

## Main [OB1]

### Main Properties

#### General

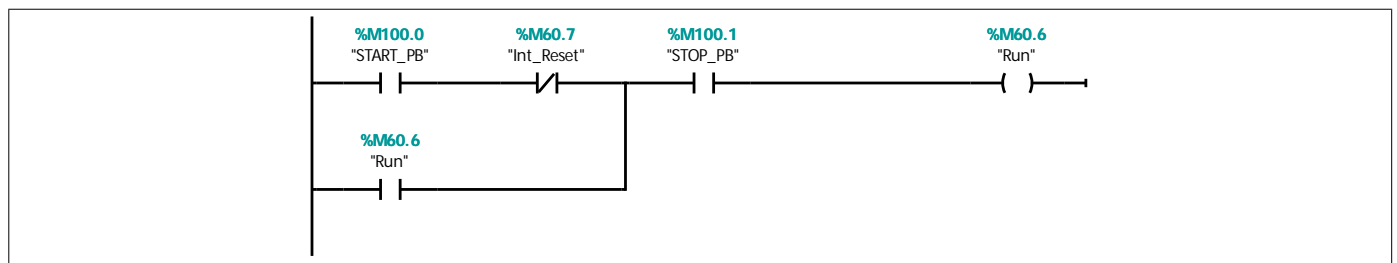
<b>Name</b>	Main	<b>Number</b>	1	<b>Type</b>	OB
<b>Language</b>	LAD	<b>Numbering</b>	Manual		

#### Information

<b>Title</b>	"Main Program Sweep (Cycle)"	<b>Author</b>		<b>Comment</b>	Example 14.2 Engine Inverter with S7-Graph  Copyright (c) 2022, Dogwood Valley Press, LLC
<b>Family</b>		<b>Version</b>	0.1	<b>User-defined ID</b>	

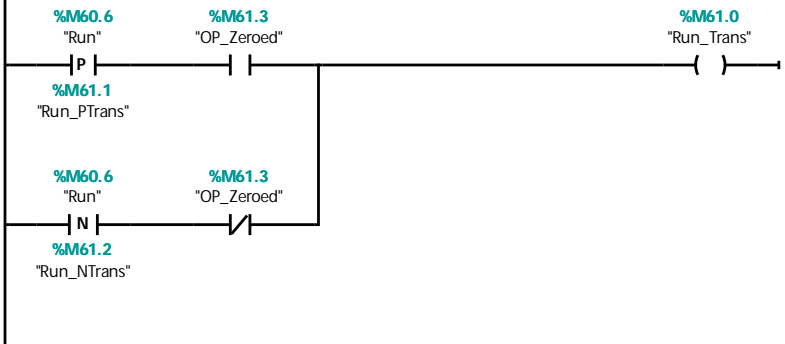
Name	Data type	Default value
▼ Temp		
OB1_EV_CLASS	Byte	
OB1_SCAN_1	Byte	
OB1_PRIORITY	Byte	
OB1_OB_NUMBR	Byte	
OB1_RESERVED_1	Byte	
OB1_RESERVED_2	Byte	
OB1_PREV_CYCLE	Int	
OB1_MIN_CYCLE	Int	
OB1_MAX_CYCLE	Int	
OB1_DATE_TIME	Date_And_Time	
Constant		

### Network 1: Start/stop.

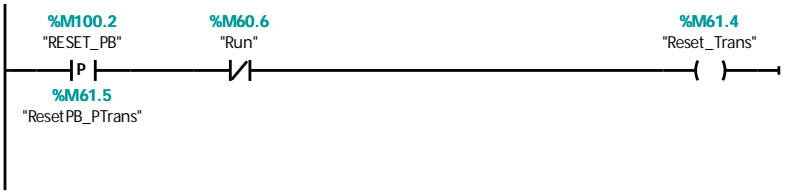


### Network 2: Generate pulse to toggle pause for SFC

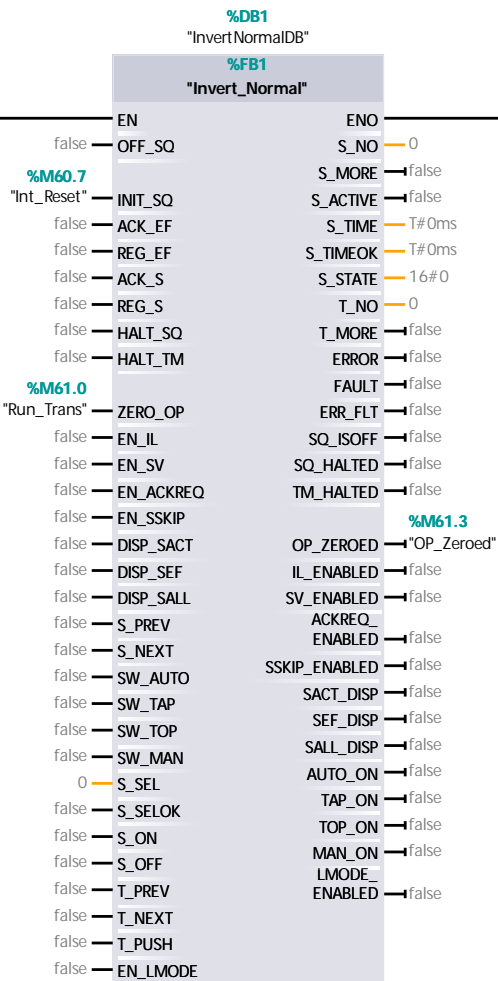
Positive transition on Run used only  
when already paused. Negative transition on Run used when not paused.



Network 3: Positive transition for reset PB to start reset operation.



Network 4: Normal Operation SFC



**Network 5: Execute reset operation SFC**

**%DB2**  
"InvertRstDB"  
**%FB2**  
"Invert\_Reset"

EN	ENO
false — OFF_SQ	S_NO — 0
false — INIT_SQ	S_MORE — false
false — ACK_EF	S_ACTIVE — false
false — REG_EF	S_TIME — T#0ms
false — ACK_S	S_TIMEOK — T#0ms
false — REG_S	S_STATE — 16#0
false — HALT_SQ	T_NO — 0
false — HALT_TM	T_MORE — false
false — ZERO_OP	ERROR — false
false — EN_IL	FAULT — false
false — EN_SV	ERR_FLT — false
false — EN_ACKREQ	SQ_ISOFF — false
false — EN_SSKIP	SQ_HALTED — false
false — DISP_SACT	TM_HALTED — false
false — DISP_SEF	OP_ZEROED — false
false — DISP_SALL	IL_ENABLED — false
false — S_PREV	SV_ENABLED — false
false — S_NEXT	ACKREQ_ENABLED — false
false — SW_AUTO	SSKIP_ENABLED — false
false — SW_TAP	SACT_DISP — false
false — SW_TOP	SEF_DISP — false
false — SW_MAN	SALL_DISP — false
0 — S_SEL	AUTO_ON — false
false — S_SELOK	TAP_ON — false
false — S_ON	TOP_ON — false
false — S_OFF	MAN_ON — false
false — T_PREV	LMODE_ENABLED — false
false — T_NEXT	
false — T_PUSH	
false — EN_LMODE	

Network 6:

**%DB10**  
"Simulation\_DB"  
**%FB10**  
"Simulation"

EN ENO

## Invert\_Normal [FB1]

### Invert\_Normal Properties

#### General

<b>Name</b>	Invert_Normal	<b>Number</b>	1	<b>Type</b>	FB
<b>Language</b>	GRAPH	<b>Numbering</b>	Automatic	<b>Network language</b>	LAD
<b>Block version</b>	V2.0				

#### Information

<b>Title</b>		<b>Author</b>		<b>Comment</b>	
<b>Family</b>		<b>Version</b>	0.1	<b>User-defined ID</b>	

Name	Data type	Default value	Retain
▼ Input			
OFF_SQ	Bool	false	Non-retain
INIT_SQ	Bool	false	Non-retain
ACK_EF	Bool	false	Non-retain
REG_EF	Bool	false	Non-retain
ACK_S	Bool	false	Non-retain
REG_S	Bool	false	Non-retain
HALT_SQ	Bool	false	Non-retain
HALT_TM	Bool	false	Non-retain
ZERO_OP	Bool	false	Non-retain
EN_IL	Bool	false	Non-retain
EN_SV	Bool	false	Non-retain
EN_ACKREQ	Bool	false	Non-retain
EN_SSKIP	Bool	false	Non-retain
DISP_SACT	Bool	false	Non-retain
DISP_SEF	Bool	false	Non-retain
DISP_SALL	Bool	false	Non-retain
S_PREV	Bool	false	Non-retain
S_NEXT	Bool	false	Non-retain
SW_AUTO	Bool	false	Non-retain
SW_TAP	Bool	false	Non-retain
SW_TOP	Bool	false	Non-retain
SW_MAN	Bool	false	Non-retain
S_SEL	Int	0	Non-retain
S_SELOK	Bool	false	Non-retain
S_ON	Bool	false	Non-retain
S_OFF	Bool	false	Non-retain
T_PREV	Bool	false	Non-retain
T_NEXT	Bool	false	Non-retain
T_PUSH	Bool	false	Non-retain
EN_LMODE	Bool	false	Non-retain
▼ Output			
S_NO	Int	0	Non-retain
S_MORE	Bool	false	Non-retain
S_ACTIVE	Bool	false	Non-retain

