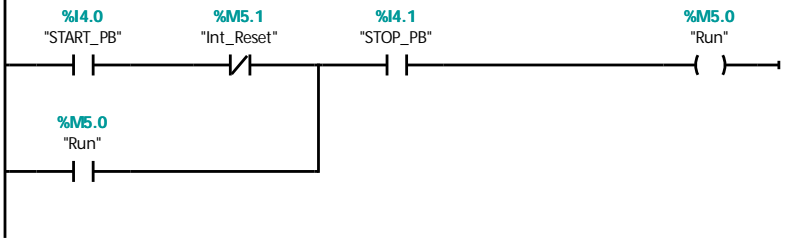
SP7-10 Hole Drilling Station Control

Additional internal memory:
Tag Address
Run %M5.0 BOOL On while station running
Int_Reset %M5.1 BOOL Internal reset
Step_1 to Step_10 %M0.1 to M1.2 BOOL Step-in-progress bits
Clamp_Tmr %DB1 IEC_TIMER Times clamping
Pause_Tmr %DB3 IEC_TIMER Times pause during drilling
Reset_Tmr %DB4 IEC_TIMER Times retract of YCYL when reset
Ret_Val %MW12 WORD Return value from SCALE block

%M2.0
"Dummy"

%M2.0
"Dummy"

