

Totally Integrated Automation Portal		
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WORKS fINALwith tags / PLC\_1 [CPU 1214C DC/DC/DC] / Program blocks

Main [OB1]

Main Properties

General

Name	Main	Number	1	Type	OB	Language	LAD
Numbering	automatic						

Information

Title	"Main Program Sweep (Cycle)"	Author		Comment		Family	
Version	0.1	User-defined ID					

Main

Name	Data type	Default value	Comment
▼ Input			
Initial_Call	Bool		Initial call of this OB
Remanence	Bool		=True, if remanent data are available
Temp			
Constant			

Network 1:

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**Network 1: (1.1 / 4.1)**

The diagram illustrates the control logic for Network 1, organized into several functional sections:

- Reset Logic:** A normally closed contact labeled **%I1.3 "Reset"** is connected to the EN input of a **MOVE** block. The block's IN input is set to 10. It has three outputs: **OUT1** to **%MW122 "Product Recognition"**, **OUT2** to **%MW100 "Product"**, and **OUT3** to **%MW140 "Belt Status"**.
- Slow/Fast Belt Control:** Two normally closed contacts, **%Q0.5 "Slow Belt"** and **%Q0.6 "Fast Belt"**, are connected to the IN input of a **TON Time** block. The PT input is set to **T#0.4s**. The Q output is connected to the IN input of another **MOVE** block (IN=10), which outputs **OUT1** to **%MW122 "Product Recognition"**.
- Start Logic:** A normally open contact labeled **%I1.0 "Start"** is connected to the IN input of a **TP Time** block. The PT input is set to **T#0.1s**. The Q output is connected to the IN input of a **MOVE** block (IN=11), which outputs **OUT1** to **%MW140 "Belt Status"**.
- Light Barrier Interlocks:** Two interlocking circuits are shown. Each consists of a normally open contact labeled **%MW140 "Belt Status"** with an internal integer value (15 and 11 respectively) and a normally open contact labeled **%I1.4 "Light Barrier"**. These are connected to the IN inputs of two **TP Time** blocks (both with PT = **T#3s**). The Q outputs of these timers are connected to the normally open contacts of the **%Q0.5 "Slow Belt"** and **%Q0.6 "Fast Belt"** outputs, respectively.
- Product Recognition and Belt Status:** Five sequential logic blocks are shown. Each block starts with a normally open contact labeled **%M0.4 "Selection Part"**, followed by a normally open contact labeled **"IEC\_Counter\_0\_DB\_1".CV** with an internal integer value (0, 1, 2, 3, 4). This is followed by a normally open contact labeled **%MW122 "Product Recognition"** and a normally open contact labeled **"1.product"** through **"4.product"** (corresponding to **%MW102**, **%MW104**, **%MW106**, **%MW108**, and **%MW110**). The output of each block is connected to the IN input of a **MOVE** block (IN=11), which outputs **OUT1** to **%MW140 "Belt Status"**.

1.1 ( Page1 - 2)

Network 1: (2.1 / 4.1)

