

Main_Program [OB1]

Main_Program Properties

General

Name	Main_Program	Number	1	Type	OB
Language	LAD	Numbering	Manual		

Information

Title	SP7-11	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: SP7-11

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SP7-11 Part Width Sorter Control

Additional internal memory:

Tag Address

Step_1 to Step_3 M0.1 to M0.3 BOOL Step-in-progress bits

Eject_Tmr DB3 TON_SFB Times eject pulse

Bin1 M20.0 BOOL Width in range of 0.9 - 1.1

Bin2 M20.1 BOOL Width in range of 1.9 - 2.1

Bin3 M20.3 BOOL Widht in range not one of above

UX1_Inch MD80 REAL UX1 reading in inches

UX2_Inch MD84 REAL UX2 reading in inches

UX3_Inch MD88 REAL UX3 reading in inches

Part_Width MD92 REAL Part width in inches

TmpDI MD120 DINT Temporary double integer

TmpR MD124 REAL Temporary real

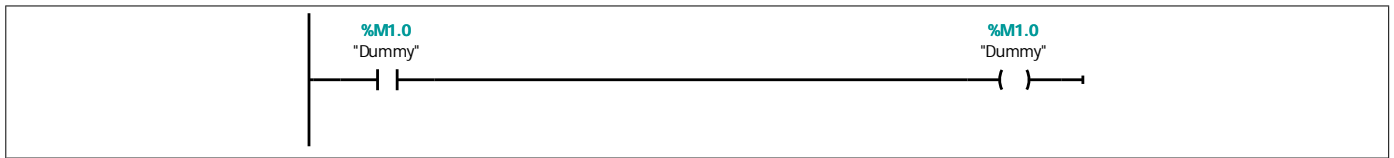
Ret_Val MW12 WORD Return value from SCALE block

Always_Off M10.0 BOOL Always off bit for SCALE block

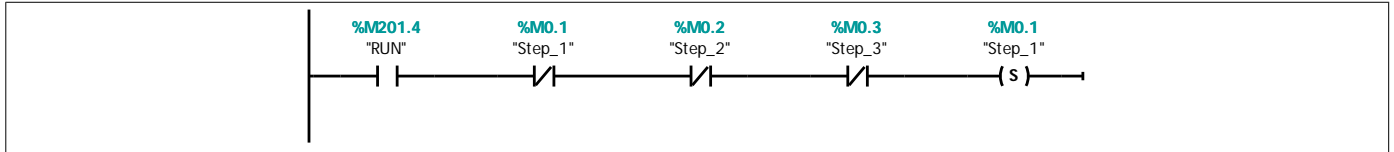
Conversion formulas:

$UXn_INCH = (UXn_MEAS - 5530) / 22118.0 * (30.0 - 4.0) + 4.0$

Part_Width = 16 - (UX1+UX2)

