
















 Controller SP15_02 Controller Fault Handler Power-Up Handler**Tasks** MainTask MainProgram MainRoutine Simulation Simulation Unscheduled**Motion Groups** Ungrouped Axes**Add-On Instructions****Data Types** User-Defined Strings Add-On-Defined Module-Defined AB:1756_DI:C:0 AB:1756_DI:I:0 AB:1756_DO:C:0 AB:1756_DO:I:0 AB:1756_DO:O:0**Trends****I/O Configuration** 1756 Backplane, 1756-A10 [0] 1756-L71 SP15_02 [1] 1756-IB32/A discrete_in1 [2] 1756-IB32/A discrete_in_2 [3] 1756-IB32/A discrete_in3 [4] 1756-IB32/A discete_in_4 [5] 1756-OB32 DISCRETE_OUT5 [6] 1756-IB32/A DISCRETE_IN6 [7] 1756-OB32 DISCRETE_OUT7

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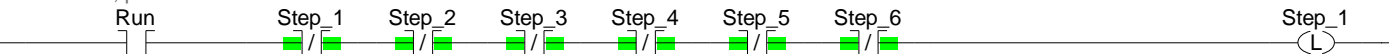
Case Erector Control - With Simulation

Additional internal memory:

Tag	Data Type	
Step_1 to Step_6	BOOL	Step-in-progress bits
Up_Tmr	TIMER	Times opening up
BDown_Tmr	TIMER	Times deactivate of bottom cylinder
Pulse_Cnt	COUNTER	Count encoder pulses

