

Main_Program [OB1]

Main_Program Properties

General

| | | | | | |
|----------|--------------|-----------|--------|------|----|
| Name | Main_Program | Number | 1 | Type | OB |
| Language | LAD | Numbering | Manual | | |

Information

| | | | | | |
|--------|--------|---------|-----|-----------------|--|
| Title | SP21-2 | 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:

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SP14-2 Case Erector Control Using S7-GRAPH With Simulation

Additional internal memory:

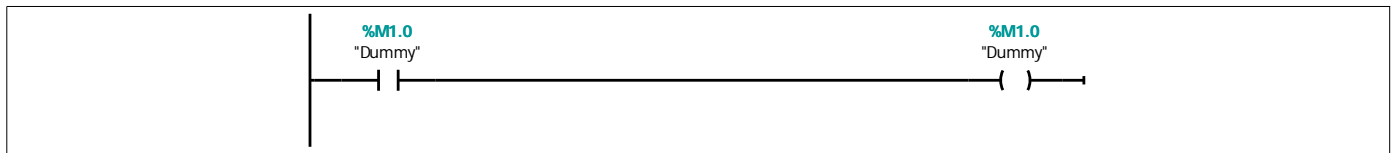
Tag Address

SRun_Trans M61.0 BOOL Run has changed

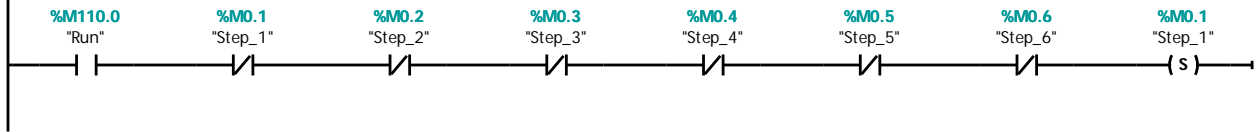
Run_PTrans M61.1 BOOL Bit for Run neg transition

