Pick and Place (Basic) / PLC_1 [CPU 1214C DC/DC/DC] / Program blocks

Pick And Place [FB1]

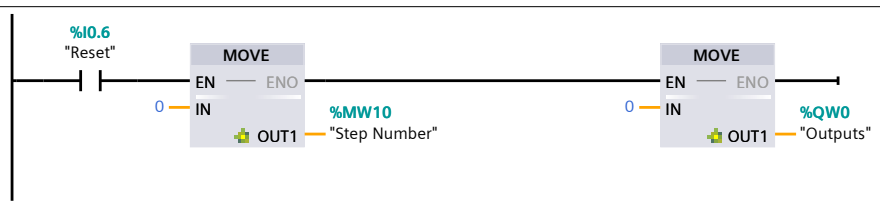
Pick And Place Properties							
General							
Name	Pick And Place	**Number**	1	**Type**	FB	**Language**	LAD
Numbering	Automatic						
Information							
Title		**Author**		**Comment**		**Family**	
Version	0.1	**User-defined ID**					

Pick And Place

Name	Data type	Default value	Retain	Accessible from HMI/OPC UA	Writable from HMI/OPC UA	Visible in HMI engineering	Setpoint	Supervision	Comment
Input									
Output									
InOut									
▼ Static									
▼ IEC_Timer_0_Instance	TOF_TIME		Non-retain	True	True	True	False		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ IEC_Timer_0_Instance_1	TON_TIME		Non-retain	True	True	True	False		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ IEC_Timer_0_Instance_2	TON_TIME		Non-retain	True	True	True	False		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
▼ IEC_Timer_0_Instance_3	TON_TIME		Non-retain	True	True	True	False		
PT	Time	T#0ms	Non-retain	True	True	True	False		
ET	Time	T#0ms	Non-retain	True	False	True	False		
IN	Bool	false	Non-retain	True	True	True	False		
Q	Bool	false	Non-retain	True	False	True	False		
Temp									
Constant									

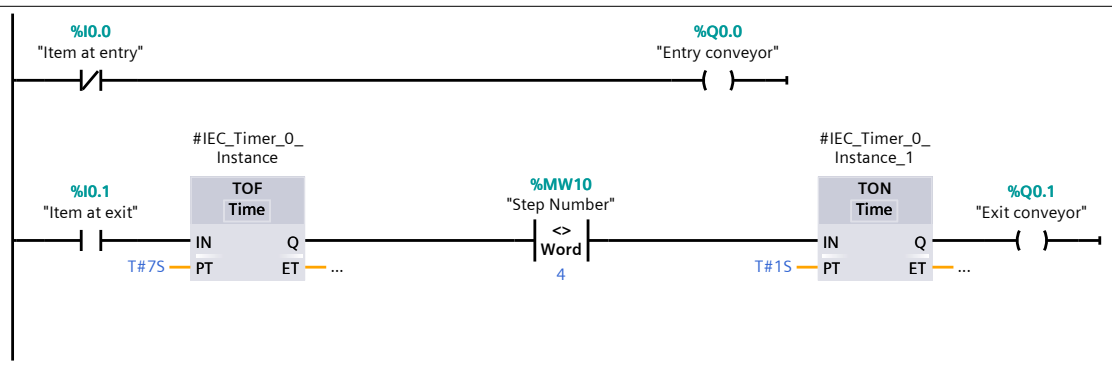
Network 1: Reset

Resets Step Number and Outputs of PLC



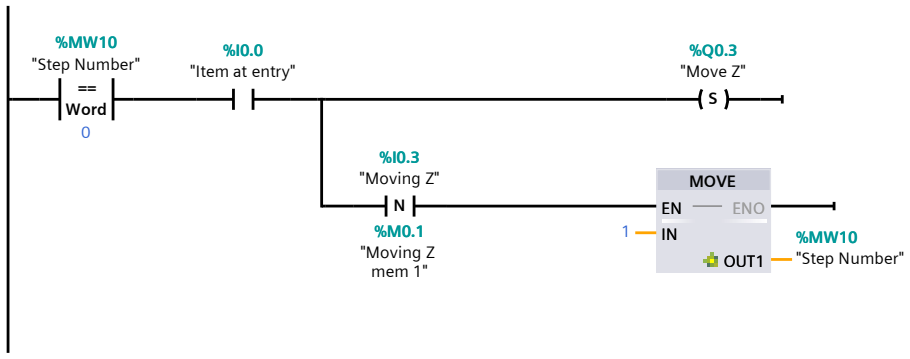
Network 2: Conveyors Control

Entry conveyor will work until item at entry is detected.
Exit conveyor is working when item has been put on it.



