

Main Properties

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Name	Main	Number	1	Type	OB
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Language	LAD	Numbering	Manual	
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Information									
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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: SP21-1

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SP14-1 Part Oiler Station Control Using S7-GRAPH with Simulation

Additional internal memory:

Tag Address	
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Run M5.0 BOOL On while station running	
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Int_Reset M5.1 BOOL Internal reset	0
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Run_Trans M61.0 BOOL Run has changed

Run_PTrans M61.1 BOOL Bit for Run neg transition

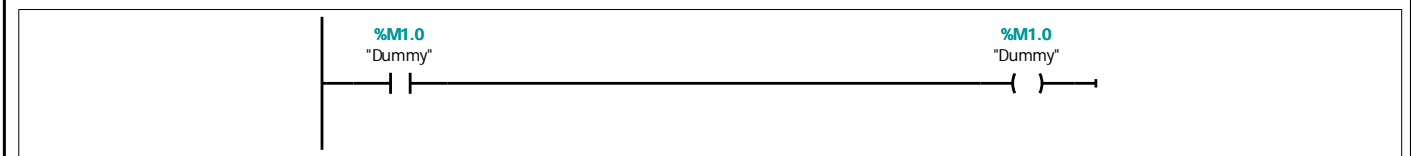
Run_NTrans M61.2 BOOL Bit for Run pos transition

OP_Zeroed M61.3 BOOL Operation paused

Reset_Trans M61.4 BOOL Reset_PB transition to start-kick

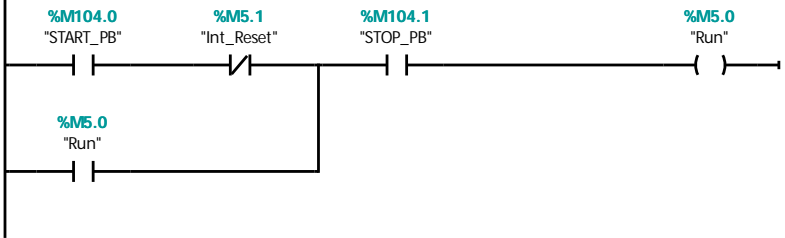
SFC

ResetPB_PTrans M61.5 BOOL Bit for Reset_PB pos trans	
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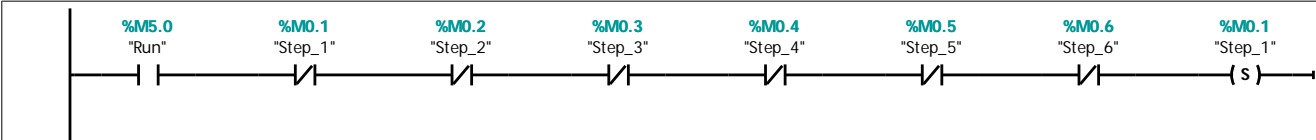


Network 2: Start/stop

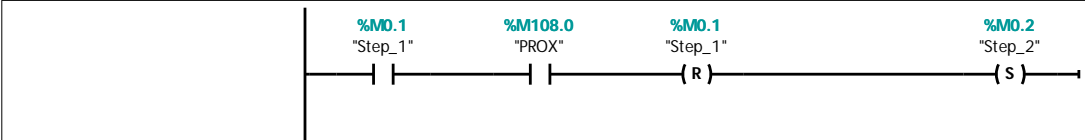
During reset prevent start	
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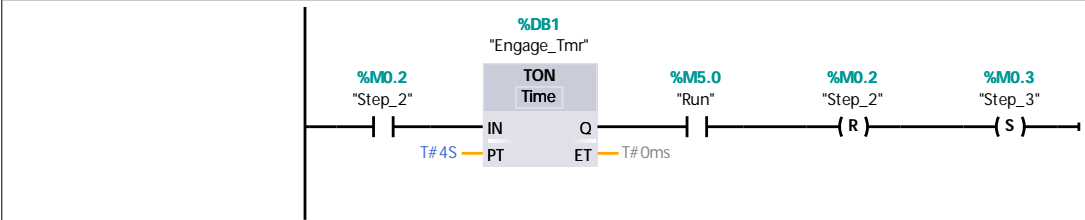
Network 3: Initial start



