n_assembly_line	Number Numbering Author Version	3 Automatic	Туре	FB
	Author	Automatic		
			Comment	
		0.1	User-defined	
			ID	
ne				
		Data type	Default value	
		Bool	false	
		Real	0.0	
nt		Int	0	
		Bool	false	
		Int	1	
step M1		Bool	false	
M2		Bool	false	
M3		Bool	false	
M4		Bool	false	
M5				
			false	
ter				
		_	falso	
		· · · · · ·	1 11 01113	
	e the base clam	nter	Bool Real Int Int Bool Int Bool Bool Bool Bool Bool CTU_INT TON_TIME Bool Time	Bool false Real 0.0 Int 0 Bool false Int 1 Bool false Bool false Bool false Bool false Bool false Bool false CTU_INT TON_TIME Bool false Bool false Bool false

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 MOVE EN ENO #step_done | == | Int | —(R)— Network 9: #step #step_done -(R)-Int | #assembling —(R)— Network 10: %I1.2 %Q0.5 "green_ assembly_base_ in" "green_ assembly_base_ #step clamp" | == | Int | -(s)-%I1.3 %Q0.6 "green_ assembly_lid_ in" "green_ assembly_lid_ clamp" **-(** s **)**-%Q0.5 %Q0.6 "green_ assembly_lid_ clamp" "green_ assembly_base_ clamp" #step_done **-(** s **)**-Network 11:

```
Totally Integrated
   Automation Portal
                                                                                                                                 %Q1.0
                                                                                                                              "green_
assembly_
move_Z"
                                             #step
                                             ==
Int
                                                                                                                                  -( s )-
                                                                  %I1.6
                                                               "green_
assembly_Z_
limit"
                                                                                                                                 %Q1.1
                                                                                                                            "green_
assembly_grab"
                                                                                                                                  (s)_
                                                                   - N -
                                                                   #M1
                                                                                                                                 %Q0.6
                                                                                                                             "green_
assembly_lid_
clamp"
                                                                                                                                 -( R )-
                                                                                                                              #step_done
                                                                                                                                 -( s )−
Network 12:
                                                                                                                                 %Q1.0
                                                                                                                              "green_
assembly_
move_Z"
                                             #step
                                             ==
Int
                                                                                                                                 -( R )-
                                                                  %I1.6
                                                               "green_
assembly_Z_
limit"
                                                                                                                              #step_done
                                                                   | N |-
                                                                                                                                  -( s )-
                                                                  #M2
Network 13:
                                                                                                                                 %Q0.7
                                                                                                                              "green_
assembly_
move_X"
                                             #step
                                             ==
Int
                                                                                                                                 -( s )-
                                                                  %I1.5
                                                              "green_
assembly_X_
limit"
                                                                                                                              #step_done
                                                                   -IN-
                                                                                                                                 -( s )-
                                                                   #M3
Network 14: 0 = gripper is up , 1= gripper is down
```

Totally Integrated **Automation Portal** %Q1.0 "green_ assembly_ move_Z" #step == Int -(s)-%I1.6 "green_ assembly_Z_ limit" %Q1.1 "green_ assembly_grab" -(R)-- N -#press (s)_ **%Q0.5**"green_ assembly_base_ clamp" #press_timer TON Time #press +-(R)-· IN ET — T#0ms #press_time -PT %Q1.2 "green_ assembly_ clamp_up" **-(** s **)**-#press **-(** R **)**-#step_done **-(** s)− Network 15: 0 = gripper is up , 1= gripper is down %Q1.0 "green_ assembly_ move_Z" #step == Int _(R)_ **%I1.6** "green_ assembly_Z_ limit" #step_done N -(s)-#M5 Network 16:

Totally Integrated Automation Portal %Q0.7 "green_ assembly_ move_X" #step == Int -(R)-%I1.5 "green_ assembly_X_ limit" #step_done **-(** s **)**-#M6 Network 17: #product_counter **%I1.4** CTU "green_ assembly_done" Int \dashv \vdash · CU Q· cv — #assembly_count #RST 9999 — PV Network 18: MOVE - EN - ENO #assembly_count — IN %QW52 "green_ assembled_ _ count" duti -Network 19:

Totally Integrated Automation Portal			
	#RST	MOVE EN ENO 1 IN @ OUT1 —#step	-1
	_	#M1	→
	_	#M2 	-
	_	#M3 	-
	_	#M4 ——{ R }——	-
		• •	-
		#M6 { R } #step_done	-
		R }	
		R }	
		(R)	-
	1		