Initial start. When on, allow case erector to run. When off pause

When on, allow case
erector to run. When
off, pause



Step 1 Move in

Proximity sensor, on
when flat carton is
in position to be
erected

PROX

<Local:4:I.Data.0>

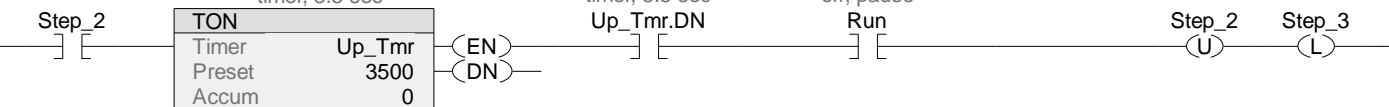


Step 2 Open up

Unfolding carton
timer, 3.5 sec

Unfolding carton
timer, 3.5 sec

When on, allow case
erector to run. When
off, pause



Step 3 Close sides

Limit switch, on
(closed) when left
flap is folded in
position

LEFT_LS

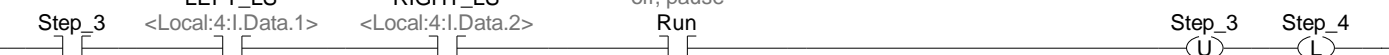
<Local:4:I.Data.1>

Limit switch, on
(closed) when right
flap is folded in
position

RIGHT_LS

<Local:4:I.Data.2>

When on, allow case
erector to run. When
off, pause



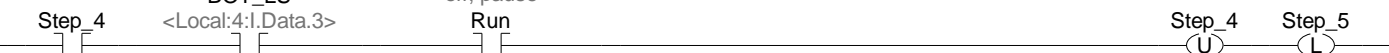
Step 4 Close bottom

Limit switch, on
(closed) when bottom
flap is in position

BOT_LS