Run_NTrans M61.2 BOOL Bit for Run pos transition

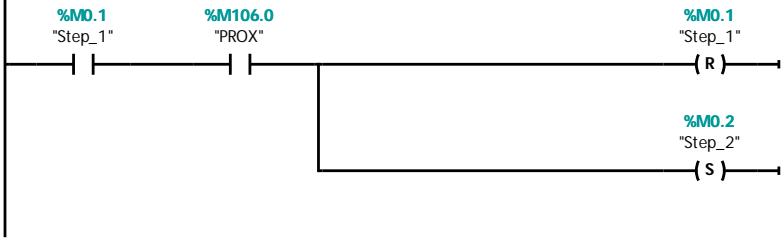
OP_Zeroed M61.3 BOOL Operation paused



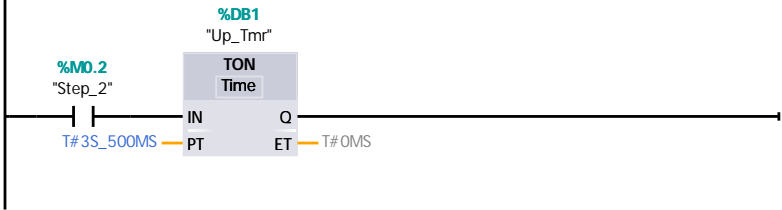
Network 2: Initial start



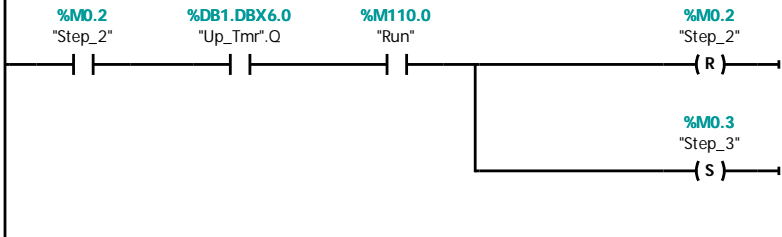
Network 3: Step 1 Move in



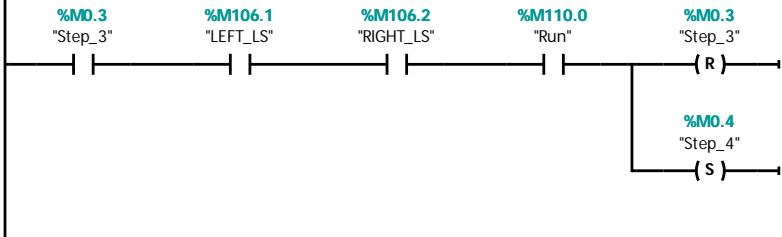
Network 4: Open up timer



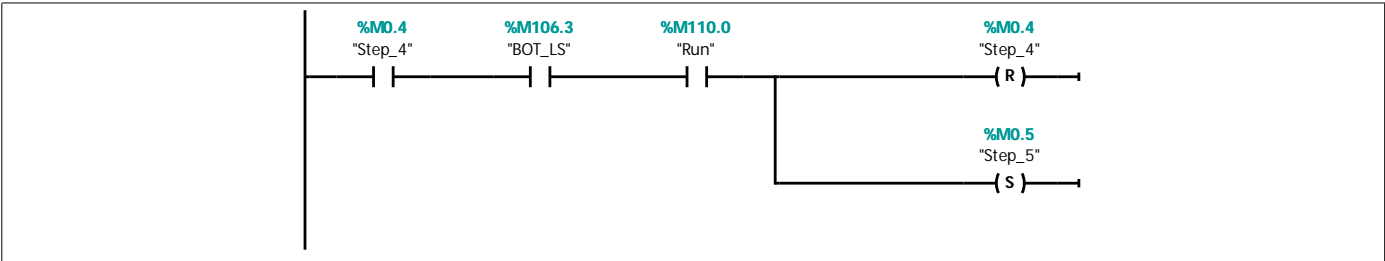
Network 5: Step 2 Open up



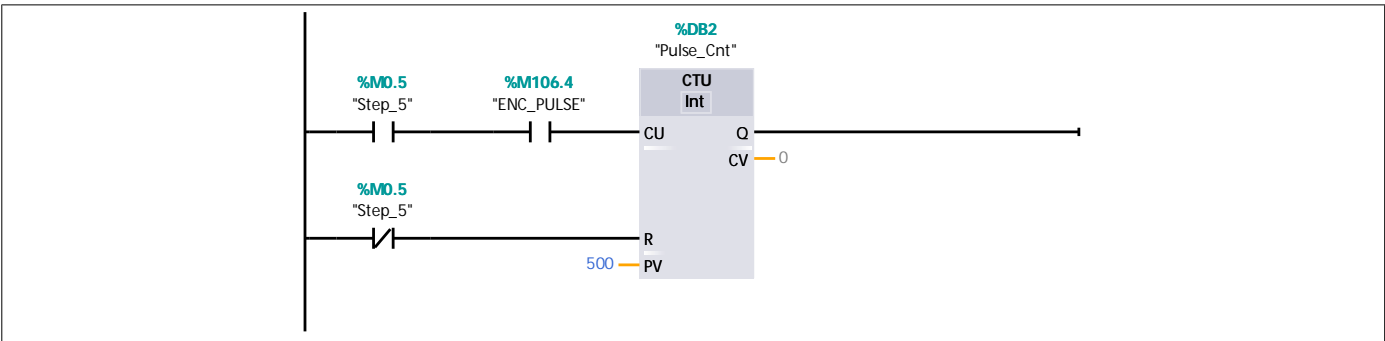