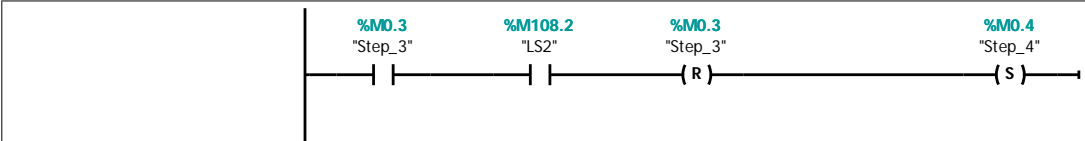
Network 4: Step 1 Wait for part



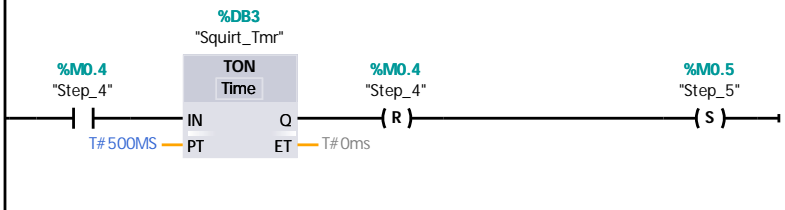
Network 5: Step 2 Wait for engage



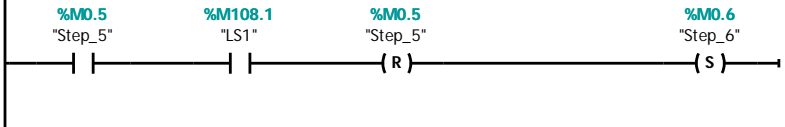
Network 6: Step 3 Lower oiler



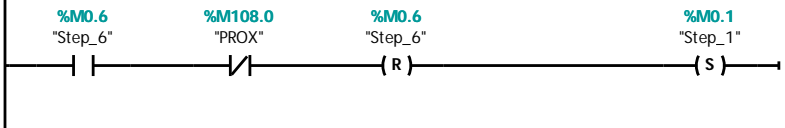
Network 7: Step 4 Squirt oil



Network 8: Step 5 Raise oiler

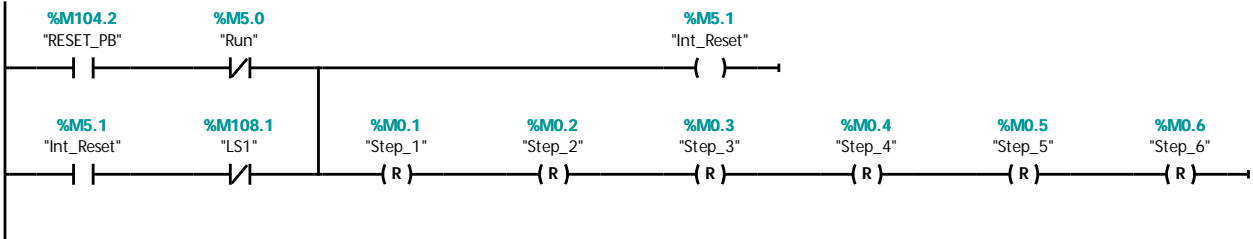


Network 9: Step 6 Part leaves



Network 10: Reset

Keep internal reset on while raising oiler tip.

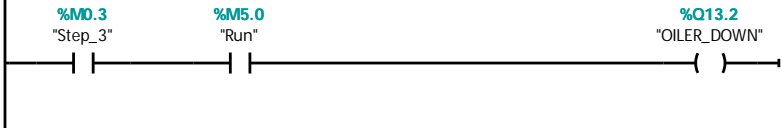


Network 11: Gate 1 cylinder control, on to open gate 1

Can not turn off when paused.