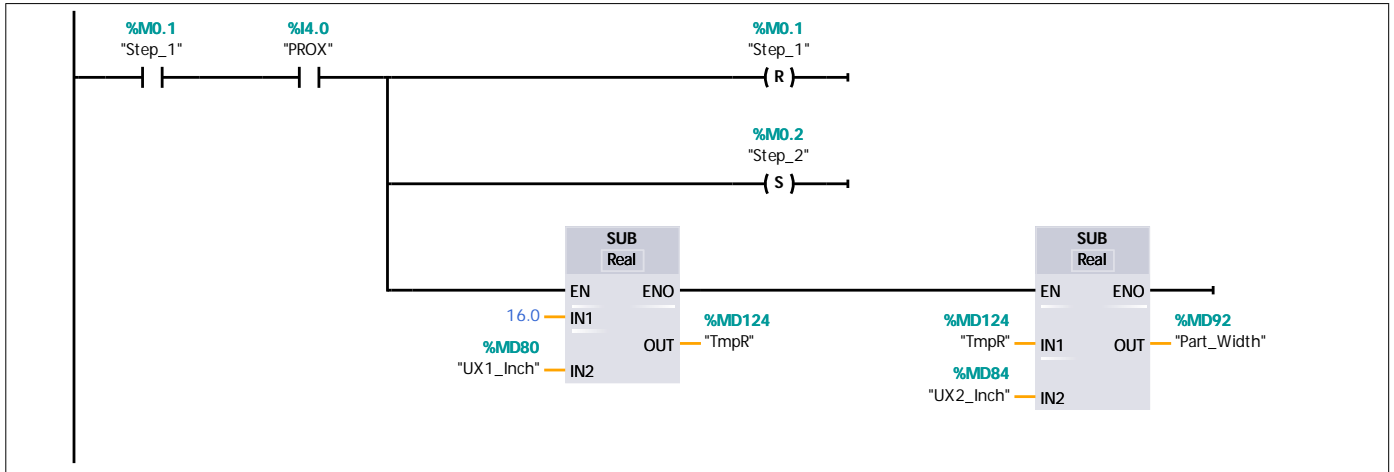


Network 2: Initial Start

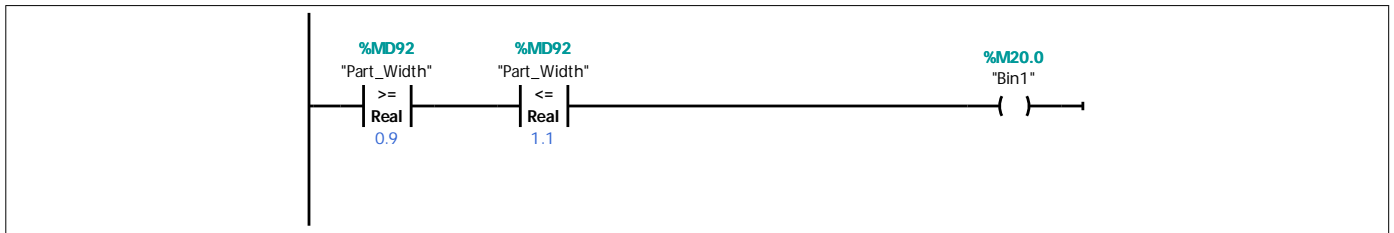


Network 3: Step 1 Wait for part in measure position

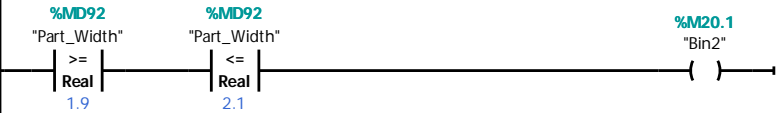
Calculate part width on transition



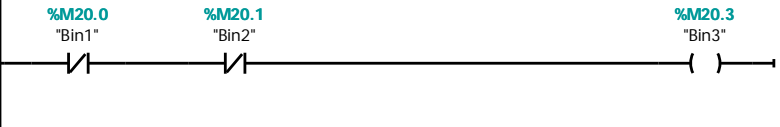
Network 4: Size range for 1" part



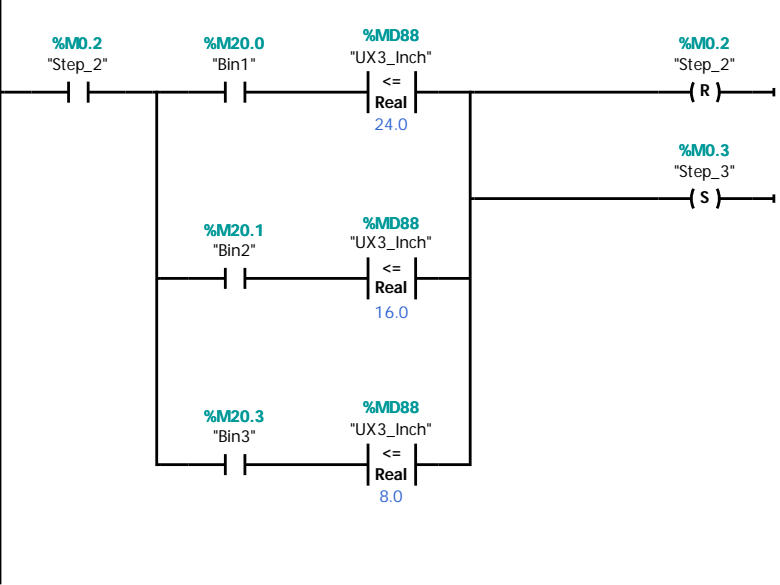
Network 5: Size range for 2" part



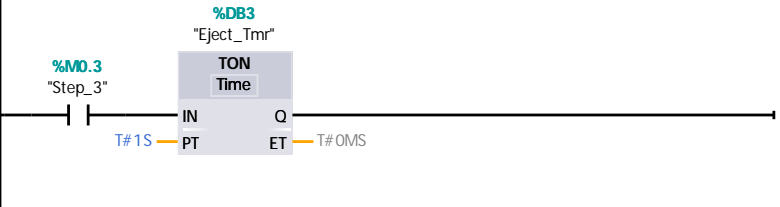
Network 6: Width not in one of above ranges