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Name	Data type	Default value	Retain
S_TIME	Time	T#0ms	Non-retain
S_TIMEOK	Time	T#0ms	Non-retain
S_STATE	Word	16#0	Non-retain
T_NO	Int	0	Non-retain
T_MORE	Bool	false	Non-retain
ERROR	Bool	false	Non-retain
FAULT	Bool	false	Non-retain
ERR_FLT	Bool	false	Non-retain
SQ_ISOFF	Bool	false	Non-retain
SQ_HALTED	Bool	false	Non-retain
TM_HALTED	Bool	false	Non-retain
OP_ZEROED	Bool	false	Non-retain
IL_ENABLED	Bool	false	Non-retain
SV_ENABLED	Bool	false	Non-retain
ACKREQ_ENABLED	Bool	false	Non-retain
SSKIP_ENABLED	Bool	false	Non-retain
SACT_DISP	Bool	false	Non-retain
SEF_DISP	Bool	false	Non-retain
SALL_DISP	Bool	false	Non-retain
AUTO_ON	Bool	false	Non-retain
TAP_ON	Bool	false	Non-retain
TOP_ON	Bool	false	Non-retain
MAN_ON	Bool	false	Non-retain
LMODE_ENABLED	Bool	false	Non-retain
InOut			
▼ Static			
RT_DATA	G7_RTDataPlus_V2		Non-retain
Start_Trans	G7_Transition-Plus_V2		Non-retain
PWait_Trans	G7_Transition-Plus_V2		Non-retain
Allow1_Trans	G7_Transition-Plus_V2		Non-retain
Pall_Up_Trans	G7_Transition-Plus_V2		Non-retain
Clos_Trans	G7_Transition-Plus_V2		Non-retain
RotrUp1_Trans	G7_Transition-Plus_V2		Non-retain
ROTCW_Trans	G7_Transition-Plus_V2		Non-retain
RotDn2_Trans	G7_Transition-Plus_V2		Non-retain
Unclmp_Trans	G7_Transition-Plus_V2		Non-retain
RotUp2_Trans	G7_Transition-Plus_V2		Non-retain
RotCCW_Trans	G7_Transition-Plus_V2		Non-retain
Run_Trans	G7_Transition-Plus_V2		Non-retain

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Name	Data type	Default value	Retain
PDrop_Trans	G7_Transition-Plus_V2		Non-retain
MvOut_Trans	G7_Transition-Plus_V2		Non-retain
Initial	G7_StepPlus_V2		Non-retain
Wait_For_Pallet	G7_StepPlus_V2		Non-retain
Allow_Next_One_In	G7_StepPlus_V2		Non-retain
Raise_Pallet	G7_StepPlus_V2		Non-retain
Clamp_Engine	G7_StepPlus_V2		Non-retain
Raise_Rotator_1	G7_StepPlus_V2		Non-retain
Rotate_CW	G7_StepPlus_V2		Non-retain
Lower_Rotator2	G7_StepPlus_V2		Non-retain
Unclamp	G7_StepPlus_V2		Non-retain
Raise_Rotator_2	G7_StepPlus_V2		Non-retain
Rotate_CCW	G7_StepPlus_V2		Non-retain
Wait_1	G7_StepPlus_V2		Non-retain
Drop_Engine	G7_StepPlus_V2		Non-retain
Move_Out	G7_StepPlus_V2		Non-retain
Wait_2	G7_StepPlus_V2		Non-retain
Temp			
Constant			

Alarms

Enable alarms	True
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Category	Category enabler	Display class
Error		0
Warning		0
Info		0
Category 4		0
Category 5		0
Category 6		0
Category 7		0
Category 8		0

Category for interlocks	Error	Subcategory 1 for interlocks	Subcategory 2 for interlocks
Category for supervisions	Error	Subcategory 1 for supervisions	Subcategory 2 for supervisions
Category for GRAPH warnings	Warning	Subcategory 1 for GRAPH warnings	Subcategory 2 for GRAPH warnings

Permanent pre-instructions

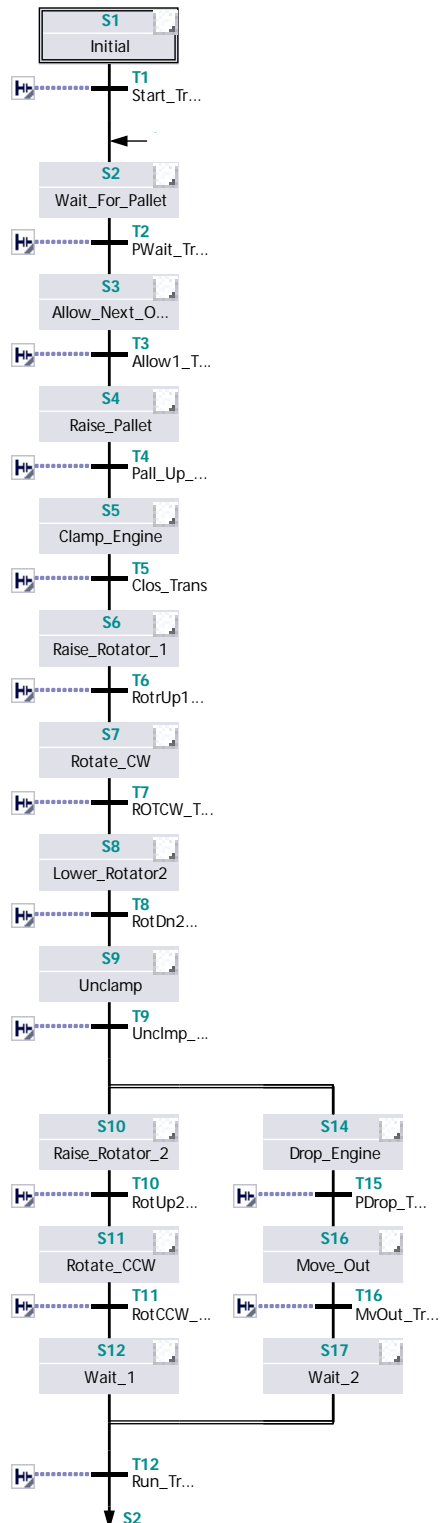
1:

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## Sequences (1)

1:



## S1 - [Initial step]:Initial

## Interlock -(c)-:

## Interlock alarm

Alarm text

Interlock

( c )

## Supervision -(v)-:

## Supervision alarm

Alarm text

Supervision

( v )

## Actions:

## Actions:

Interlock	Event	Qualifier	Action

## T1:Start\_Trans

%M60.6

"Run"

## S2:Wait\_For\_Pallet

Step comment

## Interlock -(c)-:

## Interlock alarm

Alarm text

Wait\_For\_Pallet

Interlock

( c )

## Supervision -(v)-:

## Supervision alarm

Alarm text

Wait\_For\_Pallet

Totally Integrated Automation Portal		
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Supervision  
( v )

Actions:

Actions:

Interlock	Event	Qualifier	Action

T2:PWait\_Trans

%M100.3  
"PROX1"

%M60.6  
"Run"

S3:Allow\_Next\_One\_In

Step comment

Interlock -(c)-:

Interlock alarm

Alarm text	Allow_Next_One_In
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Interlock  
( c )

Supervision -(v)-:

Supervision alarm

Alarm text	Allow_Next_One_In
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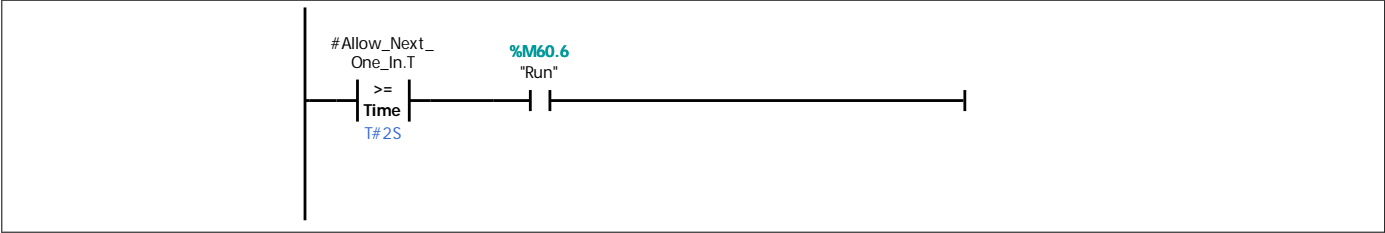
Supervision  
( v )

Actions:

Actions:

Interlock	Event	Qualifier	Action
		S	"ENG1_RET"