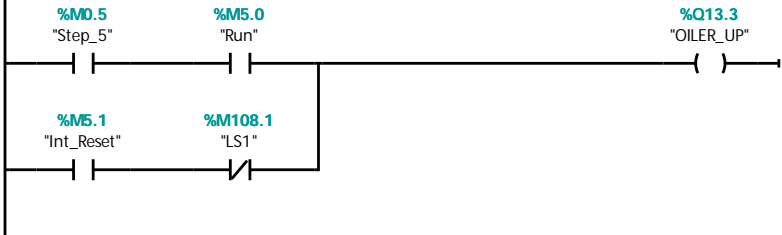


Network 12: On to lower oiler tip



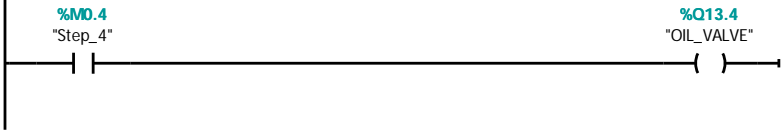
Network 13: On to raise oiler tip

Raise oiler tip during reset

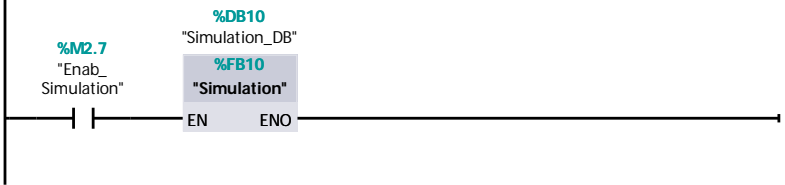


Network 14: On to open valve and squirt oil

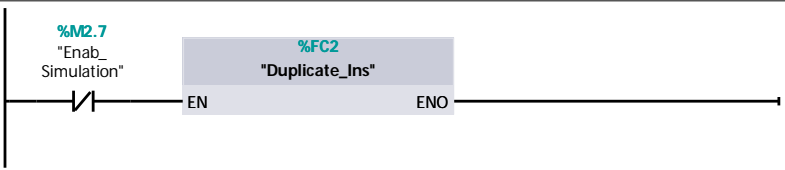
Can not turn off when paused.



Network 15: Simulation



Network 16: Copy real inputs to input image if not simulating



Duplicate_Ins Properties

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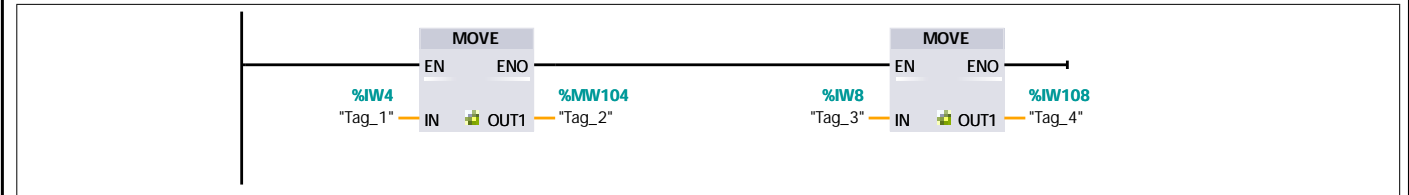
Name	Duplicate_Ins	Number	2	Type	FC
Language	LAD	Numbering	Manual		

Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
InOut		
Temp		
Constant		
▼ Return		
Duplicate_Ins	Void	

Network 1:



Simulation [FB10]

Simulation Properties

General

Name	Simulation	Number	10	Type	FB
Language	LAD	Numbering	Manual		

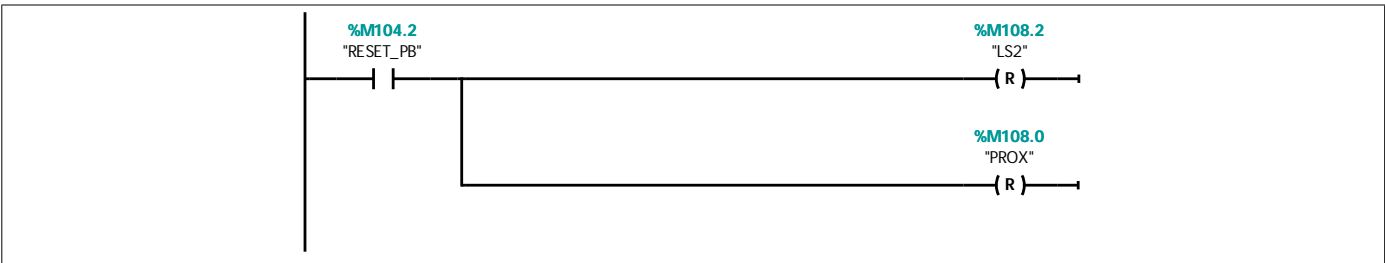
Information

Title		Author		Comment	
Family		Version	0.1	User-defined ID	

Name	Data type	Default value
Input		
Output		
InOut		
▼ Static		
Prox_On_Tmr	TON_TIME	
Prox_Off_Tmr	TON_TIME	
LS1_Tmr	TON_TIME	
LS2_Tmr	TON_TIME	
Prox_Off_Tmr_IN	Bool	false
Oiler_Up_NTrans	Bool	false
Temp		
Constant		