Network 6: Step 3 Close sides



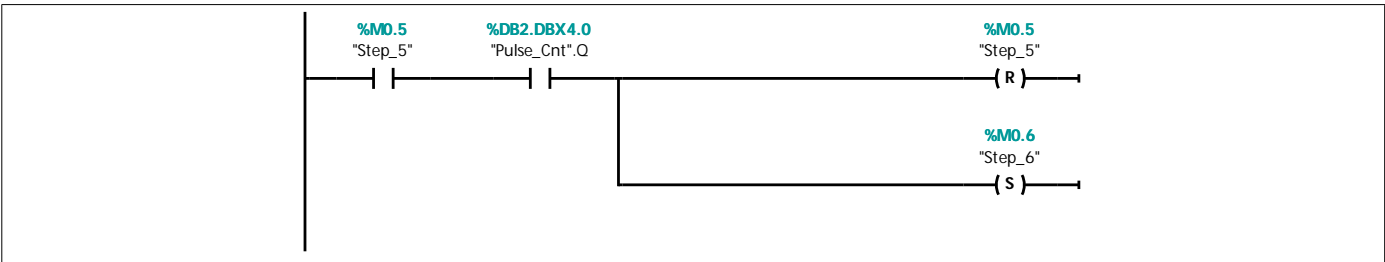
Network 7: Step 4 Close bottom



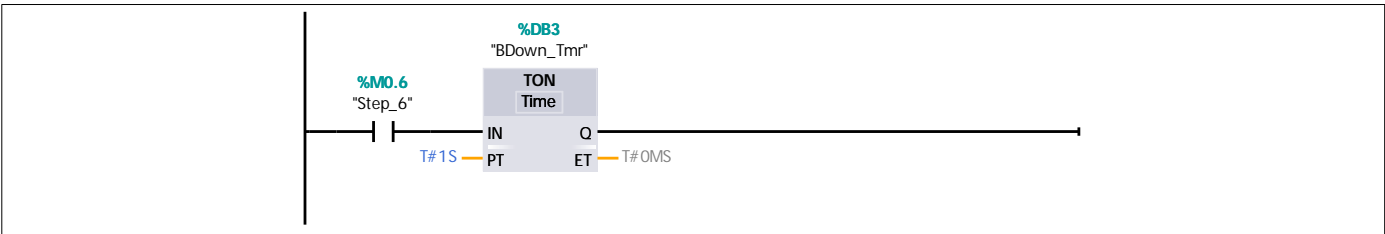
Network 8: Pulse counter



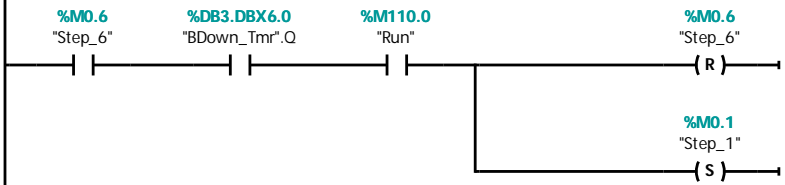
Network 9: Step 5 Move out



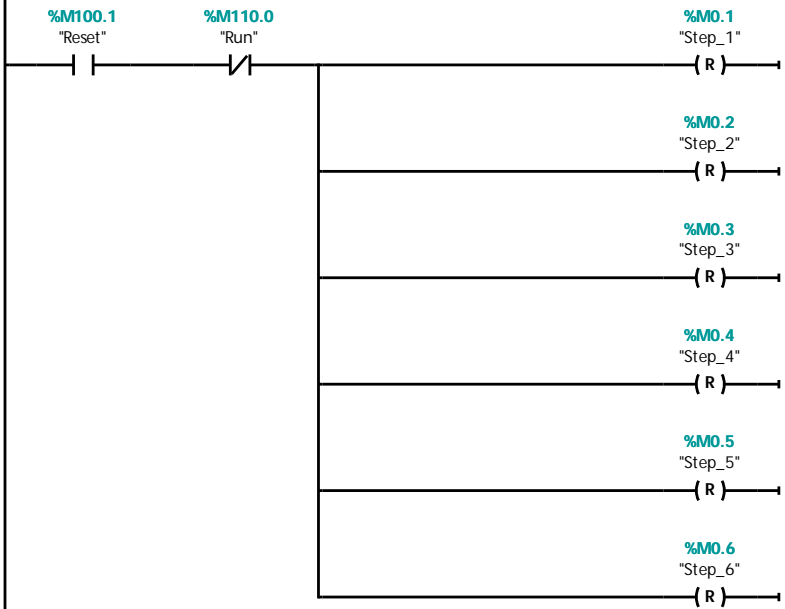
Network 10: Bottom down timer



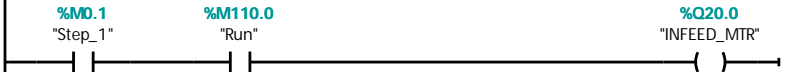
Network 11: Step 6 Let Bot_Cyl fall