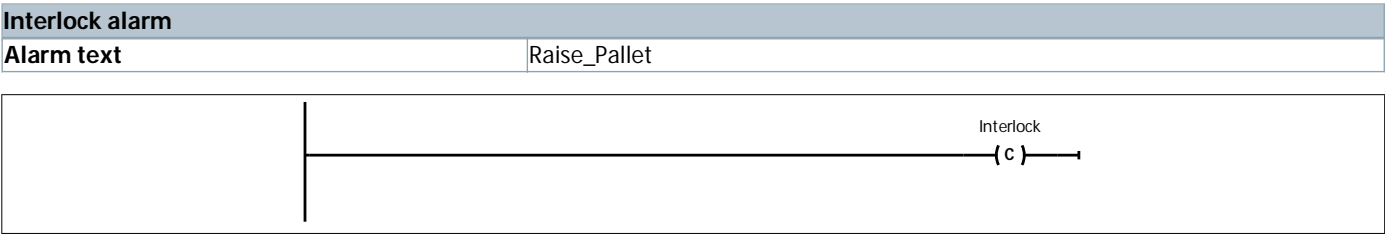
T3:Allow1\_Trans



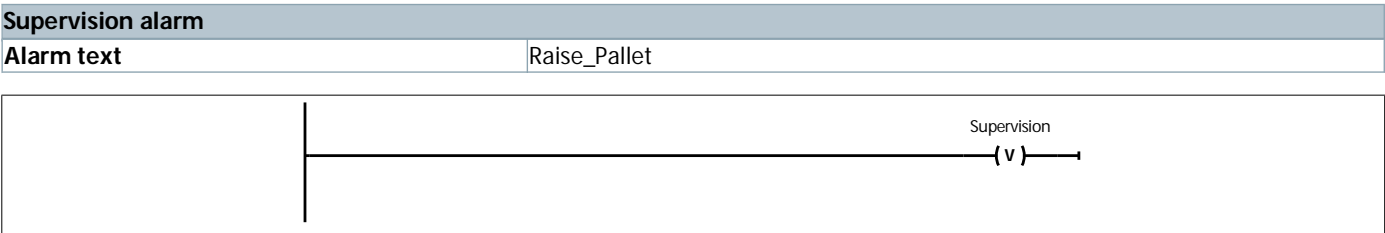
S4:Raise\_Pallet

Step comment

Interlock -(c)-:



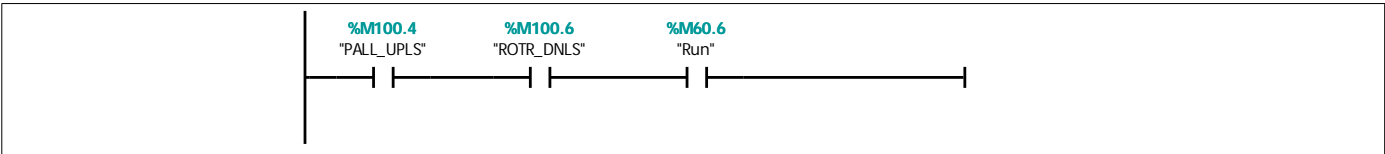
Supervision -(v)-:



Actions:

Actions:			
Interlock	Event	Qualifier	Action
		R	"ENG1_RET"
		S	"PALL_UPCTL"
		N	"ROTR_DOWN"

T4:Pall\_Up\_Trans

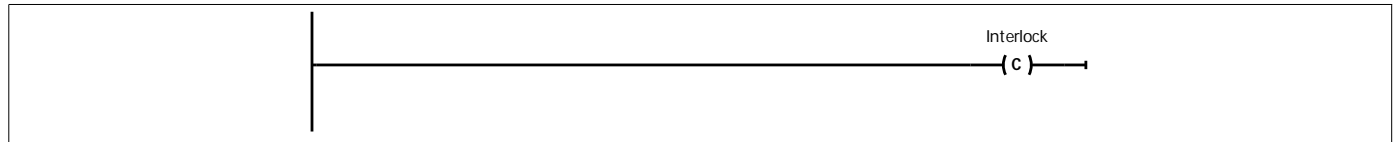


S5:Clamp\_Engine

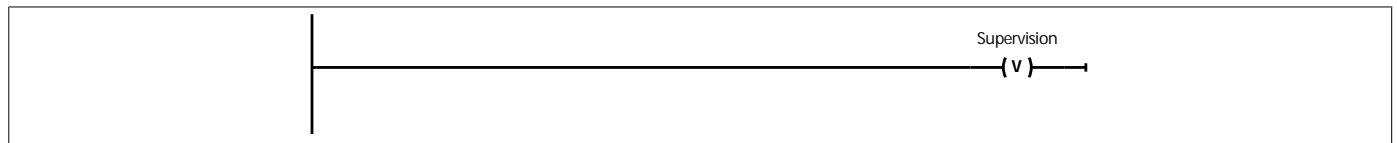
Step comment

**Interlock -(c)-:****Interlock alarm**

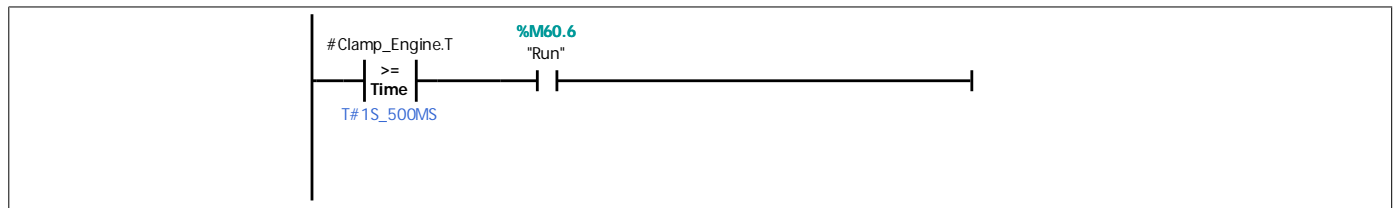
Alarm text Clamp\_Engine

**Supervision -(v)-:****Supervision alarm**

Alarm text Clamp\_Engine

**Actions:****Actions:**

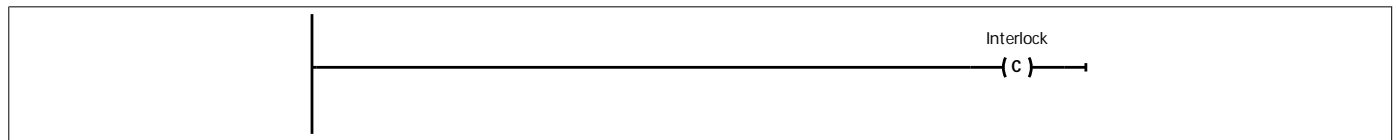
Interlock	Event	Qualifier	Action
		S	"GRIP_CLOS"

**T5:Clos\_Trans****S6:Raise\_Rotator\_1**

Step comment

**Interlock -(c)-:****Interlock alarm**

Alarm text Raise\_Rotator\_1

**Supervision -(v)-:****Supervision alarm**

Alarm text Raise\_Rotator\_1

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Supervision

( v )

**Actions:****Actions:**

Interlock	Event	Qualifier	Action
		N	"ROTR_UP"

**T6:RotrUp1\_Trans**%M100.5  
"ROTR\_UPLS"%M60.6  
"Run"**S7:Rotate\_CW**

Step comment

**Interlock -(c)-:****Interlock alarm**

Alarm text	Rotate_CW
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Interlock

( c )

**Supervision -(v)-:****Supervision alarm**

Alarm text	Rotate_CW
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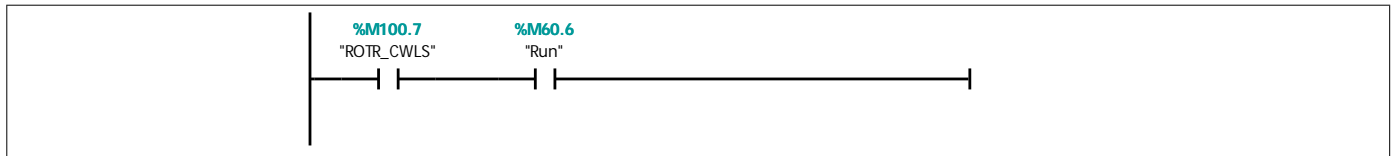
Supervision

( v )

**Actions:****Actions:**

Interlock	Event	Qualifier	Action
		N	"ROTAT_CW"