Network 1: Limit switch, on (closed) when oiler tip is in lowered position

On reset, reset PROX and LS2

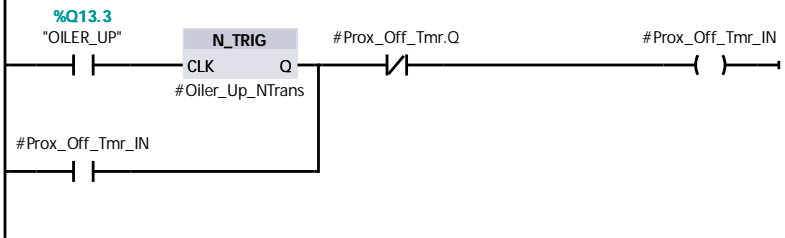


Network 2: Proximity sensor, on when platform is in station

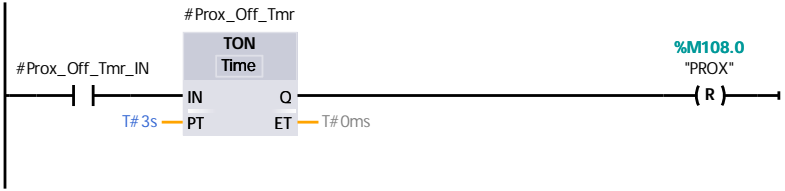
PROX simulation: Set when PROX off for 4 secs.
Reset 3 secs after OILER_UP transitions off



Network 3:

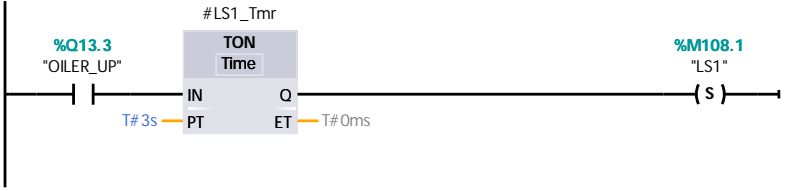


Network 4: Proximity sensor, on when platform is in station

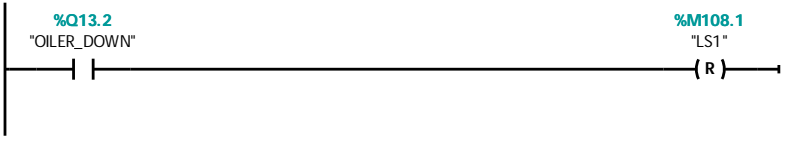


Network 5: Limit switch, on (closed) when oiler tip is in raised position

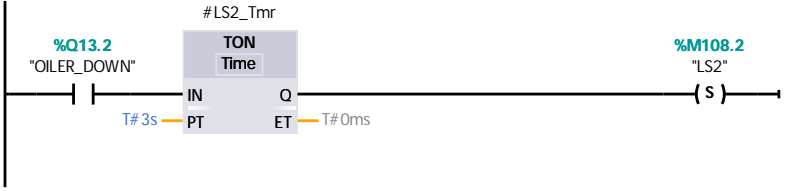
LS1 and LS2 simulation: Set LS1 when OILER_UP on for 3 sec. Reset when OILER_DOWN
Set LS2 when OILER_DOWN on for 3 sec. Reset when OILER_UP



Network 6: Limit switch, on (closed) when oiler tip is in raised position



Network 7: Proximity sensor, on when 40-foot rail piece in feeder area



Network 8: Limit switch, on (closed) when oiler tip is in lowered position

Totally Integrated Automation Portal		
<div><div></div><div><div><div>%Q13.3 "OILER_UP"</div><div></div></div><div><div></div><div></div></div><div><div>%M108.2 "LS2"</div><div>(R)</div></div></div></div>		