

# Main\_Program [OB1]

## Main\_Program Properties

### General

Name	Main_Program	Number	1	Type	OB
Language	LAD	Numbering	Manual		

### Information

Title	"Main Program Sweep (Cycle)"	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: SP6-15

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Problem SP6-15 Drilling Station Control

Additional internal memory:

Tag Address

Run M5.0 BOOL On while station running

Int\_Reset M5.1 BOOL Internal reset

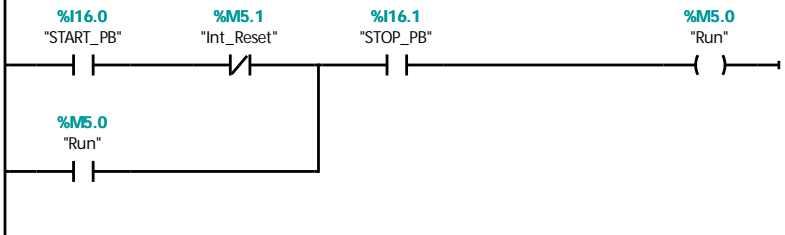
Step\_1 to Step\_10 M0.1 to M1.2 BOOL Step-in-progress bits

Unclmp\_Tmr DB1 TON\_SFB Time unclamping of part



## Network 2: Start/stop

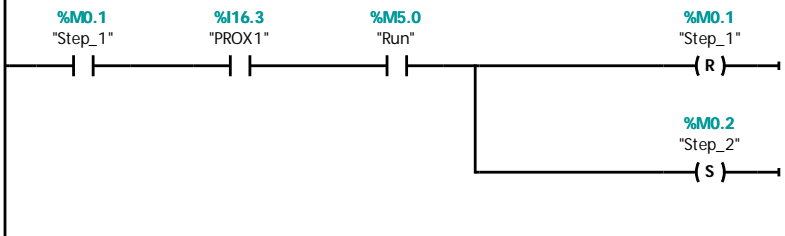
During reset prevent start