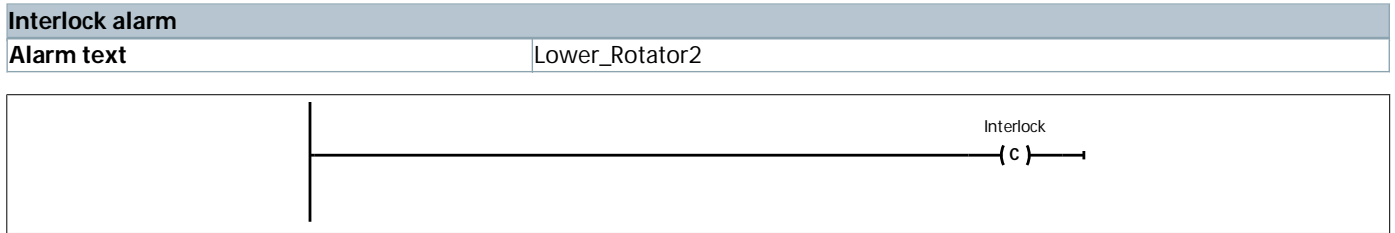
### T7:ROTCW\_Trans



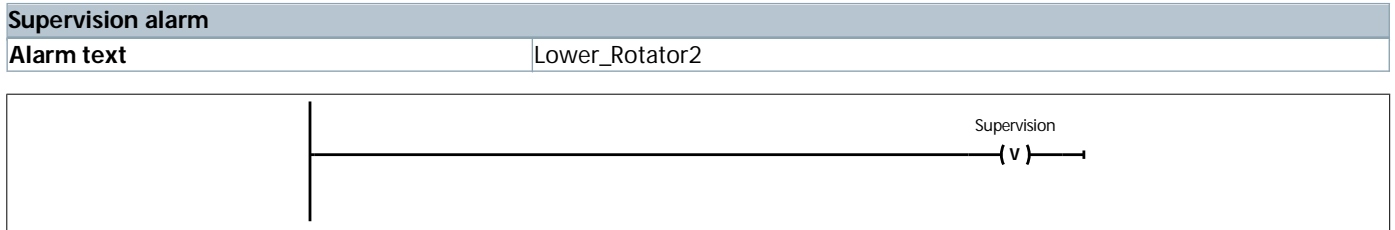
### S8:Lower\_Rotator2

Step comment

#### Interlock -(c)-:



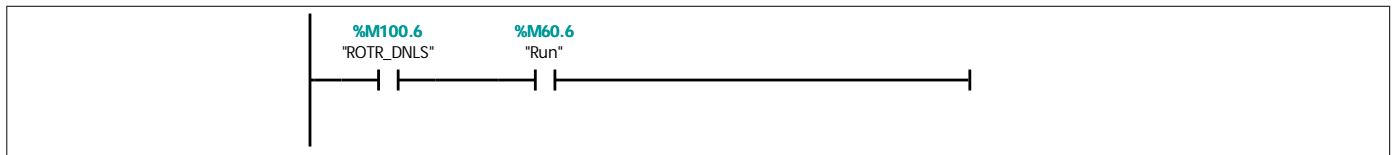
#### Supervision -(v)-:



#### Actions:

Actions:			
Interlock	Event	Qualifier	Action
		N	"ROTR_DOWN"

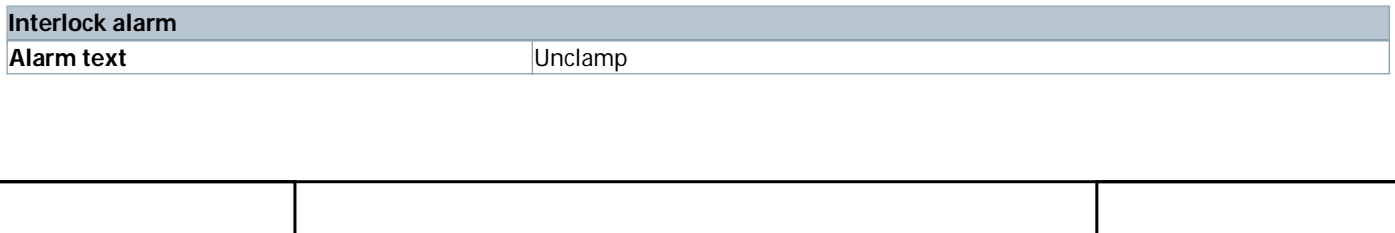
### T8:RotDn2\_Trans



### S9:Unclamp

Step comment

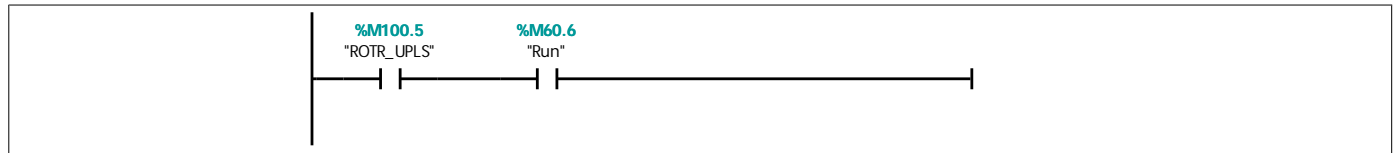
#### Interlock -(c)-:



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	<div>Interlock</div> <div>( c )</div>	
Supervision -(v)-:		
Supervision alarm		
Alarm text	Unclamp	
	<div>Supervision</div> <div>( v )</div>	
Actions:		
Actions:		
Interlock	Event	Qualifier
		R
		"GRIP_CLOS"
T9:Unclmp_Trans		
	<div>#Unclamp.T</div> <div>&gt;=</div> <div>Time</div> <div>T#1S</div>	
S10:Raise_Rotator_2		
Step comment		
Interlock -(c)-:		
Interlock alarm		
Alarm text	Raise_Rotator_2	
	<div>Interlock</div> <div>( c )</div>	
Supervision -(v)-:		
Supervision alarm		
Alarm text	Raise_Rotator_2	
	<div>Supervision</div> <div>( v )</div>	

**Actions:****Actions:**

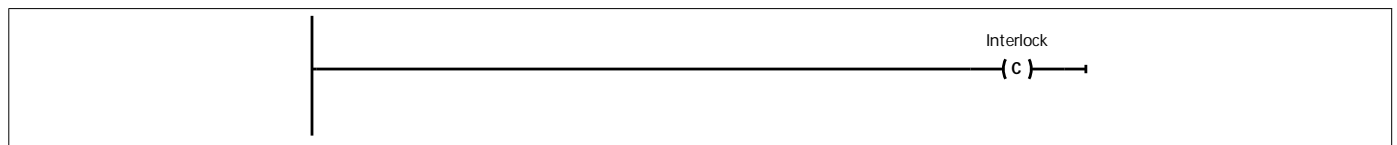
Interlock	Event	Qualifier	Action
		N	"ROTR_UP"

**T10:RotUp2\_Trans****S11:Rotate\_CCW**

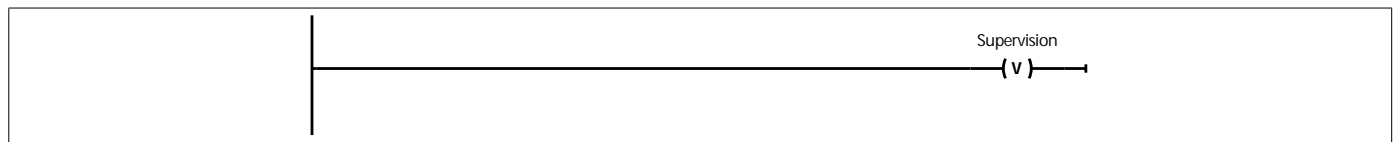
Step comment

**Interlock -(c)-:****Interlock alarm**

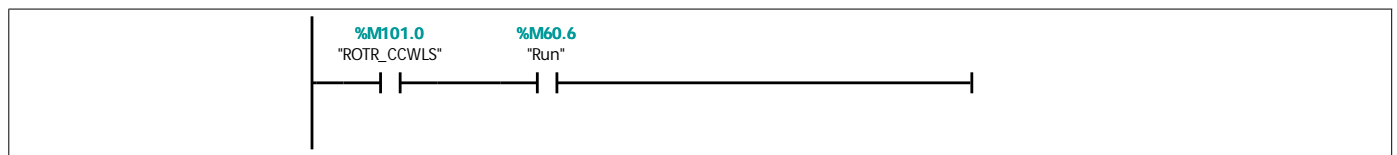
Alarm text	Rotate_CCW
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**Supervision -(v)-:****Supervision alarm**

Alarm text	Rotate_CCW
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**Actions:****Actions:**

Interlock	Event	Qualifier	Action
		N	"ROTAT_CCW"

