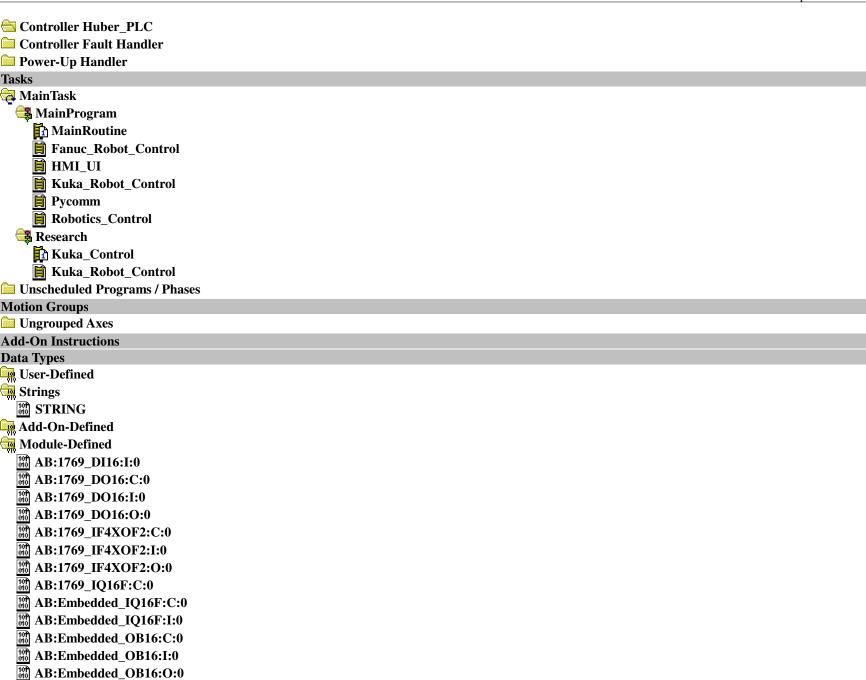
FR:Standard_Robot_10Bytes:I1:0
FR:Standard_Robot_10Bytes:O1:0
FR:Standard_Robot_16Bytes:I1:0

Page 1



FR:Standard_Robot_16Bytes:O1:0
FR:Standard_Robot_8Bytes:I1:0
FR:Standard_Robot_8Bytes:O1:0
FR:Standard_Robot_8Bytes:O1:0
005A:AB767879xx_F_C5D4DDB1:O:0
005A:AB767879xx_F_D2EC9ED2:O:0
005A:AB767879xx_F_D7BC2DEE:I:0
005A:AB767879xx_F_E44F4328:I:0

Trends

I/O Configuration

CompactLogix5323E-QB1 System
1769-L23E-QB1 Huber_PLC
1769-L23E-QB1 Ethernet Port LocalENB

1769-L23E-QB1 Ethernet Port LocalENB

CompactBus Local

Huber_PLC - Controller Properties Listing 1769-L23E-QB1 CompactLogix5323E-QB1 Controller

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General			
Vendor:	Rockwell Automation/Allen-Bradley	Mode:	Offline
Revision:	20.14	Key Switch Position:	Offline
Revision: Chassis Type:		Created:	4/5/2019 10:48:08 AM
7.2	<none> 0</none>	Edited:	
Slot:	U	Edited:	4/5/2019 10:50:49 AM
Serial Port	Countries	Control Line:	No. II.a. debales
Mode:	System		No Handshake
Baud Rate:	19200	RTS Send Delay:	0 (x20 ms)
Date Bits:	8	RTS Off Delay:	0 (x20 ms)
Parity:	None	DCD Wait Delay:	0 (x1 sec)
Stop Bits:	I		
System Protocol - DF1 Master	0	D 11' M 1	N D 1/1
Station Address:	0	Polling Mode:	Message Based (slave can initiate messages)
Transmit Retries:	3	Error Detection:	CRC
ACK Timeout:	50 (x20 ms)	Enable Duplicate Detection:	Yes
Relay Message Wait:	5 (x20 ms)		
System Protocol - DF1 Point to Point	0	E 1 11 12	
Station Address:	0	Embedded Responses:	Autodetect
NAK Receive Limit:	3	Error Detection:	CRC
ENQ Transmit Limit:	3	Enable Duplicate Detection:	Yes
ACK Timeout:	50 (x20 ms)		
System Protocol - DF1 Radio Modem			
Station Address:	0	Error Detection:	CRC
Store and Foward:	No		
System Protocol - DF1 Slave			
Station Address:	0	EOT Suppression:	No
Transmit Retries:	3	Error Detection:	CRC
Slave Poll Timeout:	3000 (x20 ms)	Enable Duplicate Detection:	Yes
System Protocol - DH485 (Current)			
Station Address:	0	Token Hold Factor:	1
Max Station Address:	2	Error Detection:	CRC
User Protocol - ASCII			
Read/Write Buffer Size:	82 bytes	Append Character 2:	'\$1'
Termination Character 1:	'\$r'	XON/XOFF:	No
Termination Character 2:	'\$FF'	Echo Mode:	No
Append Character 1:	'\$r'	Delete Mode:	Ignore
Date/Time			
Date and Time:	<offline></offline>		
Time Zone:	<offline></offline>		
Daylight Saving (+00:00):	<offline></offline>		
Enable Time Synchronization:	No		
Is the system time master:	<offline></offline>		
Is a synchronized time slave:	<offline></offline>		
Duplicate CST Master Detected:	<offline></offline>		
CST Mastership disabled	<offline></offline>		
No CST Master	<offline></offline>		
Advanced Time Sync			
CIP Sync Time Synchronization:	Disabled		
			RSLogix 5000
			RSESSIN 5000

Huber_PLC - Controller Properties Listing

1769-L23E-QB1 CompactLogix5323E-QB1 Controller

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<offline>

Advanced Controller Fault Handler: Match Project To Controller: No <none> Power-Up Handler: Serial Number: C01DBC37 <none> System Overhead Time Slice: Allow Consumed Tags to Use RPI Provided by 20 % Producer: No During unused System Overhead Time Slice: Run Continuous Task SFC Execution **Execution Control:** Execute current active steps only Last Scan of Active Step: Don't scan Restart at most recently executed step **Restart Position:** Memory (Estimate) 1769-L23E-QB1 Memory Option: Estimated Memory Total Memory: 524,288 bytes Max Used: 112,244 bytes 412,044 bytes Largest Block Free: 412,044 bytes Free Memory: Used Memory: 112,244 bytes Security: Security Authority: No Protection Selected Slots: Changes To Detect: 16#ffff_ffff_ffff_ffff

Audit Value:

Use only the selected Security Authority for

Authentication and Authorization:

Restrict Communications Except Through Selected

Slots:

No

RSLogix 5000

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Name	Value	Data Type	Scope
C600_Fanuc_Active	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
C600_Fanuc_Active - MainProgram/HMI_U			
	s _Control - *2(OTE), $O(XIC)$, $2(XIC)$, $2(XIO)$, $3(XIO)$		
cooo_1 anac_1enve mana rograma nocones	<u>2(012), 0(110), 2(110), 2(110)</u>		
C600_Kuka_Active	1	BOOL	MainProgram
Constant	No	2002	1/14/11/1 1 0 8/14/11
External Access:	Read/Write		
C600_Kuka_Active - MainProgram/HMI_UI			
C600_Kuka_Active - MainProgram/Robotics			
C000_Kuka_Active - MainProgram/Robotics_	_Comrol - *3(O1E)		
C600_Robot_Active_ONS	0	BOOL	MainProgram
Constant	No	DOOL	Waiii Tograiii
External Access:	Read/Write		
C600_Robot_Active_ONS - MainProgram/Ro	botics_Control - *I(OIE), 2(XIC), 2(XIO)		
1 Cr35iA:I1		FR:Standard_Robot_16Bytes:I1:0	Huber_PLC
External Access:	Read/Write	TR.Standard_Robot_ToDytes.11.0	Huber_I Le
Cr35iA:I1.Input[0].0	Nead/ Wille	BOOL	
1 - 1	0	BOOL	
Cr35iA:II.Input[0].0 - MainProgram/Fanuc_	$Robot_Control - S(XIC), S(XIC)$	DOOL	
Cr35iA:I1.Input[0].1	0	BOOL	
Cr35iA:11.Input[0].1 - MainProgram/Fanuc_	_Robot_Control - 5(XIC), 8(XIC)		
Cr35iA:I1.Input[0].2	0	BOOL	
Cr35iA:I1.Input[0].2 - MainProgram/Fanuc_	_Robot_Control - 5(XIC), 5(XIO), 8(XIC)		
Cr35iA:I1.Input[0].5	0	BOOL	
Cr35iA:I1.Input[0].5 - MainProgram/Fanuc_	_Robot_Control - 5(XIO), 8(XIO)		
Cr35iA:11.Input[0].5 - MainProgram/HMI_U	VI - 6(XIC)		
Cr35iA:I1.Input[0].6	0	BOOL	
Cr35iA:11.Input[0].6 - MainProgram/HMI_U	II - 4(XIC)		
Cr35iA:I1.Input[0].7	0	BOOL	
	_Robot_Control - 0(XIC), 1(XIC), 2(XIC), 3(XIC), 5(X		
Cr35iA:I1.Input[2].2	$\begin{array}{ccc} \text{Λ} & $$	BOOL	
Cr35iA:11.Input[2].2 - MainProgram/HMI_U	U 5(VIC)	BOOL	
		CINT	
Cr35iA:I1.Input[4]	16#00	SINT	
Cr35iA:I1.Input[4] - MainProgram/HMI_UI		CV) VIII	
Cr35iA:I1.Input[5]	16#00	SINT	
Cr35iA:11.Input[5] - MainProgram/HMI_UI			
Cr35iA:I1.Input[6]	16#00	SINT	
Cr35iA:11.Input[6] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[7]	16#00	SINT	
Cr35iA:I1.Input[7] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[8]	16#00	SINT	
Cr35iA:11.Input[8] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[9]	16#00	SINT	
Cr35iA:11.Input[9] - MainProgram/HMI_UI			
Cr35iA:I1.Input[10]	16#00	SINT	
Oloonidinpuditoj	2000		

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Cr35iA:I1 (Continued)			
Cr35iA:II.Input[10] - MainProg		CINT	
Cr35iA:I1.Input[11]	16#00	SINT	
Cr35iA:I1.Input[11] - MainProg	ram/HMI_UI - I(MOV)		
Cr35iA:O1		FR:Standard_Robot_16Bytes:O1:0	Huber_PLC
External Access:	Read/Write	TR.Standard_Robot_ToDytes.O1.0	Huber_1 Le
Cr35iA:O1.Output[0].0	0	BOOL	
	rogram/Fanuc_Robot_Control - *0(OTE), 1(XIC)	BOOL	
Cr35iA:O1.Output[0].1	0	BOOL	
	rogram/Fanuc_Robot_Control - *1(OTE)	BOOL	
Cr35iA:O1.Output[0].2	0	BOOL	
	rogram/Fanuc_Robot_Control - *2(OTE)	DOOL	
Cr35iA:01.0utput[0].3	nogramu Panac_Kobol_Comroi - ^2(O1E)	BOOL	
	rogram/Fanuc_Robot_Control - *3(OTE)	BOOL	
Cr35iA:O1.Output[0].4	O (OTE)	BOOL	
	rogram/Fanuc_Robot_Control - *4(OTE)	BOOL	
	rogram/Fanuc_Robol_Control - "4(OIE)	DOOL	
Cr35iA:O1.Output[0].5	U	BOOL	
*	rogram/Fanuc_Robot_Control - *5(OTE)	DOOL	
Cr35iA:O1.Output[0].6	U	BOOL	
	rogram/Fanuc_Robot_Control - *6(OTE)	DOOL	
Cr35iA:O1.Output[0].7	U	BOOL	
	rogram/Fanuc_Robot_Control - *7(OTE)	DOOL	
Cr35iA:O1.Output[1].0	0	BOOL	
	rogram/Fanuc_Robot_Control - *8(OTE)	7.00	
Cr35iA:O1.Output[1].1	0	BOOL	
	rogram/Fanuc_Robot_Control - *9(OTE)	7.00	
Cr35iA:O1.Output[1].2	0	BOOL	
	rogram/Fanuc_Robot_Control - *10(OTE)		
Cr35iA:O1.Output[1].3	0	BOOL	
	rogram/Fanuc_Robot_Control - *11(OTE)		
Cr35iA:O1.Output[1].4	0	BOOL	
	rogram/Fanuc_Robot_Control - *12(OTE)		
Cr35iA:O1.Output[1].5	0	BOOL	
*	rogram/Fanuc_Robot_Control - *13(OTE)		
Cr35iA:O1.Output[1].6	0	BOOL	
	rogram/Fanuc_Robot_Control - *14(OTE)		
Cr35iA:O1.Output[1].7	0	BOOL	
Cr35iA:O1.Output[1].7 - MainP	rogram/Fanuc_Robot_Control - *15(OTE)		
Cr35iA:O1.Output[3].0	1	BOOL	
Cr35iA:O1.Output[3].0 - MainP	rogram/Fanuc_Robot_Control - *16(OTE)		
Cr35iA:O1.Output[3].1	0	BOOL	
	rogram/Fanuc_Robot_Control - *17(OTE)		
Cr35iA:O1.Output[3].2	0	BOOL	
Cr35iA:O1.Output[3].2 - MainP	rogram/Fanuc_Robot_Control - *18(OTE)		
Cr35iA:O1.Output[3].3	0	BOOL	
	rogram/Fanuc_Robot_Control - *19(OTE)		
Cr35iA:O1.Output[3].4	0	BOOL	
-			