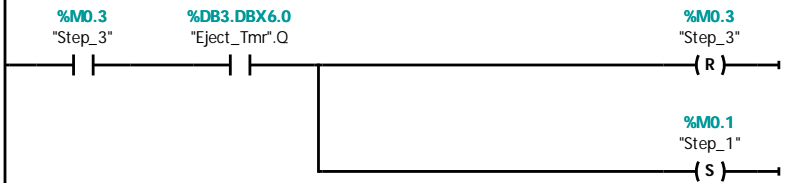
Network 7: Step 2 - Wait for part in ejection position



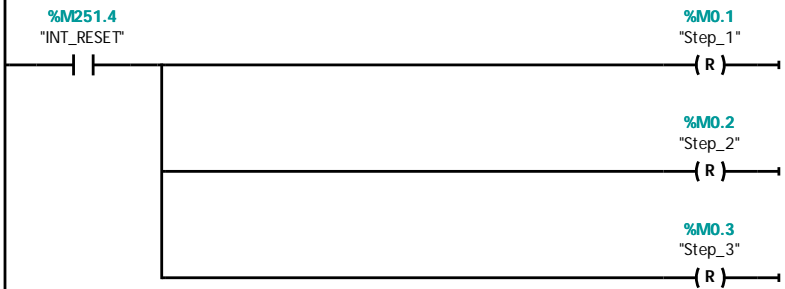
Network 8: Step 3 timer



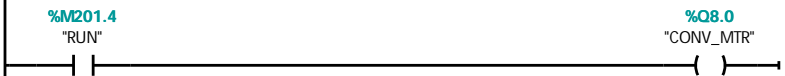
Network 9: Step 3 Eject part



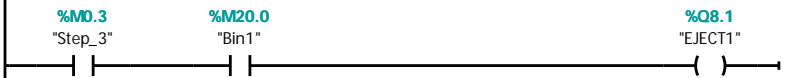
Network 10: Reset



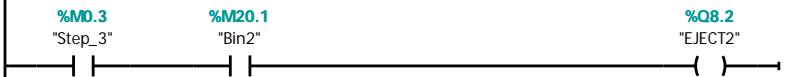