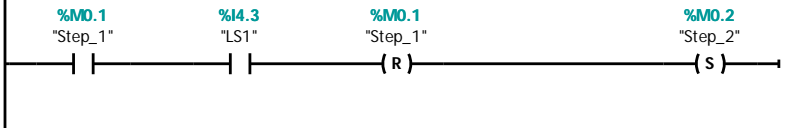
Network 2: Start/stop



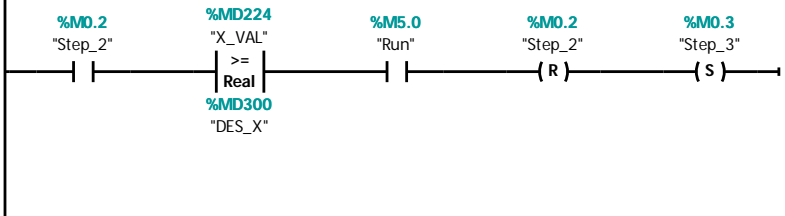
Network 3: Initial Start



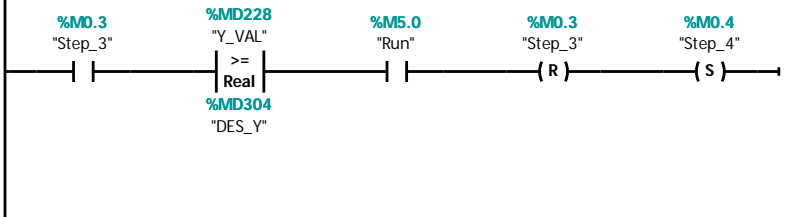
Network 4: Step 1 Wait for piece



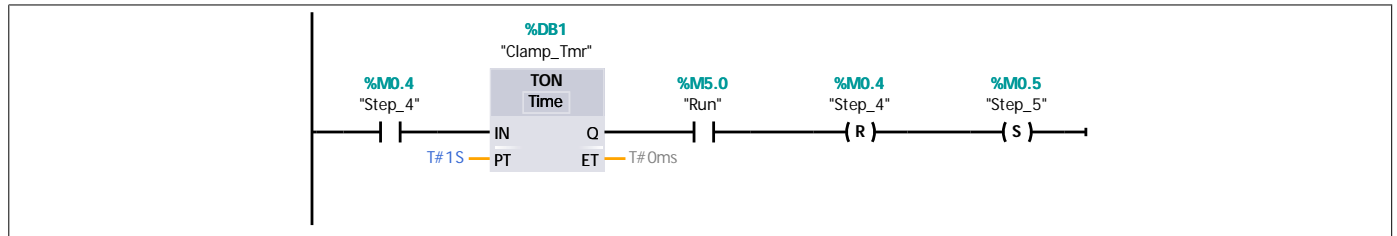
Network 5: Step 2 Push to X position



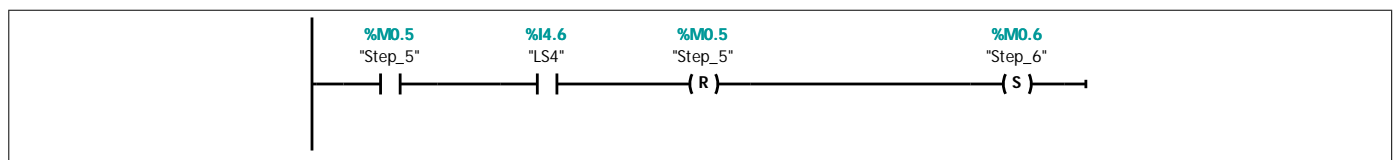
Network 6: Step 3 Push to Y position



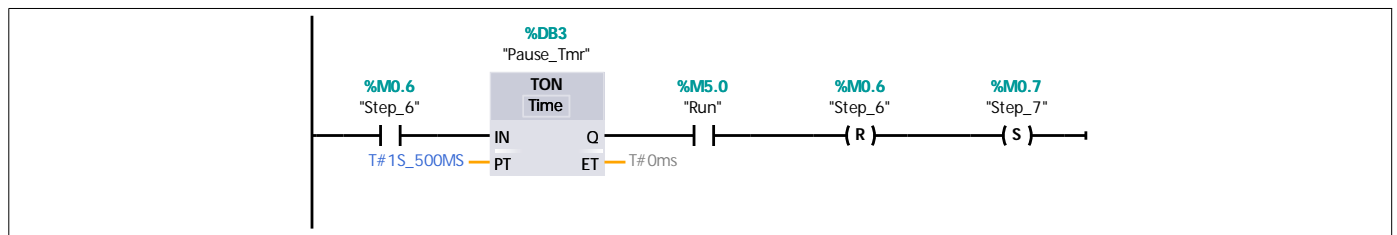
Network 7: Step 4 - Clamp



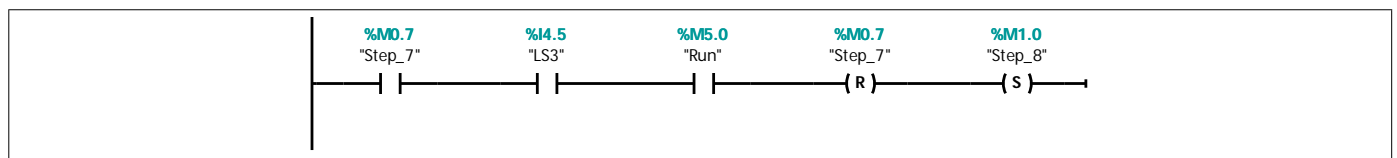
Network 8: Step 5 Drill down