Cr35iA:O1 (Continued) Cr35iA:O1.Output[3].4 - MainProgram/Fand Cr35iA:O1.Output[4] Cr35iA:O1.Output[4] - MainProgram/Fand Cr35iA:O1.Output[5] Cr35iA:O1.Output[5] - MainProgram/Fand Cr35iA:O1.Output[6] Cr35iA:O1.Output[6] - MainProgram/Fand	16#f4 c_Robot_Control - *21(MOV) 16#f7 c_Robot_Control - *22(MOV) 16#f4	SINT SINT SINT	
Debug	0	BOOL	Research
Constant	No		
External Access:	Read/Write		
Debug - Research/Kuka_Robot_Control - 0(2	XIO)		
Fanuc_Control_Stop_Timer		TIMER	MainProgram
Constant	No		Č
External Access:	Read/Write		
Fanuc_Control_Stop_Timer - MainProgram	Fanuc_Robot_Control - *3(TON)		
Fanuc_Control_Stop_Timer.DN	0	BOOL	
Fanuc_Control_Stop_Timer.DN - MainProgr	cam/Fanuc_Robot_Control - 3(XIC)		
Fanuc_Start_Prgm_Timer		TIMER	MainProgram
Constant	No		· ·
External Access:	Read/Write		
Fanuc_Start_Prgm_Timer - MainProgram/F	anuc Robot Control - *5(TON)		
Fanuc_Start_Prgm_Timer.DN	0	BOOL	
Fanuc_Start_Prgm_Timer.DN - MainProgra	m/Fanuc_Robot_Control - 5(XIO)		
<pre># Half_Sec_TMR_Pulse_Down</pre>		TIMER	Huber_PLC
Constant	No	THVIER	iidoti_i Be
External Access:	Read/Write		
Half_Sec_TMR_Pulse_Down - MainProgram			
Half_Sec_TMR_Pulse_Down.DN	0	BOOL	
Half_Sec_TMR_Pulse_Down.DN - MainPro		BOOL	
1100y_500_11111_1	9(1110)		
 ■ Half_Sec_TMR_Pulse_Up		TIMER	Huber_PLC
Constant	No		
External Access:	Read/Write		
Half_Sec_TMR_Pulse_Up - MainProgram/M	IainRoutine - *0(TON)		
Half_Sec_TMR_Pulse_Up.DN	0	BOOL	
Half_Sec_TMR_Pulse_Up.DN - MainProgra	m/HMI_UI - 13(XIC)		
Half_Sec_TMR_Pulse_Up.DN - MainProgra	m/MainRoutine - 0(XIC)		
Half_Sec_TMR_Pulse_Up.DN - MainProgra	m/Pycomm - 1(XIC)		
J HMI_Robot_In_Coord_11		INT[10]	Huber_PLC
Maximum Consumers:	11	11,1[10]	Hubbi_i DC
Include Connection Status:	n/a		
Send Data State Change Event to Consumer(
Sond Data State Change Dvent to Consumer(5).		

```
HMI Robot In Coord 11 (Continued)
    Allow Unicast Consumer Connections:
                                           n/a
    Constant
                                           No
    External Access:
                                           Read/Write
                                                                                       INT
  HMI Robot In Coord 11[0]
                                           500
    HMI Robot In Coord 11[0] - MainProgram/Fanuc Robot Control - 21(MOV)
    HMI Robot In Coord 11[0] - MainProgram/Kuka Robot Control - O(MOV)
  HMI Robot In Coord 11[1]
                                                                                       INT
                                           500
    HMI Robot In Coord 11[1] - MainProgram/Fanuc Robot Control - 23(MOV)
    HMI Robot In Coord 11[1] - MainProgram/Kuka Robot Control - O(MOV)
HMI_Robot_Out_Coord_10
                                                                                       INT[10]
                                                                                                                                   Huber PLC
    Maximum Consumers:
                                           10
                                           n/a
    Include Connection Status:
    Send Data State Change Event to Consumer(s):
                                                No
    Allow Unicast Consumer Connections:
                                           n/a
    Constant
                                           No
                                           Read/Write
    External Access:
                                                                                       INT
  HMI_Robot_Out_Coord_10[0]
    HMI_Robot_Out_Coord_10[0] - MainProgram/HMI_UI - *15(MOV)
  HMI Robot Out Coord 10[1]
                                                                                       INT
    HMI_Robot_Out_Coord_10[1] - MainProgram/HMI_UI - *15(MOV), 13(GEQ), 13(LES)
  HMI Robot Out Coord 10[2]
                                                                                       INT
    HMI Robot Out Coord 10[2] - MainProgram/HMI UI - *15(MOV)
  HMI Robot Out Coord 10[3]
                                                                                       INT
    HMI Robot Out Coord 10[3] - MainProgram/HMI UI - *15(MOV)
  HMI Robot Out Coord 10[4]
                                                                                       INT
    HMI Robot Out Coord 10[4] - MainProgram/HMI UI - *15(MOV)
  HMI Robot Out Coord 10[5]
                                                                                       INT
    HMI Robot Out Coord 10[5] - MainProgram/HMI UI - *15(MOV)
  HMI Robot Out Coord 10[6]
                                                                                       INT
    HMI Robot Out Coord 10[6] - MainProgram/HMI UI - *15(MOV)
  HMI Robot Out Coord 10[7]
                                                                                       INT
    HMI_Robot_Out_Coord_10[7] - MainProgram/Pycomm - *0(MOV)
HMI UI Graph 14
                                                                                       INT[3]
                                                                                                                                   Huber PLC
    Maximum Consumers:
                                           14
    Include Connection Status:
                                           n/a
    Send Data State Change Event to Consumer(s):
                                                No
    Allow Unicast Consumer Connections:
                                           n/a
    Constant
                                           No
    External Access:
                                           Read/Write
  HMI_UI_Graph_14[0]
                                                                                       INT
    HMI_UI_Graph_14[0] - MainProgram/HMI_UI - *1(MOV)
  HMI UI Graph 14[1]
                                                                                       INT
    HMI_UI_Graph_14[1] - MainProgram/HMI_UI - *1(MOV)
  HMI UI Graph 14[2]
                                                                                       INT
    HMI UI Graph 14[2] - MainProgram/HMI UI - *13(ABS)
```

_			e. (e sers unique) Besitop isenee	110cmor_Design_1111_20170101111c
	HMI_UI_Graph_CNT		COUNTER	MainProgram
	Constant	No	COUNTER	Walli Togram
	External Access:	Read/Write		
	HMI_UI_Graph_CNT - MainProgram/HMI_			
	HMI UI Graph CNT.ACC	1	DINT	
		HMI_UI - *13(MOV), 13(ABS), 13(GEQ), 13(LEQ)		
	iiiii_oi_oiupii_oi\iiiioo iiiiiiii			
J	HMI_UI_PB_12	0	INT	Huber_PLC
	Maximum Consumers:	12		
	Include Connection Status:	n/a		
	Send Data State Change Event to Consumer(s			
	Allow Unicast Consumer Connections:	n/a		
	Constant	No		
	External Access:	Read/Write		
	HMI_UI_PB_12.0	0	BOOL	
	HMI_UI_PB_12.0 - MainProgram/HMI_UI -	2(XIC)		
	HMI_UI_PB_12.1	0	BOOL	
	HMI_UI_PB_12.1 - MainProgram/HMI_UI -	2(XIO)		
	HMI_UI_PB_12.2	0	BOOL	
	HMI_UI_PB_12.2 - MainProgram/Kuka_Rol	pot_Control - 3(XIC)		
	HMI_UI_PB_12.4	0	BOOL	
	HMI_UI_PB_12.4 - MainProgram/Fanuc_Ro	obot_Control - 4(XIC), 5(XIO), 8(XIO)		
	HMI_UI_PB_12.4 - MainProgram/Pycomm -			
	HMI_UI_PB_12.7	0	BOOL	
	HMI_UI_PB_12.7 - MainProgram/Robotics_	Control - 1(XIC)		
	HMI_UI_PB_12.8	0	BOOL	
	HMI_UI_PB_12.8 - MainProgram/HMI_UI -	7(XIC)		
	HMI_UI_PB_12.9	0	BOOL	
	HMI_UI_PB_12.9 - MainProgram/HMI_UI -	<i>8(XIC)</i>		
	HMI_UI_PB_12.10	0	BOOL	
	HMI_UI_PB_12.10 - MainProgram/HMI_UI			
	HMI_UI_PB_12.11	0	BOOL	
	HMI_UI_PB_12.11 - MainProgram/HMI_UI	- 10(XIC)		
	HMI_UI_PB_12.12	0	BOOL	
	HMI_UI_PB_12.12 - MainProgram/HMI_UI		DOOL	
	HMI_UI_PB_12.13	0	BOOL	
	HMI_UI_PB_12.13 - MainProgram/HMI_UI	- 11(XIO), 12(XIC)		
9	HMI III DI 12	6	INIT	Halan DI C
9	HMI_UI_PL_13	6	INT	Huber_PLC
	Maximum Consumers:	13		
	Include Connection Status:	n/a		
	Send Data State Change Event to Consumer(s Allow Unicast Consumer Connections:): No n/a		
	Constant External Access:	No Read/Write		
	External Access: HMI_UI_PL_13.0	Read/write 0	BOOL	
	HMI_UI_PL_13.0 - MainProgram/HMI_UI -	•	DOOL	
	HMI_UI_PL_13.1	1	BOOL	
	111v11_U1_1 LL_13,1	1	DOOL	

HMI_UI_PL_13 (Continued)			
HMI_UI_PL_13.1 - MainProgram/HMI_UI	- *3(OTE)		
HMI_UI_PL_13.2	1	BOOL	
HMI_UI_PL_13.2 - MainProgram/HMI_UI			
HMI_UI_PL_13.2 - MainProgram/Kuka_Ro	obot_Control - 4(XIC)		
HMI_UI_PL_13.3	0	BOOL	
HMI_UI_PL_13.3 - MainProgram/HMI_UI	- *5(OTE)		
HMI_UI_PL_13.4	0	BOOL	
HMI_UI_PL_13.4 - MainProgram/HMI_UI	- *6(OTE)		
HMI_UI_PL_13.7	0	BOOL	
HMI_UI_PL_13.7 - MainProgram/Robotics	_Control - *0(OTE)		
HMI_UI_PL_13.8	0	BOOL	
HMI_UI_PL_13.8 - MainProgram/HMI_UI	- *7(OTE), 7(XIC)		
HMI_UI_PL_13.9	0	BOOL	
HMI_UI_PL_13.9 - MainProgram/HMI_UI	- *8(OTE), 8(XIC)		
HMI_UI_PL_13.10	0	BOOL	
HMI_UI_PL_13.10 - MainProgram/HMI_U	I - *9(OTE), 9(XIC)		
HMI_UI_PL_13.11	0	BOOL	
HMI_UI_PL_13.11 - MainProgram/HMI_U		B 0 0 7	
HMI_UI_PL_13.12	0	BOOL	
HMI_UI_PL_13.12 - MainProgram/HMI_U		DOOL	
HMI_UI_PL_13.13	0	BOOL	
HMI_UI_PL_13.13 - MainProgram/HMI_U	I - *12(OTE), 12(XIC)		
A TINAT TIL ANS		TIMED[16]	II 1 DLC
HMI_UI_Timers	No	TIMER[16]	Huber_PLC
Constant	No Bood/White	TIMER[16]	Huber_PLC
Constant External Access:	No Read/Write		Huber_PLC
Constant External Access: HMI_UI_Timers[0]	Read/Write	TIMER[16] TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U	Read/Write II - *7(TON)	TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN	Read/Write II - *7(TON) 0		Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM	Read/Write II - *7(TON) 0	TIMER BOOL	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1]	Read/Write <i>II - *7(TON)</i> 0 <i>II_UI - 7(XIO)</i>	TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U	Read/Write <i>II - *7(TON)</i> 0 <i>II_UI - 7(XIO)</i>	TIMER BOOL TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0	TIMER BOOL	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HM	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0	TIMER BOOL TIMER BOOL	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2]	Read/Write VI - *7(TON) 0 VI - 7(XIO) VI - *8(TON) 0 VI - 8(XIO)	TIMER BOOL TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HM HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II_UI - *9(TON)	TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HM HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HM HMI_UI_Timers[2] HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II_UI - 8(XIO) II_UI - *9(TON) 0	TIMER BOOL TIMER BOOL	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN - MainProgram/HMI_U HMI_UI_Timers[2].DN - MainProgram/HMI_U	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II_UI - 8(XIO) II_UI - *9(TON) 0	TIMER BOOL TIMER BOOL TIMER BOOL	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN - MainProgram/HMI HMI_UI_Timers[3]	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO)	TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[3].DN - MainProgram/HMI HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_U	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO)	TIMER BOOL TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[3].DN - MainProgram/HMI HMI_UI_Timers[3] HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_U HMI_UI_Timers[3].DN	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO) II - *10(TON) 0	TIMER BOOL TIMER BOOL TIMER BOOL	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[3].DN - MainProgram/HMI HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_U	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO) II - *10(TON) 0	TIMER BOOL TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[3].DN - MainProgram/HMI HMI_UI_Timers[3] HMI_UI_Timers[3] HMI_UI_Timers[3].DN	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO) II - *10(TON) 0	TIMER BOOL TIMER BOOL TIMER BOOL TIMER	Huber_PLC MainProgram
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[3].DN - MainProgram/HMI HMI_UI_Timers[3] HMI_UI_Timers[3].DN HMI_UI_Timers[3].DN HMI_UI_Timers[3].DN - MainProgram/HMI_U HMI_UI_Timers[3].DN	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO) II - *10(TON) 0	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER	
Constant External Access: HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_U HMI_UI_Timers[0].DN HMI_UI_Timers[0].DN - MainProgram/HMI HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_U HMI_UI_Timers[1].DN HMI_UI_Timers[1].DN - MainProgram/HMI HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_U HMI_UI_Timers[2].DN HMI_UI_Timers[2].DN HMI_UI_Timers[3].DN - MainProgram/HMI HMI_UI_Timers[3] - MainProgram/HMI_U HMI_UI_Timers[3].DN HMI_UI_Timers[3].DN HMI_UI_Timers[3].DN - MainProgram/HMI_U HMI_UI_Timers[3].DN - MainProgram/HMI_U Home_Comp_Delay	Read/Write II - *7(TON) 0 II_UI - 7(XIO) II - *8(TON) 0 II_UI - 8(XIO) II - *9(TON) 0 II_UI - 9(XIO) II_UI - 10(TON) 0 II_UI - 10(XIO)	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER	

Home_Comp_Delay (Continued)