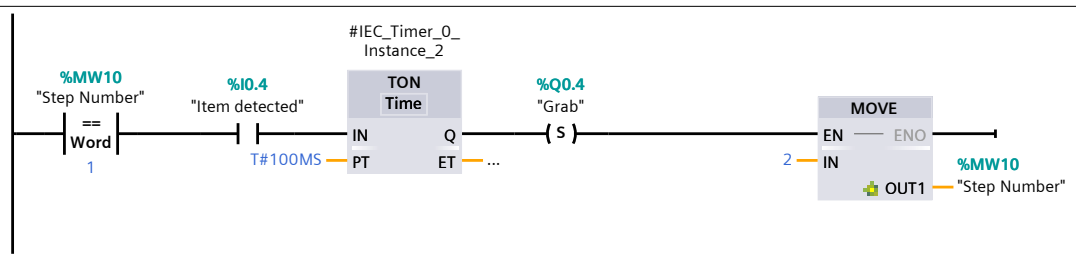
Network 3: Step 0

Wait for item at entry.
If item is detected lower arm.
When movement of arm stopped go to next step.



Network 4: Step 1

Detect item, grab it after 100 ms.

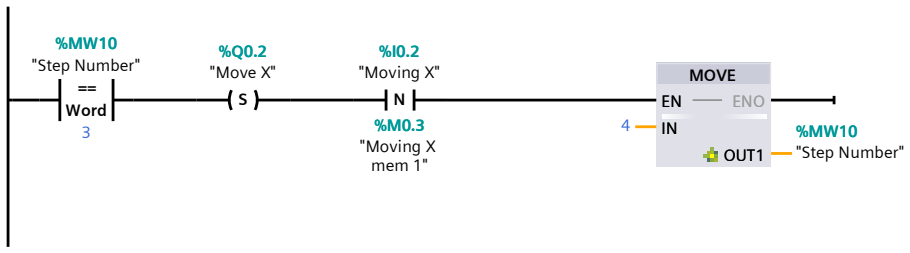


Network 5: Step 2

Lift arm.
When movement of arm is stopped go to next step.

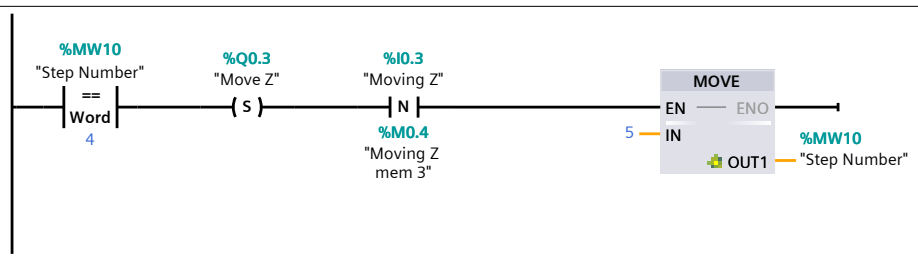
Network 6: Step 3

Extend arm.
When movement of arm is stopped go to next step.



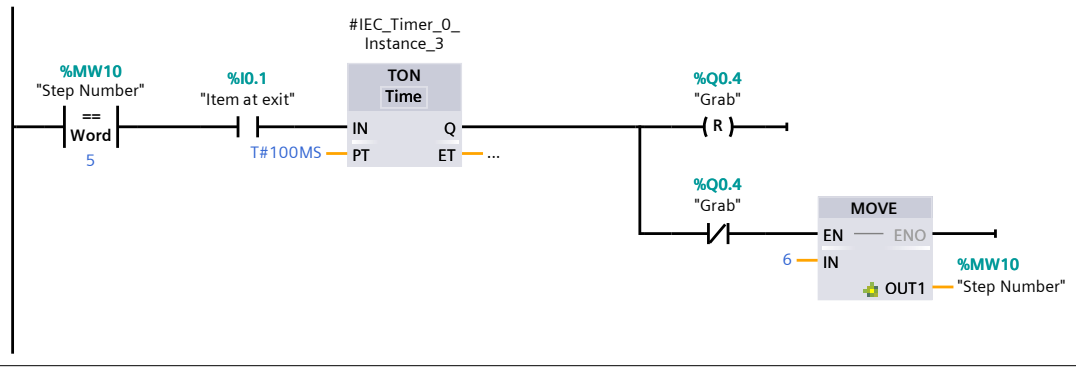
Network 7: Step 4

Lower arm.
When movement of arm is stopped go to next step.



Network 8: Step 5

When item is detected on second conveyor, release grasp.
When grasp is released go to next step.



Network 9: Step 6

Lift arm.
When movement of arm is stopped go to next step.

Network 10: Step 7

Retract arm.
When movement of arm is stopped, go to step 0.