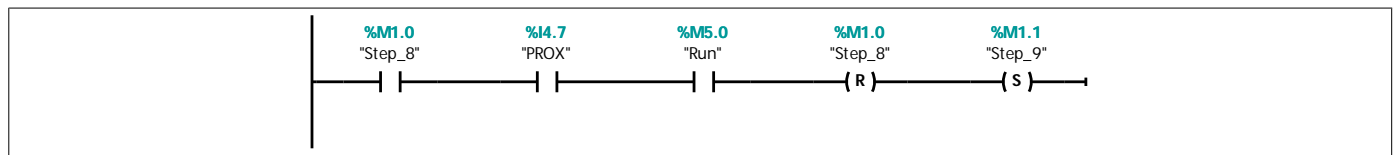
Network 9: Step 6 - Pause



Network 10: Step 7 Drill up



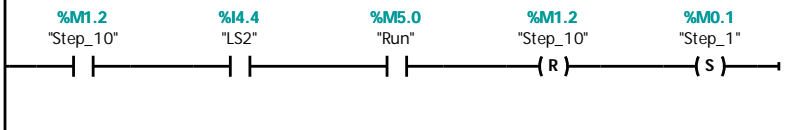
Network 11: Step 8 Push partway out



Network 12: Step 9 Push all way out

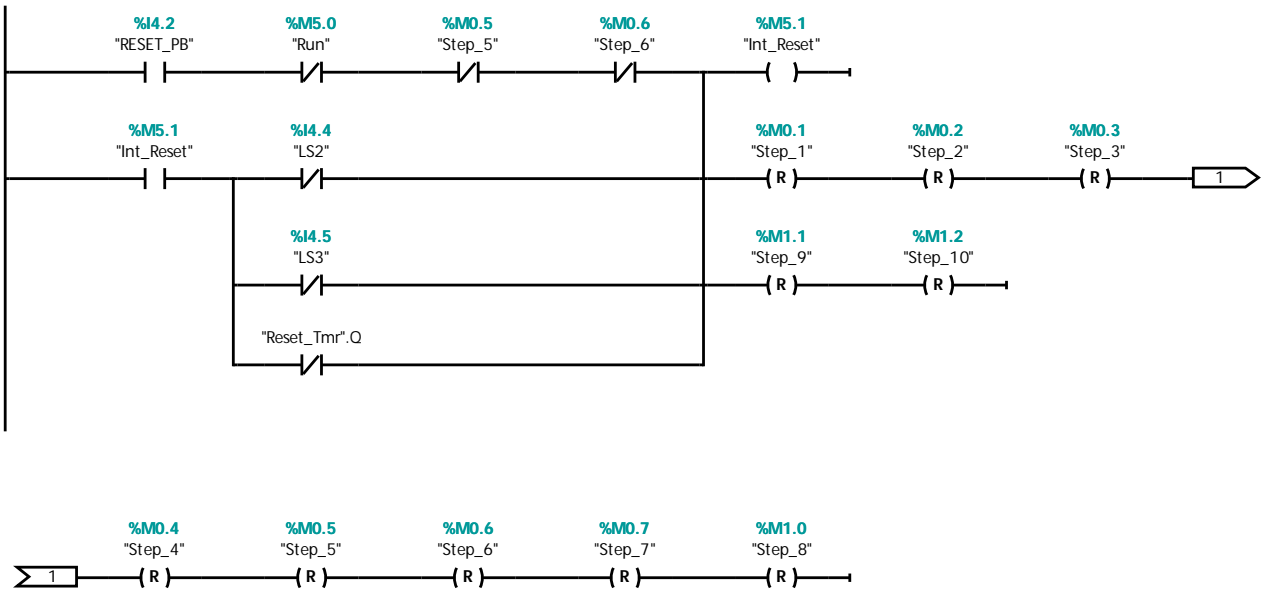


Network 13: Step 10 - Retract cylinder

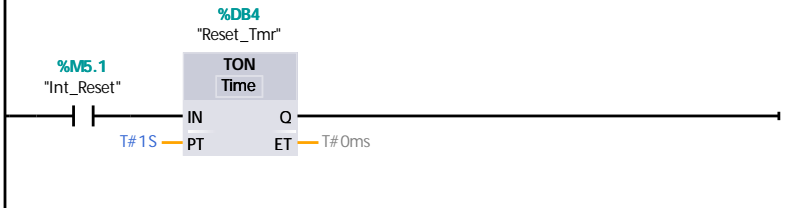


Network 14: Reset

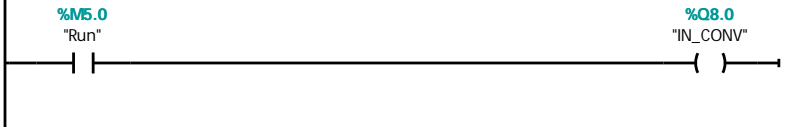
Cannot reset during drill down and pause steps



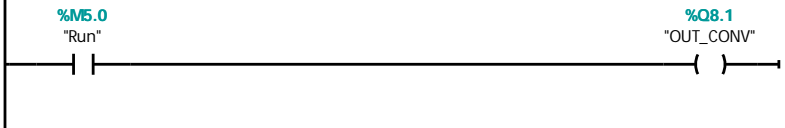
Network 15: Timer for retracting CYL1 when reset