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	0	DOOL	
Home_Comp_Delay.DN	U	BOOL	
Home_Comp_Delay.DN - MainPr	ogram/Kuka_Robot_Control - 4(XIO)		
Kuka_Home_Comp	0	BOOL	MainProgram
Constant	No		Č
External Access:	Read/Write		
Kuka_Home_Comp - MainProgra	m/Kuka_Robot_Control - *4(OTE), 1(XIO), 3(XIO), 4(XIC)		
Kuka_Home_Req	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
Kuka_Home_Req - MainProgram	/Kuka_Robot_Control - *3(OTE), 0(XIC), 0(XIO), 3(XIC), 4(X	XIC)	
Kuka_Robot:I		_005A:AB767879xx_F_D7BC2DEE:I:0	Huber_PLC
External Access:	Read/Write		
Kuka_Robot:I.Data[0]	0	INT	
Kuka_Robot:I.Data[0] - MainPro	gram/HMI UI - 15(MOV)		
Kuka_Robot:I.Data[1]	0	INT	
Kuka_Robot:I.Data[1] - MainPro	gram/HMI_UI - 15(MOV)		
Kuka_Robot:I.Data[2]	\sim 0	INT	
Kuka_Robot:I.Data[2] - MainPro	gram/HMI_UI - 15(MOV)		
Kuka_Robot:I.Data[3]	$-\frac{1}{0}$	INT	
	gram/HMI_UI - 1(MOV), 15(MOV), 4(GRT), 4(LES)		
Kuka_Robot:I.Data[4]		INT	
Kuka_Robot:I.Data[4] - MainPro	gram/HMI_UI - 15(MOV)		
Kuka_Robot:I.Data[5]	$-\frac{1}{0}$	INT	
Kuka_Robot:I.Data[5] - MainPro	gram/HMI_UI - 15(MOV)		
Kuka_Robot:I.Data[6]	$-\frac{1}{0}$	INT	
Kuka_Robot:I.Data[6] - MainPro	gram/HMI_UI - 15(MOV)		
Kuka_Robot:O		_005A:AB767879xx_F_D2EC9ED2:O:0	Huber_PLC
	D 1007		
External Access:	Read/Write		Huber_I Le
	Read/write 155	INT	Hubbi_i Be
Kuka_Robot:O.Data[0]	155	INT	ridoci_i Ec
Kuka_Robot:O.Data[0]		INT INT	ridoci_r Ec
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researc Kuka_Robot:O.Data[1]	155 h/Kuka_Robot_Control - *0(MOV) 21		ridoci_r Ec
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researc Kuka_Robot:O.Data[1]	155 h/Kuka_Robot_Control - *0(MOV)		ridoci_r Be
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2]	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV)	INT	ridoci_r Be
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2]	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67	INT	ridor_r Be
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67 h/Kuka_Robot_Control - *0(MOV) 1	INT INT	Huser_r Be
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0 Kuka_Robot:O.Data[3].0 - Mainte	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67	INT INT	Huooi_i Ee
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0 Kuka_Robot:O.Data[3].0 - Mainle Kuka_Robot:O.Data[3].1	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67 h/Kuka_Robot_Control - *0(MOV) 1 Program/Kuka_Robot_Control - *1(OTE), 3(XIC), 4(XIO) 0	INT INT BOOL	Huber_r Be
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0 Kuka_Robot:O.Data[3].0 - Mainle Kuka_Robot:O.Data[3].1 Kuka_Robot:O.Data[3].1 - Mainle	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67 h/Kuka_Robot_Control - *0(MOV) 1	INT INT BOOL BOOL	Huoor_r Ee
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0 Kuka_Robot:O.Data[3].0 - Mainle Kuka_Robot:O.Data[3].1 Kuka_Robot:O.Data[3].1 - Mainle Kuka_Robot:O.Data[4]	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67 h/Kuka_Robot_Control - *0(MOV) 1 Program/Kuka_Robot_Control - *1(OTE), 3(XIC), 4(XIO) 0 Program/Kuka_Robot_Control - *2(OTE) 500	INT INT BOOL	Huoor_r Ee
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0 Kuka_Robot:O.Data[3].0 - Mainle Kuka_Robot:O.Data[3].1 - Mainle Kuka_Robot:O.Data[4] Kuka_Robot:O.Data[4] Kuka_Robot:O.Data[4] - Mainle	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67 h/Kuka_Robot_Control - *0(MOV) 1 Program/Kuka_Robot_Control - *1(OTE), 3(XIC), 4(XIO) 0 Program/Kuka_Robot_Control - *2(OTE)	INT INT BOOL BOOL INT	Huber_r Be
Kuka_Robot:O.Data[0] Kuka_Robot:O.Data[0] - Researce Kuka_Robot:O.Data[1] Kuka_Robot:O.Data[1] - Researce Kuka_Robot:O.Data[2] Kuka_Robot:O.Data[2] - Researce Kuka_Robot:O.Data[3].0 Kuka_Robot:O.Data[3].0 - Main! Kuka_Robot:O.Data[3].1 - Main! Kuka_Robot:O.Data[4] Kuka_Robot:O.Data[4] Kuka_Robot:O.Data[4] - Main! Kuka_Robot:O.Data[4] - Main! Kuka_Robot:O.Data[5]	155 h/Kuka_Robot_Control - *0(MOV) 21 h/Kuka_Robot_Control - *0(MOV) 67 h/Kuka_Robot_Control - *0(MOV) 1 Program/Kuka_Robot_Control - *1(OTE), 3(XIC), 4(XIO) 0 Program/Kuka_Robot_Control - *2(OTE) 500	INT INT BOOL BOOL	Hubbl_F Be

External Access:

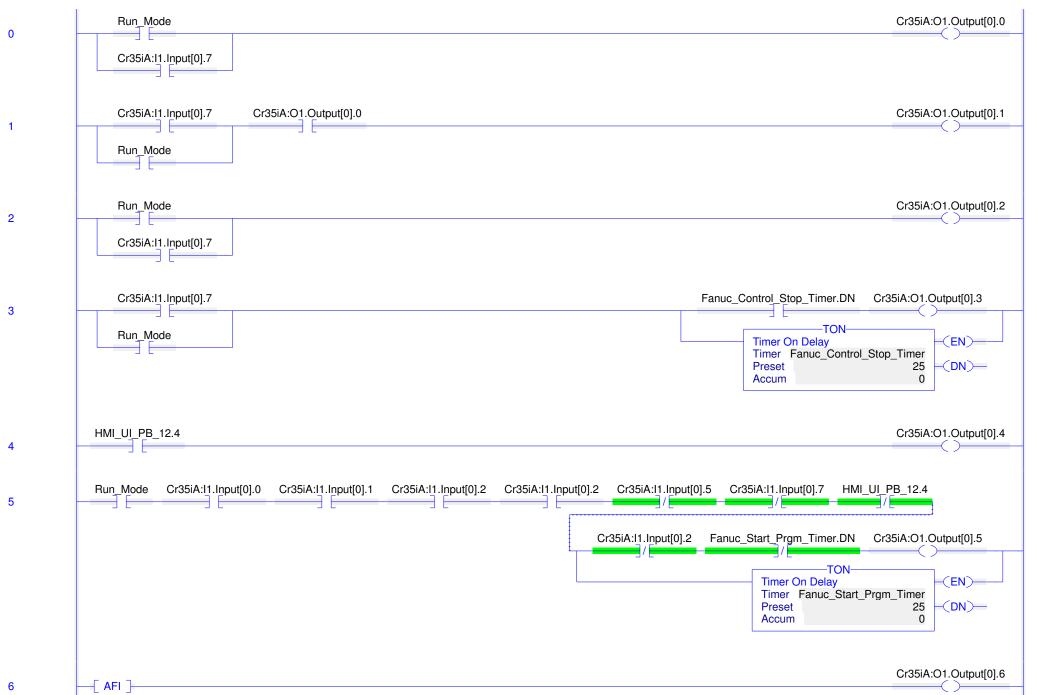
Read/Write

External Access:

Z_CAM - Research/Kuka_Robot_Control - O(MOV)

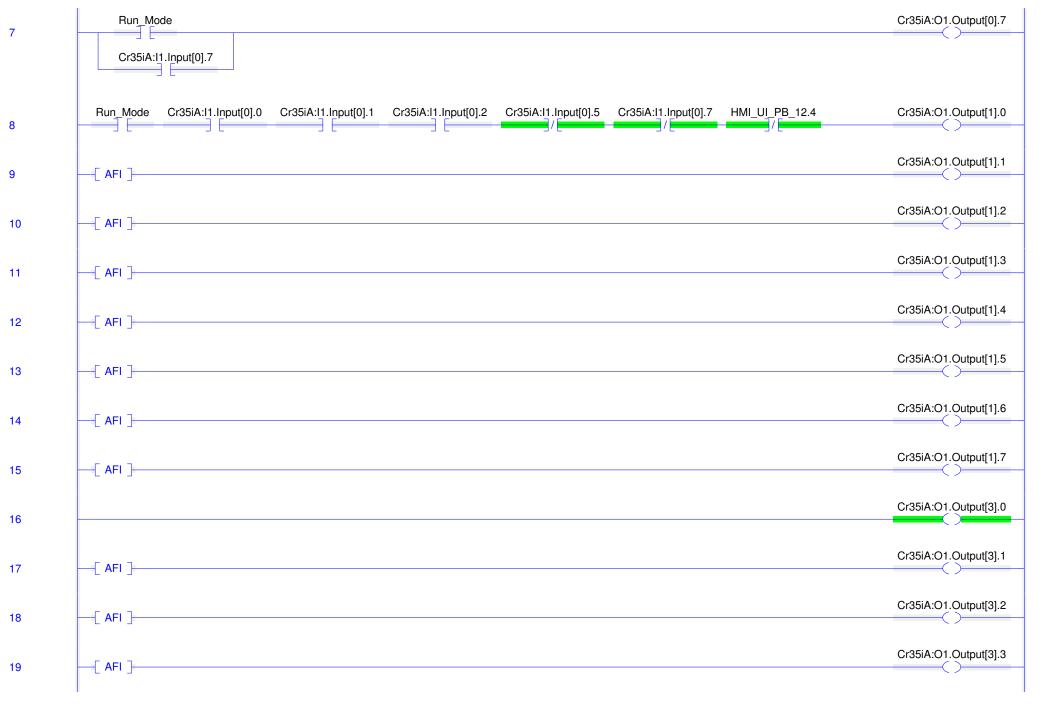
R_PI_Rand_Value (Continued) R_PI_Rand_Value - MainProgn	ram/Pycomm - 1(MOV)		
R_PI_User_Head_Angle	-9	INT	Huber_PLC
Constant	No		
External Access:	Read/Write		
	nProgram/Fanuc_Robot_Control - 22(MOV)		
	nProgram/Kuka_Robot_Control - 0(MOV)		
R_PI_User_Head_Angle - Mai	nProgram/Pycomm - 0(MOV)		
Run_Mode	0	BOOL	MainProgram
Constant	No		-
External Access:	Read/Write		
Run_Mode - MainProgram/Far	nuc_Robot_Control - 0(XIC), 1(XIC), 2(XIC), 3(XIC), 5	f(XIC), $f(XIC)$, $g(XIC)$	
Run_Mode - MainProgram/HM			
Run_Mode - MainProgram/Kul	ka_Robot_Control - 2(XIC)		
I X_CAM	155	INT	Huber_PLC
Constant	No	11(1	Huber_1 De
External Access:	Read/Write		
X_CAM - Research/Kuka_Robo	ot_Control - 0(MOV)		
fl v. c.v.s	21	D. VIII	II I DI G
J Y_CAM	21	INT	Huber_PLC
Constant	No		
External Access:	Read/Write		
Y_CAM - Research/Kuka_Robo	t_Control - U(MOV)		
🗓 Z_CAM	67	INT	Huber_PLC
Constant	No		_
E 4 1 A	D 1887 '.		

No Read/Write Total number of rungs in routine: 24



Huber_PLC:MainTask:MainProgram

Total number of rungs in routine: 24 C:\Users\nhuber\Desktop\School\Senior Design NH 20190404.ACD



Total number of rungs in routine: 24



Name	Value	Data Type	Scope
1 Cr35iA:I1		FR:Standard_Robot_16Bytes:I1:0	Huber_PLC
External Access:	Read/Write		
Cr35iA:I1.Input[0].0	0	BOOL	
	ram/Fanuc_Robot_Control - 5(XIC), 8(XIC)		
Cr35iA:I1.Input[0].1	0	BOOL	
	ram/Fanuc_Robot_Control - 5(XIC), 8(XIC)		
Cr35iA:I1.Input[0].2	0	BOOL	
	ram/Fanuc_Robot_Control - 5(XIC), 5(XIO), 8(XIC)		
Cr35iA:I1.Input[0].5	0	BOOL	
	ram/Fanuc_Robot_Control - 5(XIO), 8(XIO)		
Cr35iA:11.Input[0].5 - MainProgr			
Cr35iA:I1.Input[0].6	0	BOOL	
Cr35iA:11.Input[0].6 - MainProgr	ram/HMI_UI - 4(XIC)		
Cr35iA:I1.Input[0].7	0	BOOL	
	ram/Fanuc_Robot_Control - 0(XIC), 1(XIC), 2(XIC), 3(XI		
Cr35iA:I1.Input[2].2	0	BOOL	
Cr35iA:11.Input[2].2 - MainProgr	ram/HMI_UI - 5(XIC)	2002	
Cr35iA:I1.Input[4]	16#00	SINT	
Cr35iA:11.Input[4] - MainProgra		511 12	
Cr35iA:I1.Input[5]	16#00	SINT	
Cr35iA:11.Input[5] - MainProgra			
Cr35iA:I1.Input[6]	16#00	SINT	
Cr35iA:11.Input[6] - MainProgra		511 12	
Cr35iA:I1.Input[7]	16#00	SINT	
Cr35iA:11.Input[7] - MainProgra		51111	
Cr35iA:I1.Input[8]	16#00	SINT	
Cr35iA:11.Input[8] - MainProgra		51111	
Cr35iA:I1.Input[9]	16#00	SINT	
Cr35iA:11.Input[9] - MainProgra		51111	
Cr35iA:I1.Input[10]	16#00	SINT	
Cr35iA:11.Input[10] - MainProgra		511 12	
Cr35iA:I1.Input[11]	16#00	SINT	
Cr35iA:11.Input[11] - MainProgre		51111	
□ Cr35iA:O1		FR:Standard_Robot_16Bytes:O1:0	Huber PLC
External Access:	Read/Write		
Cr35iA:O1.Output[0].0	0	BOOL	
	ogram/Fanuc_Robot_Control - *0(OTE), 1(XIC)	2002	
Cr35iA:O1.Output[0].1	0	BOOL	
	ogram/Fanuc_Robot_Control - *1(OTE)		
Cr35iA:O1.Output[0].2	0	BOOL	
	ogram/Fanuc_Robot_Control - *2(OTE)		
Cr35iA:O1.Output[0].3	0	BOOL	
	ogram/Fanuc_Robot_Control - *3(OTE)		
Cr35iA:O1.Output[0].4	0	BOOL	
	ogram/Fanuc_Robot_Control - *4(OTE)		
Cr35iA:O1.Output[0].5	0	BOOL	
	•		