**T11:RotCCW\_Trans****S12:Wait\_1**

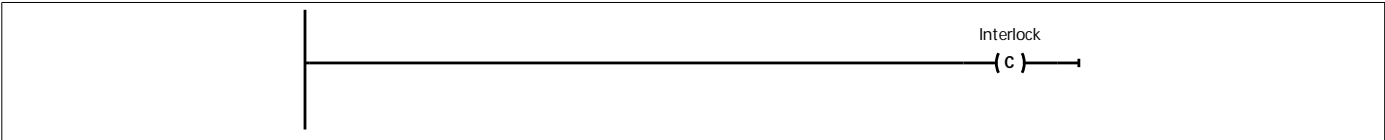
Step comment

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**Interlock -(c)-:**

**Interlock alarm**

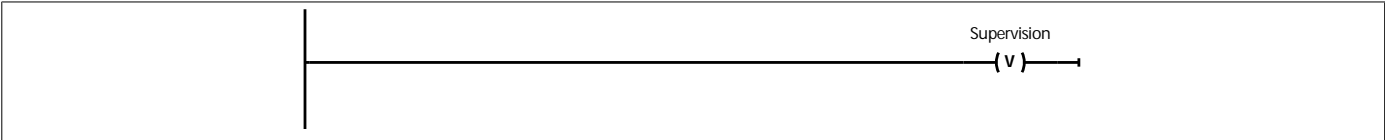
Alarm text Wait\_1



**Supervision -(v)-:**

**Supervision alarm**

Alarm text Wait\_1

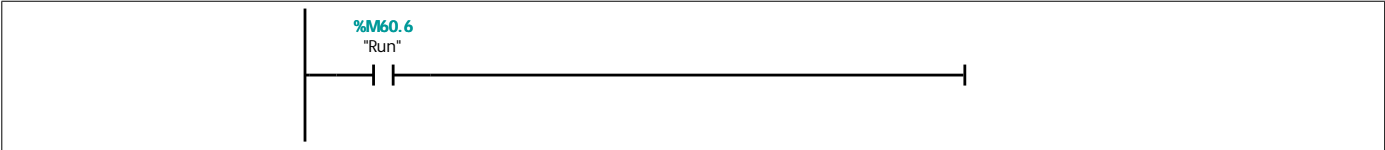


**Actions:**

**Actions:**

Interlock	Event	Qualifier	Action

**T12:Run\_Trans**



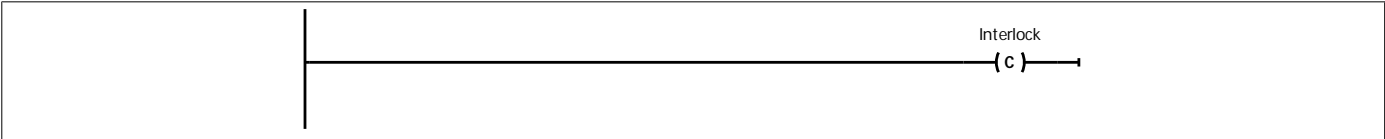
**S14:Drop\_Engine**

Step comment

**Interlock -(c)-:**

**Interlock alarm**

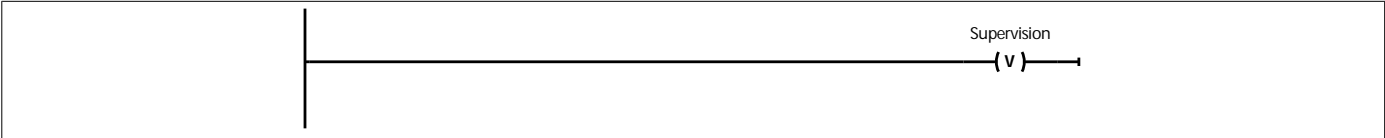
Alarm text Drop\_Engine



**Supervision -(v)-:**

**Supervision alarm**

Alarm text Drop\_Engine

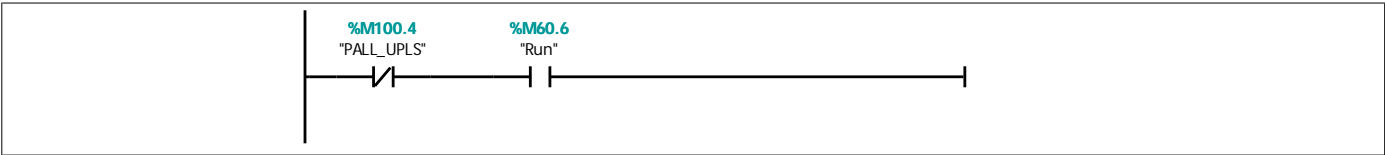


**Actions:**

**Actions:**

Interlock	Event	Qualifier	Action
		R	"PALL_UPCTL"

**T15:PDrop\_Trans**



**S16:Move\_Out**

Step comment

**Interlock -(c)-:**

**Interlock alarm**

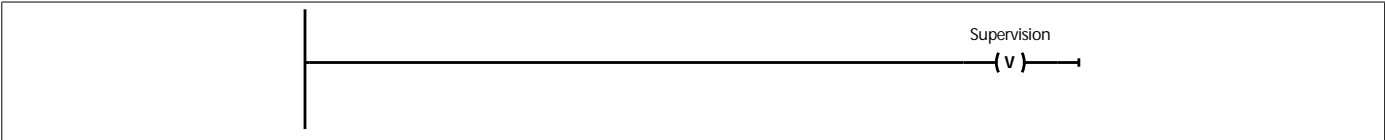
Alarm text	Move_Out
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**Supervision -(v)-:**

**Supervision alarm**

Alarm text	Move_Out
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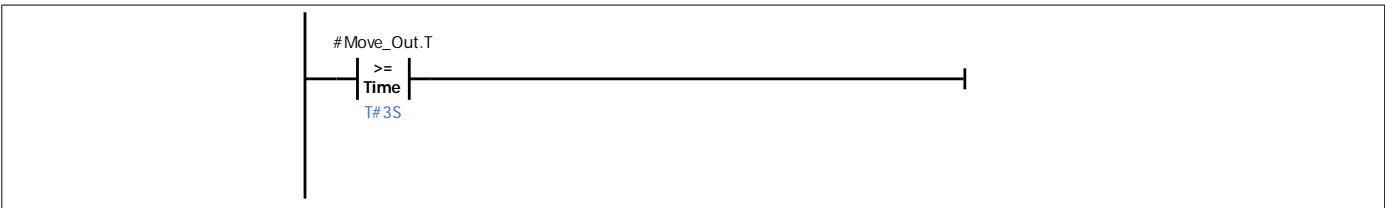


**Actions:**

**Actions:**

Interlock	Event	Qualifier	Action
		S	"ENG2_RET"

**T16:MvOut\_Trans**



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<div>S17:Wait_2</div> <div>Step comment</div> <div>Interlock -(c)-:</div> <div><div>Interlock alarm</div><div>Alarm textWait_2</div><div><div></div><div>Interlock ( c )</div></div></div> <div>Supervision -(v)-:</div> <div><div>Supervision alarm</div><div>Alarm textWait_2</div><div><div></div><div>Supervision ( v )</div></div></div> <div>Actions:</div> <div><div>Actions:</div><table border="1"><thead><tr><th>Interlock</th><th>Event</th><th>Qualifier</th><th>Action</th></tr></thead><tbody><tr><td></td><td></td><td>R</td><td>"ENG2_RET"</td></tr><tr><td></td><td></td><td></td><td></td></tr></tbody></table></div> <div>T12:Run_Trans</div> <div><div><div>%M60.6 "Run"</div><div></div></div></div> <div>Permanent post-instructions</div> <div>1:</div> <div><div></div></div>			Interlock	Event	Qualifier	Action			R	"ENG2_RET"				
Interlock	Event	Qualifier	Action											
		R	"ENG2_RET"											

## Invert\_Reset [FB2]

### Invert\_Reset Properties

#### General

<b>Name</b>	Invert_Reset	<b>Number</b>	2	<b>Type</b>	FB
<b>Language</b>	GRAPH	<b>Numbering</b>	Automatic	<b>Network language</b>	LAD
<b>Block version</b>	V2.0				

#### Information

<b>Title</b>		<b>Author</b>		<b>Comment</b>	
<b>Family</b>		<b>Version</b>	0.1	<b>User-defined ID</b>	

Name	Data type	Default value	Retain
▼ Input			
OFF_SQ	Bool	false	Non-retain
INIT_SQ	Bool	false	Non-retain
ACK_EF	Bool	false	Non-retain
REG_EF	Bool	false	Non-retain
ACK_S	Bool	false	Non-retain
REG_S	Bool	false	Non-retain
HALT_SQ	Bool	false	Non-retain
HALT_TM	Bool	false	Non-retain
ZERO_OP	Bool	false	Non-retain
EN_IL	Bool	false	Non-retain
EN_SV	Bool	false	Non-retain
EN_ACKREQ	Bool	false	Non-retain
EN_SSKIP	Bool	false	Non-retain
DISP_SACT	Bool	false	Non-retain
DISP_SEF	Bool	false	Non-retain
DISP_SALL	Bool	false	Non-retain
S_PREV	Bool	false	Non-retain
S_NEXT	Bool	false	Non-retain
SW_AUTO	Bool	false	Non-retain
SW_TAP	Bool	false	Non-retain
SW_TOP	Bool	false	Non-retain
SW_MAN	Bool	false	Non-retain
S_SEL	Int	0	Non-retain
S_SELOK	Bool	false	Non-retain
S_ON	Bool	false	Non-retain
S_OFF	Bool	false	Non-retain
T_PREV	Bool	false	Non-retain
T_NEXT	Bool	false	Non-retain
T_PUSH	Bool	false	Non-retain
EN_LMODE	Bool	false	Non-retain
▼ Output			
S_NO	Int	0	Non-retain
S_MORE	Bool	false	Non-retain
S_ACTIVE	Bool	false	Non-retain