Network 11: Conveyor



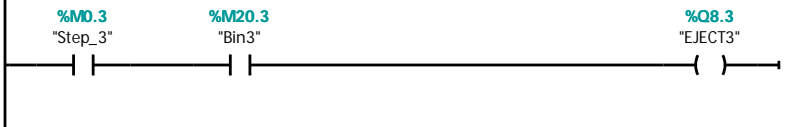
Network 12: Eject 1



Network 13: Eject 2

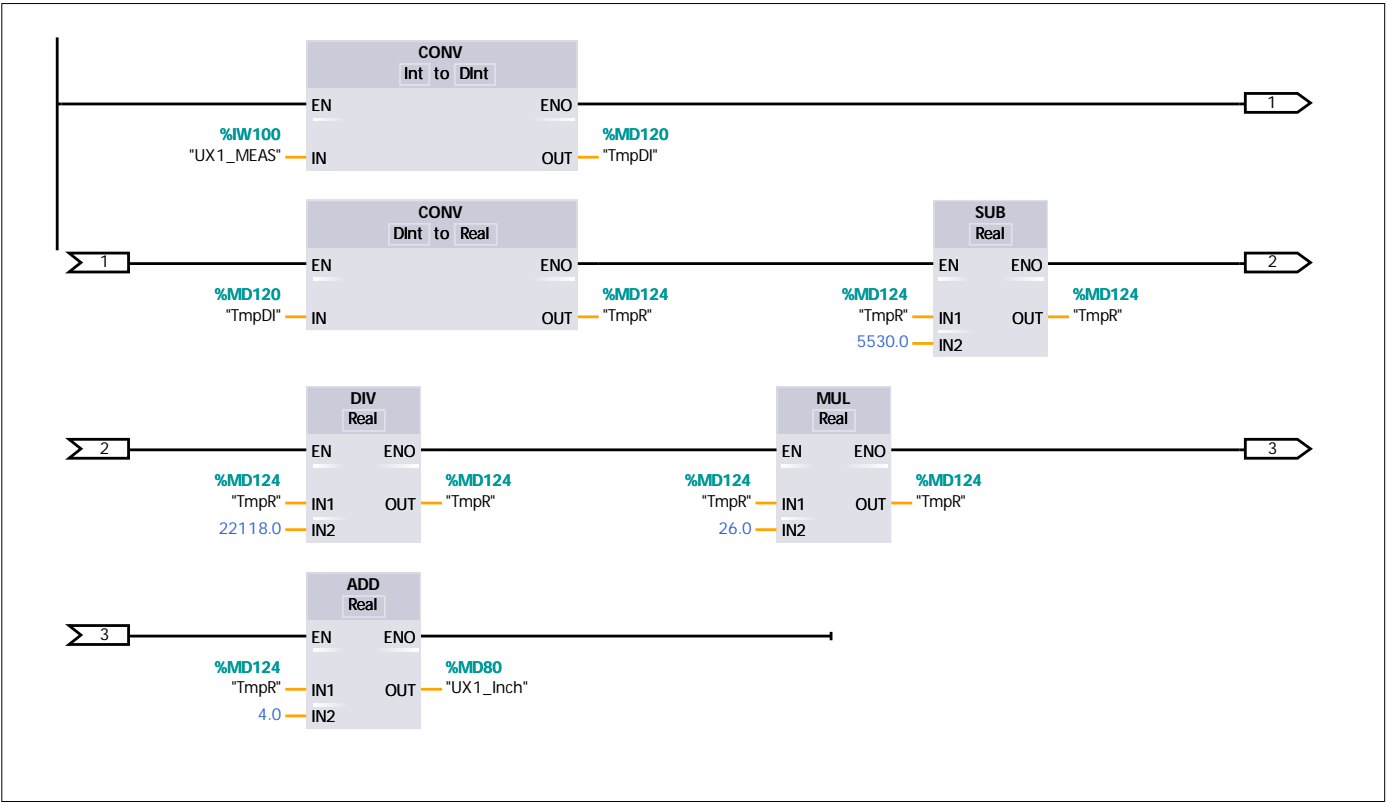


Network 14: Eject 3



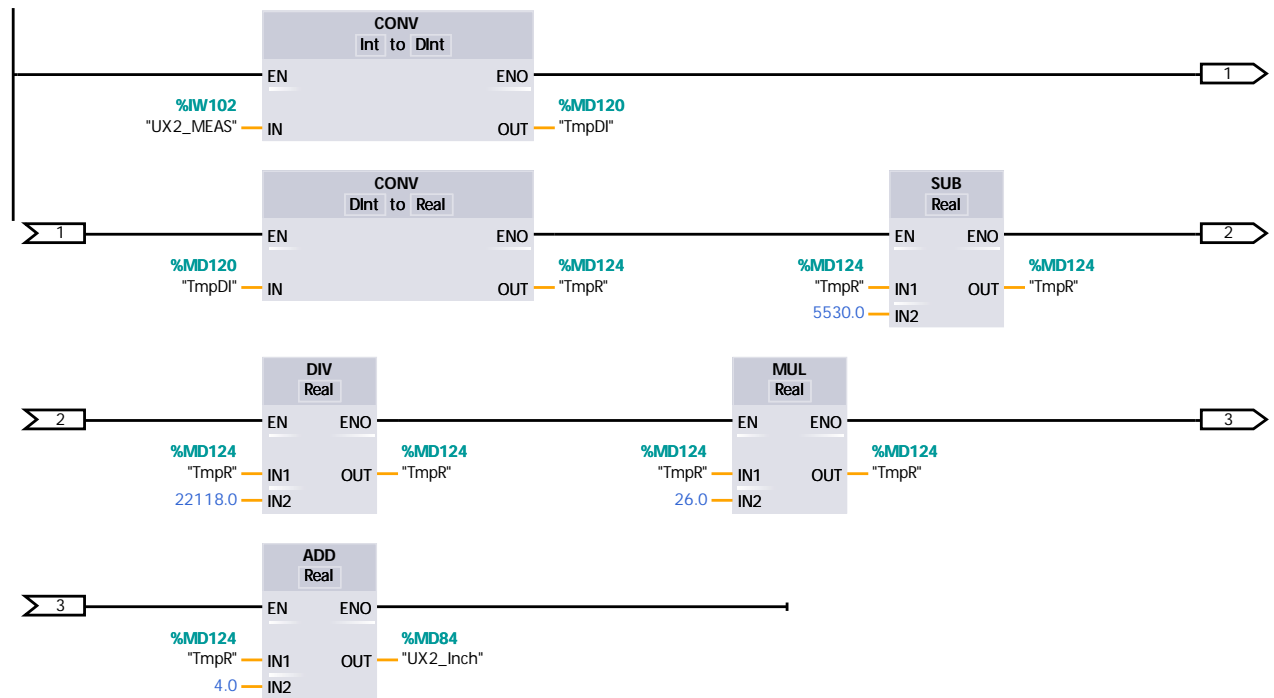
Network 15: Convert UX1 measurement with comp blocks

Convert UX1 measurement to inches.
Uses individual computation blocks.