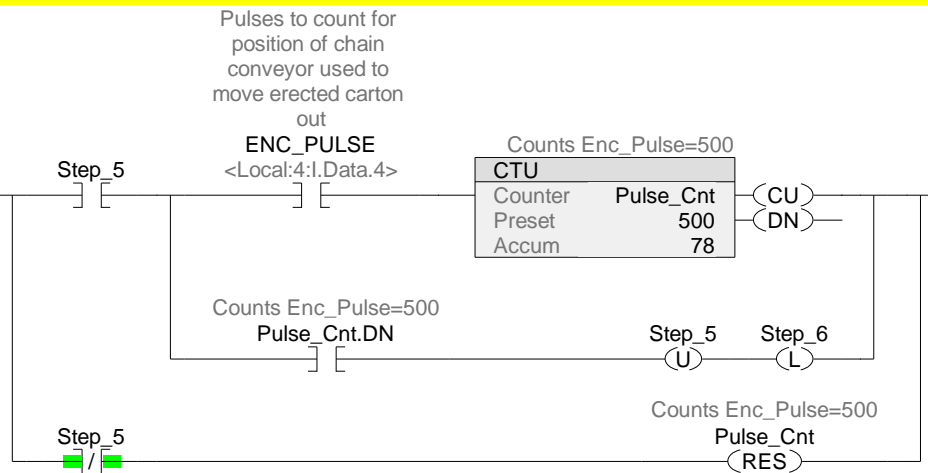
<Local:4:I.Data.3>

When on, allow case
erector to run. When
off, pause



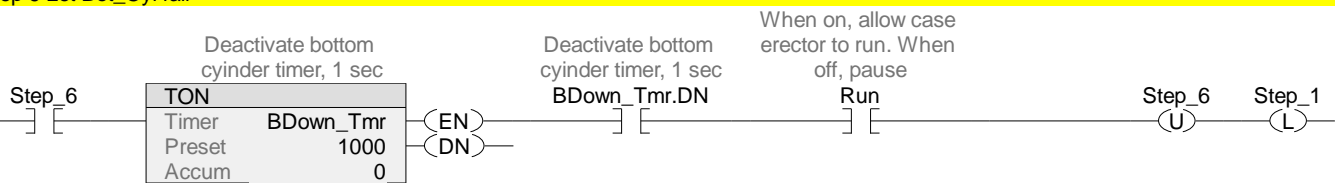
Step 5 Move out

5



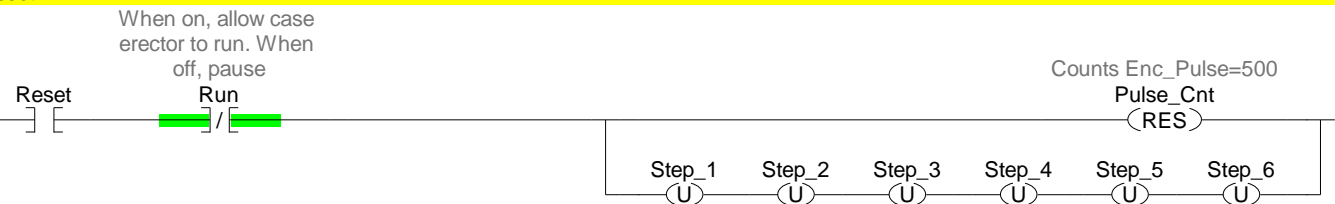
Step 6 Let Bot_Cyl fall

6



Reset

7



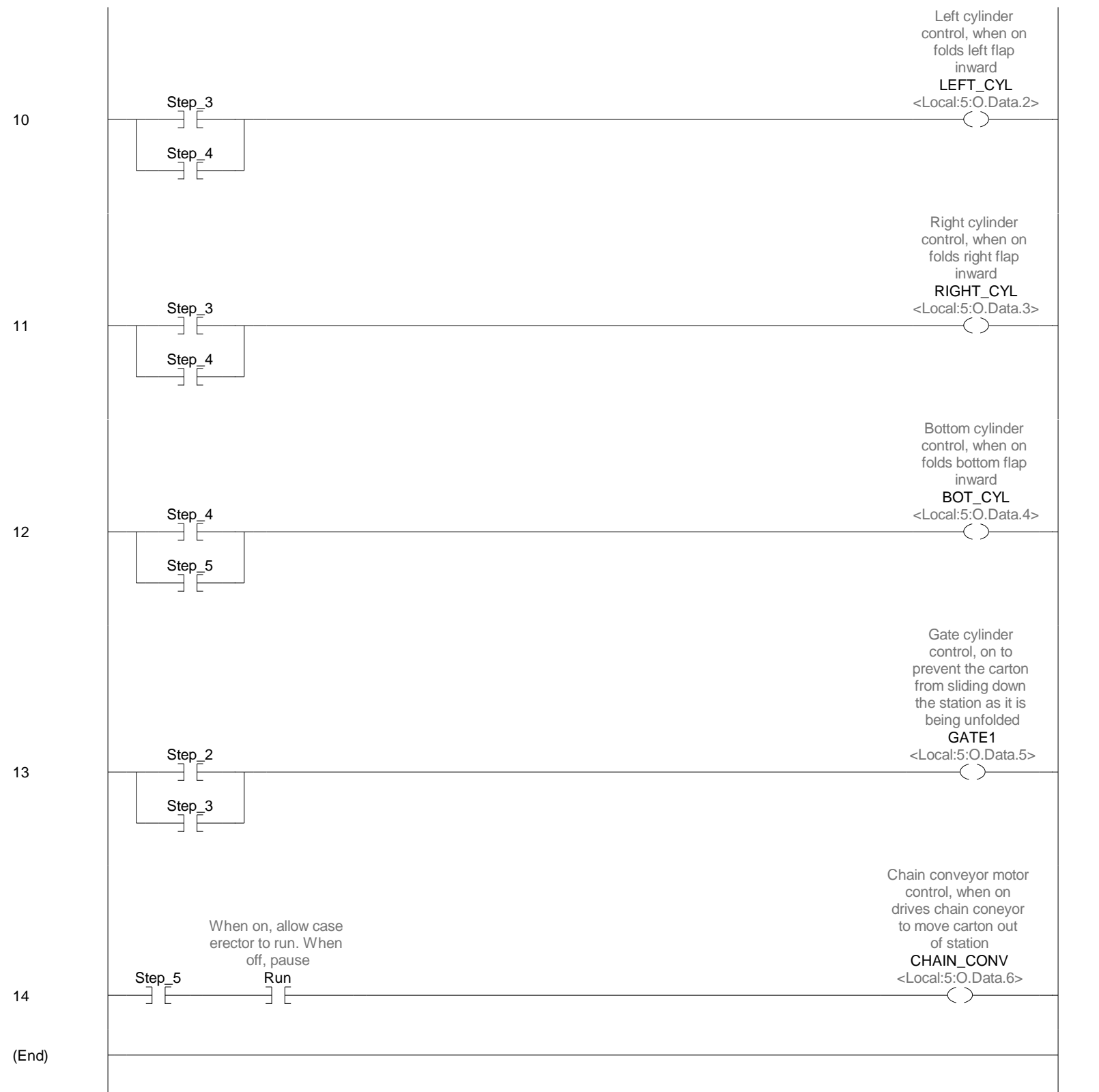
Physical Outputs

8



9





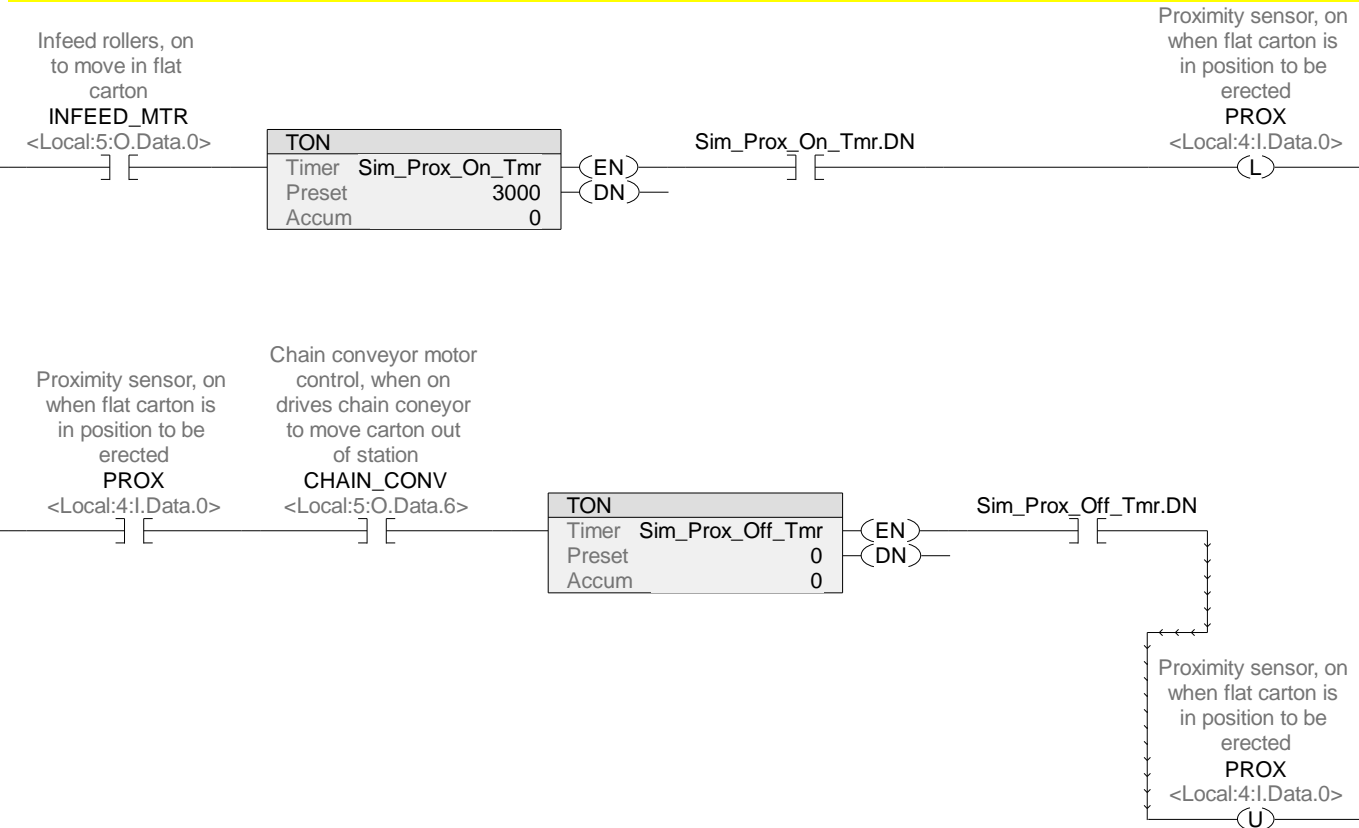
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Case Erector simulation