Cr35iA:O1 (Continued)

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C155h1.O1 (Continucu)			
Cr35iA:O1.Output[0].5 - MainProgram/Fan	nuc_Robot_Control - *5(OTE)		
Cr35iA:O1.Output[0].6	0	BOOL	
Cr35iA:O1.Output[0].6 - MainProgram/Far	nuc_Robot_Control - *6(OTE)		
Cr35iA:O1.Output[0].7	0	BOOL	
Cr35iA:O1.Output[0].7 - MainProgram/Far	nuc_Robot_Control - *7(OTE)		
Cr35iA:O1.Output[1].0	0	BOOL	
Cr35iA:O1.Output[1].0 - MainProgram/Far	nuc_Robot_Control - *8(OTE)		
Cr35iA:O1.Output[1].1	0	BOOL	
Cr35iA:O1.Output[1].1 - MainProgram/Far	nuc_Robot_Control - *9(OTE)		
Cr35iA:O1.Output[1].2	0	BOOL	
Cr35iA:O1.Output[1].2 - MainProgram/Far	nuc_Robot_Control - *10(OTE)		
Cr35iA:O1.Output[1].3	$\overline{0}$	BOOL	
Cr35iA:O1.Output[1].3 - MainProgram/Far	nuc Robot Control - *11(OTE)		
Cr35iA:O1.Output[1].4	$\overline{0}$	BOOL	
Cr35iA:O1.Output[1].4 - MainProgram/Far	nuc Robot Control - *12(OTE)		
Cr35iA:O1.Output[1].5	0	BOOL	
Cr35iA:O1.Output[1].5 - MainProgram/Fan	nuc Robot Control - *13(OTE)		
Cr35iA:O1.Output[1].6	0	BOOL	
Cr35iA:O1.Output[1].6 - MainProgram/Fan	nuc Robot Control - *14(OTE)		
Cr35iA:O1.Output[1].7	0	BOOL	
Cr35iA:O1.Output[1].7 - MainProgram/Fan	nuc Robot Control - *15(OTE)	2002	
Cr35iA:O1.Output[3].0	1	BOOL	
Cr35iA:O1.Output[3].0 - MainProgram/Fan	nuc Robot Control - *16(OTF)	BOOL	
Cr35iA:O1.Output[3].1	0	BOOL	
Cr35iA:O1.Output[3].1 - MainProgram/Fai	nuc Robot Control *17(OTF)	BOOL	
Cr35iA:O1.Output[3].2	0	BOOL	
Cr35iA:O1.Output[3].2 - MainProgram/Fan	nua Pakat Cantral *19(OTE)	BOOL	
Cr35iA:O1.Output[3].3	nuc_Robot_Control - *10(OTE)	BOOL	
A = =	U Robot Control *10(OTE)	BOOL	
Cr35iA:O1.Output[3].3 - MainProgram/Far	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	DOOI	
Cr35iA:01.Output[3].4	U *20(OTE)	BOOL	
Cr35iA:O1.Output[3].4 - MainProgram/Fan		CINIT	
Cr35iA:01.Output[4]	16#f4	SINT	
Cr35iA:O1.Output[4] - MainProgram/Fanu		CINT	
Cr35iA:O1.Output[5]	16#f7	SINT	
Cr35iA:O1.Output[5] - MainProgram/Fanu	, ,	CDVT	
Cr35iA:O1.Output[6]	16#f4	SINT	
Cr35iA:O1.Output[6] - MainProgram/Fanu	c_Robot_Control - *23(MOV)		
E C41 C4 T'		TIMED	M.' B
Fanuc_Control_Stop_Timer	NT.	TIMER	MainProgram
Constant	No		
External Access:	Read/Write		
Fanuc_Control_Stop_Timer - MainProgram	/Fanuc_Robot_Control - *3(TON)	DOOL	
Fanuc_Control_Stop_Timer.DN	0	BOOL	
Fanuc_Control_Stop_Timer.DN - MainProg	ram/Fanuc_Robot_Control - 3(XIC)		
T C() D T		THE CEP	W. B
Fanuc_Start_Prgm_Timer	N	TIMER	MainProgram
Constant	No		

Fanuc_Start_Prgm_Timer (Continued)			
External Access:	Read/Write		
Fanuc_Start_Prgm_Timer - MainProgram/F	anuc_Robot_Control - *5(TON)		
Fanuc_Start_Prgm_Timer.DN	0	BOOL	
Fanuc_Start_Prgm_Timer.DN - MainProgra	m/Fanuc_Robot_Control - 5(XIO)		
d			
HMI_Robot_In_Coord_11	44	INT[10]	Huber_PLC
Maximum Consumers:	11		
Include Connection Status:	n/a		
Send Data State Change Event to Consumer(
Allow Unicast Consumer Connections:	n/a		
Constant	No		
External Access:	Read/Write	72 VT	
HMI_Robot_In_Coord_11[0]	500	INT	
HMI_Robot_In_Coord_11[0] - MainProgra			
HMI_Robot_In_Coord_11[0] - MainProgra		72 VT	
HMI_Robot_In_Coord_11[1]	500	INT	
HMI_Robot_In_Coord_11[1] - MainProgra			
HMI_Robot_In_Coord_11[1] - MainProgra	n/Kuka_Robot_Control - 0(MOV)		
HMI UI PB 12	0	INT	Huber_PLC
Maximum Consumers:	12	21.12	114001_120
Include Connection Status:	n/a		
Send Data State Change Event to Consumer(
Allow Unicast Consumer Connections:	n/a		
Constant	No		
External Access:	Read/Write		
HMI_UI_PB_12.0	0	BOOL	
HMI_UI_PB_12.0 - MainProgram/HMI_UI	- 2(XIC)		
HMI_UI_PB_12.1	0	BOOL	
HMI_UI_PB_12.1 - MainProgram/HMI_UI	- 2(XIO)		
HMI_UI_PB_12.2	0	BOOL	
HMI_UI_PB_12.2 - MainProgram/Kuka_Ro	bot Control - 3(XIC)		
HMI_UI_PB_12.4	0	BOOL	
HMI_UI_PB_12.4 - MainProgram/Fanuc_R	obot_Control - 4(XIC), 5(XIO), 8(XIO)		
HMI_UI_PB_12.4 - MainProgram/Pycomm	- 2(XIC)		
HMI_UI_PB_12.7	0	BOOL	
HMI_UI_PB_12.7 - MainProgram/Robotics	_Control - 1(XIC)		
HMI_UI_PB_12.8	0	BOOL	
HMI_UI_PB_12.8 - MainProgram/HMI_UI	- 7(XIC)		
HMI_UI_PB_12.9	0	BOOL	
HMI_UI_PB_12.9 - MainProgram/HMI_UI	- 8(XIC)		
HMI_UI_PB_12.10	0	BOOL	
HMI_UI_PB_12.10 - MainProgram/HMI_U	I - 9(XIC)		
HMI_UI_PB_12.11	0	BOOL	
HMI_UI_PB_12.11 - MainProgram/HMI_U	I - 10(XIC)		
HMI_UI_PB_12.12	0	BOOL	
HMI_UI_PB_12.12 - MainProgram/HMI_U	I - 11(XIC), 12(XIO)		

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Huber PLC

HMI_UI_PB_12 (Continued)

BOOL HMI UI PB 12.13 0

HMI_UI_PB_12.13 - MainProgram/HMI_UI - 11(XIO), 12(XIC)

R_PI_User_Head_Angle -9 Constant

No

External Access: Read/Write

R_PI_User_Head_Angle - MainProgram/Fanuc_Robot_Control - 22(MOV) R_PI_User_Head_Angle - MainProgram/Kuka_Robot_Control - O(MOV)

R PI User Head Angle - MainProgram/Pycomm - O(MOV)

Run_Mode **BOOL** MainProgram 0

INT

Constant No

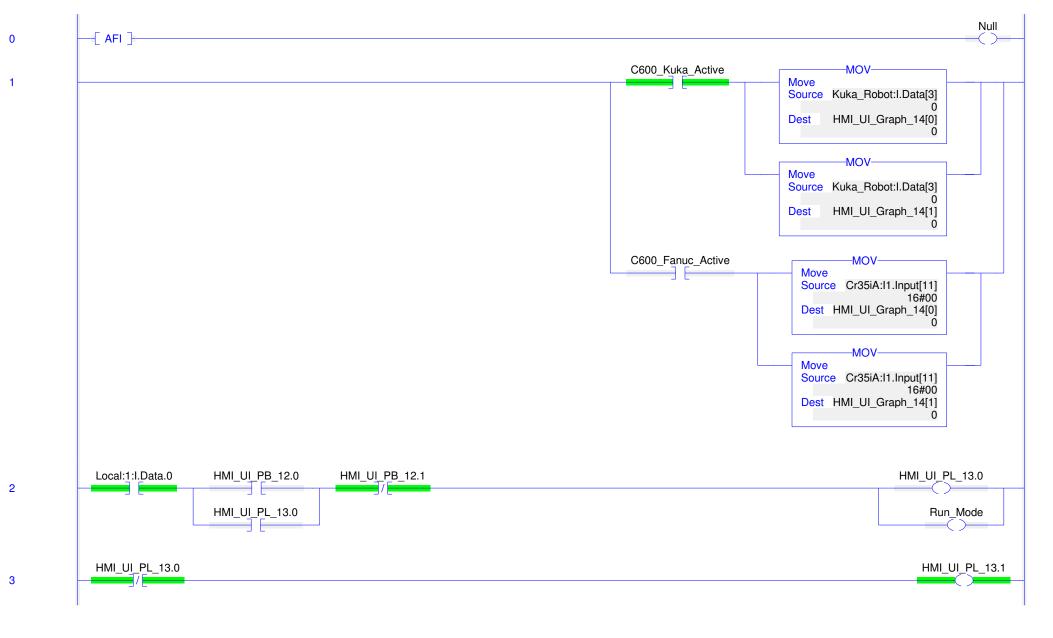
External Access: Read/Write

Run_Mode - MainProgram/Fanuc_Robot_Control - 0(XIC), 1(XIC), 2(XIC), 3(XIC), 5(XIC), 7(XIC), 8(XIC)

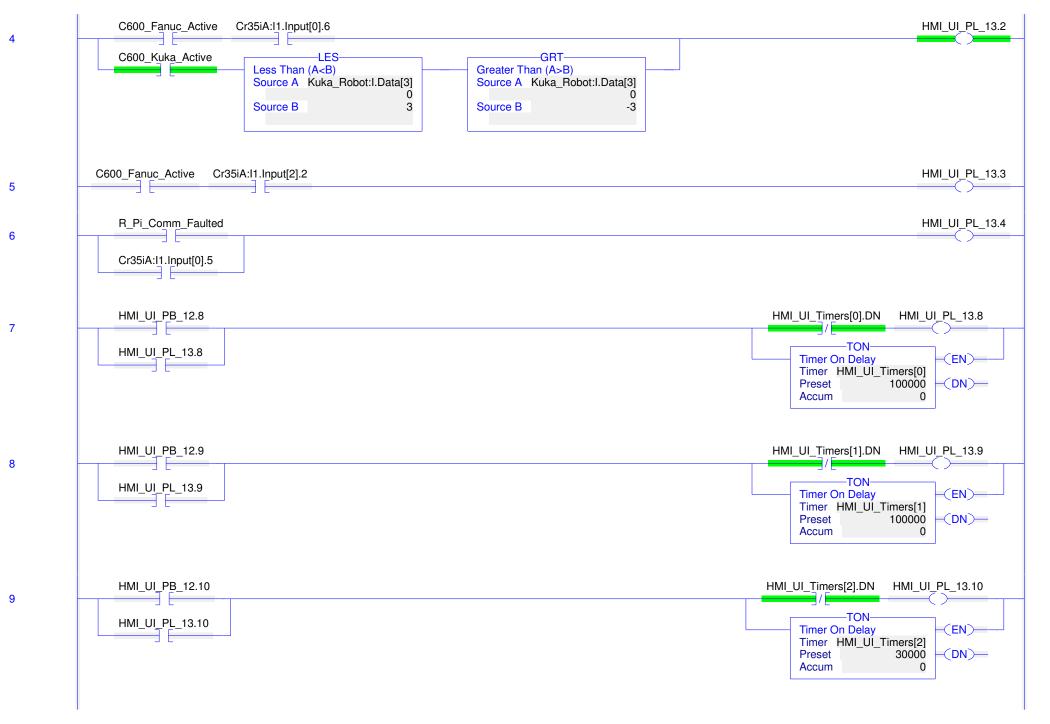
Run_Mode - MainProgram/HMI_UI - *2(OTE)

Run_Mode - MainProgram/Kuka_Robot_Control - 2(XIC)

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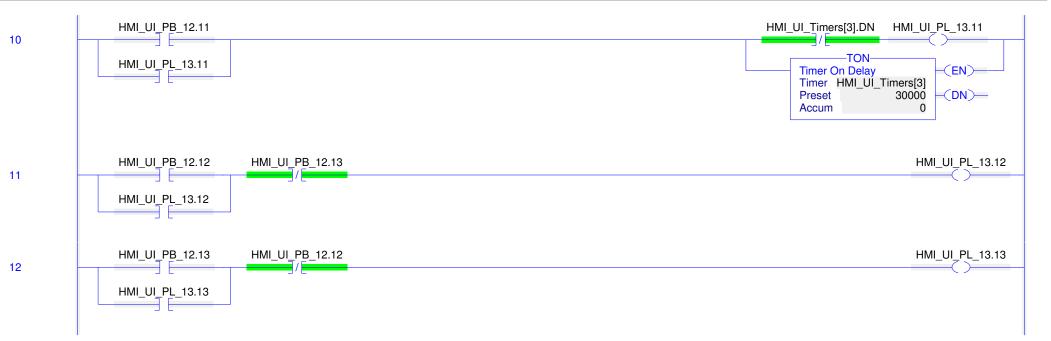