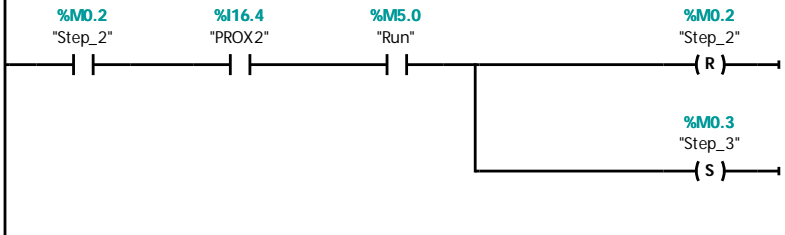
Network 3: Initial start



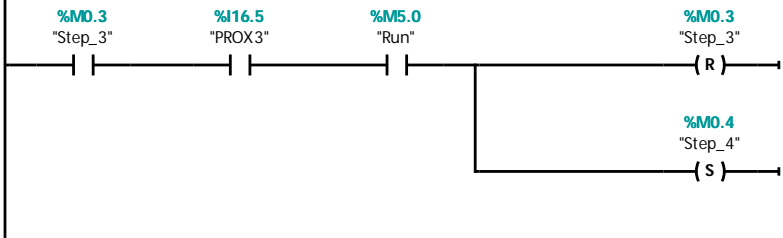
Network 4: Step 1 Wait for part



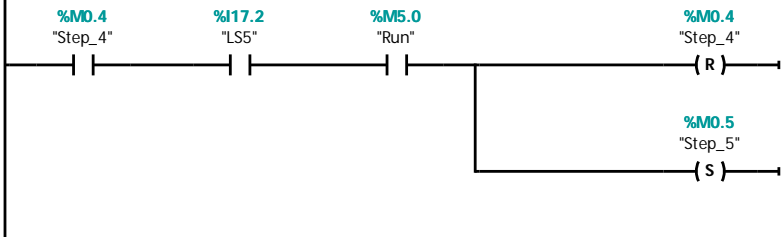
Network 5: Step 2 Open gate 1



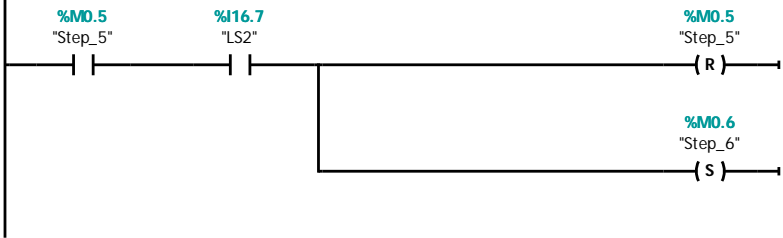
Network 6: Step 3 Open gate 2



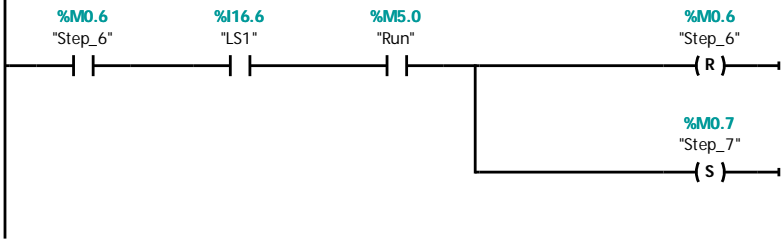
Network 7: Step 4 Clamp part



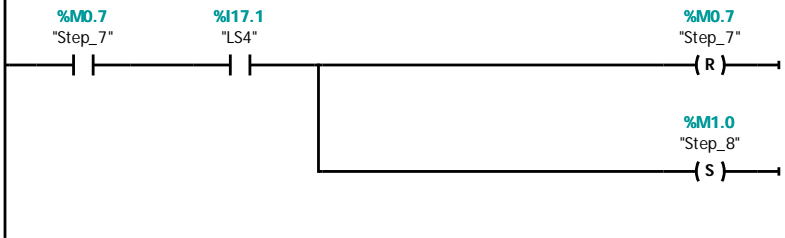
Network 8: Step 5 Extend drill 1



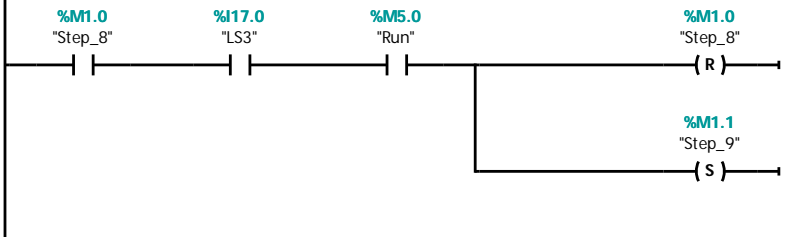
Network 9: Step 6 Retract drill 1



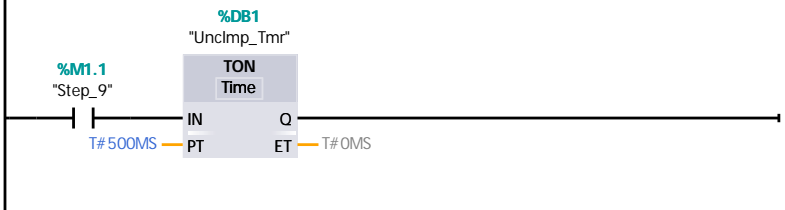
Network 10: Step 7 Extend drill 2



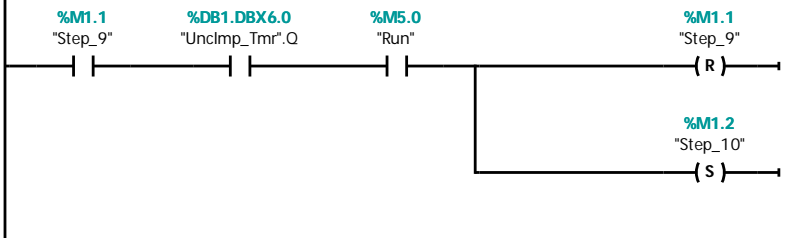
Network 11: Step 8 Retract drill 2



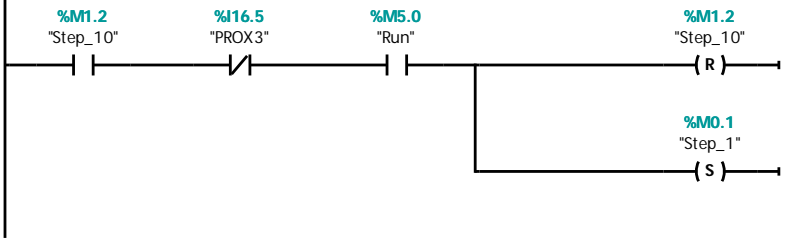
Network 12:



