⚠ AB:1734_DI8:C:0

AB:Embedded_DiscreteIO:C:0

Controller GrahamPgkRob Controller Fault Handler C Power-Up Handler **Tasks** 🐬 GrahamPkgRob MainRoutines MainRoutines R01 AlarmWarnMsg R02_SystemSts R03 SystemStartup R10_SystemCtrl R11 PnuematicCtrl R20 ScannerIO R21 SystemIO R22_RobotEIO 🖪 R23_CameraEIO R30 HMISts R31 HMICtrl R32_BaySts ProcessRoutines Routines that perform actions in a set order every time. ie do this then that then this ... ■ SubRoutines 🗎 r EvaluateBox 📕 r PositionBox 📕 r_ReadBox 📕 r RejectBox 🗎 r RobotPickBox 🤯 MainTask A Main Program MainRoutine Unscheduled Programs / Phases **Motion Groups** Ungrouped Axes **Add-On Instructions** AirCyl NoExtendFeedback Logic Logic 🛅 PulseDO Logic Logic **Data Types** 🖫 User-Defined M AirCylinder BayStatus BoxData PLCtoRobot **ProcessIndicators** RobotToPLC StepData 🖳 Strings Add-On-Defined MAirCyl_NoExtendFeedback PulseDO 😘 Module-Defined ₩ AB:1734 1SLOT:I:0 🜃 AB:1734_1SLOT:O:0 M AB:1734 3SLOT:I:0 **3 AB:1734 3SLOT:0:0** ■ **3 AB:1734 3SLOT:0:0**

- AB:Embedded_DiscreteIO:I:0

 AB:Embedded_DiscreteIO:O:0

 AB:ETHERNET_MODULE:C:0

 AB:ETHERNET_MODULE_DINT_20Bytes:I:0

 AB:ETHERNET_MODULE_DINT_32Bytes:I:0

 AB:ETHERNET_MODULE_DINT_32Bytes:I:0

 AB:ETHERNET_MODULE_DINT_32Bytes:O:0

 AB:ETHERNET_MODULE_DINT_40Bytes:I:0

 AB:ETHERNET_MODULE_DINT_40Bytes:I:0

 AB:ETHERNET_MODULE_SINT_8Bytes:I:0

 AB:ETHERNET_MODULE_SINT_8Bytes:O:0

 CC:DataMan_Control:O:0

 CC:DataMan_NODATA:O:0

 CC:DataMan_SINT32:I:0

 CC:DataMan_Status:I:0
- Trends

I/O Configuration

- PointIO
 - [0] 1769-L16ER-BB1B GrahamPgkRob
 - **■** [1] Embedded Discrete IO

- <mark>器</mark> Ethernet
 - 1769-L16ER-BB1B GrahamPgkRob
 - **1734-AENTR/B Rack02**

Remote Rack 02

- **■** PointIO 3 Slot Chassis
 - [0] 1734-AENTR/B Rack02

Remote Rack 02

- [1] 1734-IB8/C Slot01
- [2] 1734-IB8/C Slot02
- **I** ETHERNET-MODULE R1
- DataMan 300 Series DM300
- Cognex Dataman 300 Barcode Scanner

GrahamPgkRob:GrahamPkgRob:MainRoutines

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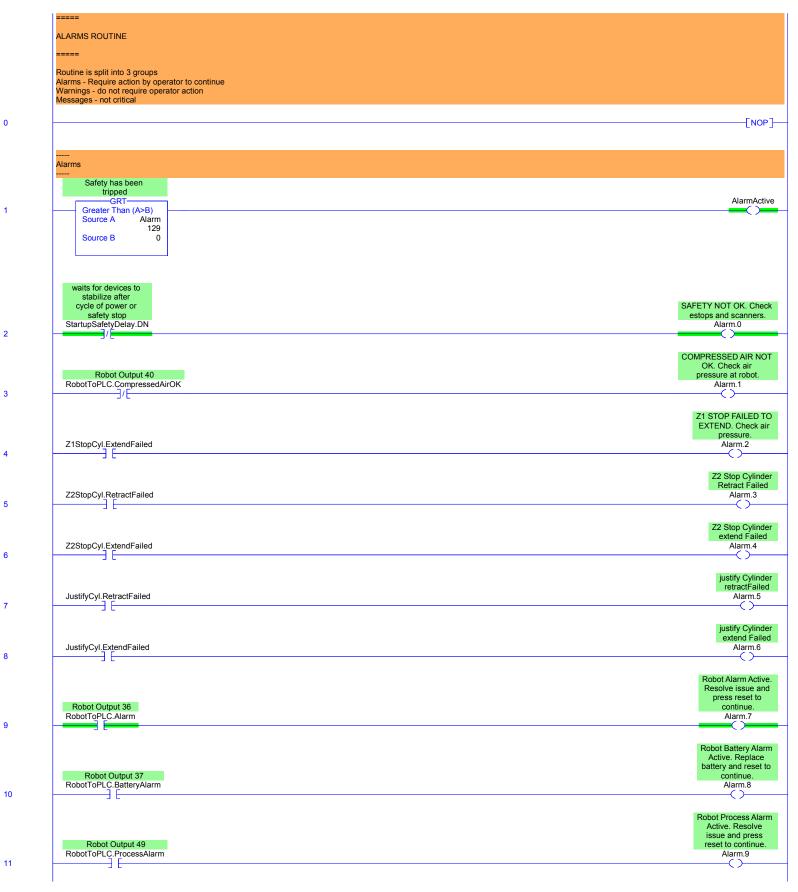
Page 3

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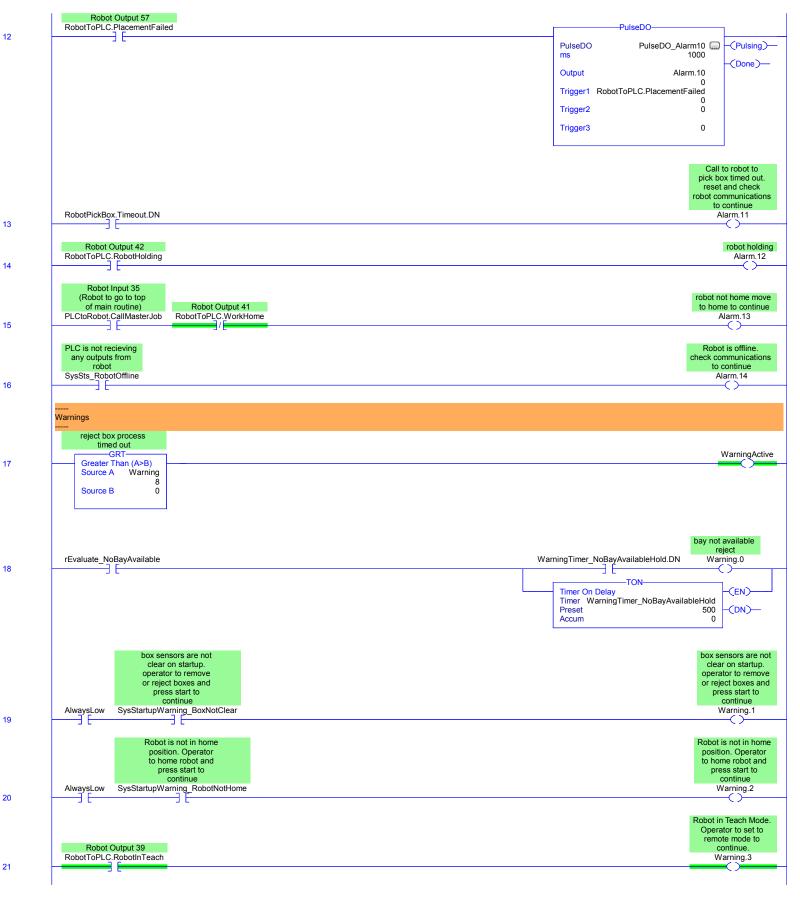


Page 4

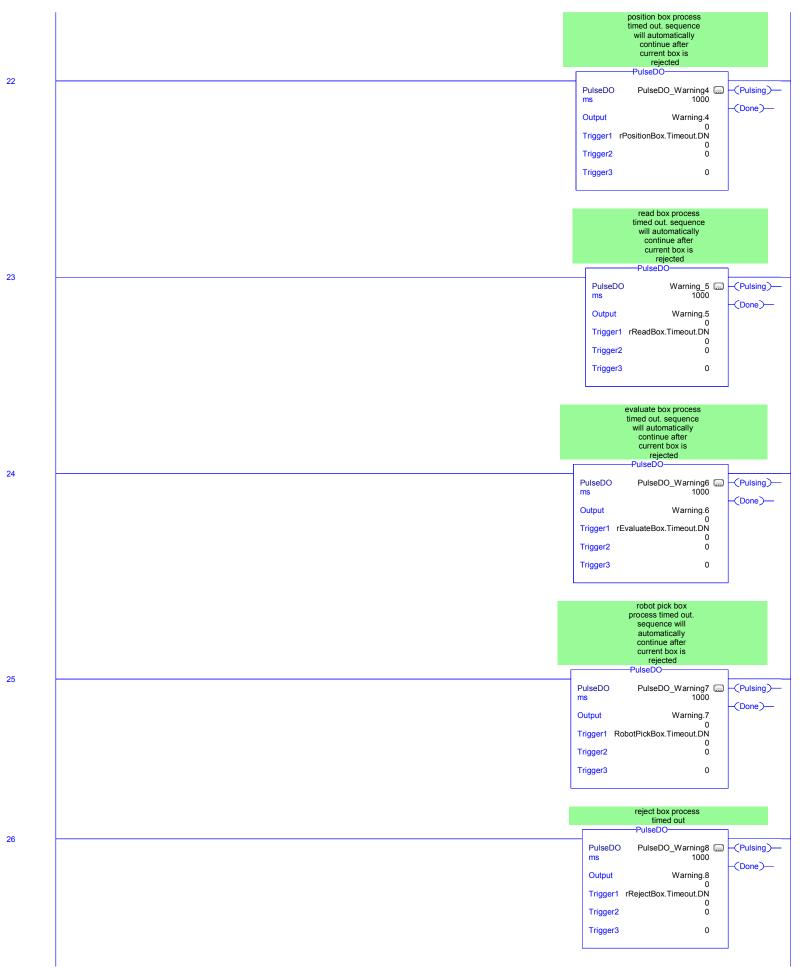
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Total number of rungs in routine: 28

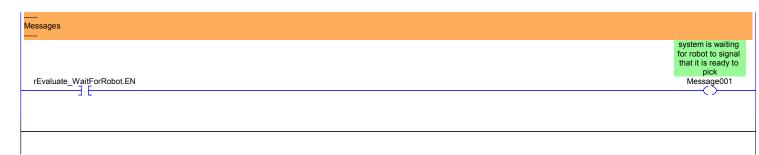


R01_AlarmWarnMsg - Ladder DiagramGrahamPgkRob:GrahamPkgRob:MainRoutines Total number of rungs in routine: 28

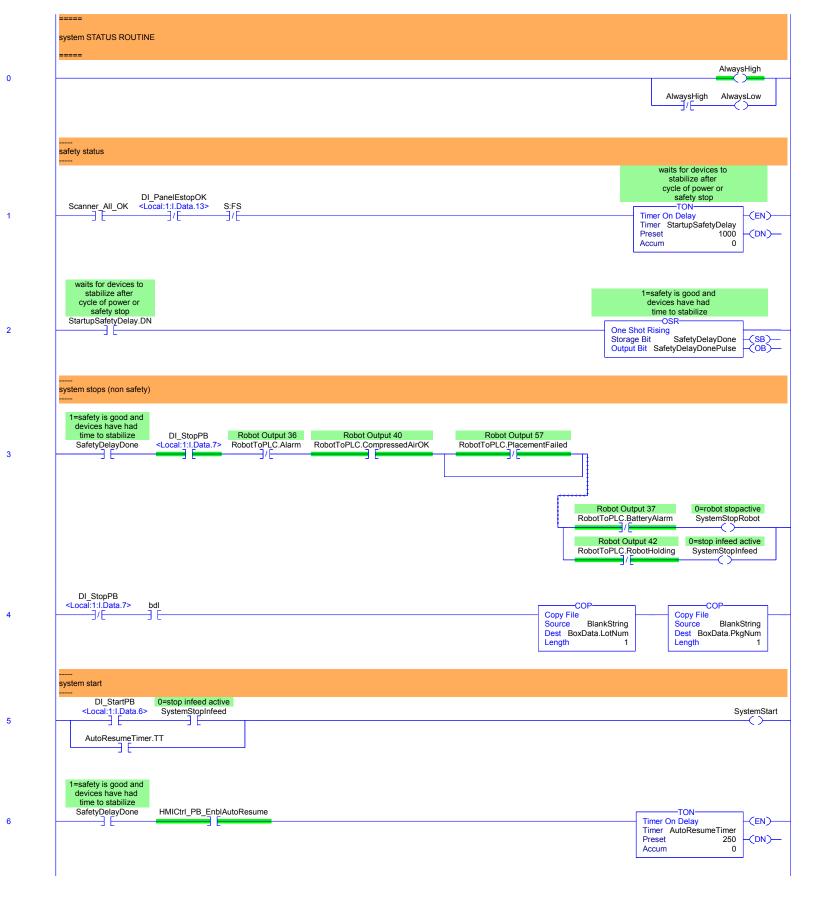
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2/18/2019 2:17:30 PM Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob 20180605 F.ACD