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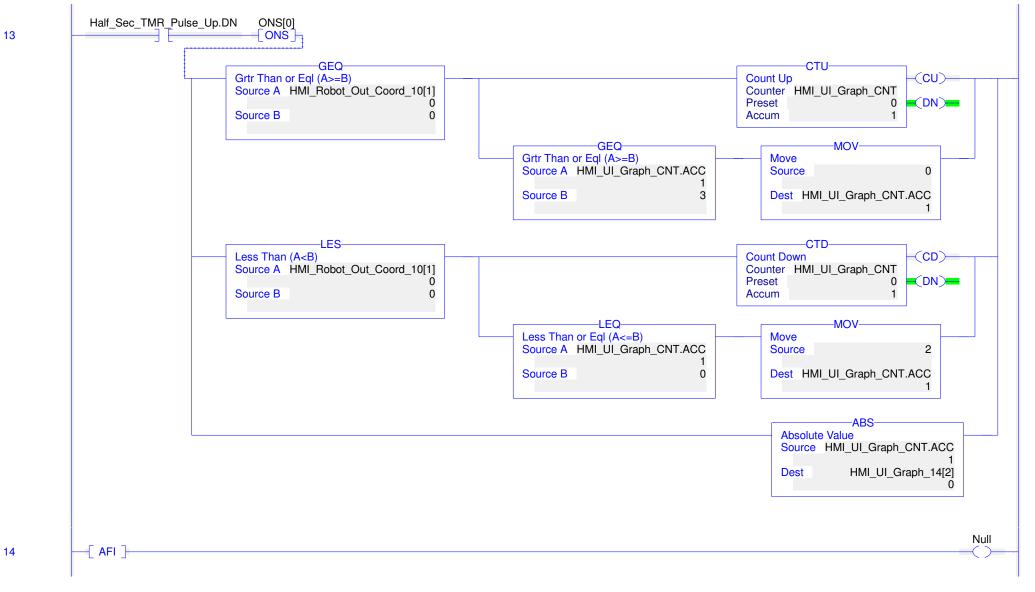


Total number of rungs in routine: 16

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Huber_PLC:MainTask:MainProgram Total number of rungs in routine: 16

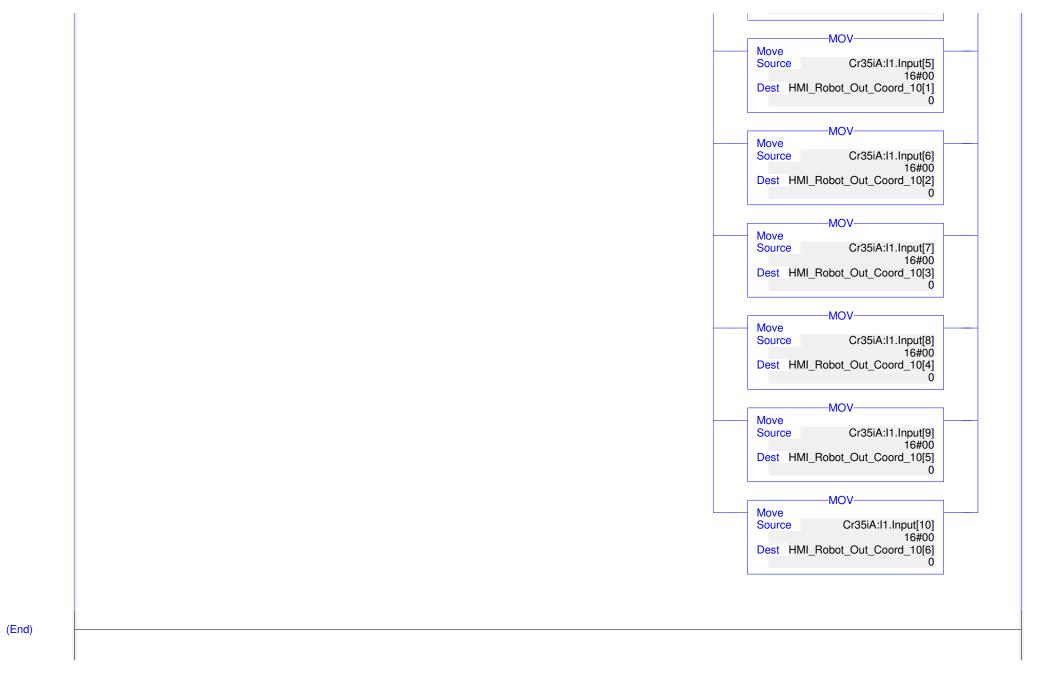


Total number of rungs in routine: 16

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Name	Value	Data Type	Scope
C600_Fanuc_Active	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
C600_Fanuc_Active - MainProgram/HMI_UI			
C600_Fanuc_Active - MainProgram/Robotics	$S_{Control}$ - *2(OTE), 0(XIC), 2(XIC), 2(XIO), 3(XIO)		
C600_Kuka_Active	1	BOOL	MainProgram
Constant	No	200E	Traini Togram
External Access:	Read/Write		
C600_Kuka_Active - MainProgram/HMI_UI			
C600_Kuka_Active - MainProgram/Robotics_			
1 Cr35iA:I1		FR:Standard_Robot_16Bytes:I1:0	Huber_PLC
External Access:	Read/Write	TK.Standard_Robot_ToBytes.11.0	Huber_i de
Cr35iA:I1.Input[0].0	0	BOOL	
Cr35iA:11.Input[0].0 - MainProgram/Fanuc_	Robot Control - 5(XIC) 8(XIC)	BOOL	
Cr35iA:I1.Input[0].1	0	BOOL	
Cr35iA:11.Input[0].1 - MainProgram/Fanuc_	Robot Control - 5(XIC) 8(XIC)	BOOL	
Cr35iA:I1.Input[0].2	0	BOOL	
Cr35iA:11.Input[0].2 - MainProgram/Fanuc_	Robot Control - 5(XIC), 5(XIO), 8(XIC)	5002	
Cr35iA:I1.Input[0].5	0	BOOL	
Cr35iA:11.Input[0].5 - MainProgram/Fanuc_	Robot Control - 5(XIO), 8(XIO)	2002	
Cr35iA:11.Input[0].5 - MainProgram/HMI_U			
Cr35iA:I1.Input[0].6	0	BOOL	
Cr35iA:11.Input[0].6 - MainProgram/HMI_U	II - 4(XIC)		
Cr35iA:I1.Input[0].7	0	BOOL	
A = =	Robot_Control - O(XIC), 1(XIC), 2(XIC), 3(XIC), 5(X		
Cr35iA:I1.Input[2].2	0	BOOL	
Cr35iA:11.Input[2].2 - MainProgram/HMI_U	II - 5(XIC)		
Cr35iA:I1.Input[4]	16#00	SINT	
Cr35iA:11.Input[4] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[5]	16#00	SINT	
Cr35iA:11.Înput[5] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[6]	16#00	SINT	
Cr35iA:I1.Input[6] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[7]	16#00	SINT	
Cr35iA:I1.Input[7] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[8]	16#00	SINT	
Cr35iA:I1.Input[8] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[9]	16#00	SINT	
Cr35iA:I1.Input[9] - MainProgram/HMI_UI	- 15(MOV)		
Cr35iA:I1.Input[10]	16#00	SINT	
Cr35iA:11.Input[10] - MainProgram/HMI_U			
Cr35iA:I1.Input[11]	16#00	SINT	
Cr35iA:11.Input[11] - MainProgram/HMI_UI	7 - 1(MOV)		
Half_Sec_TMR_Pulse_Up		TIMER	Huber_PLC
- •			

Half_Sec_TMR_Pulse_Up (Con	· · · · · · · · · · · · · · · · · · ·		
Constant	No		
External Access:	Read/Write		
	AainProgram/MainRoutine - *0(TON)	n o o v	
Half_Sec_TMR_Pulse_Up.DN	0	BOOL	
	V - MainProgram/HMI_UI - 13(XIC)		
	V - MainProgram/MainRoutine - O(XIC)		
Half_Sec_IMR_Pulse_Up.DN	V - MainProgram/Pycomm - 1(XIC)		
HMI_Robot_Out_Coord_10		INT[10]	Huber_PLC
Maximum Consumers:	10		
Include Connection Status:	n/a		
Send Data State Change Event	t to Consumer(s): No		
Allow Unicast Consumer Con	nections: n/a		
Constant	No		
External Access:	Read/Write		
HMI_Robot_Out_Coord_10[0]		INT	
]] - MainProgram/HMI_UI - *15(MOV)		
HMI_Robot_Out_Coord_10[1]		INT	
] - MainProgram/HMI_UI - *15(MOV), 13(GEQ), 13(LES)		
HMI_Robot_Out_Coord_10[2]		INT	
	?] - MainProgram/HMI_UI - *15(MOV)	73 Y.T.	
HMI_Robot_Out_Coord_10[3]		INT	
	3] - MainProgram/HMI_UI - *15(MOV)	DIT	
HMI_Robot_Out_Coord_10[4]		INT	
	4] - MainProgram/HMI_UI - *15(MOV)	INTE	
HMI_Robot_Out_Coord_10[5]	0 5] - MainProgram/HMI_UI - *15(MOV)	INT	
HMI_Robot_Out_Coord_10[6]		INT	
	6] - MainProgram/HMI_UI - *15(MOV)	IIVI	
HMI_Robot_Out_Coord_10[7]		INT	
	7] - MainProgram/Pycomm - *0(MOV)	1111	
11111_110001_011_0014_10[7	1 Mant rograms yeonan o(Mov)		
I HMI_UI_Graph_14		INT[3]	Huber_PLC
Maximum Consumers:	14	. 2-3	**** -
Include Connection Status:	n/a		
Send Data State Change Event	t to Consumer(s): No		
Allow Unicast Consumer Con			
Constant	No		
External Access:	Read/Write		
HMI_UI_Graph_14[0]	0	INT	
HMI_UI_Graph_14[0] - Mair	nProgram/HMI_UI - *1(MOV)		
HMI_UI_Graph_14[1]	0	INT	
*	nProgram/HMI_UI - *1(MOV)		
HMI_UI_Graph_14[2]	0	INT	
HMI_UI_Graph_14[2] - Mair	nProgram/HMI_UI - *13(ABS)		
HMI_UI_Graph_CNT		COUNTER	MainProgram

HMI_UI_Graph_CNT (Continued)

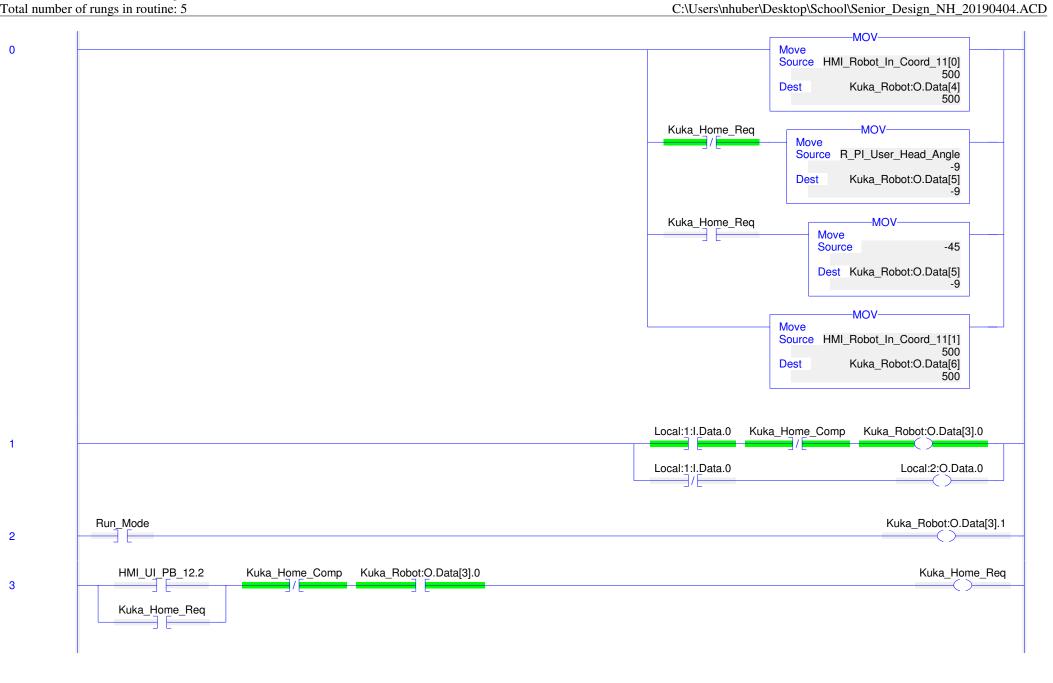
Constant	No		
External Access:	Read/Write		
HMI_UI_Graph_CNT - MainProgram/HMI			
HMI_UI_Graph_CNT.ACC	1	DINT	
	VHMI_UI - *13(MOV), 13(ABS), 13(GEQ), 13(LEQ)		
I HMI_UI_PB_12	0	INT	Huber_PLC
Maximum Consumers:	12		
Include Connection Status:	n/a		
Send Data State Change Event to Consumer	(s): No		
Allow Unicast Consumer Connections:	n/a		
Constant	No		
External Access:	Read/Write		
HMI_UI_PB_12.0	0	BOOL	
HMI_UI_PB_12.0 - MainProgram/HMI_UI	- 2(XIC)		
HMI_UI_PB_12.1	0	BOOL	
HMI_UI_PB_12.1 - MainProgram/HMI_UI	- 2(XIO)		
HMI_UI_PB_12.2	0	BOOL	
HMI_UI_PB_12.2 - MainProgram/Kuka_Ro	obot_Control - 3(XIC)		
HMI_UI_PB_12.4	0	BOOL	
HMI_UI_PB_12.4 - MainProgram/Fanuc_F			
HMI_UI_PB_12.4 - MainProgram/Pycomm	- 2(XIC)		
HMI_UI_PB_12.7	0	BOOL	
HMI_UI_PB_12.7 - MainProgram/Robotics		DOOL	
HMI_UI_PB_12.8	0	BOOL	
HMI_UI_PB_12.8 - MainProgram/HMI_UI		DOOL	
HMI_UI_PB_12.9	0	BOOL	
HMI_UI_PB_12.9 - MainProgram/HMI_UI		DOOL	
HMI_UI_PB_12.10	0	BOOL	
HMI_UI_PB_12.10 - MainProgram/HMI_U		DOOL	
HMI_UI_PB_12.11	0	BOOL	
HMI_UI_PB_12.11 - MainProgram/HMI_U		DOOL	
HMI_UI_PB_12.12	0	BOOL	
HMI_UI_PB_12.12 - MainProgram/HMI_U		BOOL	
HMI_UI_PB_12.13	0	BOOL	
HMI_UI_PB_12.13 - MainProgram/HMI_U	II - II(XIO), IZ(XIC)		
₿ HMI_UI_PL_13	6	INT	Huber_PLC
Maximum Consumers:	13	1111	Huber_r Le
Include Connection Status:	n/a		
Send Data State Change Event to Consumer			
Allow Unicast Consumer Connections:	n/a		
Constant	No		
External Access:	Read/Write		
HMI_UI_PL_13.0	0	BOOL	
HMI_UI_PL_13.0 - MainProgram/HMI_UI			
HMI_UI_PL_13.1	1	BOOL	