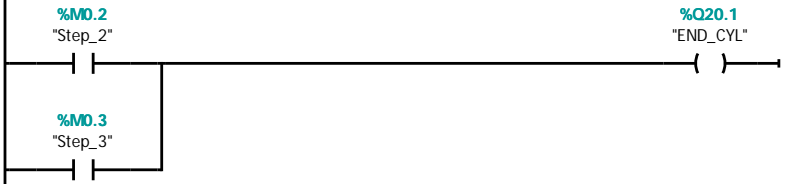
Network 12: Reset



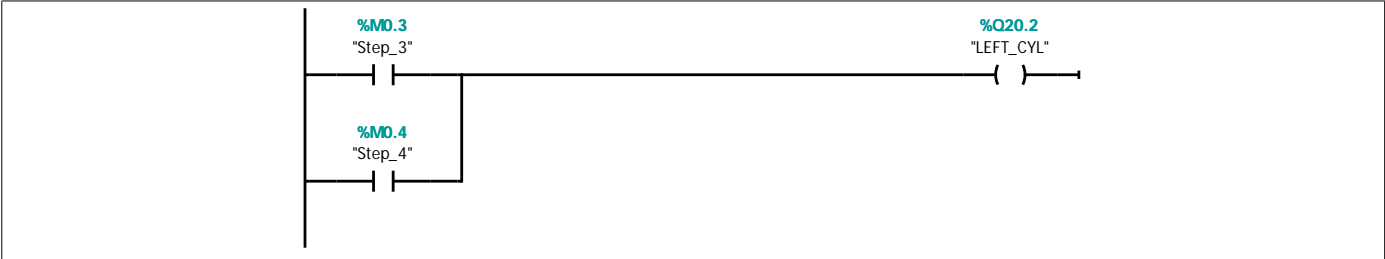
Network 13: Infeed rollers, on to move in flat carton



Network 14: End cylinder control, when on unfolds flat carton



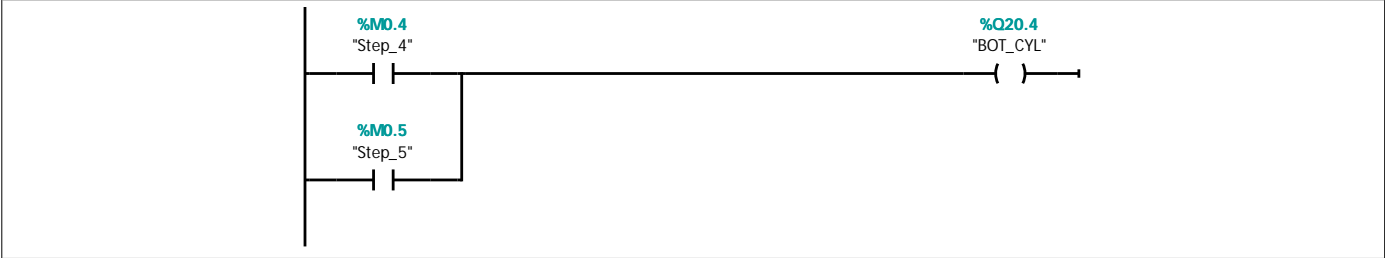
Network 15: Left cylinder control when on folds left flap inward



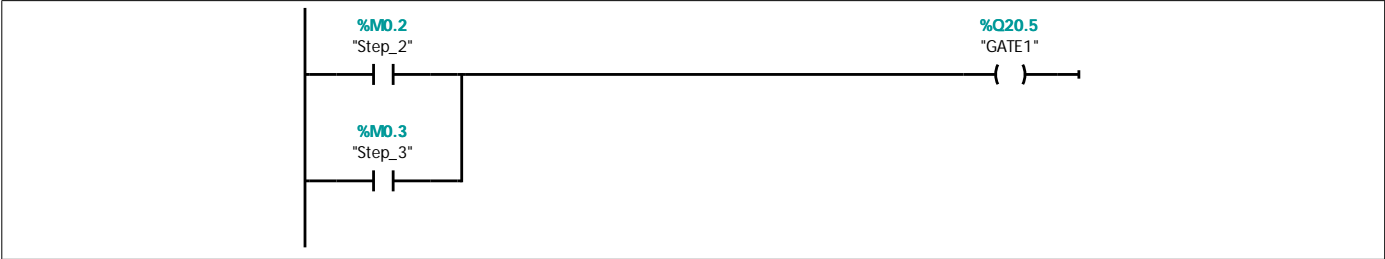
Network 16: Right cylinder control, when on folds right flap inward