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7

8

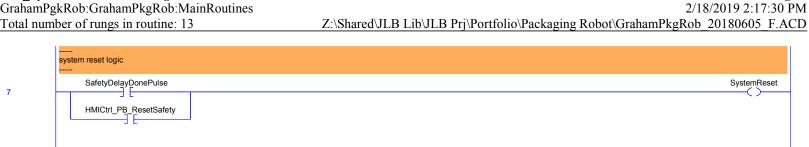
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10

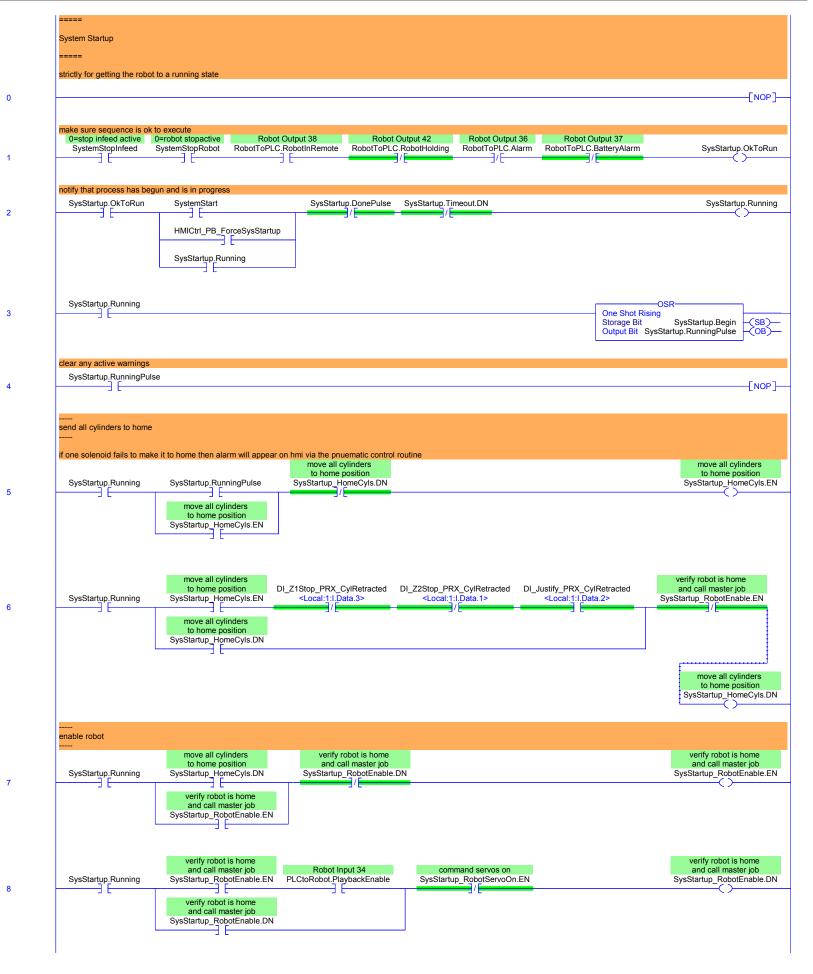
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12

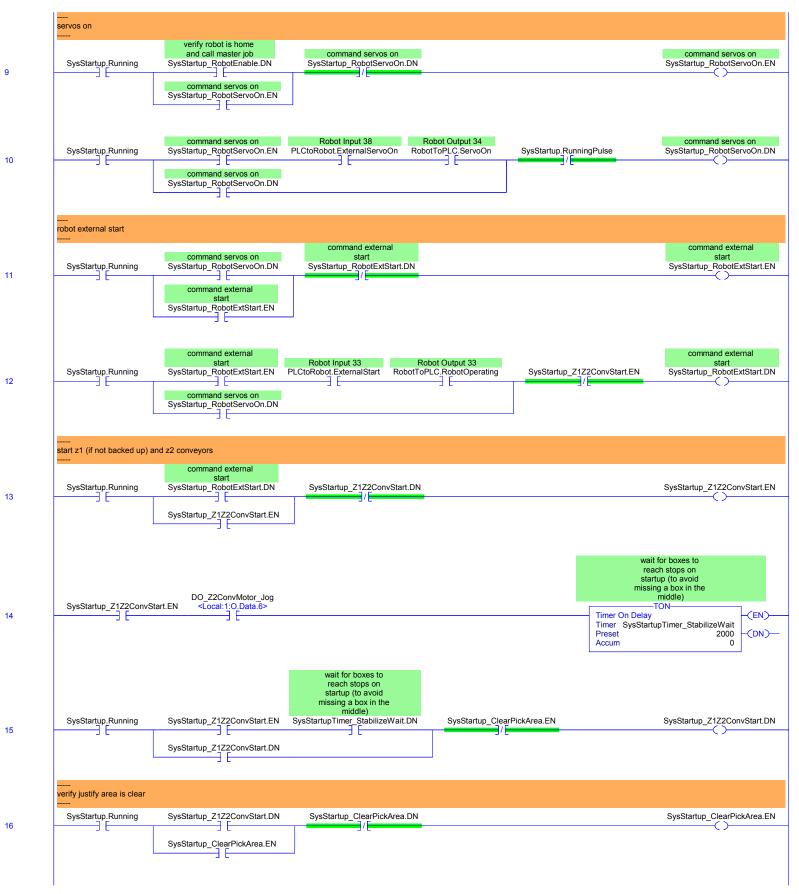
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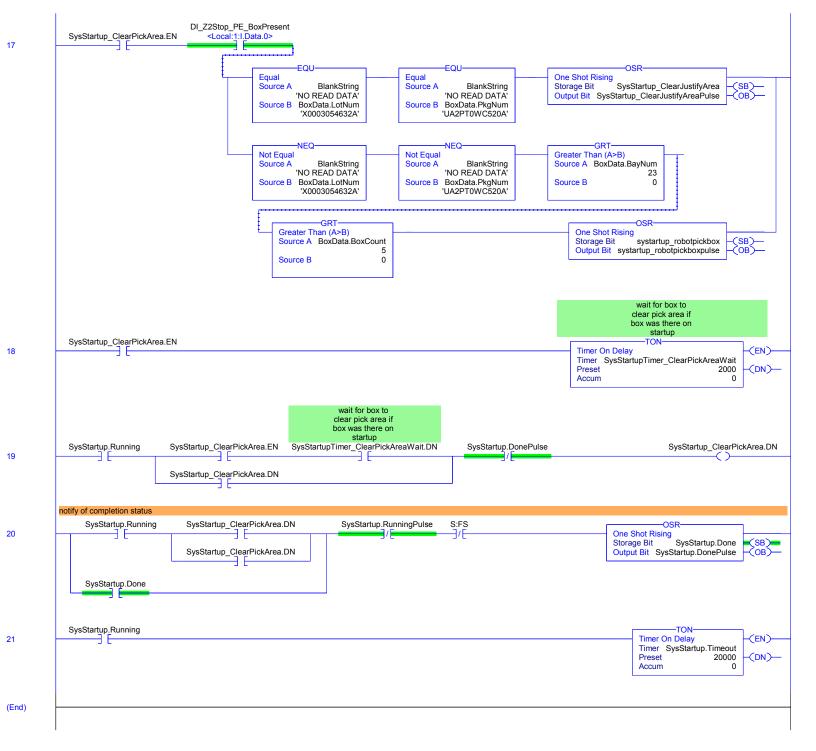




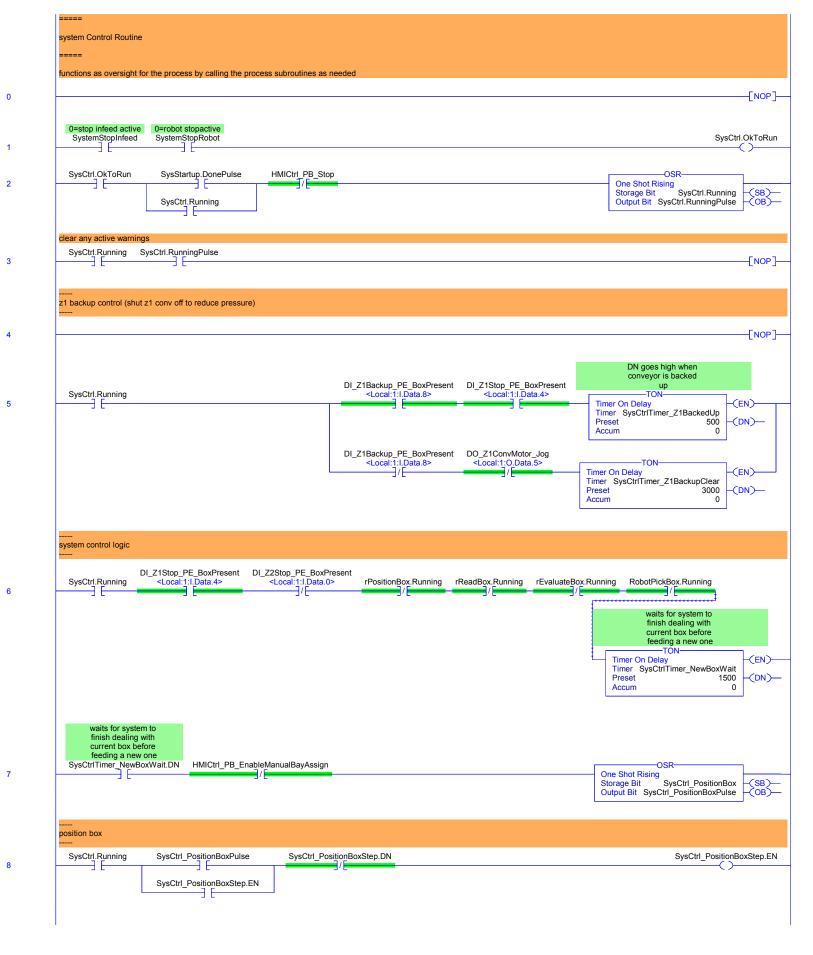


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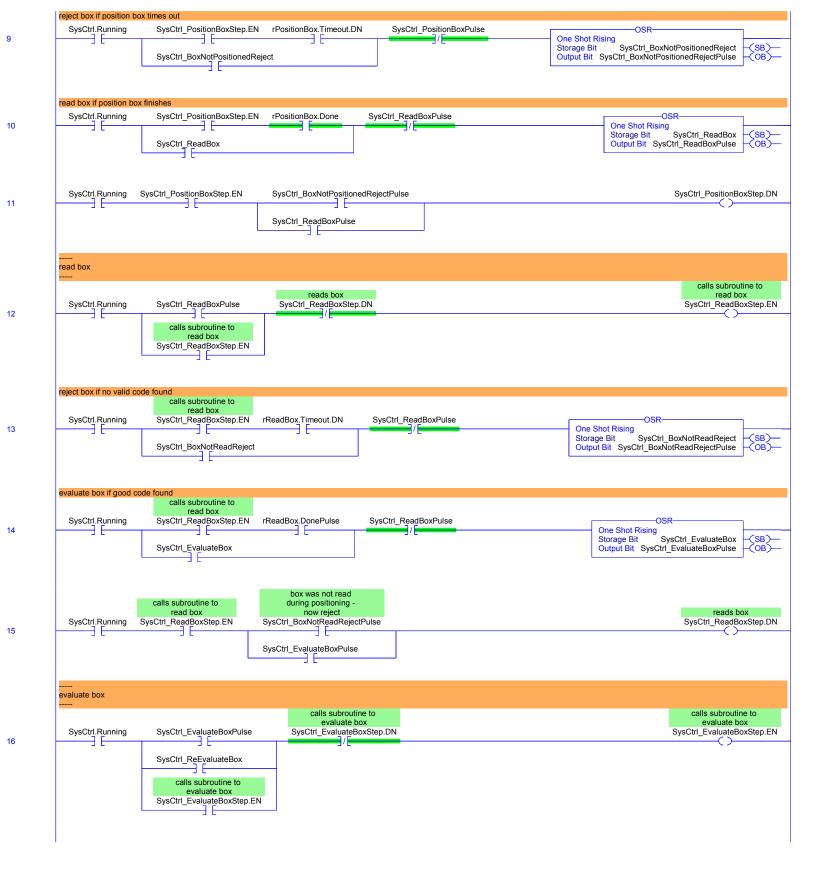