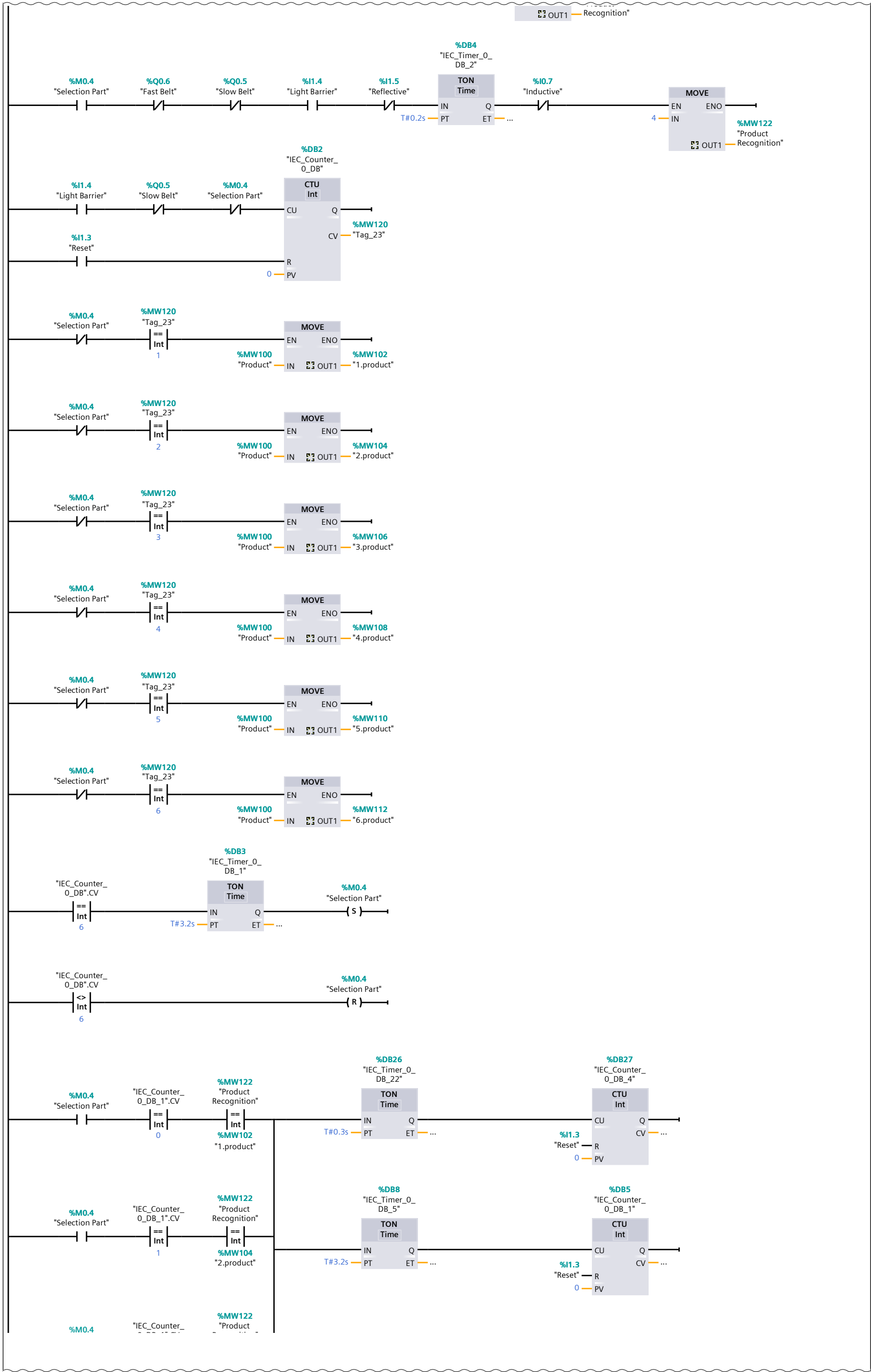
The diagram illustrates a control system for product recognition and belt status. It consists of several rungs of ladder logic:

- Top Rung:** A normally open contact labeled `%M0.4` "Selection Part" is connected to a set coil `S` for `%MW122` "Product Recognition".
- Second Rung:** A normally open contact labeled `%MW122` "Product Recognition" is connected to a timer coil `TON` T1, setting the preset time (PT) to `T#0.4s`. The timer's output (Q) is connected to a set coil `S` for `%MW140` "Belt Status".
- Third Rung:** A normally open contact labeled `%MW122` "Product Recognition" is connected to a timer coil `TON` T2, setting the preset time (PT) to `T#0.4s`. The timer's output (Q) is connected to a set coil `S` for `%MW140` "Belt Status".
- Fourth Rung:** A normally open contact labeled `%MW122` "Product Recognition" is connected to a timer coil `TON` T3, setting the preset time (PT) to `T#0.4s`. The timer's output (Q) is connected to a set coil `S` for `%MW140` "Belt Status".
- Fifth Rung:** A normally open contact labeled `%MW122` "Product Recognition" is connected to a timer coil `TON` T4, setting the preset time (PT) to `T#0.4s`. The timer's output (Q) is connected to a set coil `S` for `%MW140` "Belt Status".
- Sixth Rung:** A normally open contact labeled `%MW122` "Product Recognition" is connected to a timer coil `TON` T5, setting the preset time (PT) to `T#0.4s`. The timer's output (Q) is connected to a set coil `S` for `%MW140` "Belt Status".
- Seventh Rung:** A normally open contact labeled `%MW122` "Product Recognition" is connected to a timer coil `TON` T6, setting the preset time (PT) to `T#0.4s`. The timer's output (Q) is connected to a set coil `S` for `%MW140` "Belt Status".
- Eighth Rung:** A normally open contact labeled `%Q0.5` "Slow Belt" is connected to a set coil `S` for `%MW100` "Product".
- Ninth Rung:** A normally open contact labeled `%Q0.6` "Fast Belt" is connected to a set coil `S` for `%MW100` "Product".
- Tenth Rung:** A normally open contact labeled `%I1.5` "Reflective" is connected to a set coil `S` for `%MW100` "Product".
- Eleventh Rung:** A normally open contact labeled `%I0.7` "Inductive" is connected to a set coil `S` for `%MW100` "Product".
- Twelfth Rung:** A normally open contact labeled `%I1.4` "Light Barrier" is connected to a set coil `S` for `%MW100` "Product".
- Thirteenth Rung:** A normally open contact labeled `%Q0.5` "Slow Belt" is connected to a set coil `S` for `%MW122` "Product Recognition".
- Fourteenth Rung:** A normally open contact labeled `%Q0.6` "Fast Belt" is connected to a set coil `S` for `%MW122` "Product Recognition".
- Fifteenth Rung:** A normally open contact labeled `%I1.4` "Light Barrier" is connected to a set coil `S` for `%MW122` "Product Recognition".
- Sixteenth Rung:** A normally open contact labeled `%I1.5` "Reflective" is connected to a set coil `S` for `%MW122` "Product Recognition".
- Seventeenth Rung:** A normally open contact labeled `%I0.7` "Inductive" is connected to a set coil `S` for `%MW122` "Product Recognition".