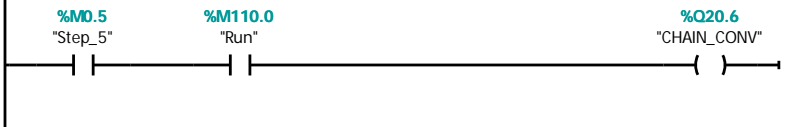
Network 17: Bottom cylinder control, when on folds bottom flap inward



Network 18: Gate cylinder control, on to prevent carton from sliding out sta



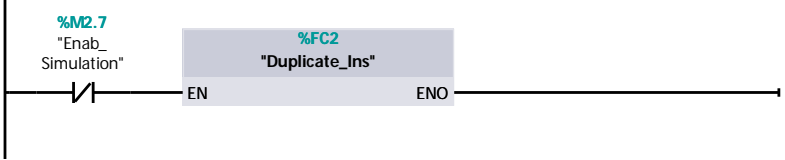
Network 19: Chain conveyor motor control, when on moves carton out



Network 20: Simulation



Network 21: Copy real inputs to input image if not simulating



Duplicate_Ins [FC2]

Duplicate_Ins Properties

General

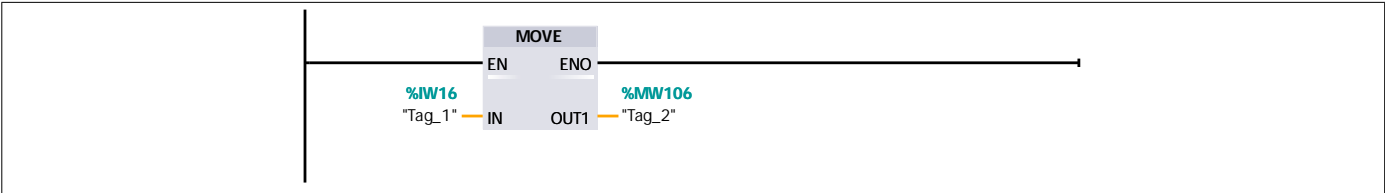
| | | | | | |
|----------|---------------|-----------|--------|------|----|
| Name | Duplicate_Ins | Number | 2 | Type | FC |
| Language | LAD | Numbering | Manual | | |

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 | | |

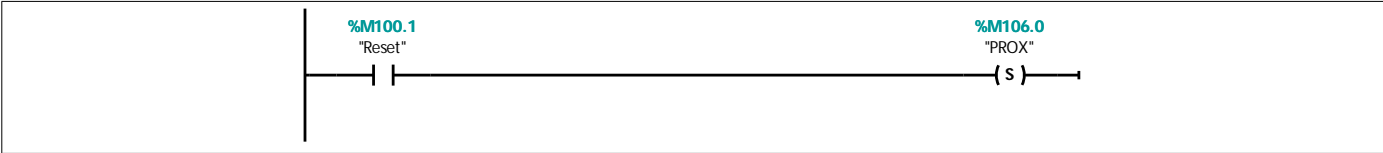
Information

| | | | | | |
|--------|------------|---------|-----|-----------------|---|
| Title | Simulation | Author | | Comment | Copyright (c) 2011-2023 Dogwood Valley Press, LLC SIMULATION LOGIC |
| Family | | Version | 0.1 | User-defined ID | |

| Name | Data type | Default value |
|--------------|-----------|---------------|
| Input | | |
| Output | | |
| InOut | | |
| ▼ Static | | |
| Prox_On_Tmr | TON | |
| Prox_Off_Tmr | TON | |
| Left_Tmr | TON | |
| Right_Tmr | TON | |
| Bot_Tmr | TON | |
| Enc_Tic | TON | |
| Temp | | |
| Constant | | |