Total number of rungs in routine: 28



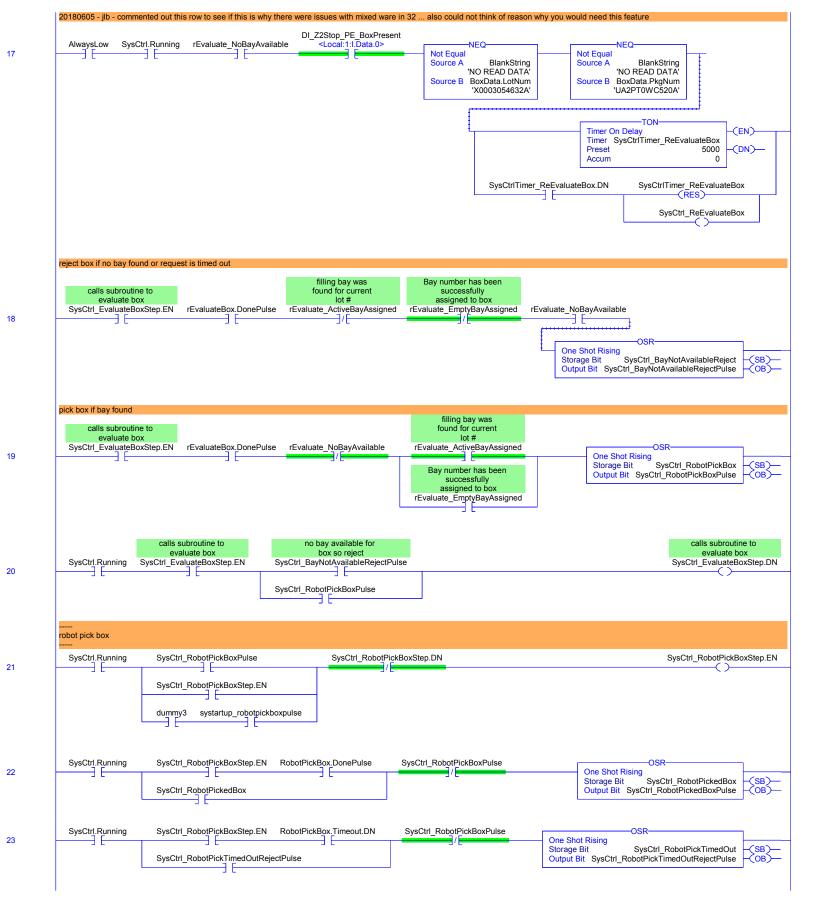
GrahamPgkRob:GrahamPkgRob:MainRoutines Total number of rungs in routine: 28



Total number of rungs in routine: 28

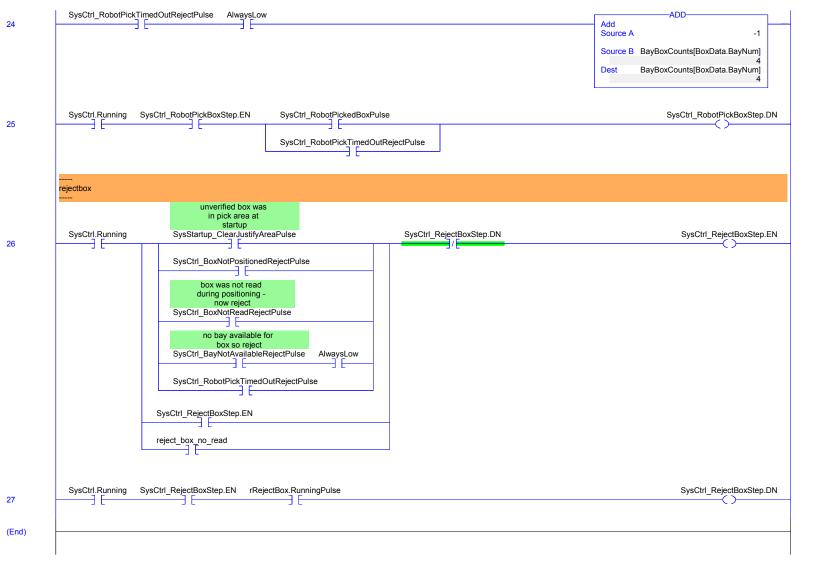
GrahamPgkRob:GrahamPkgRob:MainRoutines

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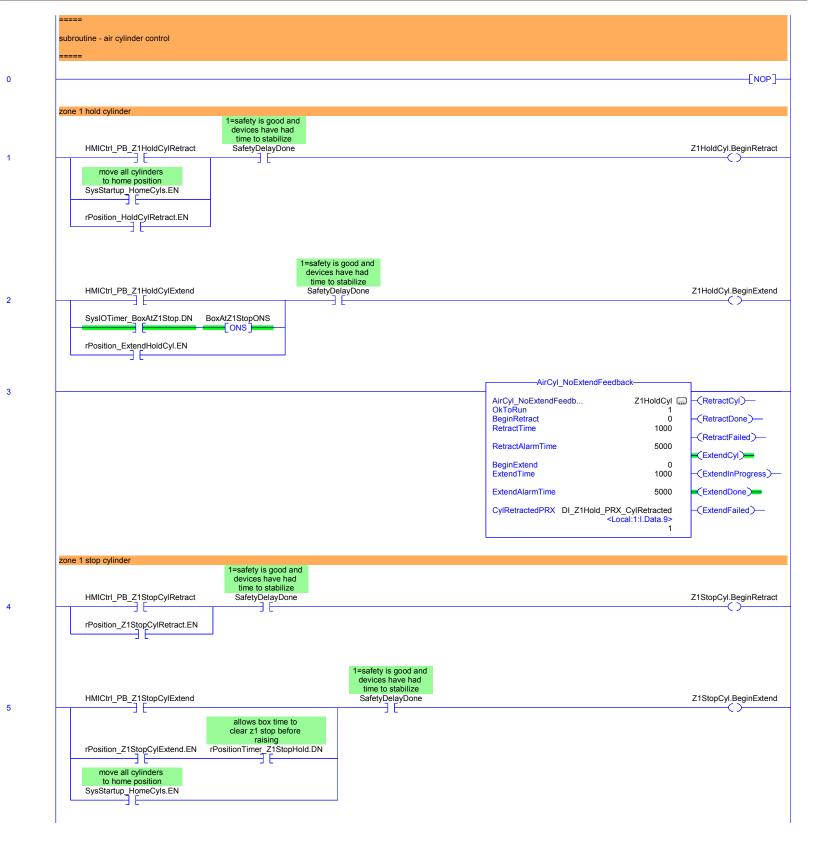


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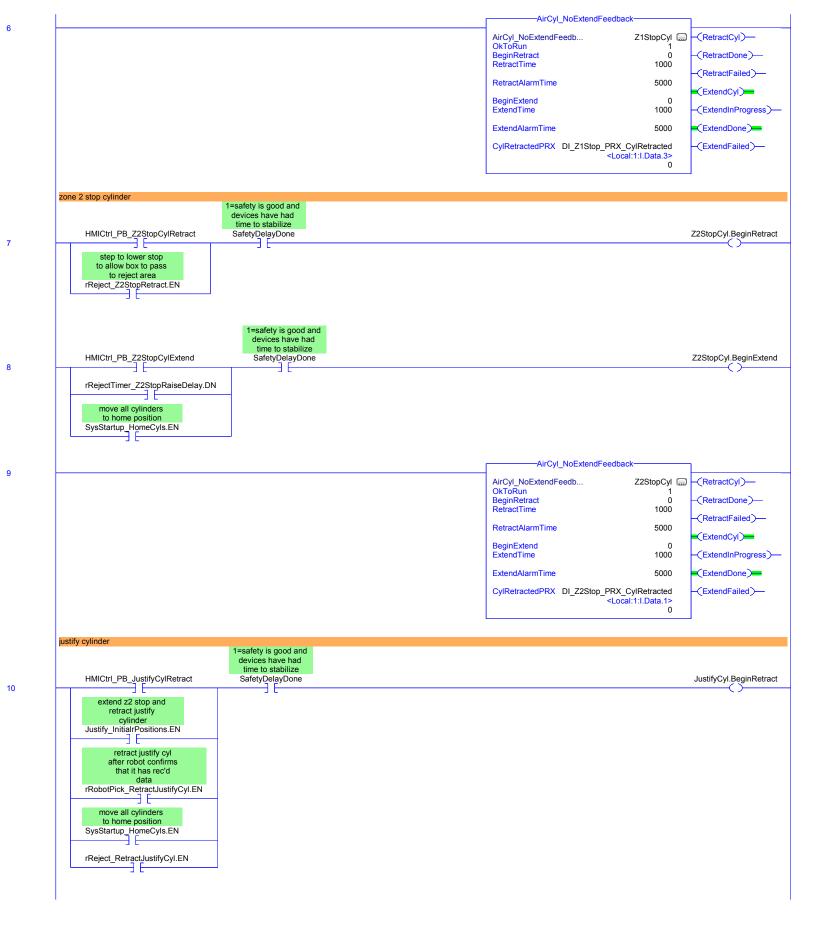
Total number of rungs in routine: 28 Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob 20180605 F.ACD



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GrahamPgkRob:GrahamPkgRob:MainRoutines Total number of rungs in routine: 13



