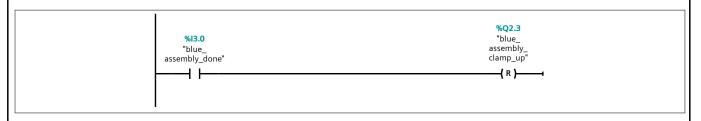
IA_Project / PLC_1 [CPU 1511-1 PN] / Program blocks / 06 blue assembly line

blue_assembly_line [FB5]

| blue_assembly_line Properties | | | | | | | | | |
|-------------------------------|--------------------|-----------|-----------|--------------|----|--|--|--|--|
| General | | | | | | | | | |
| Name | blue_assembly_line | Number | 5 | Type | FB | | | | |
| Language | LAD | Numbering | Automatic | | | | | | |
| Information | | | | | | | | | |
| Title | | Author | | Comment | | | | | |
| Family | | Version | 0.1 | User-defined | | | | | |
| | | | | ID | | | | | |

| e | Data type | Default value |
|-----------------|-----------|---------------|
| nput | | |
| RST | Bool | false |
| time_scale | Real | 0.0 |
| Output | | |
| assembly_count | Int | 0 |
| assembling | Bool | false |
| InOut | | |
| · Static | | |
| step | Int | 1 |
| M1 | Bool | false |
| M2 | Bool | false |
| M3 | Bool | false |
| M4 | Bool | false |
| M5 | Bool | false |
| M6 | Bool | false |
| step_done | Bool | false |
| product_counter | CTU_INT | |
| press_timer | TON_TIME | |
| press | Bool | false |
| press_time | Time | T#0ms |
| Temp | | |
| Constant | | |

Network 1: Raise the base clamp to allow the final product to exit the assembly line



Network 2:

Totally Integrated **Automation Portal** %FC3 "scale_time" T#1.5s — in out — #press_time #time_scale — scale Network 3: #step_done **—(** R **)**— #assembling _(s }__ Network 4: #step #step_done == Int —(R)—— Network 5: #step #step_done | == | |nt | **—(** R **)**— Network 6: #step Int | Network 7:

Totally Integrated **Automation Portal** #step #step_done MOVE #step_done == Int EN ENO − #step $\dashv \vdash \vdash$ —(R)— Network 8: #step #step_done | == | | Int | —(R)— Network 9: #step #step_done -(R)--Int #assembling —(R)— Network 10: **%I2.7** %Q2.2 "blue_ assembly_base_ "blue_ assembly_base_ in" #step clamp" | == | Int | **-(** s **)-%Q2.5**"blue_ assembly_lid_ clamp" **%I3.1** "blue_ assembly_lid_ in" _(s)_ %Q2.2 %Q2.5 "blue_ assembly_base_ clamp" "blue_ assembly_lid_ clamp" #step_done **-(** s **)**-Network 11:

```
Totally Integrated
   Automation Portal
                                                                                                                                        %Q2.7
"blue_
assembly_
move_Z"
                                                 #step
                                                 ==
Int
                                                                                                                                            -( s )-
                                                                       %13.3
                                                                    "blue_
assembly_Z_
limit"
                                                                                                                                     %Q2.4
"blue_
assembly_grab"
                                                                                                                                            (s)_
                                                                        - N -
                                                                        #M1
                                                                                                                                       %Q2.5
"blue_
assembly_lid_
clamp"
                                                                                                                                            -( R )-
                                                                                                                                        #step_done
                                                                                                                                           -( s )--
Network 12:
                                                                                                                                        %Q2.7
"blue_
assembly_
move_Z"
                                                 #step
                                                ==
Int
                                                                                                                                           -( R )-
                                                                   %I3.3
"blue_
assembly_Z_
limit"
                                                                                                                                        #step_done
                                                                        | N |-
                                                                                                                                            -( s )-
                                                                        #M2
Network 13:
                                                                                                                                        %Q2.6
"blue_
assembly_
move_X"
                                                 #step
                                                 ==
Int
                                                                                                                                           -( s )-
                                                                        %13.2
                                                                   "blue_
assembly_X_
limit"
                                                                                                                                        #step_done
                                                                        -IN-
                                                                                                                                           -( s )-
                                                                        #M3
Network 14: 0 = gripper is up , 1= gripper is down
```

Totally Integrated **Automation Portal %Q2.7**"blue_ assembly_ move_Z" #step == Int -(s)-%I3.3 "blue_ assembly_Z_ limit" %Q2.4 "blue_ assembly_grab" -(R)-4 n F #M4 #press **-(** s **)**-%Q2.2 "blue_ assembly_base_ clamp" #press_timer TON Time #press | | |--(R)-· IN Q· #press_time -PT ET — T#0ms **%Q2.3**"blue_ assembly_ clamp_up" **-(** s **)**-#press -(R)-#step_done **-(** s **)**-Network 15: **%Q2.7**"blue_ assembly_ move_Z" #step == Int -(R)-%I3.3 "blue_ assembly_Z_ limit" #step_done N -(s)-#M5 Network 16:

Totally Integrated Automation Portal **%Q2.6**"blue_ assembly_ move_X" #step == Int -(R)-**%I3.2** "blue_ assembly_X_ limit" #step_done **-(** s **)**-#M6 Network 17: #product_counter **%I3.0** CTU "blue_ assembly_done" Int +· CU Q· cv — #assembly_count #RST 9999 — PV Network 18: MOVE - EN - ENO #assembly_count — IN %QW54 "blue_ assembled_ _count" duti -Network 19:

| Totally Integrated Automation Portal | | | |
|---|------|--------------------|-------------------------------|
| | #RST | MOVE EN ENO 1 — IN | |
| | _ | # | M1 R } 1 |
| | _ | # | M2 R } |
| | _ | | M3 R } ──── |
| | _ | (| M4 R } |
| | _ | (| M5 R} ─── |
| | _ | (| M6 R)——• p_done |
| | _ | #asse | R)——• |
| | | # _F | R } |
| | | (| R) |
| | | | |
| | | | |
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