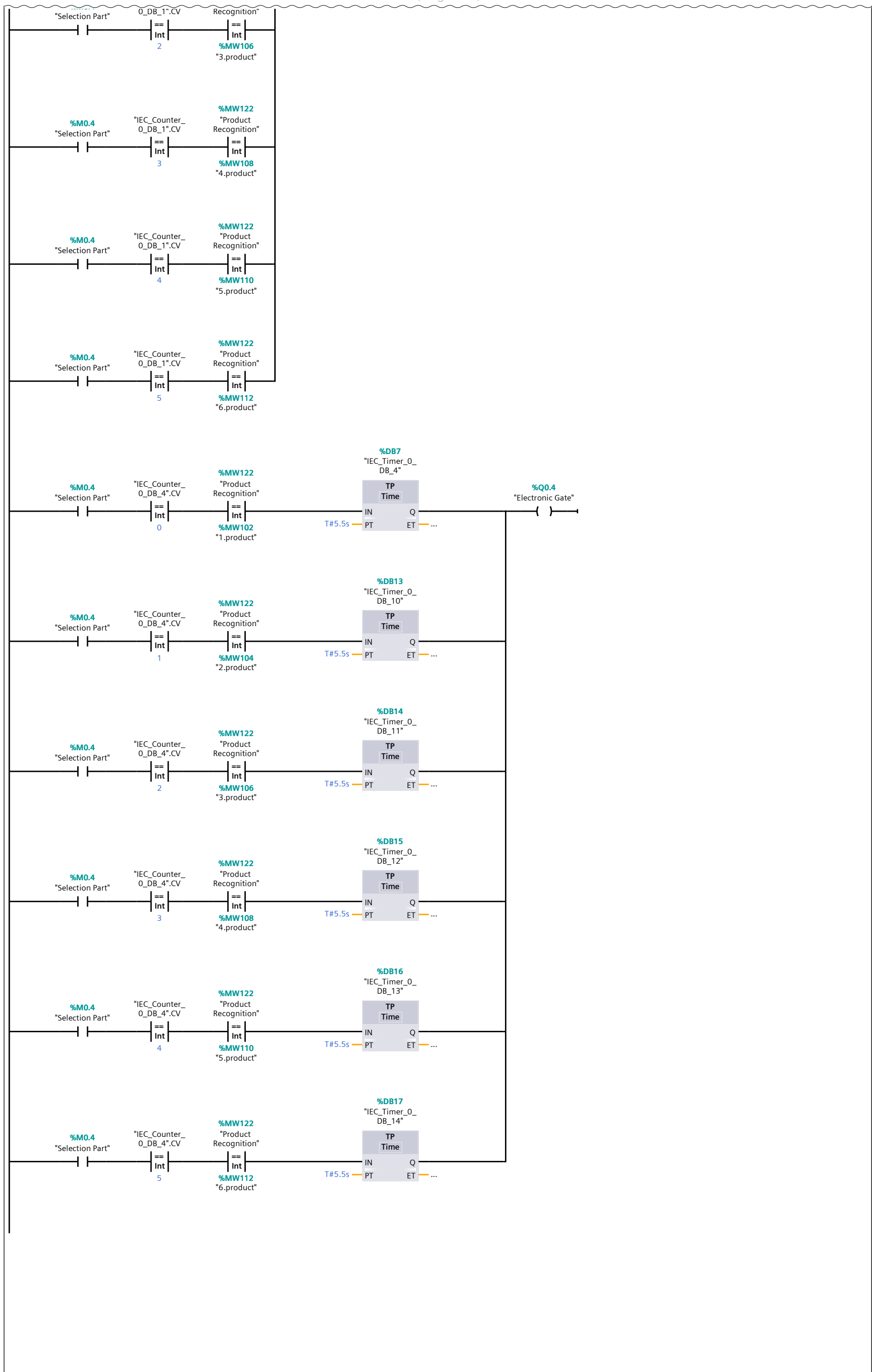
3.1 ( Page1 - 4)

**Network 1: (3.1 / 4.1)**

2.1 ( Page1 - 3)



4.1 ( Page1 - 5)

[illegible]

Totally Integrated Automation Portal				
Symbol	Address	Type	Comment	
"1.product"	%MW102	Int		
"2.product"	%MW104	Int		
"3.product"	%MW106	Int		
"4.product"	%MW108	Int		
"5.product"	%MW110	Int		
"6.product"	%MW112	Int		
"Belt Status"	%MW140	Int		
"Electronic Gate"	%Q0.4	Bool		
"Fast Belt"	%Q0.6	Bool		
"IEC_Counter_0_DB".CV		Int		
"IEC_Counter_0_DB_1".CV		Int		
"IEC_Counter_0_DB_4".CV		Int		
"Inductive"	%I0.7	Bool		
"Light Barrier"	%I1.4	Bool		
"Product Recognition"	%MW122	Int		
"Product"	%MW100	Int	Metal	
"Reflective"	%I1.5	Bool		
"Reset"	%I1.3	Bool		
"Selection Part"	%M0.4	Bool		
"Slow Belt"	%Q0.5	Bool		
"Start"	%I1.0	Bool		
"Tag_23"	%MW120	Int		
Network 2:				
<div><div></div><div></div></div>				
Symbol	Address	Type	Comment	
Network 3:				