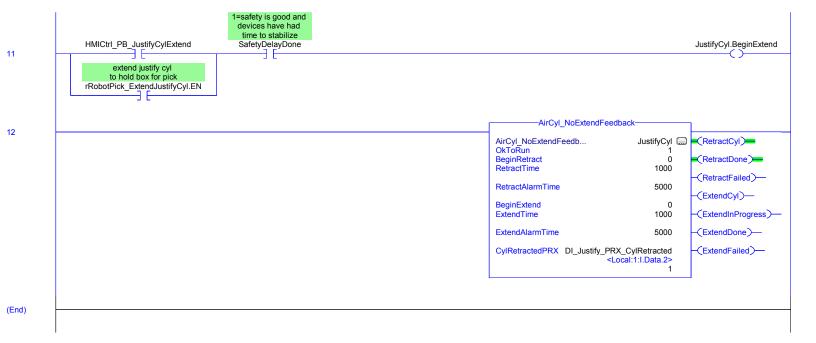
R11_PnuematicCtrl - Ladder Diagram

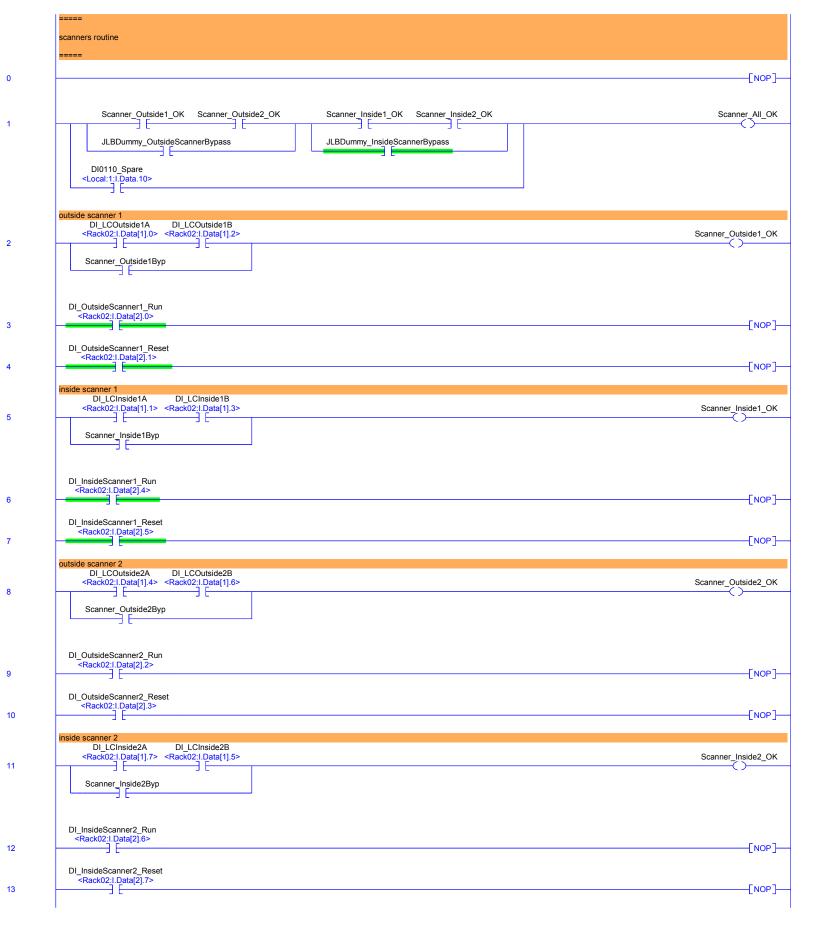
Total number of rungs in routine: 13

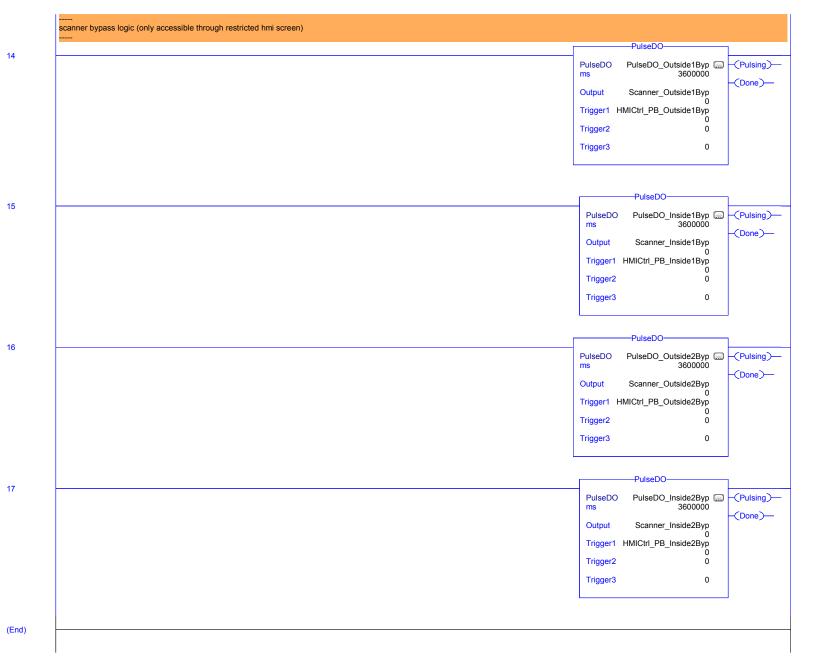
GrahamPgkRob:GrahamPkgRob:MainRoutines

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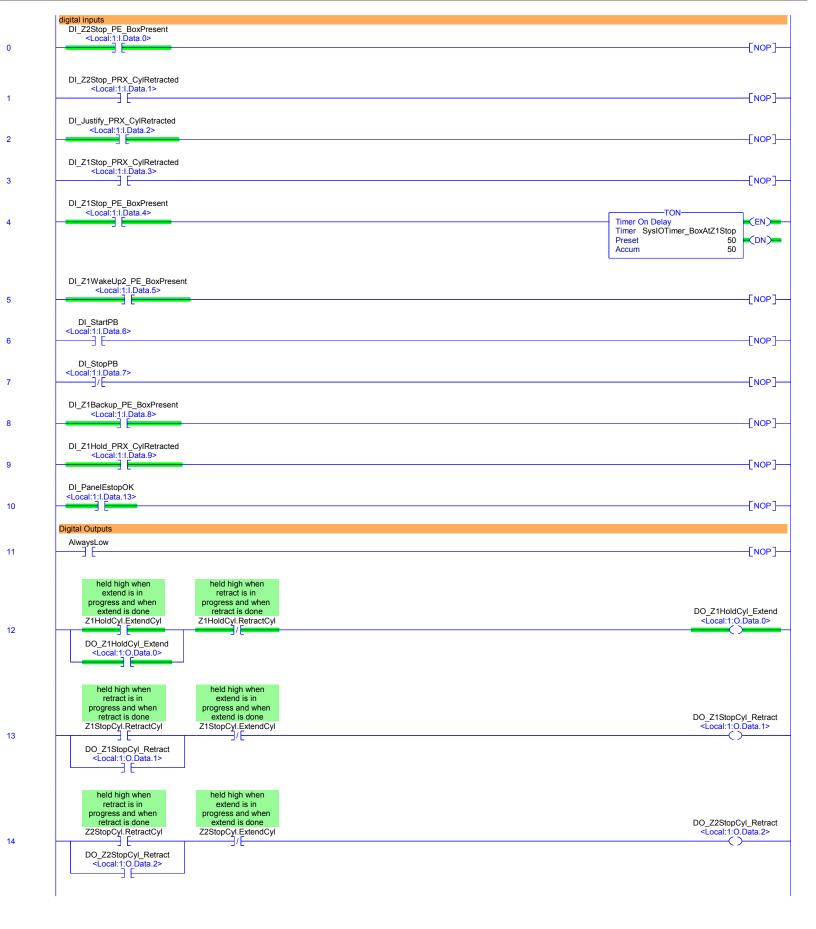
Page 19



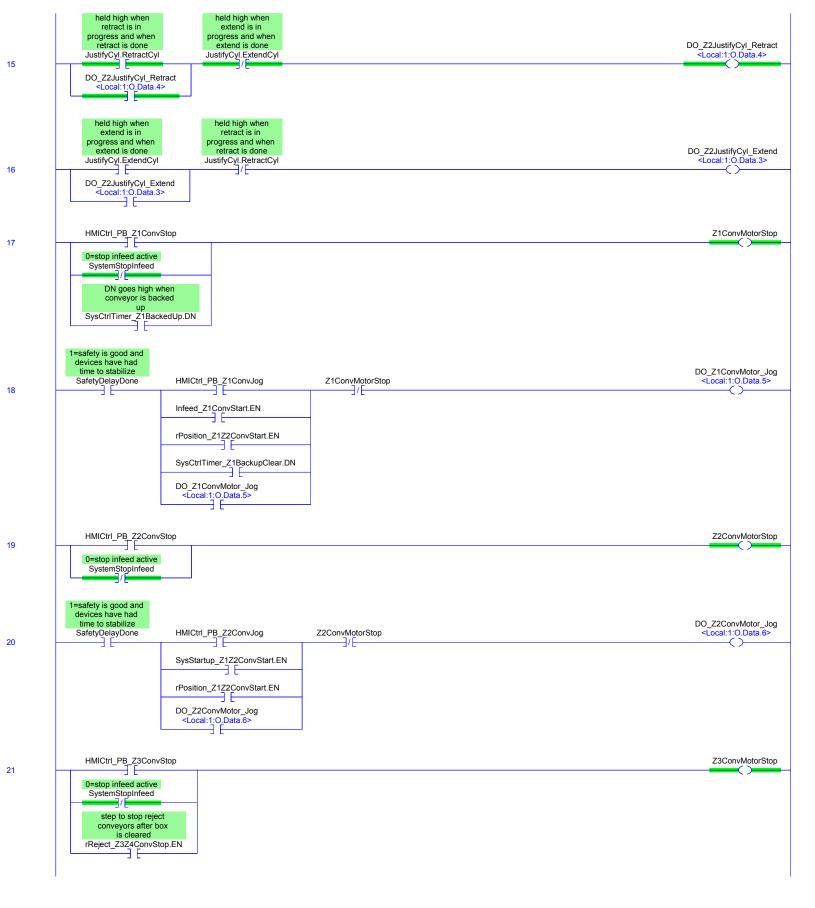




GrahamPgkRob:GrahamPkgRob:MainRoutines
Total number of rungs in routine: 32



GrahamPgkRob:GrahamPkgRob:MainRoutines Total number of rungs in routine: 32



Total number of rungs in routine: 32

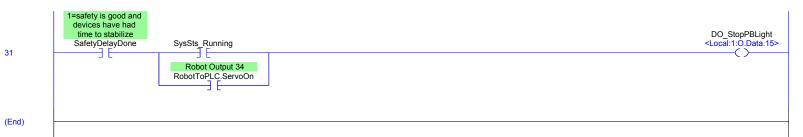
1=safety is good and devices have had time to stabilize DO_Z3ConvMotor_Jog HMICtrl PB Z3ConvJog Z3ConvMotorStop <Local:1:O.Data.7> SafetvDelavDone Z3Z4ConvReject DO_Z3ConvMotor_Jog <Local:1:O.Data.7> Z3Z4ConvReject HMICtrl_PB_Z4ConvStop Z4ConvMotorStop 23 0=stop infeed active SystemStopInfeed step to stop reject conveyors after box is cleared rReject_Z3Z4ConvStop.EN 1=safety is good and devices have had DO_Z4ConvMotor_Jog time to stabilize <Local:1:O.Data.8> SafetyDelayDone HMICtrl_PB_Z4ConvJog Z4ConvMotorStop 24 Z3Z4ConvReject DO_Z4ConvMotor_Jog <Local:1:O.Data.8> Z3Z4ConvReject safety is good and devices have had time to stabilize DO_StackLight_Green SysSts_Running <Local:1:O.Data.9> SafetyDelayDone 25 DO_Z1ConvMotor_Jog <Local:1:O.Data.5> SysSts_Running -GRT Greater Than (A>B) Source A SysSts_Pulse_2hz.ACC DO_Z2ConvMotor_Jog <Local:1:O.Data.6> Source B 1000 DO_Z3ConvMotor_Jog <Local:1:O.Data.7> DO_Z4ConvMotor_Jog <Local:1:O.Data.8> bay not available reject DO_StackLight_Yellow Warning.0 <Local:1:O.Data.10> 26 1=safety is good and devices have had time to stabilize DO_StackLight_Red SafetyDelayDone -GRT <Local:1:O.Data.11> Greater Than (A>B) 27 Source A SysSts_Pulse_2hz.ACC 740 Source B DO_StackLight_White <Local:1:O.Data.12> BaySts_EvenBayFull 28 BaySts_OddBayFull DO Sounder <Local:1:O.Data.13> AlwaysLow 29 \leftarrow 1=safety is good and devices have had DO_StartPBLight time to stabilize SysStartup.OkToRun <Local:1:O.Data.14> SafetyDelayDone SysSts_Running 30

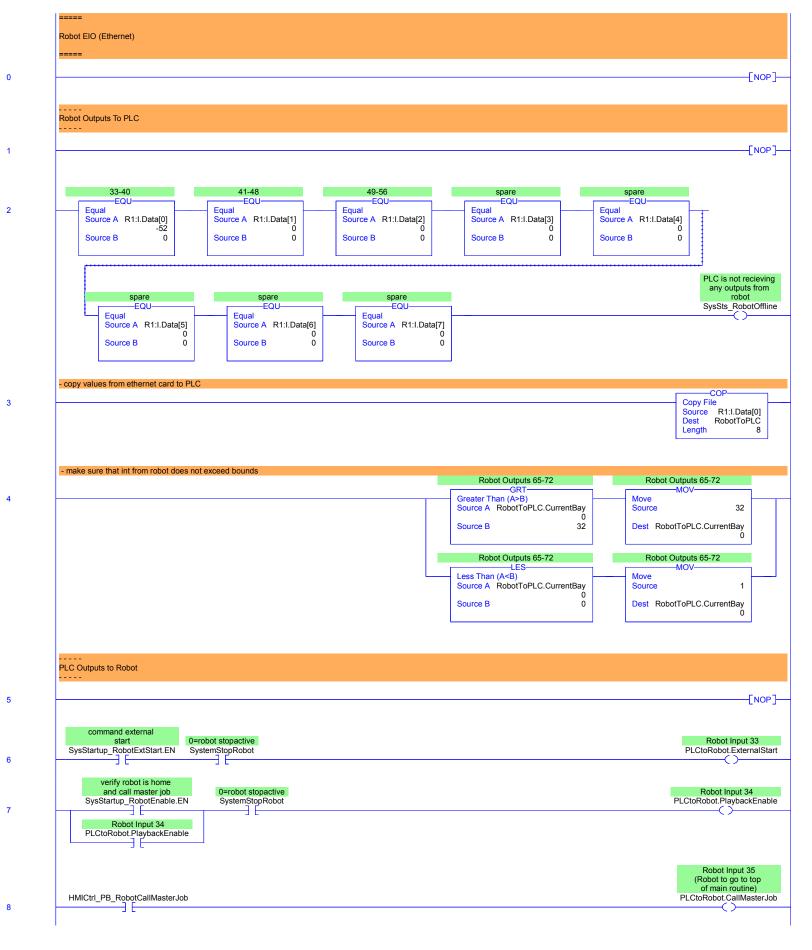
R21_SystemIO - Ladder DiagramGrahamPgkRob:GrahamPkgRob:MainRoutines