Network 13: Step 9 Unclamp part

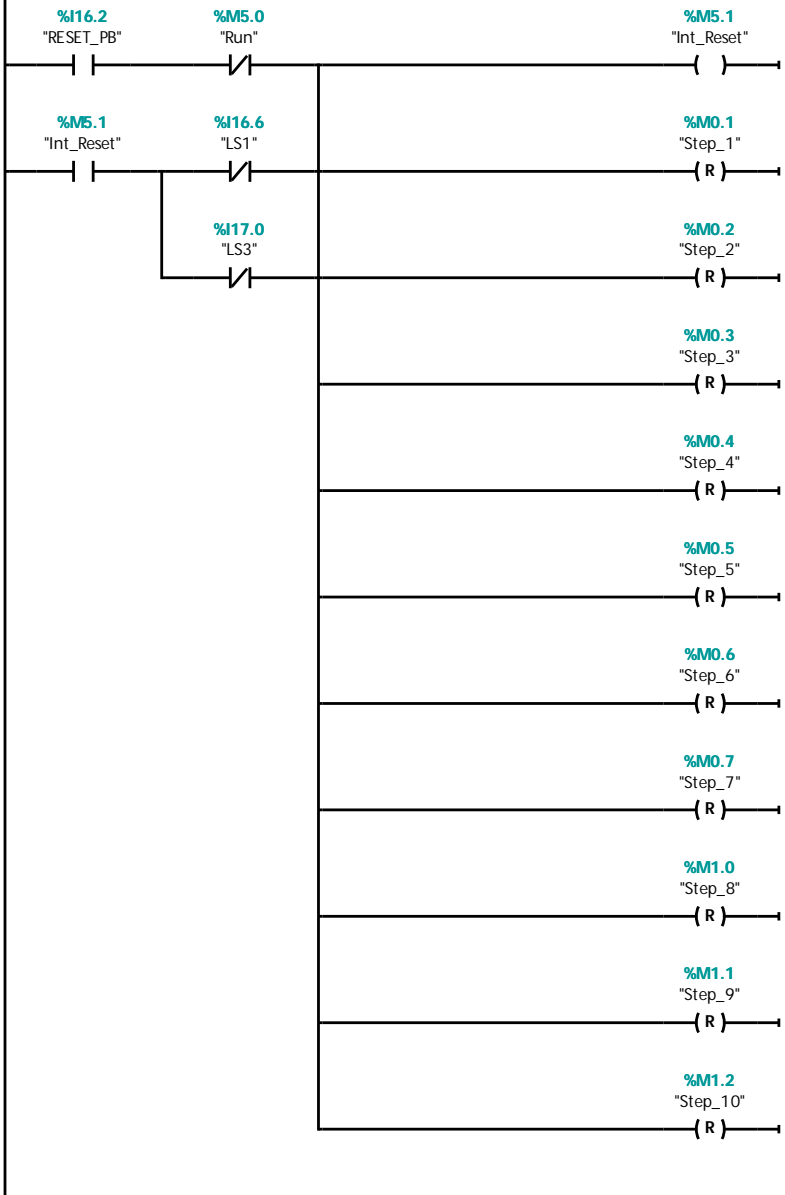


Network 14: Step 10 Move out part



**Network 15: Reset**

Maintain reset until both drill retracted.



**Network 16: Gate controls**

%M0.2  
"Step\_2"

%Q20.0  
"GATE\_1"

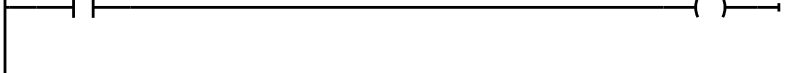


**Network 17: Gate 2 control**

Retract on reset

%M0.3  
"Step\_3"

%Q20.1  
"GATE\_2"

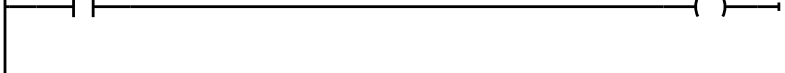


**Network 18: Knife controls**

Retract on reset

%M1.2  
"Step\_10"