HMI_UI_PL_13 (Continued)		
HMI_UI_PL_13.1 - MainProgram/HMI_UI - *3(OTE)	DOOL	
HMI_UI_PL_13.2 1	BOOL	
HMI_UI_PL_13.2 - MainProgram/HMI_UI - *4(OTE)		
HMI_UI_PL_13.2 - MainProgram/Kuka_Robot_Control - 4(XIC		
HMI_UI_PL_13.3 0 HMI_UI_PL_13.3 - MainProgram/HMI_UI - *5(OTE)	BOOL	
The state of the s	DOOL	
HMI_UI_PL_13.4 0	BOOL	
HMI_UI_PL_13.4 - MainProgram/HMI_UI - *6(OTE) HMI_UI_PL_13.7 0	DOOL	
HMI_UI_PL_13.7 0 HMI_UI_PL_13.7 - MainProgram/Robotics_Control - *0(OTE)	BOOL	
HMI_UI_PL_13.8 0		
	BOOL	
HMI_UI_PL_13.8 - MainProgram/HMI_UI - *7(OTE), 7(XIC)	DOOL	
HMI_UI_PL_13.9 0	BOOL	
HMI_UI_PL_13.9 - MainProgram/HMI_UI - *8(OTE), 8(XIC)	DOOL	
HMI_UI_PL_13.10 0 HMI_UI_PL_13.10 - MainProgram/HMI_UI - *9(OTE), 9(XIC)	BOOL	
HMI_UI_PL_13.11 0	BOOL	
HMI_UI_PL_13.11 - MainProgram/HMI_UI - *10(OTE), 10(XI		
HMI UI PL 13.12	BOOL	
HMI_UI_PL_13.12 - MainProgram/HMI_UI - *11(OTE), 11(XI		
HMI_UI_PL_13.13 0	BOOL	
HMI UI PL 13.13 - MainProgram/HMI UI - *12(OTE), 12(XI		
$HMI_UI_FL_IS.IS - MainFlogram/HMI_UI - \cdot IZ(UIE), IZ(XI$	ic)	
A HMI III Timers	TIMER[16]	Huber PLC
HMI_UI_Timers Constant No	TIMER[16]	Huber_PLC
Constant	TIMER[16]	Huber_PLC
Constant No External Access: Read/Write		Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0]	TIMER[16] TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON)	TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0		Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO)	TIMER BOOL	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] <i>HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON)</i> HMI_UI_Timers[0].DN 0 <i>HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO)</i> HMI_UI_Timers[1]	TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON)	TIMER BOOL TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0	TIMER BOOL	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO)	TIMER BOOL TIMER BOOL	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2]	TIMER BOOL TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON)	TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0	TIMER BOOL TIMER BOOL	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO)	TIMER BOOL TIMER BOOL TIMER BOOL	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3]	TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON)	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON)	TIMER BOOL TIMER BOOL TIMER BOOL	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON) HMI_UI_Timers[3].DN 0 HMI_UI_Timers[3].DN - MainProgram/HMI_UI - 10(XIO)	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER	Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON) HMI_UI_Timers[3].DN 0	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER	Huber_PLC Huber_PLC
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON) HMI_UI_Timers[3].DN 0 HMI_UI_Timers[3].DN - MainProgram/HMI_UI - 10(XIO) Kuka_Robot:I External Access: Read/Write	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL -005A:AB767879xx_F_D7BC2DEE:I:0	
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON) HMI_UI_Timers[3].DN 0 HMI_UI_Timers[3].DN - MainProgram/HMI_UI - 10(XIO) Kuka_Robot:I External Access: Read/Write Kuka_Robot:I.Data[0]	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER	
Constant No External Access: Read/Write HMI_UI_Timers[0] HMI_UI_Timers[0] - MainProgram/HMI_UI - *7(TON) HMI_UI_Timers[0].DN 0 HMI_UI_Timers[0].DN - MainProgram/HMI_UI - 7(XIO) HMI_UI_Timers[1] HMI_UI_Timers[1] - MainProgram/HMI_UI - *8(TON) HMI_UI_Timers[1].DN 0 HMI_UI_Timers[1].DN - MainProgram/HMI_UI - 8(XIO) HMI_UI_Timers[2] HMI_UI_Timers[2] - MainProgram/HMI_UI - *9(TON) HMI_UI_Timers[2].DN 0 HMI_UI_Timers[2].DN - MainProgram/HMI_UI - 9(XIO) HMI_UI_Timers[3] HMI_UI_Timers[3] - MainProgram/HMI_UI - *10(TON) HMI_UI_Timers[3].DN 0 HMI_UI_Timers[3].DN - MainProgram/HMI_UI - 10(XIO) Kuka_Robot:I External Access: Read/Write	TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL TIMER BOOL -005A:AB767879xx_F_D7BC2DEE:I:0	

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Kuka_Robot:I (Continued) Kuka_Robot:I.Data[1] Kuka_Robot:I.Data[1] - MainProgram/HMI Kuka_Robot:I.Data[2] Kuka_Robot:I.Data[2] - MainProgram/HMI Kuka_Robot:I.Data[3] Kuka_Robot:I.Data[3] - MainProgram/HMI Kuka_Robot:I.Data[4] Kuka_Robot:I.Data[4] - MainProgram/HMI Kuka_Robot:I.Data[5] Kuka_Robot:I.Data[6] - MainProgram/HMI Kuka_Robot:I.Data[6] Kuka_Robot:I.Data[6] - MainProgram/HMI	0 I_UI - 15(MOV) 0 I_UI - 1(MOV), 15(MOV), 4(GRT), 4(LES) 0 I_UI - 15(MOV) 0 I_UI - 15(MOV) 0	INT INT INT INT INT INT INT	
Local:1:I		AB:Embedded_IQ16F:I:0	Huber_PLC
External Access:	Read/Write		
Local:1:I.Data.0 Local:1:I.Data.0 - MainProgram/HMI_UI - Local:1:I.Data.0 - MainProgram/Kuka_Rob		BOOL	
Null	0	BOOL	MainProgram
Constant	No		-
External Access:	Read/Write		
Null - MainProgram/HMI_UI - *0(OTE), *1	4(OTE)		
I ons		BOOL[128]	Huber_PLC
		DUULII 201	Huber_PLC
	No	B 0 0 E[120]	
Constant	No Pand/Write	2002[120]	
Constant External Access:	Read/Write		
Constant External Access: ONS[0]	Read/Write 0	BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS	Read/Write 0	BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONSONS[1])	Read/Write 0 0 0		
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control -	Read/Write 0 7) 0 *I(ONS)	BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2]	Read/Write 0 0 0	BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control -	Read/Write 0 7) 0 *I(ONS)	BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2]	Read/Write 0 5) 0 *I(ONS)	BOOL BOOL	MainProgram
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *I(ONS)	Read/Write 0 7) 0 *I(ONS) 0	BOOL BOOL	MainProgram
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted	Read/Write 0 7) 0 *I(ONS) 0	BOOL BOOL	MainProgram
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_	Read/Write 0 S) 0 *I(ONS) 0 No Read/Write UI - 6(XIC)	BOOL BOOL	MainProgram
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access:	Read/Write 0 S) 0 *I(ONS) 0 No Read/Write UI - 6(XIC)	BOOL BOOL	MainProgram
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_R_Pi_Comm_Faulted - MainProgram/Pycom	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU)	BOOL BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_ R_Pi_Comm_Faulted - MainProgram/Pycom Run_Mode	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU)	BOOL BOOL	MainProgram MainProgram
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_ R_Pi_Comm_Faulted - MainProgram/Pycom Run_Mode Constant	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU) 0 No	BOOL BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_ R_Pi_Comm_Faulted - MainProgram/Pycom Run_Mode Constant External Access:	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU) 0 No Read/Write	BOOL BOOL BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONSONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONSONS[2]) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_R_Pi_Comm_Faulted - MainProgram/Pycom Run_Mode Constant External Access: Run_Mode - MainProgram/Fanuc_Robot_Constant External Access: Run_Mode - MainProgram/Fanuc_Robot_Constant	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU) 0 No Read/Write 0 No Read/Write 0 No Read/Write 0 No Read/Write	BOOL BOOL BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONSONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONSONS[2]) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_R_Pi_Comm_Faulted - MainProgram/Pycom Run_Mode Constant External Access: Run_Mode - MainProgram/Fanuc_Robot_Constant External Access: Run_Mode - MainProgram/Fanuc_Robot_Constant External Access: Run_Mode - MainProgram/HMI_UI - *2(OTA)	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU) 0 No Read/Write control - 0(XIC), 1(XIC), 2(XIC), 3(XIC), 5(XIC), 7(XIC) TE)	BOOL BOOL BOOL BOOL	
Constant External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS) ONS[1] ONS[1] - MainProgram/Robotics_Control - ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS) R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_R_Pi_Comm_Faulted - MainProgram/Pycom Run_Mode Constant External Access: Run_Mode - MainProgram/Fanuc_Robot_Control Constant External Access: Run_Mode - MainProgram/Fanuc_Robot_Control Constant C	Read/Write 0 5) 0 *I(ONS) 0 No Read/Write UI - 6(XIC) nm - *I(OTL), *2(OTU) 0 No Read/Write control - 0(XIC), 1(XIC), 2(XIC), 3(XIC), 5(XIC), 7(XIC) TE)	BOOL BOOL BOOL BOOL	

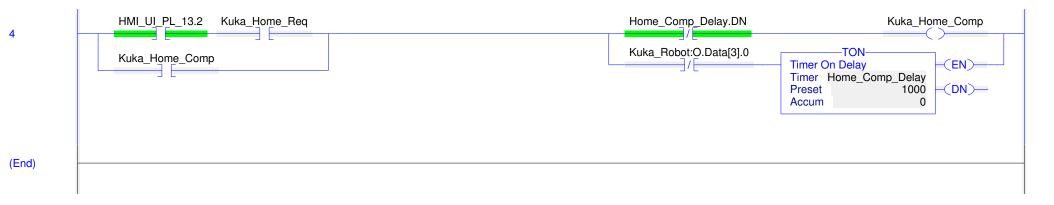
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Kuka_Robot_Control - Ladder Diagram

Huber_PLC:MainTask:MainProgram
Total number of rungs in routine: 5

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Name	Value	Data Type	Scope
HMI_Robot_In_Coord_11		INT[10]	Huber_PLC
	11		
	n/a		
Send Data State Change Event to Consumer(s)	: No		
	n/a		
Constant	No		
External Access:	Read/Write		
HMI_Robot_In_Coord_11[0]		INT	
HMI_Robot_In_Coord_11[0] - MainProgram/			
HMI_Robot_In_Coord_11[0] - MainProgram/			
HMI_Robot_In_Coord_11[1]		INT	
HMI_Robot_In_Coord_11[1] - MainProgram/			
HMI_Robot_In_Coord_11[1] - MainProgram/			
IIIII_Robot_III_Cooru_II[1] Huili rogram	Runa_Robbi_Control o(N201)		
∄ HMI_UI_PB_12	0	INT	Huber_PLC
	12		114601_1 26
	n/a		
Send Data State Change Event to Consumer(s)			
. ,	n/a		
	No		
External Access:	Read/Write		
HMI_UI_PB_12.0	0	BOOL	
HMI_UI_PB_12.0 - MainProgram/HMI_UI - 2	•	BOOL	
HMI_UI_PB_12.1	0	BOOL	
HMI_UI_PB_12.1 - MainProgram/HMI_UI - 2	~	BOOL	
HMI_UI_PB_12.2	()	BOOL	
HMI_UI_PB_12.2 - MainProgram/Kuka_Robo	-	BOOL	
HMI_UI_PB_12.4		BOOL	
HMI_UI_PB_12.4 - MainProgram/Fanuc_Rol		BOOL	
HMI_UI_PB_12.4 - MainProgram/Panuc_Rou HMI_UI_PB_12.4 - MainProgram/Pycomm - 2			
	2(AIC)	BOOL	
HMI_UI_PB_12.7 HMI_UI_PB_12.7 MainProgram/Polyotics_C	U	BOOL	
HMI_UI_PB_12.7 - MainProgram/Robotics_C		DOOL	
HMI_UI_PB_12.8	0 7(VIC)	BOOL	
HMI_UI_PB_12.8 - MainProgram/HMI_UI - 1	/(XIC)	DOOL	
HMI_UI_PB_12.9	0	BOOL	
HMI_UI_PB_12.9 - MainProgram/HMI_UI - 8	S(XIC)	DOOL	
HMI_UI_PB_12.10	0	BOOL	
HMI_UI_PB_12.10 - MainProgram/HMI_UI -	$\frac{\partial g(XIC)}{\partial x}$	DOOT	
HMI_UI_PB_12.11	0	BOOL	
HMI_UI_PB_12.11 - MainProgram/HMI_UI -		BOOK	
HMI_UI_PB_12.12	0	BOOL	
HMI_UI_PB_12.12 - MainProgram/HMI_UI -	II(XIC), I2(XIO)	7.07	
HMI_UI_PB_12.13	0	BOOL	
HMI_UI_PB_12.13 - MainProgram/HMI_UI -	II(XIO), I2(XIC)		
(I)		D.VIII	W. 1. DV. G
HMI_UI_PL_13		INT	Huber_PLC
Maximum Consumers:	13		