ram

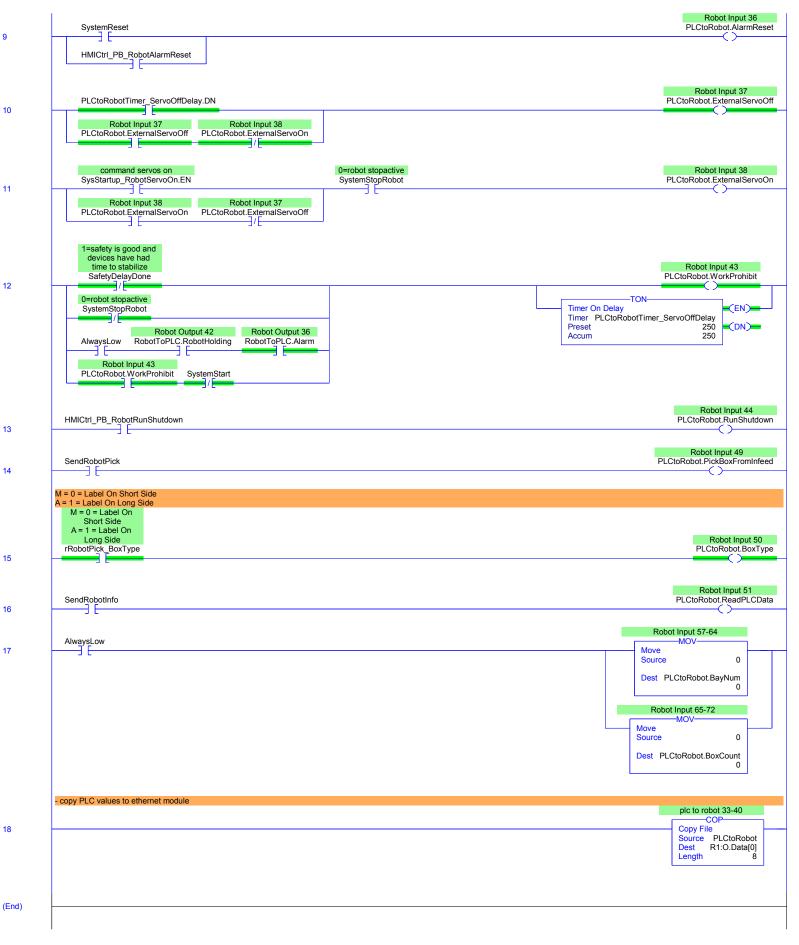
Page 25 2/18/2019 2:17:38 PM

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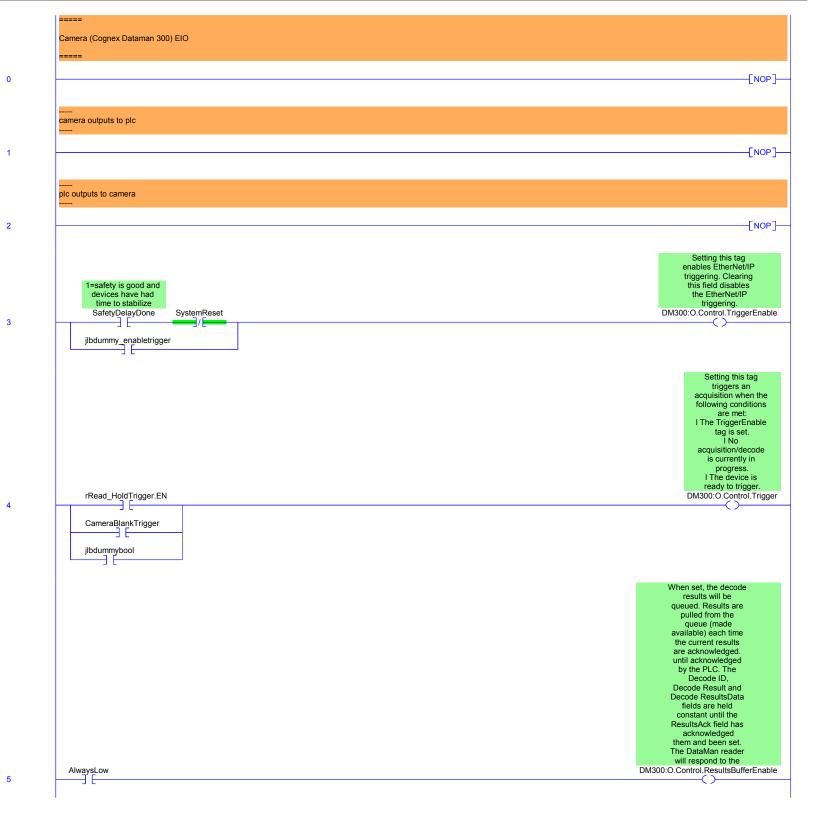




GrahamPgkRob:GrahamPkgRob:MainRoutines



GrahamPgkRob:GrahamPkgRob:MainRoutines Total number of rungs in routine: 16



R23 CameraEIO - Ladder Diagram

Ladder Diagram

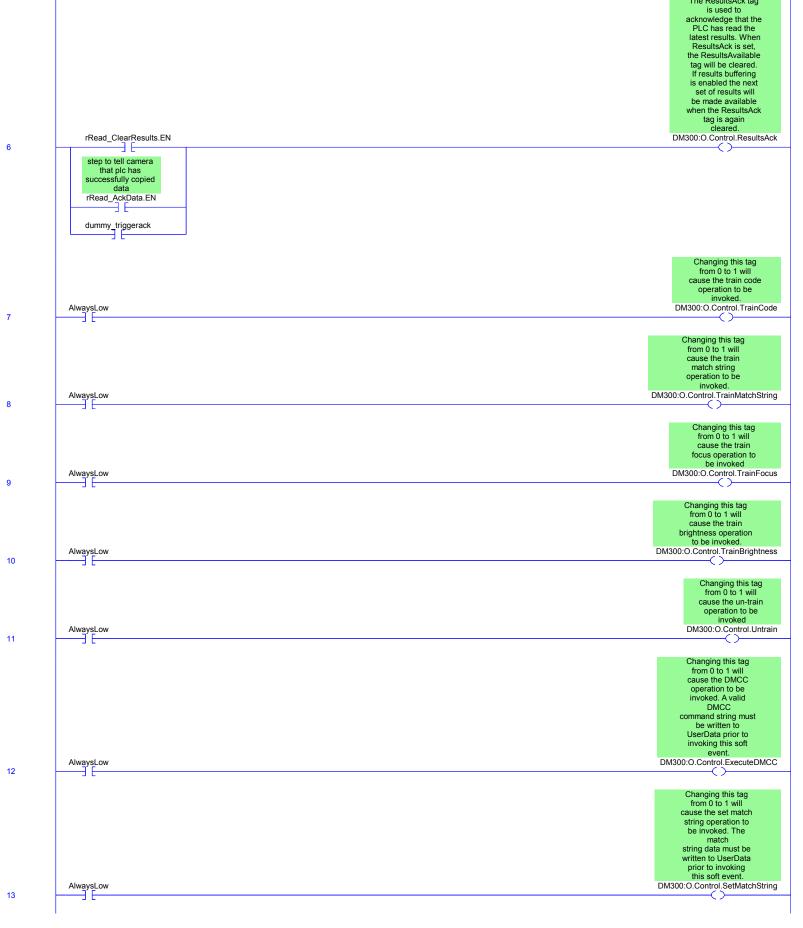
GrahamPgkRob:GrahamPkgRob:MainRoutines

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Total number of rungs in routine: 16

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The ResultsAck tag
is used to
acknowledge that the



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R23_CameraEIO - Ladder Diagram GrahamPgkRob:GrahamPkgRob:MainRoutines

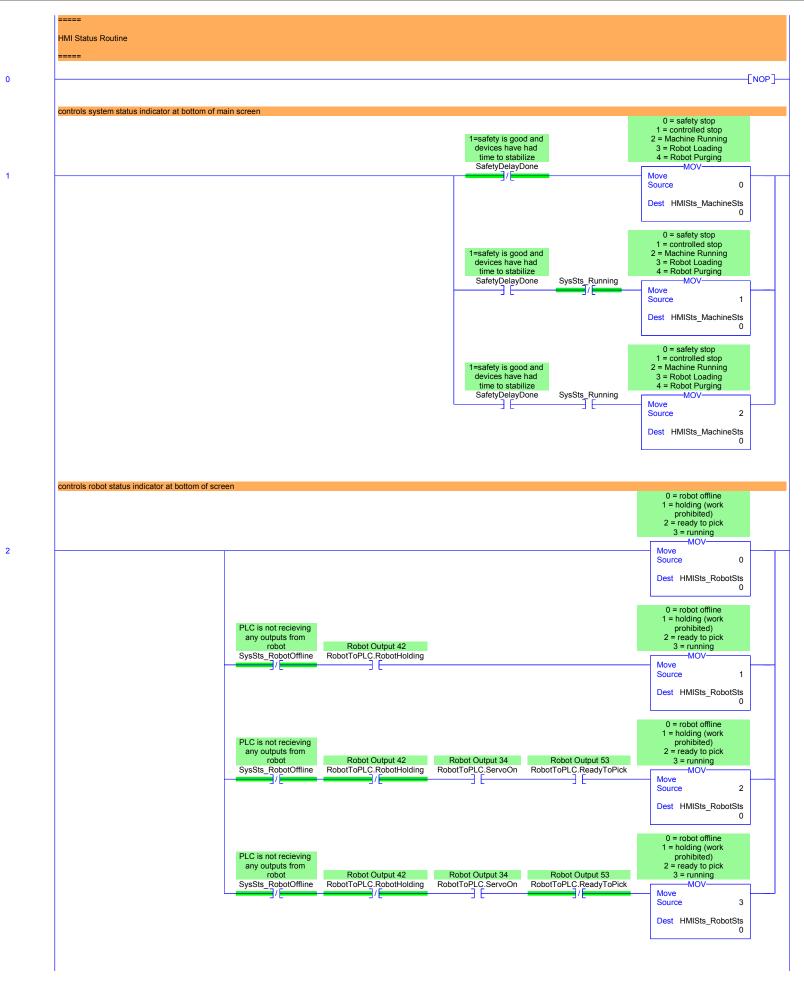
2/18/2019 2:17:45 PM

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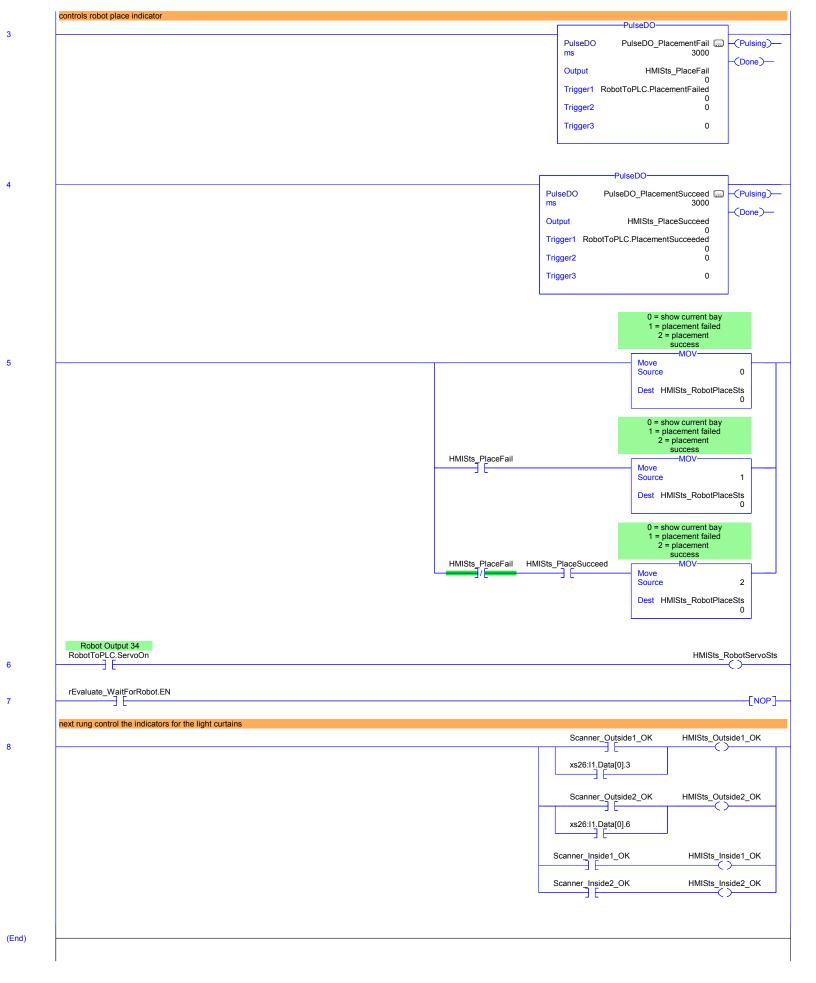
Total number of rungs in routine: 16