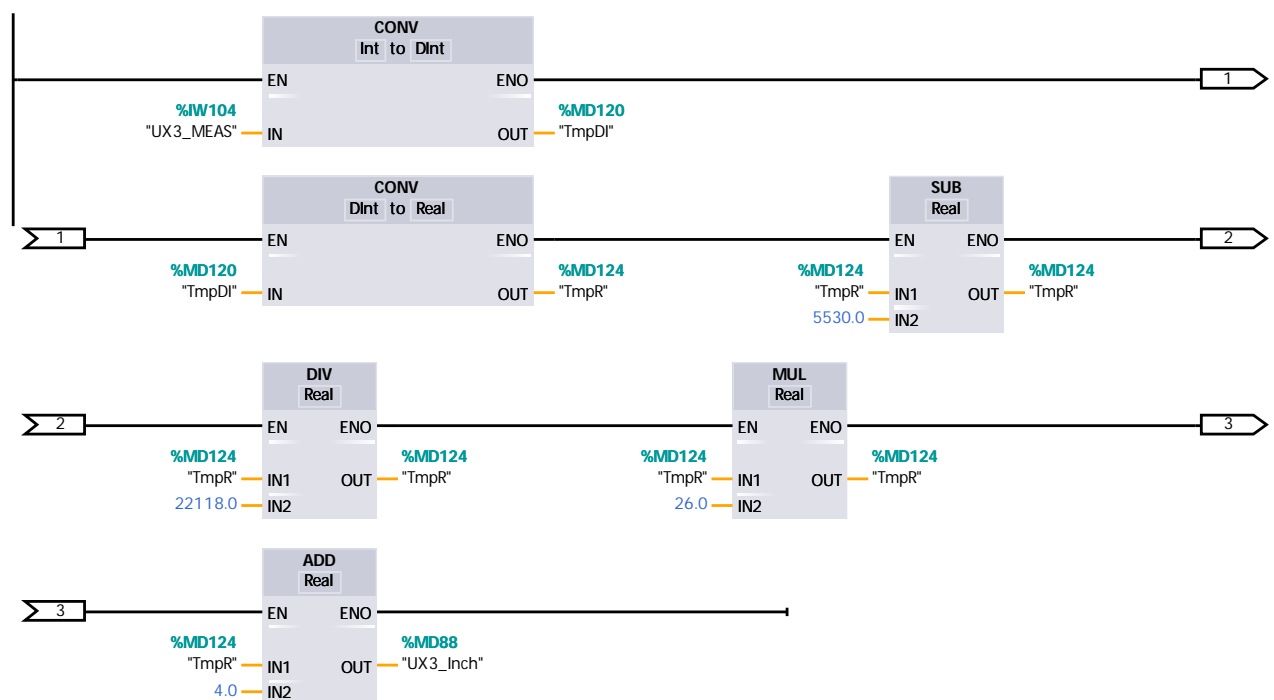
Network 16: Convert UX2 measurement with comp blocks

Convert UX2 measurement to inches.
Uses individual computation blocks.

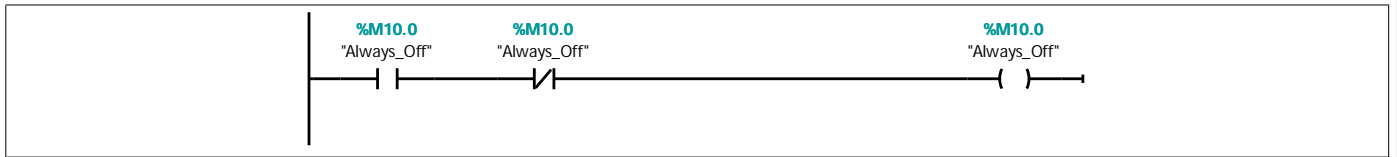


Network 17: Convert UX3 measurement with comp blocks

Convert UX3 measurement to inches.
Uses individual computation blocks.



Network 18: Always Off



Network 19: Convert UX measurements with SCALE

Convert UX measurements.

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).