Huber_PLC:MainTask:MainProgram

HMI UI PL 13 (Continued) **Include Connection Status:** n/a Send Data State Change Event to Consumer(s): No Allow Unicast Consumer Connections: n/a Constant No **External Access:** Read/Write **HMI UI PL 13.0 BOOL** HMI UI PL 13.0 - MainProgram/HMI UI - *2(OTE), 2(XIC), 3(XIO) **BOOL HMI UI PL 13.1** HMI UI PL 13.1 - MainProgram/HMI UI - *3(OTE) **BOOL** HMI UI PL 13.2 HMI_UI_PL_13.2 - MainProgram/HMI_UI - *4(OTE) HMI_UI_PL_13.2 - MainProgram/Kuka_Robot_Control - 4(XIC) **BOOL** HMI_UI_PL_13.3 HMI_UI_PL_13.3 - MainProgram/HMI_UI - *5(OTE) HMI_UI_PL_13.4 **BOOL** HMI_UI_PL_13.4 - MainProgram/HMI_UI - *6(OTE) HMI_UI_PL_13.7 **BOOL** HMI_UI_PL_13.7 - MainProgram/Robotics_Control - *0(OTE) HMI_UI_PL 13.8 **BOOL** HMI_UI_PL_13.8 - MainProgram/HMI_UI - *7(OTE), 7(XIC) **HMI UI PL 13.9 BOOL** HMI_UI_PL_13.9 - MainProgram/HMI_UI - *8(OTE), 8(XIC) **HMI UI PL 13.10 BOOL** HMI UI PL 13.10 - MainProgram/HMI UI - *9(OTE), 9(XIC) **HMI UI PL 13.11 BOOL** HMI UI PL 13.11 - MainProgram/HMI UI - *10(OTE), 10(XIC) **HMI UI PL 13.12 BOOL** HMI_UI_PL_13.12 - MainProgram/HMI_UI - *11(OTE), 11(XIC) **HMI UI PL 13.13 BOOL** HMI UI PL 13.13 - MainProgram/HMI UI - *12(OTE), 12(XIC) **Home Comp Delay TIMER** MainProgram Constant No External Access: Read/Write Home Comp Delay - MainProgram/Kuka Robot Control - *4(TON) Home Comp Delay.DN **BOOL** Home_Comp_Delay.DN - MainProgram/Kuka_Robot_Control - 4(XIO) Kuka_Home_Comp 0 **BOOL** MainProgram Constant No External Access: Read/Write Kuka_Home_Comp - MainProgram/Kuka_Robot_Control - *4(OTE), 1(XIO), 3(XIO), 4(XIC) Kuka Home Req 0 **BOOL** MainProgram Constant No External Access: Read/Write Kuka Home Req - MainProgram/Kuka Robot Control - *3(OTE), 0(XIC), 0(XIO), 3(XIC), 4(XIC)

■ Kuka_Robot:O		_005A:AB767879xx_F_D2EC9ED2:O:0	Huber_PLC
External Access:	Read/Write		
Kuka_Robot:O.Data[0]	155	INT	
Kuka_Robot:O.Data[0] - Research/Ku	uka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[1]	21	INT	
Kuka_Robot:O.Data[1] - Research/Ku	uka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[2]	67	INT	
Kuka_Robot:O.Data[2] - Research/Ku	uka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[3].0	1	BOOL	
Kuka_Robot:O.Data[3].0 - MainProgr	ram/Kuka_Robot_Control - *1(OTE), 3(XIC), 4(XIO)		
Kuka_Robot:O.Data[3].1	0	BOOL	
Kuka_Robot:O.Data[3].1 - MainProgr	ram/Kuka_Robot_Control - *2(OTE)		
Kuka_Robot:O.Data[4]	500	INT	
Kuka_Robot:O.Data[4] - MainProgra	m/Kuka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[5]	-9	INT	
Kuka_Robot:O.Data[5] - MainProgra	m/Kuka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[6]	500	INT	
Kuka_Robot:O.Data[6] - MainProgra	m/Kuka_Robot_Control - *0(MOV)		
_			
Local:1:I		AB:Embedded_IQ16F:I:0	Huber_PLC
External Access:	Read/Write		
Local:1:I.Data.0	1	BOOL	
Local:1:I.Data.0 - MainProgram/HMI	_UI - 2(XIC)		
Local:1:I.Data.0 - MainProgram/Kuka	n_Robot_Control - 1(XIC), 1(XIO)		
a.			
Local:2:O		AB:Embedded_OB16:O:0	Huber_PLC
External Access:	Read/Write		
Local:2:O.Data.0	0	BOOL	
Local:2:O.Data.0 - MainProgram/Kuk	xa_Robot_Control - *1(OTE)		
a			
R_PI_User_Head_Angle	-9	INT	Huber_PLC
Constant	No		
External Access:	Read/Write		
R_PI_User_Head_Angle - MainProgra			
R_PI_User_Head_Angle - MainProgra			
R_PI_User_Head_Angle - MainProgra	am/Pycomm - 0(MOV)		
Run_Mode	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
	bot_Control - 0(XIC), 1(XIC), 2(XIC), 3(XIC), 5(XIC), 7(XIC), $8(XIC)$	
Run_Mode - MainProgram/HMI_UI -			
Run_Mode - MainProgram/Kuka_Rob	ot_Control - 2(XIC)		

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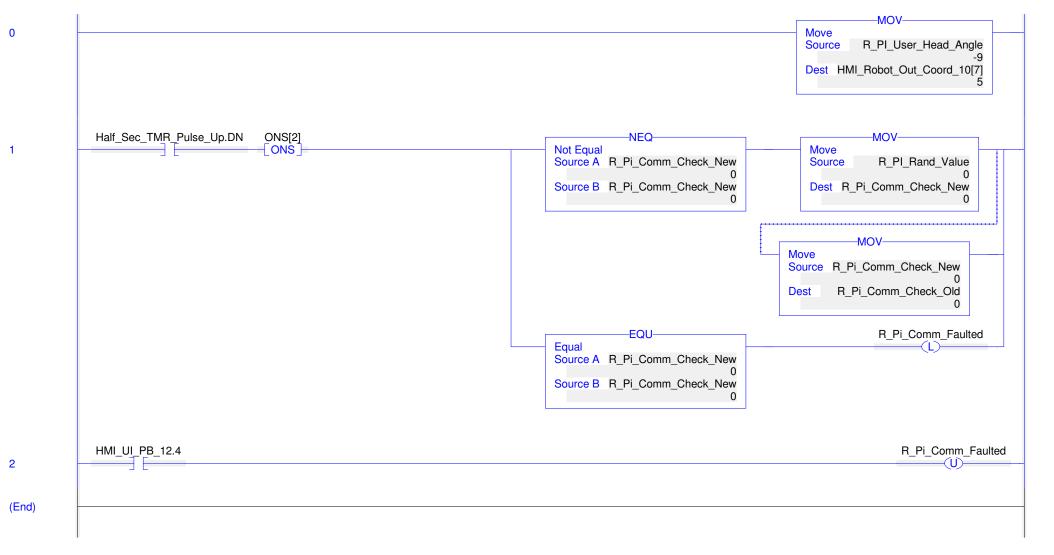
Huber_PLC:MainTask:MainProgram Total number of rungs in routine: 5



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Name	Value	Data Type	Scope
Half_Sec_TMR_Pulse_Down		TIMER	Huber_PLC
Constant	No		
External Access:	Read/Write		
Half_Sec_TMR_Pulse_Down - MainProgr	ram/MainRoutine - *0(TON)		
Half_Sec_TMR_Pulse_Down.DN	0	BOOL	
Half_Sec_TMR_Pulse_Down.DN - MainP	rogram/MainRoutine - 0(XIO)		
Half_Sec_TMR_Pulse_Up		TIMER	Huber_PLC
Constant	No		
External Access:	Read/Write		
Half_Sec_TMR_Pulse_Up - MainProgram	n/MainRoutine - *0(TON)		
Half_Sec_TMR_Pulse_Up.DN	0	BOOL	
Half_Sec_TMR_Pulse_Up.DN - MainProgram/HMI_UI - 13(XIC)			
Half_Sec_TMR_Pulse_Up.DN - MainProgram/MainRoutine - O(XIC)			
Half_Sec_TMR_Pulse_Up.DN - MainProg	gram/Pycomm - 1(XIC)		

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Norma	Vales	Doto Tumo	C
Name	Value	Data Type	Scope
Half_Sec_TMR_Pulse_Up	N	TIMER	Huber_PLC
Constant	No		
External Access:	Read/Write		
Half_Sec_TMR_Pulse_Up - MainProg		P.O.O.I	
Half_Sec_TMR_Pulse_Up.DN	0	BOOL	
Half_Sec_TMR_Pulse_Up.DN - MainI			
Half_Sec_TMR_Pulse_Up.DN - MainI			
Half_Sec_TMR_Pulse_Up.DN - MainI	Program/Pycomm - I(XIC)		
HMI_Robot_Out_Coord_10		INT[10]	Huber_PLC
Maximum Consumers:	10		-
Include Connection Status:	n/a		
Send Data State Change Event to Cons			
Allow Unicast Consumer Connections:			
Constant	No		
External Access:	Read/Write		
HMI_Robot_Out_Coord_10[0]	0	INT	
HMI_Robot_Out_Coord_10[0] - Main	nProgram/HMI UI - *15(MOV)		
HMI_Robot_Out_Coord_10[1]	0	INT	
	nProgram/HMI_UI - *15(MOV), 13(GEQ), 13(LES)		
HMI_Robot_Out_Coord_10[2]	0	INT	
HMI_Robot_Out_Coord_10[2] - Main	*		
HMI_Robot_Out_Coord_10[3]	0	INT	
HMI_Robot_Out_Coord_10[3] - Main	*		
HMI_Robot_Out_Coord_10[4]	0	INT	
HMI_Robot_Out_Coord_10[4] - Main	nProgram/HMI UI - *15(MOV)		
HMI_Robot_Out_Coord_10[5]	0	INT	
HMI_Robot_Out_Coord_10[5] - Main	nProgram/HMI UI - *15(MOV)		
HMI_Robot_Out_Coord_10[6]	0	INT	
HMI_Robot_Out_Coord_10[6] - Main	nProgram/HMI UI - *15(MOV)		
HMI_Robot_Out_Coord_10[7]	5	INT	
HMI_Robot_Out_Coord_10[7] - Main	nProgram/Pycomm - *0(MOV)		
d			W. 1. 52.5
HMI_UI_PB_12	0	INT	Huber_PLC
Maximum Consumers:	12		
Include Connection Status:	n/a		
Send Data State Change Event to Cons			
Allow Unicast Consumer Connections:			
Constant	No		
External Access:	Read/Write		
HMI_UI_PB_12.0	0	BOOL	
HMI_UI_PB_12.0 - MainProgram/HM	$MI_UI - 2(XIC)$		
HMI_UI_PB_12.1	0	BOOL	
HMI_UI_PB_12.1 - MainProgram/HM	$MI_UI - 2(XIO)$		
HMI_UI_PB_12.2	0	BOOL	
HMI_UI_PB_12.2 - MainProgram/Ku	ka_Robot_Control - 3(XIC)		
HMI_UI_PB_12.4	0	BOOL	

HMI_UI_PB_12 (Continued) HMI_UI_PB_12.4 - MainProgram/Fanuc_Ro.			
HMI_UI_PB_12.4 - MainProgram/Pycomm - HMI_UI_PB_12.7 HMI_UI_PB_12.7 MainProgram/Polyation 4	0	BOOL	
HMI_UI_PB_12.7 - MainProgram/Robotics_0 HMI_UI_PB_12.8 HMI_UI_PB_12.8 - MainProgram/HMI_UI -	0	BOOL	
HMI_UI_PB_12.9 HMI_UI_PB_12.9 - MainProgram/HMI_UI -	0	BOOL	
HMI_UI_PB_12.10 HMI_UI_PB_12.10 - MainProgram/HMI_UI	0 - 9(XIC)	BOOL	
HMI_UI_PB_12.11 HMI_UI_PB_12.11 - MainProgram/HMI_UI - HMI_UI_PB_12.12		BOOL	
HMI_UI_PB_12.12 HMI_UI_PB_12.12 - MainProgram/HMI_UI HMI_UI_PB_12.13	0 - 11(XIC), 12(XIO) 0	BOOL BOOL	
HMI_UI_PB_12.13 - MainProgram/HMI_UI		2002	
ONS Constant	No D. Law :	BOOL[128]	Huber_PLC
External Access: ONS[0] ONS[0] - MainProgram/HMI_UI - *13(ONS)	Read/Write 0	BOOL	
ONS[1] ONS[1] - MainProgram/Robotics_Control - *	0 I(ONS)	BOOL	
ONS[2] ONS[2] - MainProgram/Pycomm - *1(ONS)	0	BOOL	
R_Pi_Comm_Check_New Constant External Access: R_Pi_Comm_Check_New - MainProgram/Pyo	0 No Read/Write comm - *1(MOV), 1(EQU), 1(MOV), 1(NEQ)	SINT	MainProgram
R_Pi_Comm_Check_Old Constant External Access: R_Pi_Comm_Check_Old - MainProgram/Pyce	0 No Read/Write omm - *I(MOV)	SINT	MainProgram
R_Pi_Comm_Faulted Constant External Access: R_Pi_Comm_Faulted - MainProgram/HMI_U R_Pi_Comm_Faulted - MainProgram/Pycomm		BOOL	MainProgram
R_PI_Rand_Value Constant External Access: R_PI_Rand_Value - MainProgram/Pycomm -	0 No Read/Write I(MOV)	SINT	MainProgram