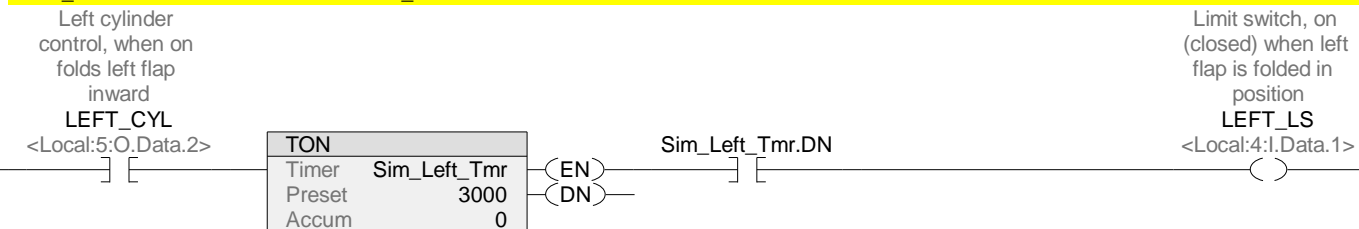
On reset, unlatch PROX

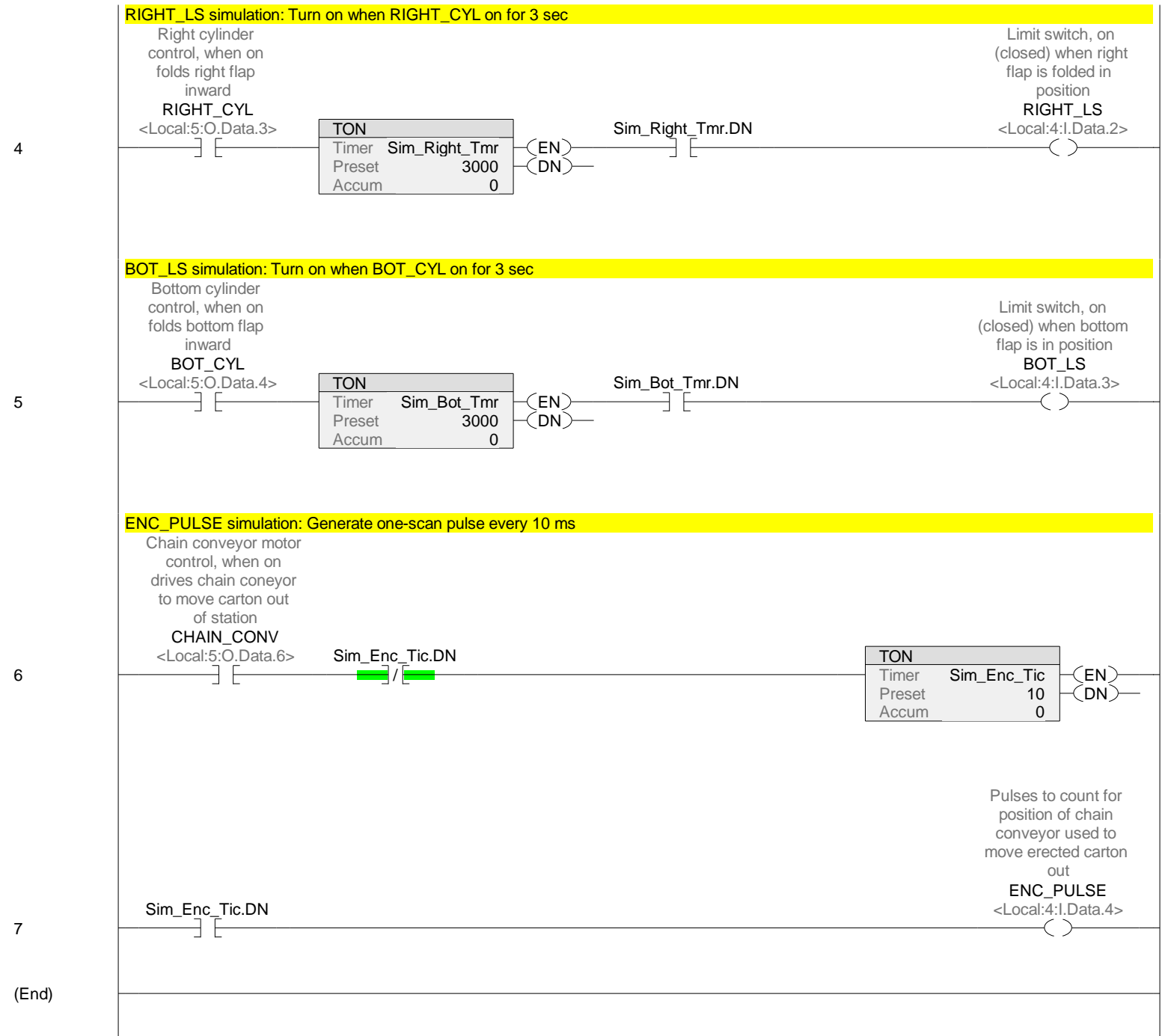


PROX simulation: Latch when INFEED running for 3 secs.
Unlatch when PROX on and CHAIN_CONV runs for one sec



LEFT_LS simulation: Turn on when LEFT_CYL on for 3 sec





SP15_02	
Label does not exist	1
MainTask	
MainProgram	
MainRoutine	
Ladder Diagram	2
Simulation	
Simulation	
Ladder Diagram	5