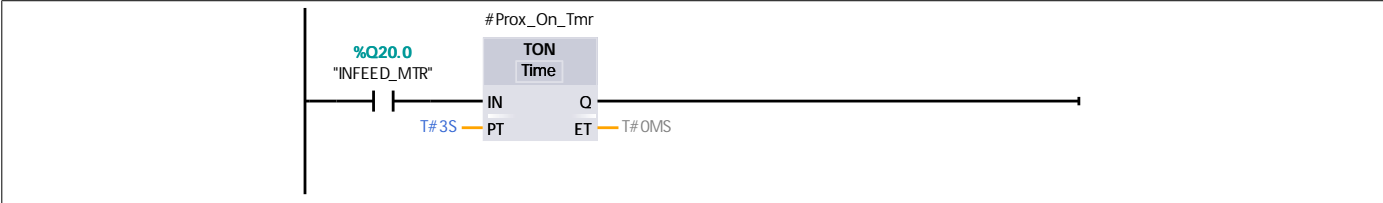
Network 1: Proximity sensor, on when flat carton in position to be erected

On reset, reset PROX

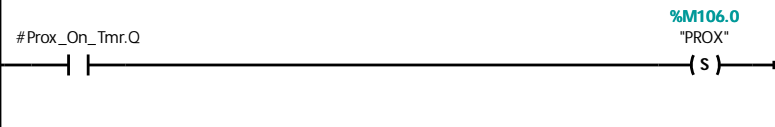


Network 2: Proximity sensor, on when flat carton in position to be erected

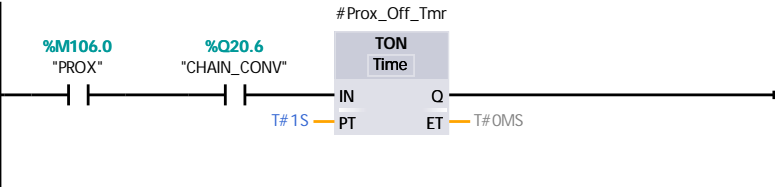
PROX simulation: Set when INFEED running for 3 secs.
Reset when PROX on and CHAIN_CONV runs for one sec



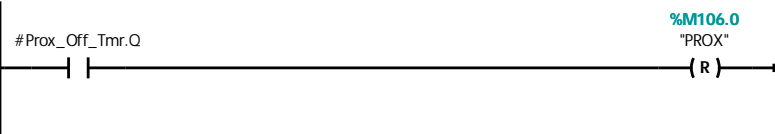
Network 3: Proximity sensor, on when flat carton in position to be erected