Totally Integrated Automation Portal			
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Name	Data type	Default value	Retain
S_TIME	Time	T#0ms	Non-retain
S_TIMEOK	Time	T#0ms	Non-retain
S_STATE	Word	16#0	Non-retain
T_NO	Int	0	Non-retain
T_MORE	Bool	false	Non-retain
ERROR	Bool	false	Non-retain
FAULT	Bool	false	Non-retain
ERR_FLT	Bool	false	Non-retain
SQ_ISOFF	Bool	false	Non-retain
SQ_HALTED	Bool	false	Non-retain
TM_HALTED	Bool	false	Non-retain
OP_ZEROED	Bool	false	Non-retain
IL_ENABLED	Bool	false	Non-retain
SV_ENABLED	Bool	false	Non-retain
ACKREQ_ENABLED	Bool	false	Non-retain
SSKIP_ENABLED	Bool	false	Non-retain
SACT_DISP	Bool	false	Non-retain
SEF_DISP	Bool	false	Non-retain
SALL_DISP	Bool	false	Non-retain
AUTO_ON	Bool	false	Non-retain
TAP_ON	Bool	false	Non-retain
TOP_ON	Bool	false	Non-retain
MAN_ON	Bool	false	Non-retain
LMODE_ENABLED	Bool	false	Non-retain
InOut			
▼ Static			
RT_DATA	G7_RTDataPlus_V2		Non-retain
RstPb_Trans	G7_Transition-Plus_V2		Non-retain
ROpen_Trans	G7_Transition-Plus_V2		Non-retain
RRotUp_Trans	G7_Transition-Plus_V2		Non-retain
RRotCCW_Trans	G7_Transition-Plus_V2		Non-retain
REnd_Trans	G7_Transition-Plus_V2		Non-retain
Reset_Initial	G7_StepPlus_V2		Non-retain
Open_Gripper	G7_StepPlus_V2		Non-retain
Raise_Rotator3	G7_StepPlus_V2		Non-retain
Rotate_CCW2	G7_StepPlus_V2		Non-retain
Unlatch_Reset	G7_StepPlus_V2		Non-retain
Temp			
Constant			

### Alarms

Enable alarms	True
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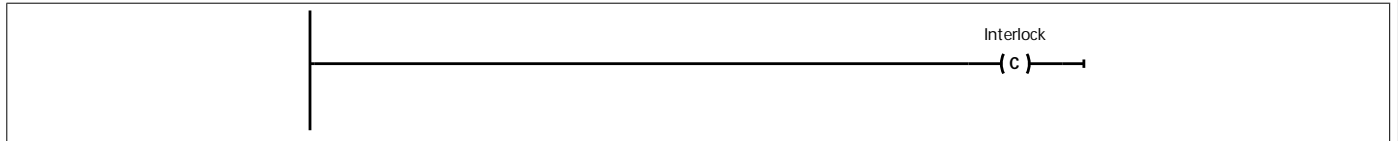
Category	Category enabler	Display class
Error		0

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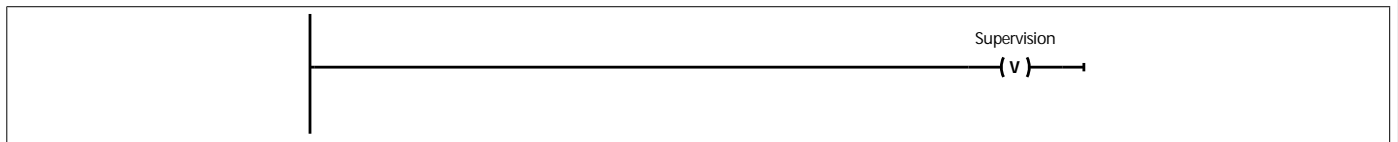
Totally Integrated Automation Portal					
Category		Category enabler		Display class	
Warning				0	
Info				0	
Category 4				0	
Category 5				0	
Category 6				0	
Category 7				0	
Category 8				0	
Category for interlocks	Error	Subcategory 1 for interlocks		Subcategory 2 for interlocks	
Category for supervisions	Error	Subcategory 1 for supervisions		Subcategory 2 for supervisions	
Category for GRAPH warnings	Warning	Subcategory 1 for GRAPH warnings		Subcategory 2 for GRAPH warnings	
Permanent pre-instructions					
1:					
<div></div>					
Sequences (1)					
1:					
<div><div><div><div><div><div></div><div>S1</div><div>Reset_Initial</div></div><div><div></div><div>T1</div><div>RstPb_Tr...</div></div><div><div></div><div>S2</div><div>Open_Gripper</div></div><div><div></div><div>T2</div><div>ROpen_T...</div></div><div><div></div><div>S3</div><div>Raise_Rotator3</div></div><div><div></div><div>T3</div><div>RRot Up...</div></div><div><div></div><div>S4</div><div>Rotate_CCW2</div></div><div><div></div><div>T4</div><div>RRot CCW...</div></div><div><div></div><div>S5</div><div>Unlatch_Reset</div></div><div><div></div><div>T5</div><div>REnd_T...</div></div><div><div></div><div>S1</div><div></div></div></div></div></div></div>					

**S1 - [Initial step]:Reset\_Initial****Interlock -(c)-:****Interlock alarm**

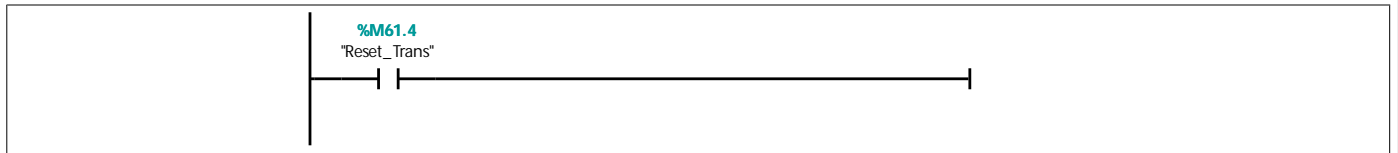
Alarm text

**Supervision -(v)-:****Supervision alarm**

Alarm text

**Actions:****Actions:**

Interlock	Event	Qualifier	Action

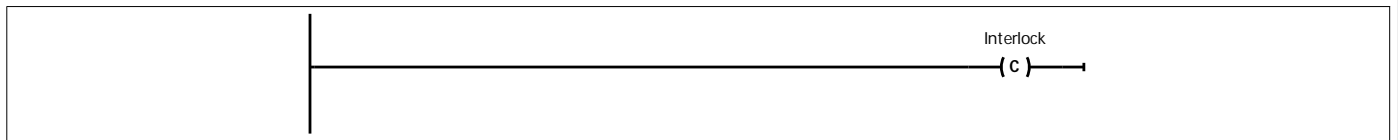
**T1:RstPb\_Trans****S2:Open\_Gripper**

Step comment

**Interlock -(c)-:****Interlock alarm**

Alarm text

Open\_Gripper

**Supervision -(v)-:****Supervision alarm**

Alarm text

Open\_Gripper

Totally Integrated Automation Portal

Supervision  
( v )

Actions:

Actions:

Interlock	Event	Qualifier	Action
		R	"GRIP_CLOS"
		R	"ENG1_RET"
		R	"ENG2_RET"
		R	"PALL_UPCTL"
		S	"Int_Reset"

T2:ROpen\_Trans

# Open\_Gripper.T

>=

Time

T#1S

S3:Raise\_Rotator3

Step comment

Interlock -(c)-:

Interlock alarm

Alarm text	
Raise_Rotator3	

Interlock  
( c )

Supervision -(v)-:

Supervision alarm

Alarm text	
Raise_Rotator3	

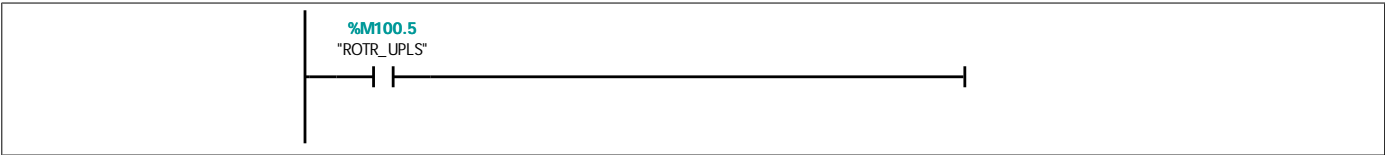
Supervision  
( v )

**Actions:**

**Actions:**

Interlock	Event	Qualifier	Action
		N	"ROTR_UP"