Pycomm - Routine Tag Listing Huber_PLC:MainTask:MainProgram

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¶ R_PI_User_Head_Angle -9 INT Huber_PLC

Constant

External Access: Read/Write

R_PI_User_Head_Angle - MainProgram/Fanuc_Robot_Control - 22(MOV)

R_PI_User_Head_Angle - MainProgram/Kuka_Robot_Control - 0(MOV)

R_PI_User_Head_Angle - MainProgram/Pycomm - O(MOV)

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Huber_PLC:MainTask:MainProgram Total number of rungs in routine: 4



Name	Value	Data Type	Scope
C600_Fanuc_Active	0	BOOL	MainProgram
Constant	No		•
External Access:	Read/Write		
C600_Fanuc_Active - MainProgram	m/HMI_UI - 1(XIC), 15(XIC), 4(XIC), 5(XIC)		
C600_Fanuc_Active - MainProgram	m/Robotics_Control - *2(OTE), 0(XIC), 2(XIC), 2(XIO), 3(XIO)	
C600_Kuka_Active	1	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
	n/HMI_UI - 1(XIC), 15(XIC), 4(XIC)		
C600_Kuka_Active - MainProgram	n/Robotics_Control - *3(OTE)		
C600_Robot_Active_ONS	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
C600_Robot_Active_ONS - MainPi	rogram/Robotics_Control - *1(OTE), 2(XIC), 2	$\mathcal{C}(XIO)$	
∄ HMI_UI_PB_12	0	INT	Huber_PLC
Maximum Consumers:	12		
Include Connection Status:	n/a		
Send Data State Change Event to C			
Allow Unicast Consumer Connection	ons: n/a		
Constant	No		
External Access:	Read/Write		
HMI_UI_PB_12.0	0	BOOL	
HMI_UI_PB_12.0 - MainProgram/		DOOL	
HMI_UI_PB_12.1	0	BOOL	
HMI_UI_PB_12.1 - MainProgram/	HMI_UI - 2(XIO)	DOOL	
HMI_UI_PB_12.2	(V 1	BOOL	
HMI_UI_PB_12.2 - MainProgram/	'Kuka_Robot_Control - 3(XIC)	DOOL	
HMI_UI_PB_12.4	VErrore Bahat Control 4(VIC) 5(VIO) 9(VI	BOOL	
HMI_UI_PB_12.4 - MainProgram/ HMI_UI_PB_12.4 - MainProgram/	/Fanuc_Robot_Control - 4(XIC), 5(XIO), 8(XIO)	<i>)</i>)	
HMI_UI_PB_12.7	0	BOOL	
HMI_UI_PB_12.7 - MainProgram/	•	BOOL	
HMI_UI_PB_12.8	()	BOOL	
HMI_UI_PB_12.8 - MainProgram/	•	DOOL	
HMI_UI_PB_12.9	0	BOOL	
HMI_UI_PB_12.9 - MainProgram/		BOOE	
HMI_UI_PB_12.10	0	BOOL	
HMI_UI_PB_12.10 - MainProgran	n/HMI_UI - 9(XIC)	BOOL	
HMI_UI_PB_12.11	0	BOOL	
HMI_UI_PB_12.11 - MainProgran	n/HMI UI - 10(XIC)		
HMI_UI_PB_12.12	0	BOOL	
HMI_UI_PB_12.12 - MainProgran	n/HMI_UI - 11(XIC), 12(XIO)		
HMI_UI_PB_12.13	0	BOOL	
HMI_UI_PB_12.13 - MainProgran	n/HMI_UI - 11(XIO), 12(XIC)		

∄ HMI_UI_PL_13	6	INT	Huber_PLC
Maximum Consumers:	13		
Include Connection Status:	n/a		
Send Data State Change Event to	Consumer(s): No		
Allow Unicast Consumer Connec			
Constant	No		
External Access:	Read/Write		
HMI_UI_PL_13.0	0	BOOL	
HMI_UI_PL_13.0 - MainProgra	um/HMI_UI - *2(OTE), 2(XIC), 3(XIO)		
HMI_UI_PL_13.1	1	BOOL	
HMI_UI_PL_13.1 - MainProgra	um/HMI_UI - *3(OTE)		
HMI_UI_PL_13.2	1	BOOL	
HMI UI PL 13.2 - MainProgra	um/HMI UI - *4(OTE)		
HMI UI PL 13.2 - MainProgra	um/Kuka_Robot_Control - 4(XIC)		
HMI_UI_PL_13.3	0	BOOL	
HMI_UI_PL_13.3 - MainProgra	um/HMI UI - *5(OTE)		
HMI UI PL 13.4	0	BOOL	
HMI_UI_PL_13.4 - MainProgra	um/HMI UI - *6(OTE)		
HMI_UI_PL_13.7	0	BOOL	
HMI_UI_PL_13.7 - MainProgra	um/Robotics Control - *0(OTE)		
HMI_UI_PL_13.8	- 0	BOOL	
HMI_UI_PL_13.8 - MainProgra	um/HMI UI - *7(OTE), 7(XIC)		
HMI_UI_PL_13.9	0	BOOL	
HMI_UI_PL_13.9 - MainProgra	um/HMI UI - *8(OTE), 8(XIC)		
HMI_UI_PL_13.10	0	BOOL	
HMI_UI_PL_13.10 - MainProgr	ram/HMI_UI - *9(OTE), 9(XIC)		
HMI_UI_PL_13.11	0	BOOL	
HMI_UI_PL_13.11 - MainProgr	ram/HMI_UI - *10(OTE), 10(XIC)		
HMI_UI_PL_13.12	0	BOOL	
HMI_UI_PL_13.12 - MainProgi	ram/HMI_UI - *11(OTE), 11(XIC)		
HMI_UI_PL_13.13	0	BOOL	
HMI_UI_PL_13.13 - MainProgr	ram/HMI_UI - *12(OTE), 12(XIC)		
fil one		70077400	
1 ONS		BOOL[128]	Huber_PLC
Constant	No		
External Access:	Read/Write	7.00	
ONS[0]	0	BOOL	
ONS[0] - MainProgram/HMI_U		DOOL	
ONS[1]	0	BOOL	
ONS[1] - MainProgram/Robotic		DOOY	
ONS[2]	0	BOOL	
ONS[2] - MainProgram/Pycomr	n - *I(ONS)		

Kuka_Control - Ladder Diagram
Huber_PLC:MainTask:Research
Total number of rungs in routine: 1

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JSR
Jump To Subroutine
Routine Name Kuka_Robot_Control

(End)

Kuka_Control - Routine Tag Listing Huber_PLC:MainTask:Research

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Name No Tags Exist Value Data Type Scope

Total number of rungs in routine: 1



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Name	Value	Data Type	Scope
Debug	0	BOOL	Research
Constant	No		
External Access:	Read/Write		
Debug - Research/Kuka_Robot_Contr	ol - O(XIO)		
■ Kuka_Robot:O		_005A:AB767879xx_F_D2EC9ED2:O:0	Huber_PLC
External Access:	Read/Write		
Kuka_Robot:O.Data[0]	155	INT	
Kuka_Robot:O.Data[0] - Research/Kı	uka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[1]	21	INT	
Kuka_Robot:O.Data[1] - Research/Ku	uka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[2]	67	INT	
Kuka_Robot:O.Data[2] - Research/Ku	uka_Robot_Control - *0(MOV)		
Kuka_Robot:O.Data[3].0	1	BOOL	
	ram/Kuka_Robot_Control - *1(OTE), 3(XIC), 4(XIO)		
Kuka_Robot:O.Data[3].1	0	BOOL	
Kuka_Robot:O.Data[3].1 - MainProg	ram/Kuka_Robot_Control - *2(OTE)		
Kuka_Robot:O.Data[4]	500	INT	
Kuka_Robot:O.Data[4] - MainProgra			
Kuka_Robot:O.Data[5]	-9	INT	
Kuka_Robot:O.Data[5] - MainProgra			
Kuka_Robot:O.Data[6]	500	INT	
Kuka_Robot:O.Data[6] - MainProgra	ım/Kuka_Robot_Control - *0(MOV)		
1 X_CAM	155	INT	Huber_PLC
Constant	No		
External Access:	Read/Write		
X_CAM - Research/Kuka_Robot_Cont	trol - O(MOV)		
¶ Y_CAM	21	INT	Huber_PLC
Constant	No	22.12	114001_120
External Access:	Read/Write		
Y_CAM - Research/Kuka_Robot_Cont			
∄ Z_CAM	67	INT	Huber_PLC
Constant	No	11.1	IIuooi_i De
External Access:	Read/Write		
Z_CAM - Research/Kuka_Robot_Cont			
2_0/11/1 Researchy Nama_Robbi_Cont			

STRING - Predefined String Type Huber_PLC (Controller)

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Data type Name: STRING

Description:

Size: 88 byte(s)

4				
Name	Data Type	Style	Description	External Access
LEN	DINT	Decimal		Read/Writ
				e
DATA	SINT[82]	ASCII		Read/Writ
				e

CompactLogix5323E-QB1 System: Local Modules

¶ Local: [0] 1769-L23E-QB1 Huber PLC

Type: 1769-L23E-QB1 CompactLogix5323E-QB1 Parent: Controller

Vendor: Ronkwell-Automation/Allen-Bradley Vendor ID:

Exact Match Slot: Electronic Keying: Revision: 20.14 Status: Standby Module Fault: Offline Inhibit Flag Off

♣ Local: 1769-L23E-QB1 Ethernet Port LocalENB

1769-L23E-QB1 Ethernet Port Parent: Controller Type:

10/100 Mbps Ethernet Port

on CompactLogix5323E-QB1

Vendor: Rockwell Automation/Allen-Bradley Vendor ID:

Slot: IP Address or Host Name: 192.168.1.150

Disabled

Electronic Keying: Revision: 20.11 Status: Standby Module Fault: Offline

Inhibit Flag Off

III Local: CompactBus Local

CompactBus 1769 Virtual Backplane Adapter Parent: Controller Type:

Vendor: Rockwell Automation/Allen-Bradley Vendor ID:

Slot: 3 Electronic Keying: **Exact Match** 20.11 Revision: Status: Standby Module Fault: Offline Inhibit Flag Off

Ethernet : LocalENB

Path: Local: [1] LocalENB

FANUC Robot/A Cr35iA

LocalENB FANUC Robot/A EtherNet/IP Robot Type: Parent:

Vendor: **FANUC Robotics America** Vendor ID: 356

Compatible Keying IP Address or Host Name: 192.168.1.154 Electronic Keying: Revision: 2.1 Standby Status: Offline Inhibit Flag Module Fault: On RPI: 32 ms Input Type: Unicast Use Unicast: Input Trigger: Cyclic n/a

AB76/78/79xx-F Kuka Robot

AB76/78/79xx-F ABX EtherNet/IP(TM) LocalENB Type: Parent:

Vendor: Vendor ID: 90 **MUAS**tendustrial Networks AB

IP Address or Host Name: 192.168.1.155 Electronic Keying: Compatible Keying

Revision: 3.28 Status: Standby Module Fault: Offline Inhibit Flag Off RPI: 10 ms Input Type: Unicast Input Trigger: Use Unicast: Cyclic n/a

Embedded I/O: Local

Path: Local: [3] Local

[1] Embedded IQ16F Discrete_Inputs

Type: Embedded IQ16F 16 Point 24V DC High Speed Parent: Local Vendor: Reput Well Automation/Allen-Bradley Vendor ID: 1

Slot: Electronic Keying: Compatible Keying 1 Revision: 3.1 Standby Status: Inhibit Flag Off Module Fault: Offline RPI: 20 ms Use Unicast: n/a

Module Defined	Value	Data Type	
Configuration Tag			
Local:1:C		AB:Embedded_IQ16F:C:0	
.FilterGroup0	2#0010_0010	SINT	
.Filter0OffOn_0	0	BOOL	
.Filter0OffOn_1	1	BOOL	
.Filter0OffOn_2	0	BOOL	
.Filter0OffOn_3	0	BOOL	
.Filter0OnOff_4	0	BOOL	
.Filter0OnOff_5	1	BOOL	
.Filter0OnOff_6	0	BOOL	
.Filter0OnOff_7	0	BOOL	
.FilterGroup1	2#0010_0010	SINT	
.Filter1OffOn_0	0	BOOL	
.Filter1OffOn_1	1	BOOL	
.Filter1OffOn_2	0	BOOL	
.Filter1OffOn_3	0	BOOL	
.Filter1OnOff_4	0	BOOL	
.Filter1OnOff_5	1	BOOL	
.Filter1OnOff_6	0	BOOL	
.Filter1OnOff_7	0	BOOL	

[2] Embedded OB16 Discrete_Outputs

Type: Embedded OB16 16 Point 24V DC Output, Parent: Local Vendor: Vendor ID: 1

Slot: 2 Electronic Keying: Compatible Keying

Revision: 3.1 Status: Standby

Module Fault:OfflineInhibit FlagOffRPI:20 msUse Unicast:n/a

Module Defined Configuration Tag	Value	Data Type	
Local:2:C		AB:Embedded_OB16:C:0	
.Config	2#0000_0000_0000_0000	INT	
.ProgToFaultEn	0	BOOL	
.ProgMode	2#0000_0000_0000_0000	INT	
.ProgValue	2#0000_0000_0000_0000	INT	
.FaultMode	2#0000_0000_0000_0000	INT	
.FaultValue	2#0000_0000_0000_0000	INT	

uber_FLC	
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MainProgram	
Fanuc_Robot_Control	
Ladder Diagram	
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HMI_UI	
Ladder Diagram	
Routine Tag Listing	
Kuka_Robot_Control	
Ladder Diagram	
Routine Tag Listing	35
MainRoutine	
Ladder Diagram	38
Routine Tag Listing	39
Pycomm	
Ladder Diagram	40
Routine Tag Listing	41
Robotics_Control	
Ladder Diagram	44
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Research	
Kuka_Control	
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Ladder Diagram	
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CompactLogix5323E-QB1 System : Local Modules	
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