Network 4: Proximity sensor, on when flat carton in position to be erected

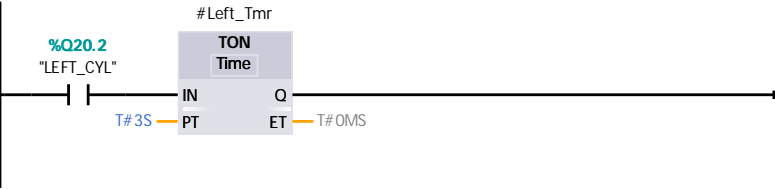


Network 5: Proximity sensor, on when flat carton in position to be erected

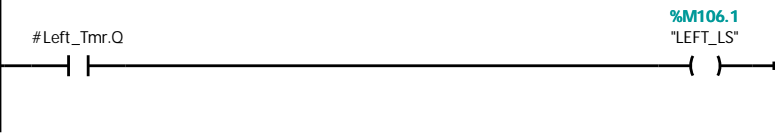


Network 6: Limit switch, on (closed) when left flap is folded in position

LEFT_LS simulation: Turn on when LEFT_CYL on for 3 sec

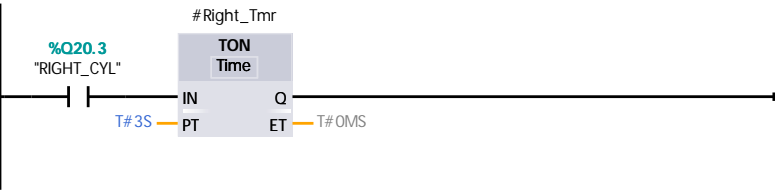


Network 7: Limit switch, on (closed) when left flap is folded in position

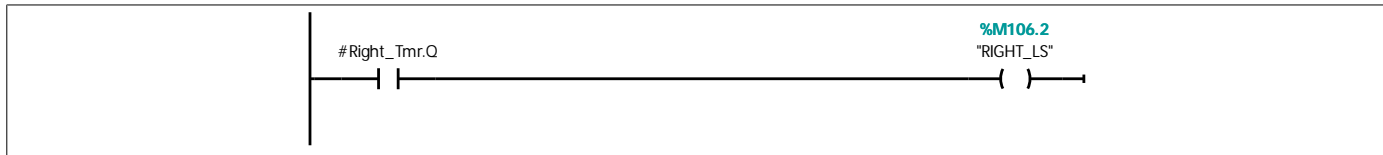


Network 8: Limit switch, on (closed) when right flap is folded in position

RIGHT_LS simulation: Turn on when RIGHT_CYL on for 3 sec

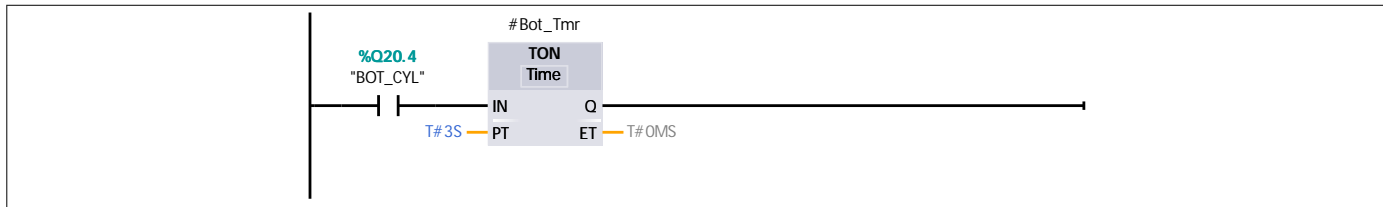


Network 9: Limit switch, on (closed) when right flap is folded in position

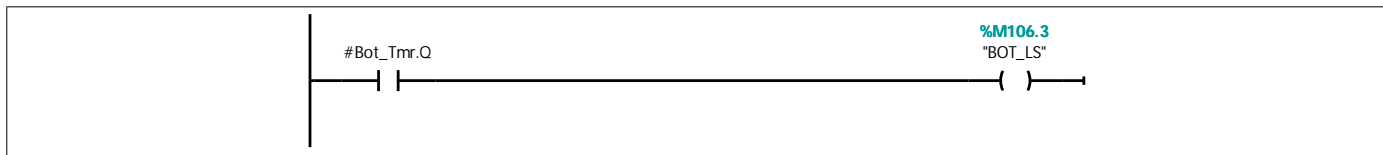


Network 10: BOT_LS simulation

BOT_LS simulation: Turn on when BOT_CYL on for 3 sec

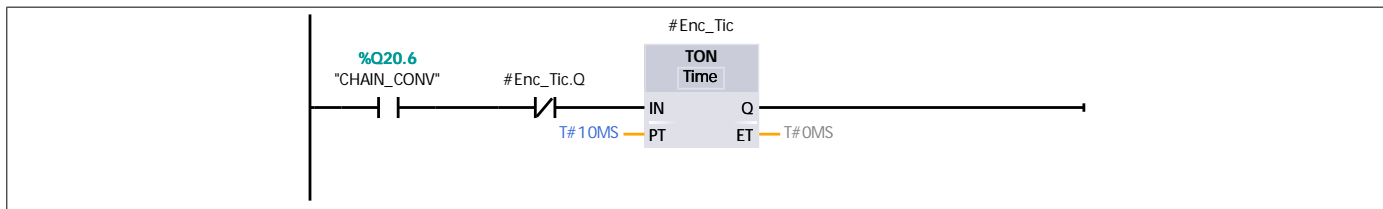


Network 11: Limit switch, on (closed) when bottom flap is folded in position



Network 12: ENC_PULSE simulation

ENC_PULSE simulation: Generate one-scan pulse every 10 ms



Network 13: Pulses to count for position of chain conveyor used to move erected carton out