**T3:RRotUp\_Trans**



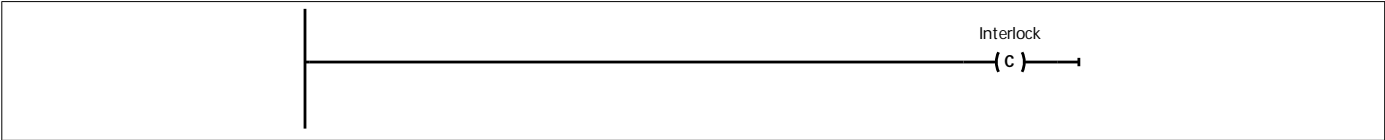
**S4:Rotate\_CCW2**

Step comment

**Interlock -(c)-:**

**Interlock alarm**

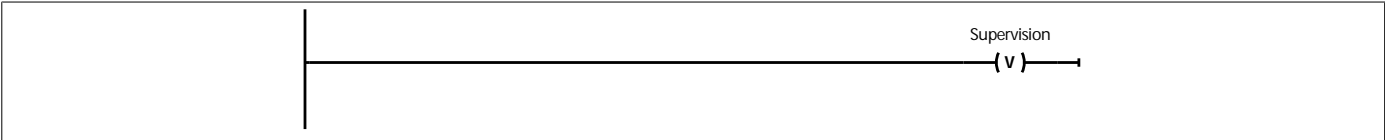
Alarm text	Rotate_CCW2
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**Supervision -(v)-:**

**Supervision alarm**

Alarm text	Rotate_CCW2
------------	-------------

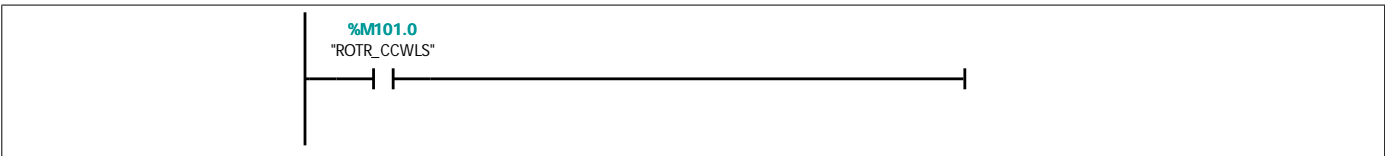


**Actions:**

**Actions:**

Interlock	Event	Qualifier	Action
		N	"ROTAT_CCW"

**T4:RRotCCW\_Trans**



**S5:Unlatch\_Reset**

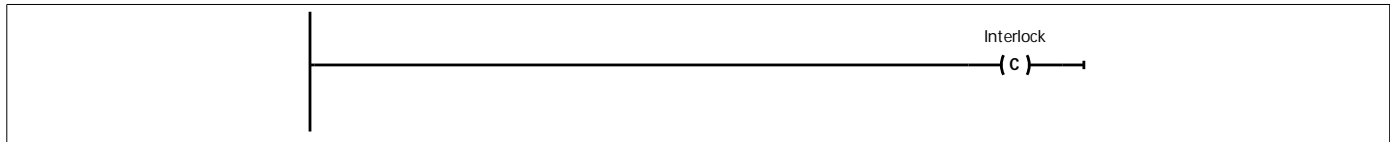
Step comment

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**Interlock -(c)-:**

**Interlock alarm**

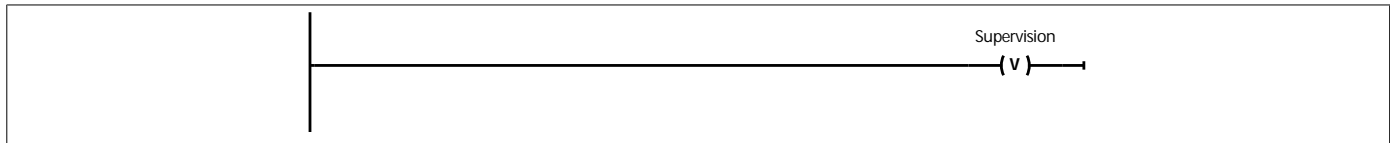
Alarm text Unlatch\_Reset



**Supervision -(v)-:**

**Supervision alarm**

Alarm text Unlatch\_Reset

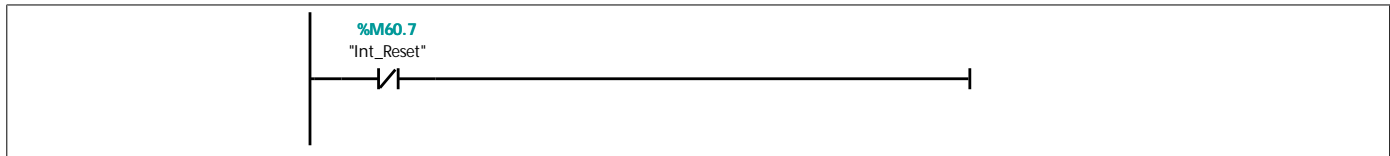


**Actions:**

**Actions:**

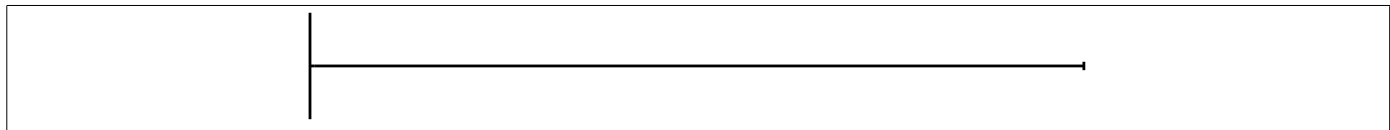
Interlock	Event	Qualifier	Action
		R	"Int_Reset"

**T5:REnd\_Trans**



**Permanent post-instructions**

**1:**



## Simulation [FB10]

### Simulation Properties

#### General

<b>Name</b>	Simulation	<b>Number</b>	10	<b>Type</b>	FB
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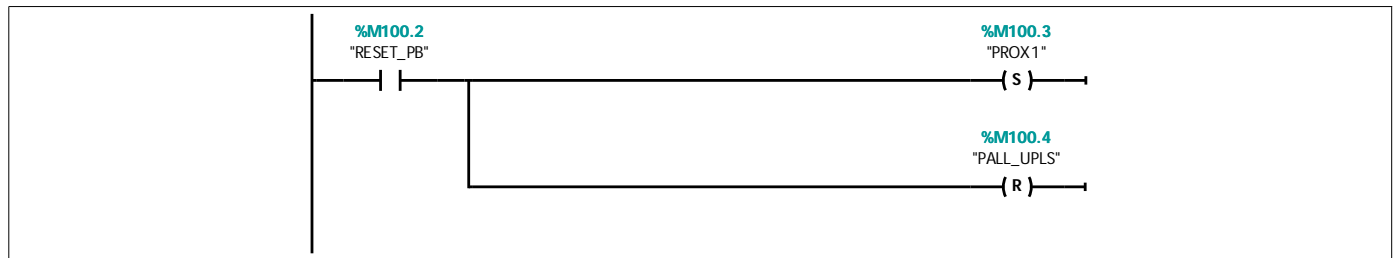
<b>Language</b>	LAD	<b>Numbering</b>	Manual
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#### Information

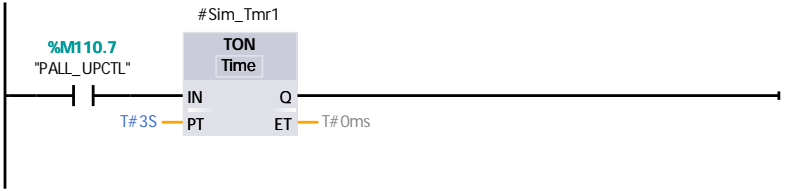
<b>Title</b>	SIMULATION LOGIC	<b>Author</b>		<b>Comment</b>	Copyright (c) 2011, Dogwood Valley Press, LLC
<b>Family</b>		<b>Version</b>	0.1	<b>User-defined ID</b>	

Name	Data type	Default value
Input		
Output		
InOut		
▼ Static		
Sim_Tmr1	TON_TIME	
Sim_Tmr2	TON_TIME	
Sim_Tmr3	TON_TIME	
Sim_Tmr4	TON_TIME	
Sim_Tmr5	TON_TIME	
Sim_Tmr6	TON_TIME	
Sim_Tmr7	TON_TIME	
Sim_Tmr8	TON_TIME	
Sim_Tmr7_Q	Bool	false
Sim_Ons1	Bool	false
Temp		
Constant		

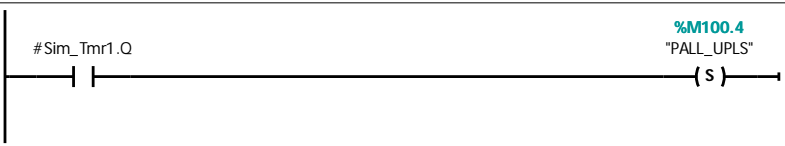
**Network 1: When reset, forget there is anything at hook 1.**