GrahamPgkRob:GrahamPkgRob:MainRoutines
Total number of rungs in routine: 9



Total number of rungs in routine: 9

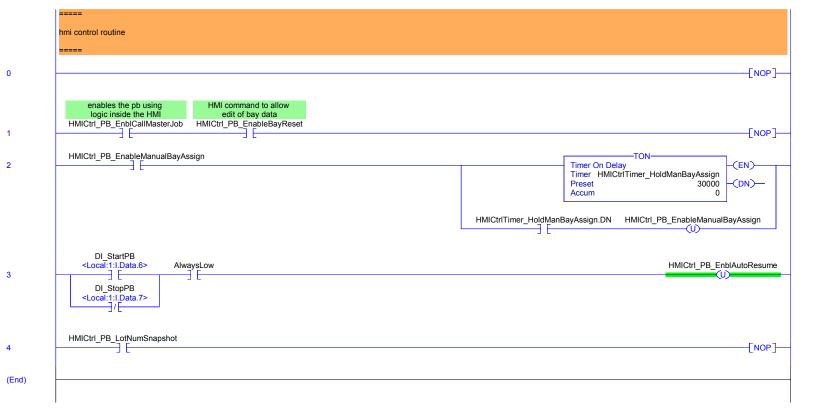


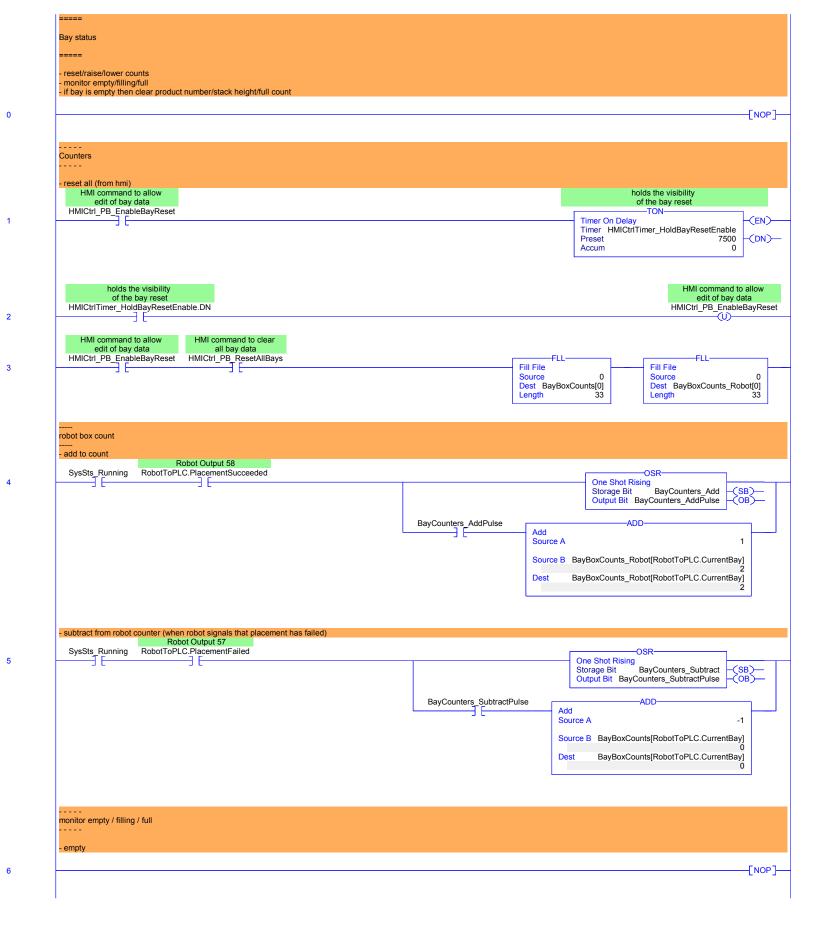
R31_HMICtrl - Ladder Diagram

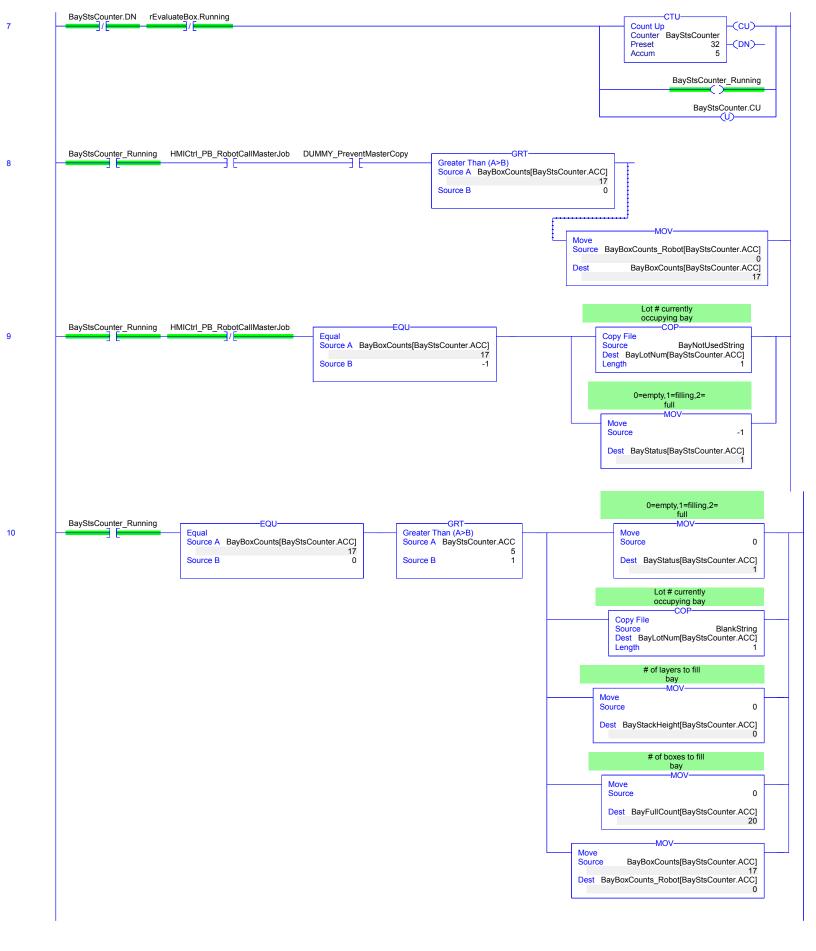
GrahamPgkRob:GrahamPkgRob:MainRoutines

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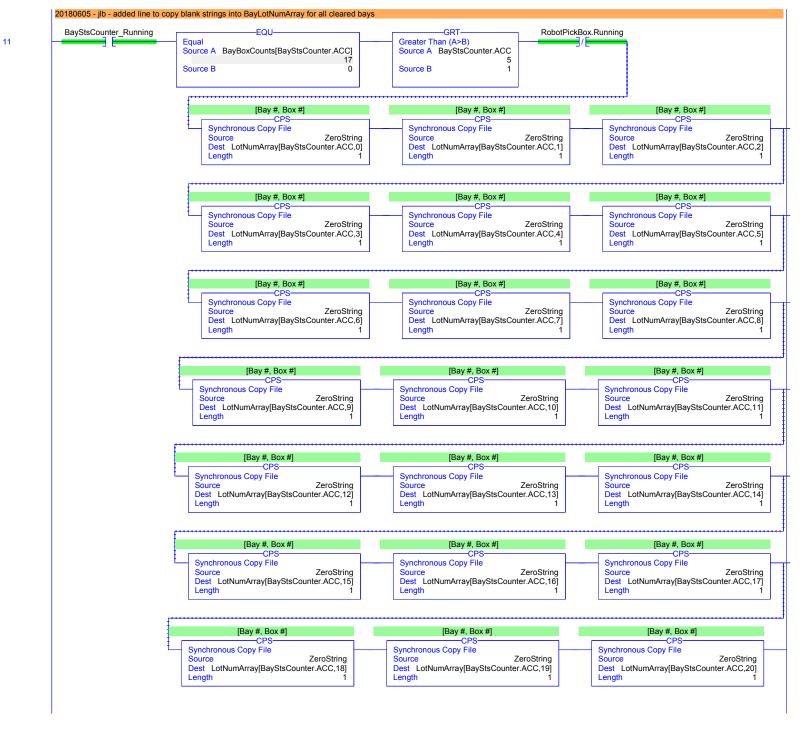
Total number of rungs in routine: 5 Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob_20180605_F.ACD





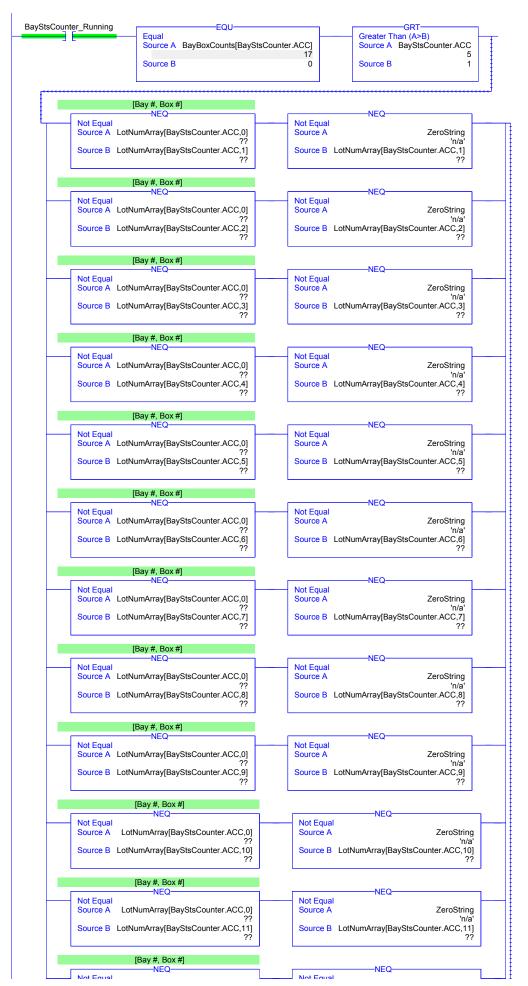


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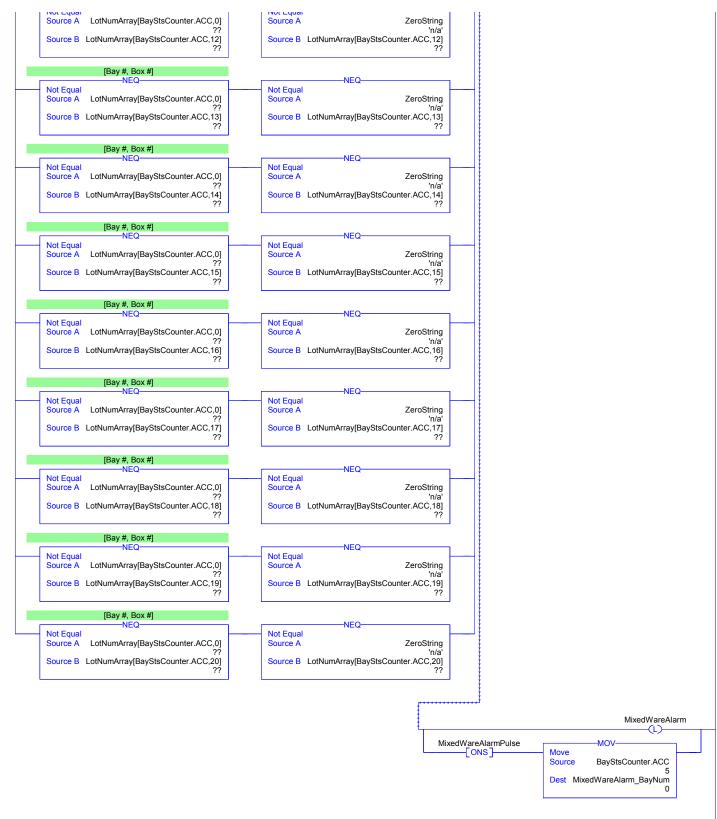
GrahamPgkRob:GrahamPkgRob:MainRoutines Total number of rungs in routine: 18