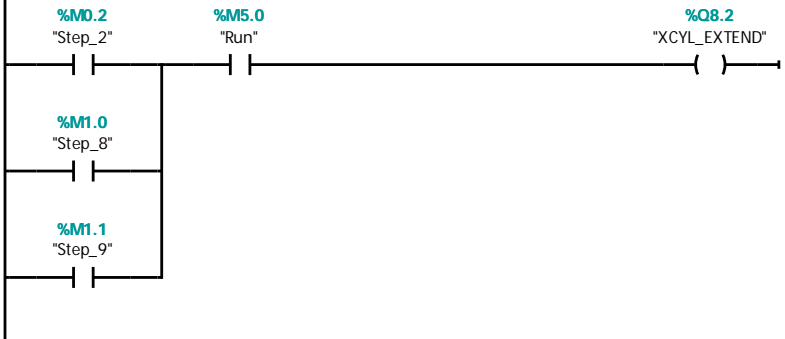
Network 16: Conveyor controls



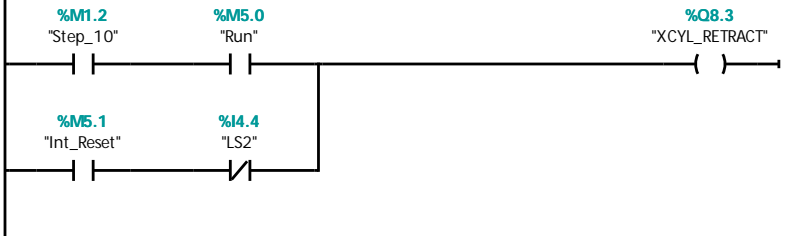
Network 17: Outbound conveyor motor



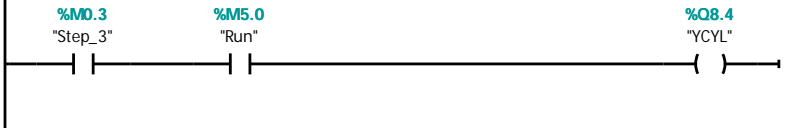
Network 18: X, Y Cylinder Controls



Network 19: Main cylinder extension control



Network 20: Main cylinder retraction control

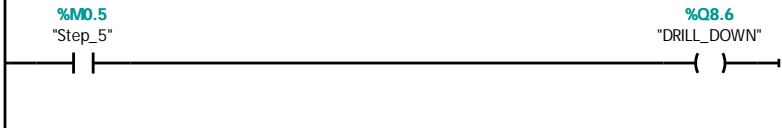


Network 21: Clamp cylinder control

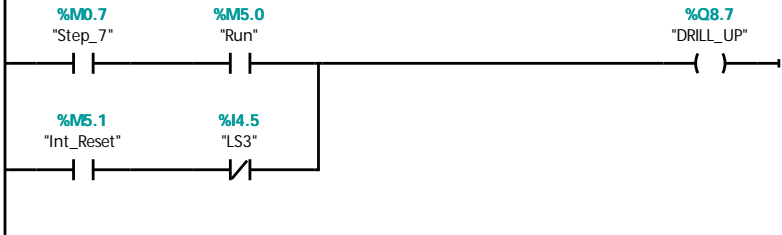
Must remain on when paused.



Network 22: Drill control

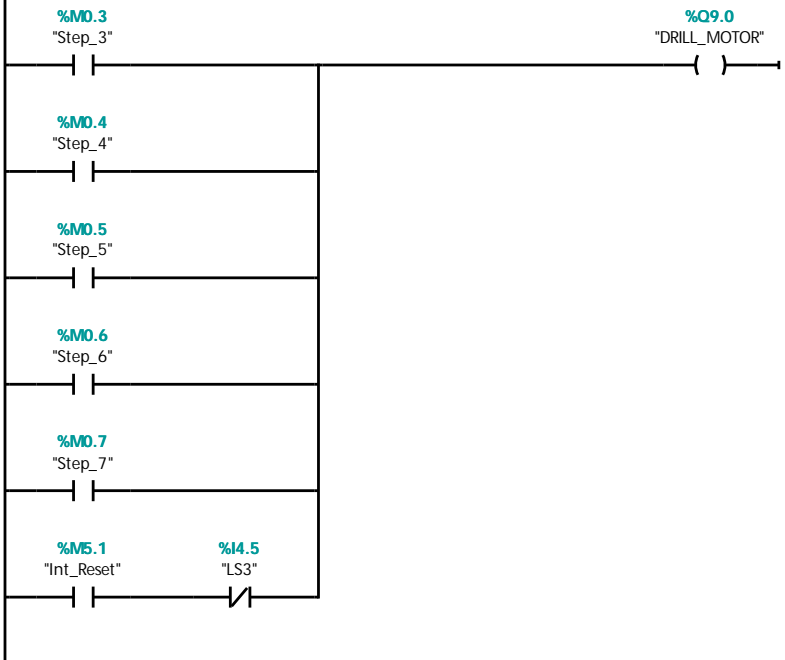


Network 23: Drill cylinder retraction control



Network 24: Drill motor control

Must remain on when paused. Must run during reset if retracting drill.



Network 25: Convert X and Y measurements with SCALE

Convert X and Y measurements to mm.
Uses SCALE block. Note that the lo_lim input is 25% lower than zero weight to account for this block assuming the minimum value of the analog in is zero rather than the 5530 (which corresponds to 4 mA).