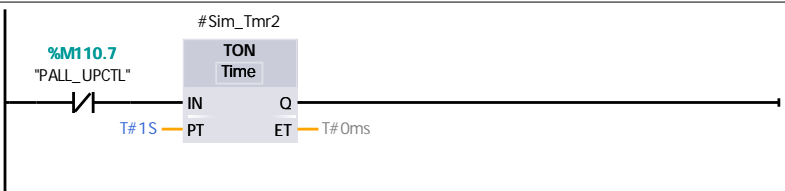
**Network 2: Simulate pallet up indication**



**Network 3:**



**Network 4:**

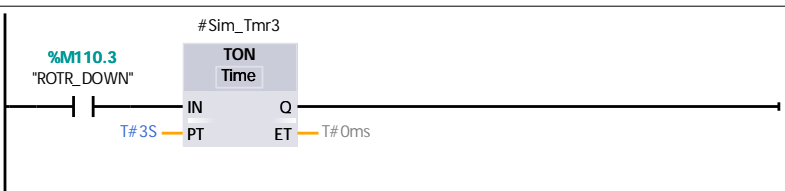


**Network 5:**

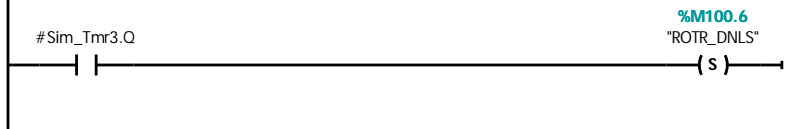


**Network 6: Simulate rotator up/down control.**

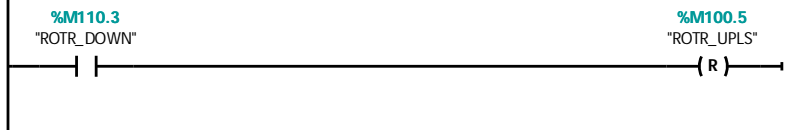
When moved up, the down Is is immediately unlatched off. After 3 secs, the up Is is latched on.  
When moved down, the up Is is immediately unlatched off. After 3 secs, the down Is is latched on.



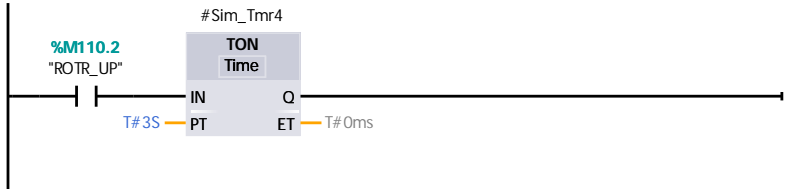
**Network 7:**



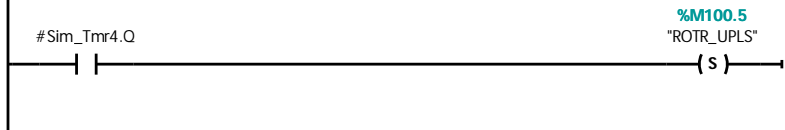
**Network 8:**



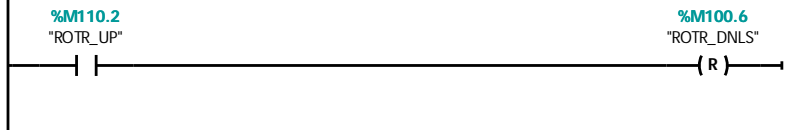
**Network 9:**



**Network 10:**



**Network 11:**

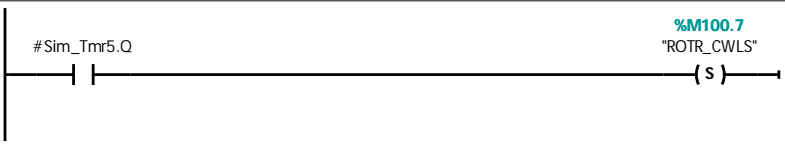


**Network 12: Simulate rotator rotating control.**

When rotated CW, the CCW Is is immediately unlatched off. After 3 secs, the CW Is is latched on.  
When rotated CCW, the CW Is is immediately unlatched off. After 3 secs, the CCW Is is latched on.



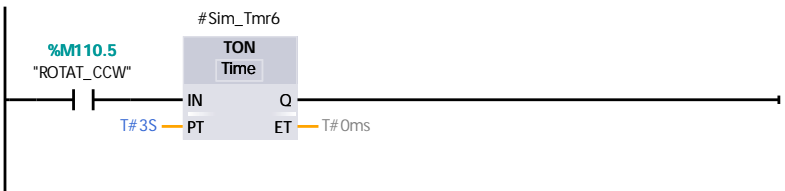
Network 13:



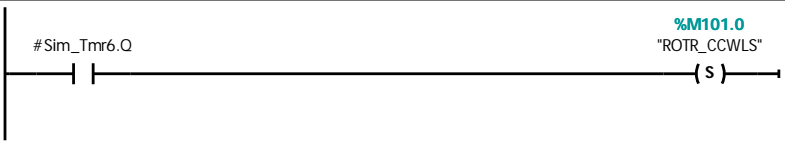
Network 14:



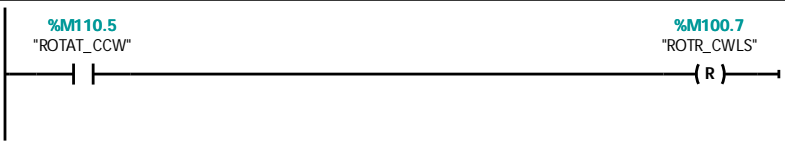
Network 15:



Network 16:

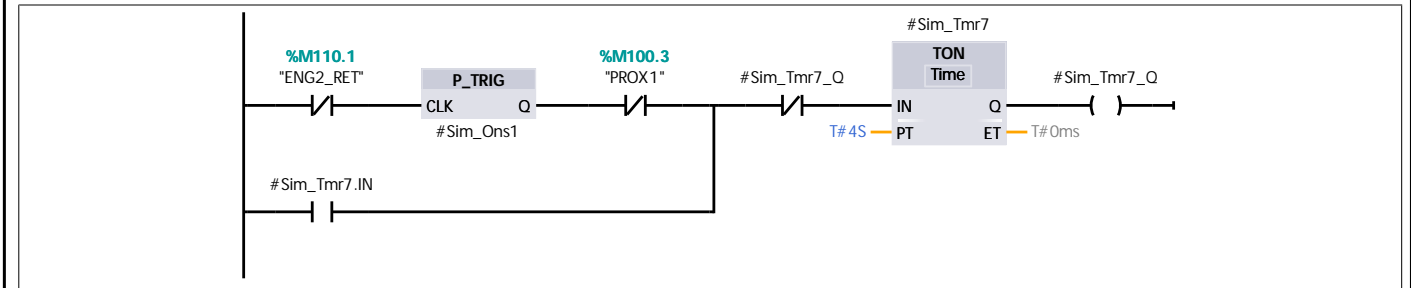


Network 17:

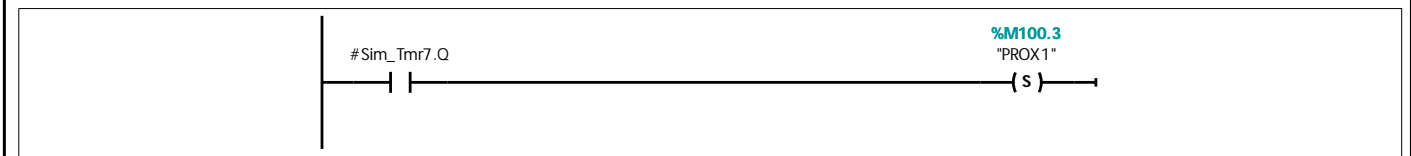


## Network 18: Simulate Pallet Prox

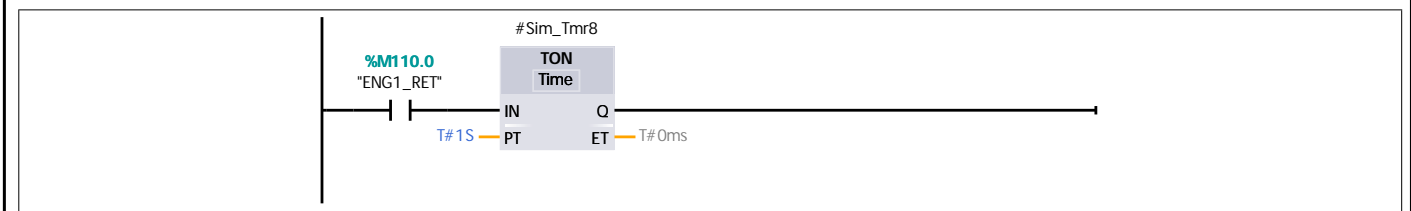
Latch it on 4 seconds after one has left the station.  
Latch it off 1 second after new one retained.



**Network 19:**



**Network 20:**



**Network 21:**