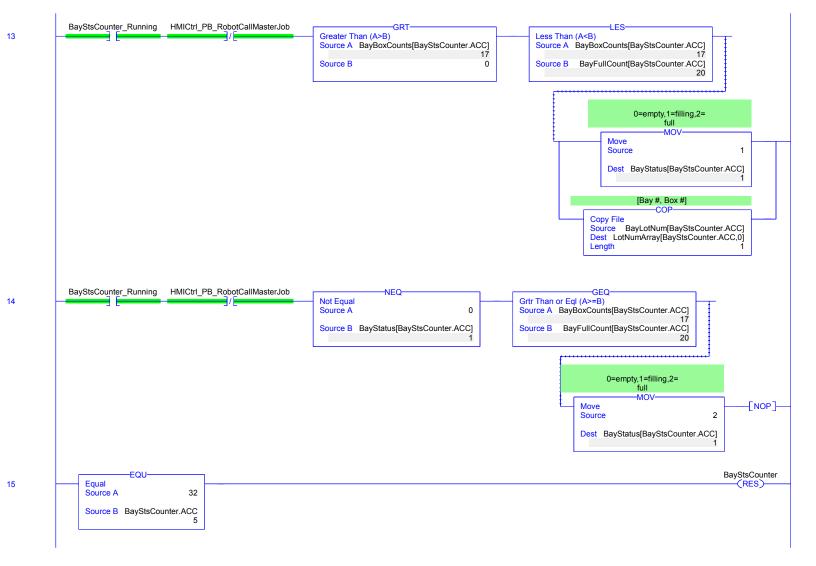
12



GrahamPgkRob:GrahamPkgRob:MainRoutines

Total number of rungs in routine: 18



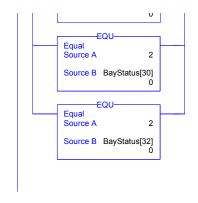




16

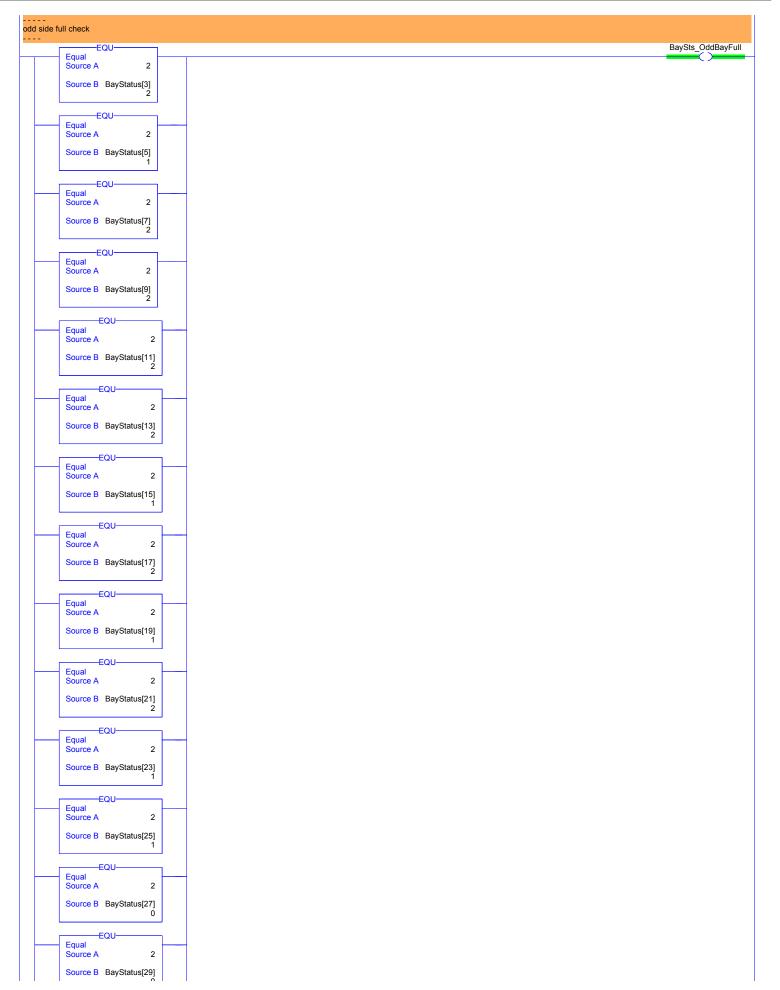
R32_BaySts - Ladder Diagram
GrahamPgkRob:GrahamPkgRob:MainRoutines 2/18/2019 2:17:52 PM Total number of rungs in routine: 18

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of rungs in routine: 18 Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob_20180605_F.ACD



17

R32_BaySts - Ladder Diagram
GrahamPgkRob:GrahamPkgRob:MainRoutines

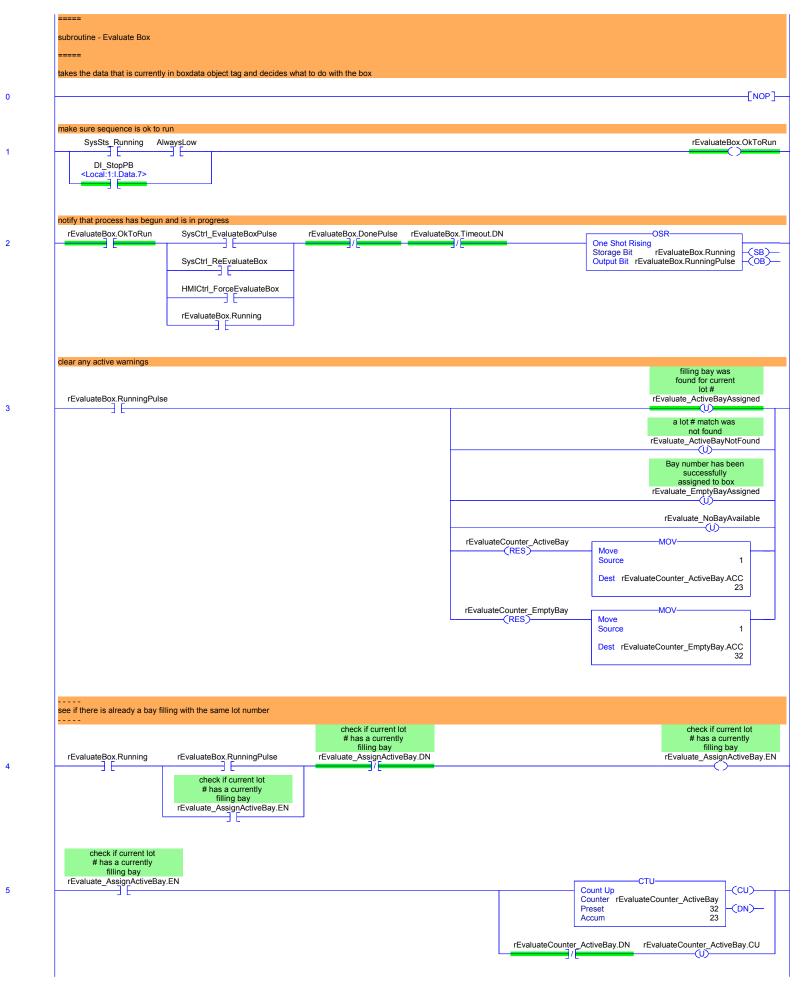
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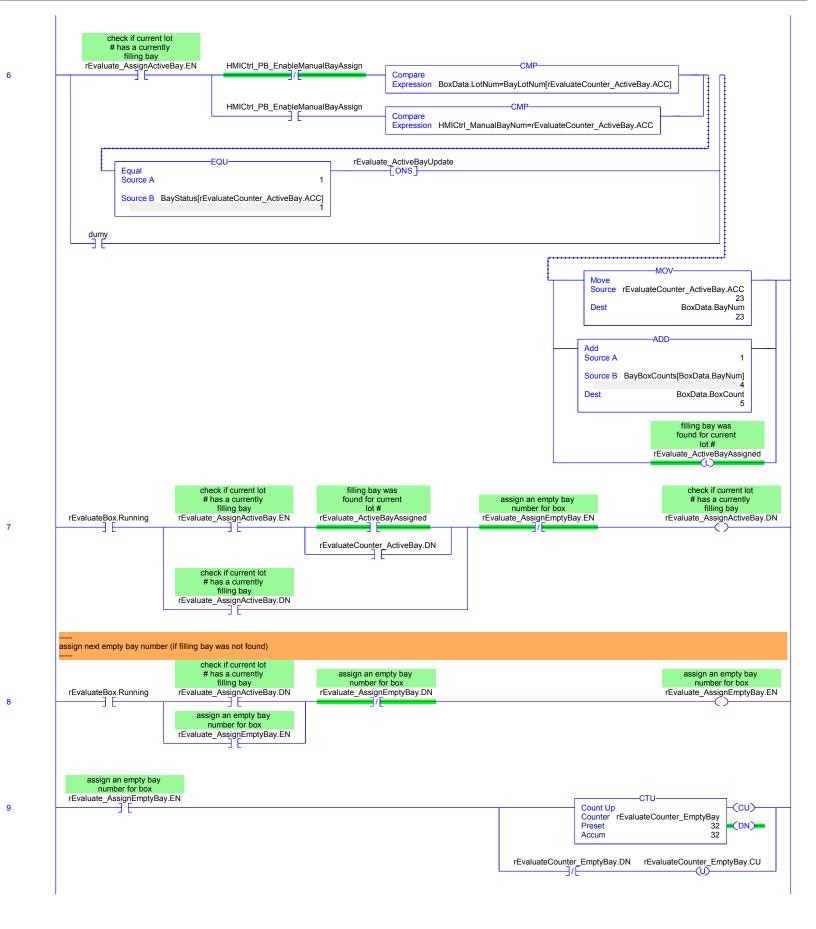
Total number of rungs in routine: 18

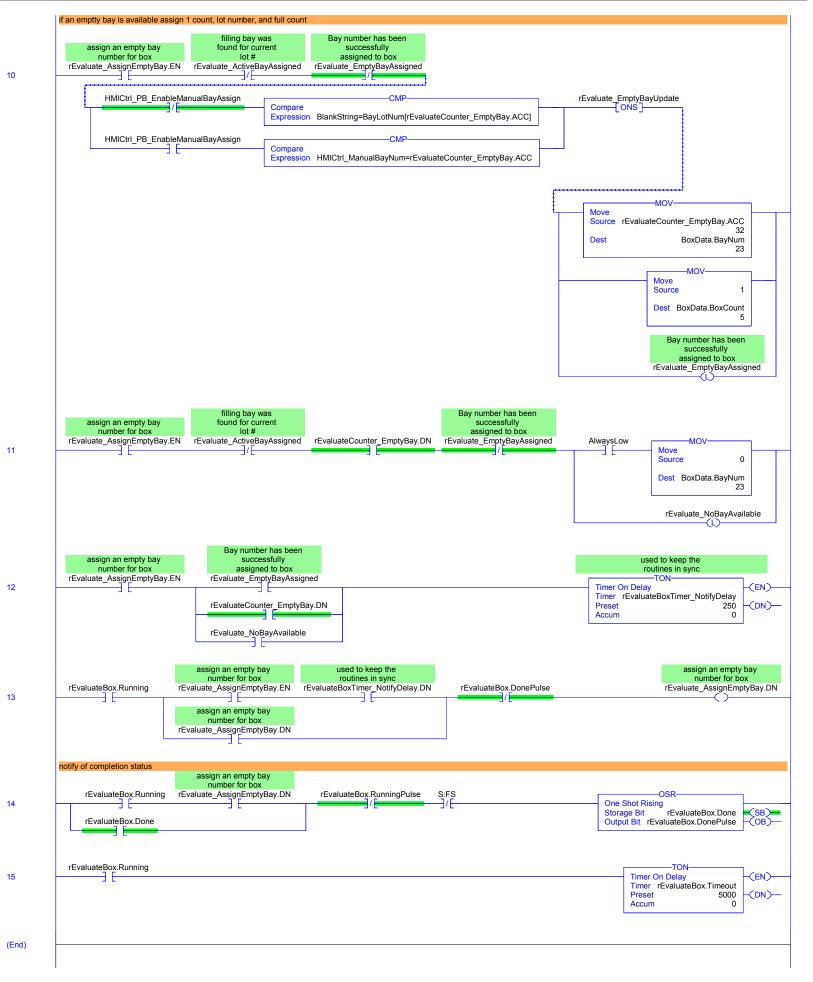
2/18/2019 2:17:52 PM Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob_20180605_F.ACD