%Q20.2  
"GATE\_3"



**Network 19: Drill 1 controls**

%M0.5  
"Step\_5"

%Q20.3  
"DRILL1\_EXTEND"



**Network 20: Drill 1 retraction control**

Must also retract on reset

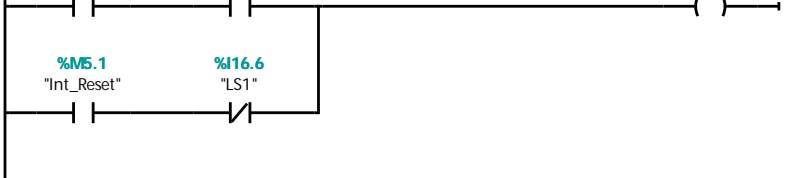
%M0.6  
"Step\_6"

%M5.0  
"Run"

%Q20.4  
"DRILL1\_RETRACT"

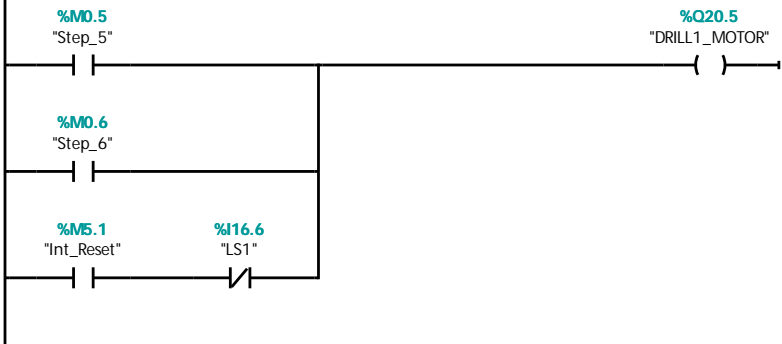
%M5.1  
"Int\_Reset"

%I16.6  
"LS1"

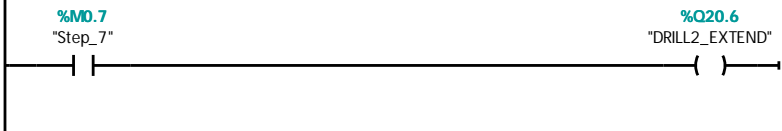


**Network 21: Drill 1 motor control**

Must continue to run drill motor while retracting due to reset

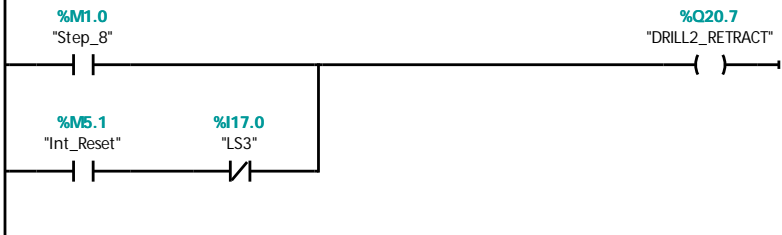


**Network 22: Drill 2 controls**



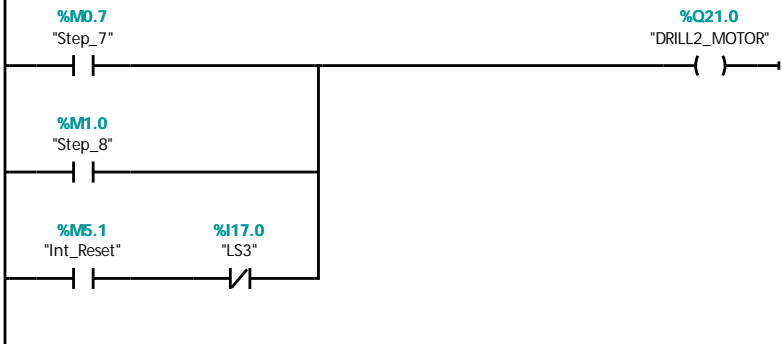
**Network 23: Drill 2 retraction control**

Must also retract on reset



**Network 24: Drill 2 motor control**

Must continue to run drill motor while retracting due to reset



**Network 25: Clamp control**

Must remain on when paused and when resetting, before both drills retracted.