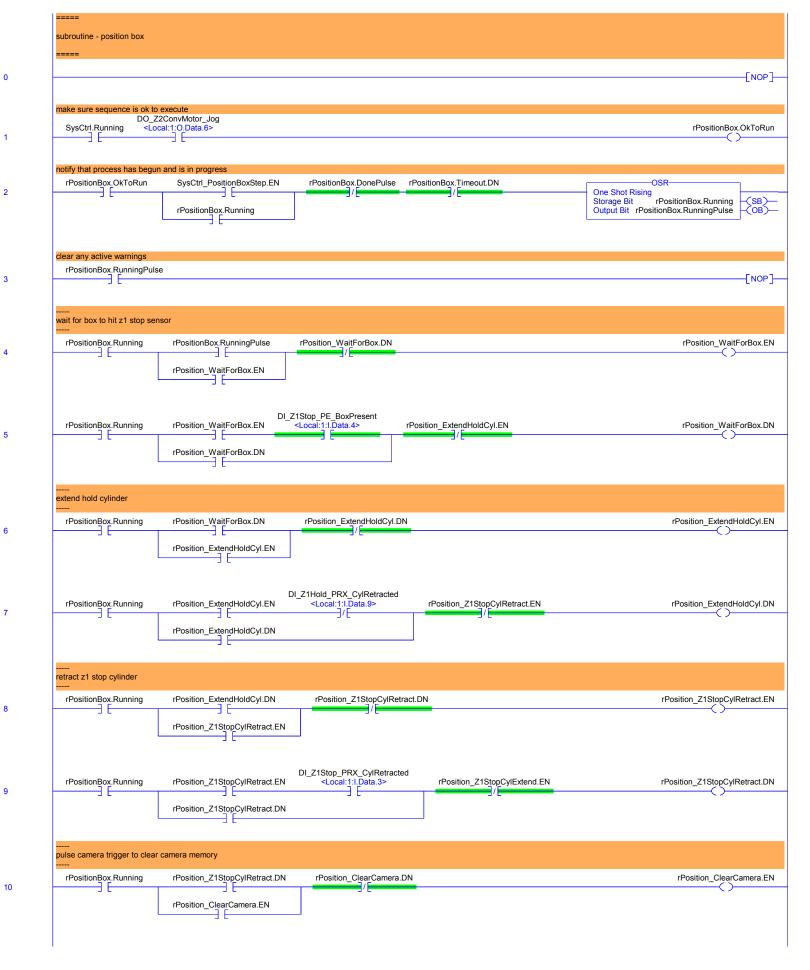


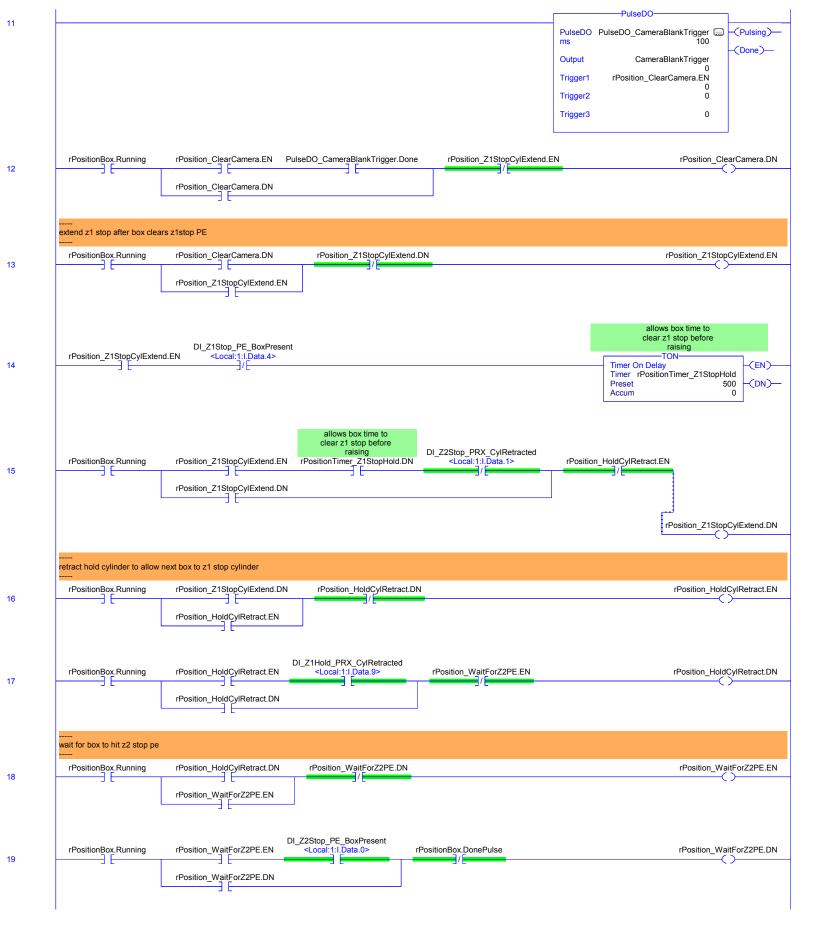
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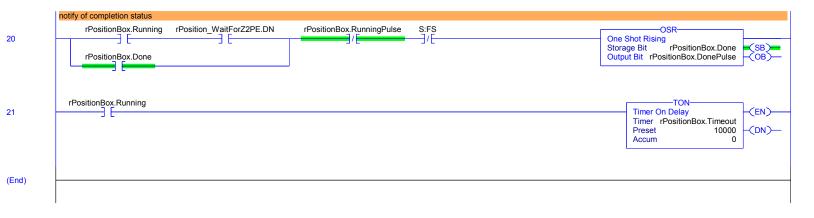
r_PositionBox - Ladder Diagram

GrahamPgkRob:GrahamPkgRob:ProcessRoutines

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Total number of rungs in routine: 22

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1

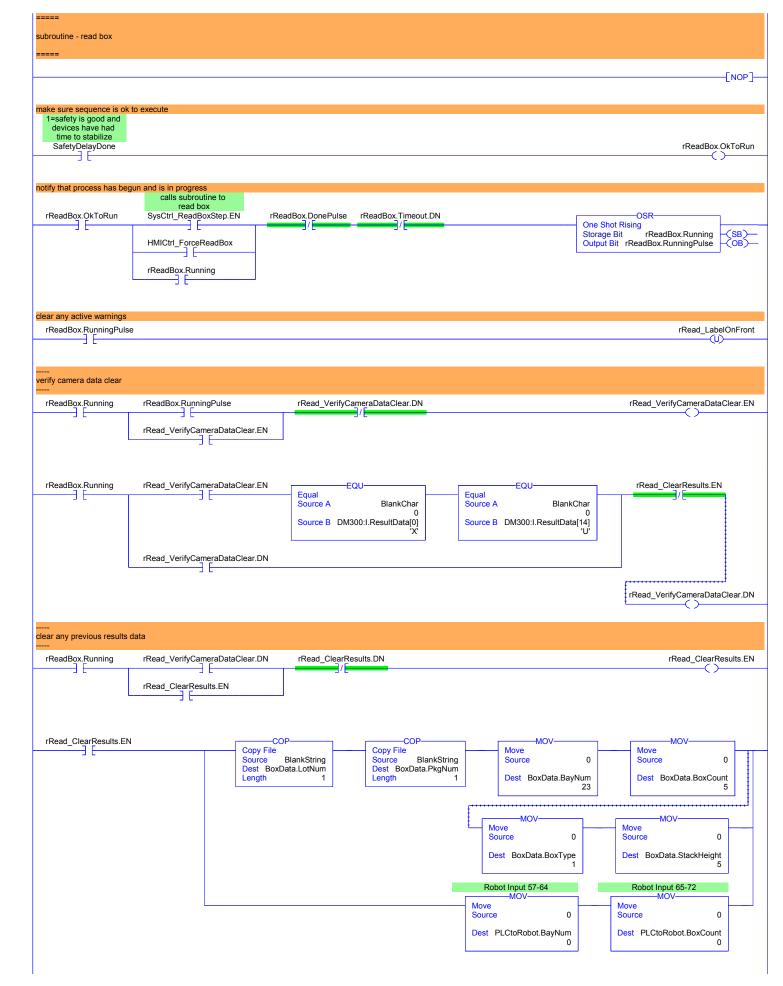
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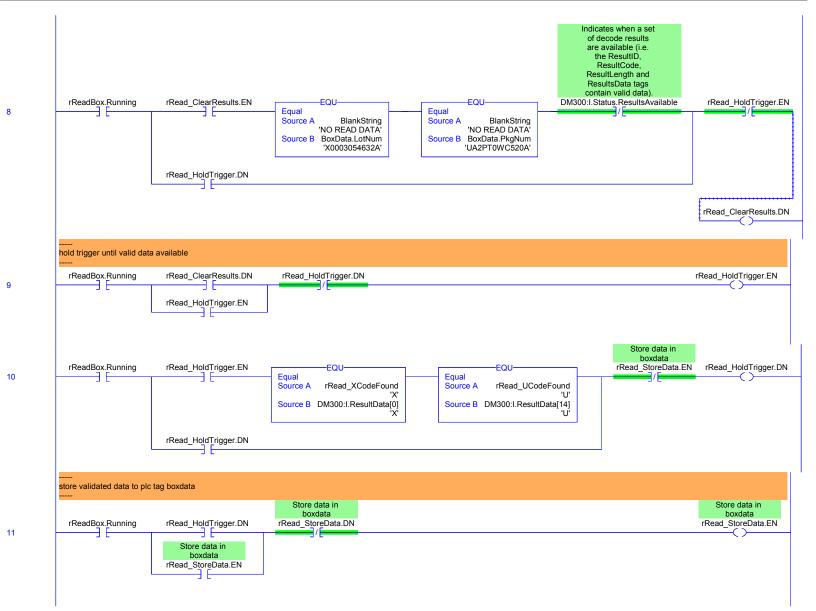
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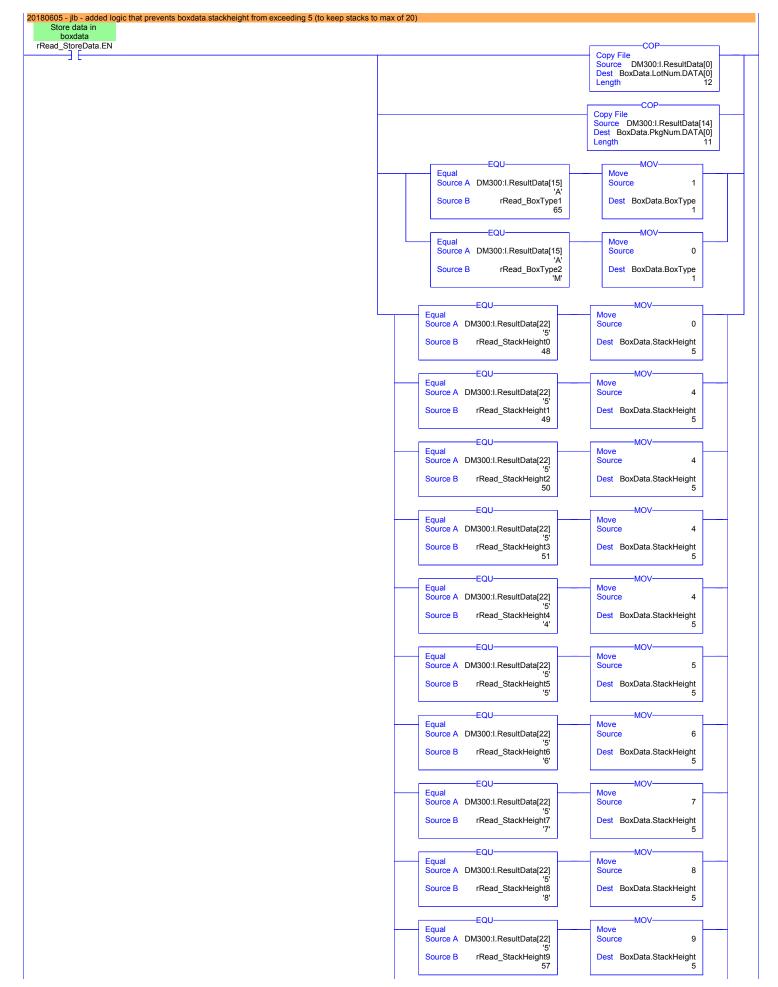
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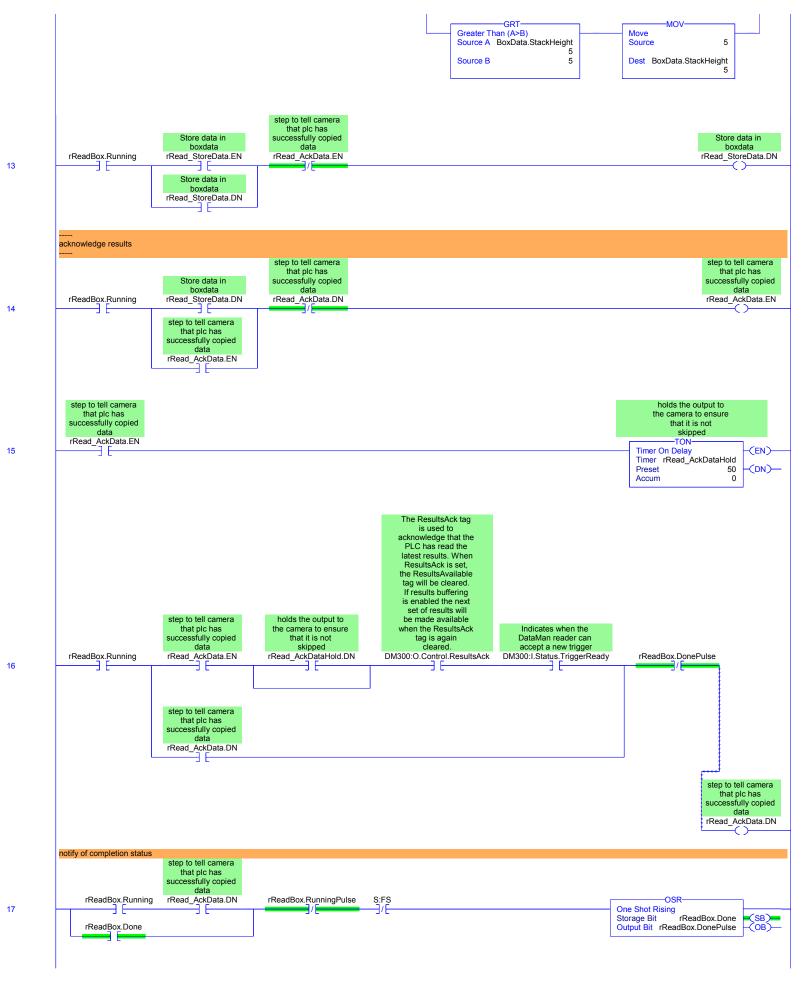
5

Total number of rungs in routine: 19





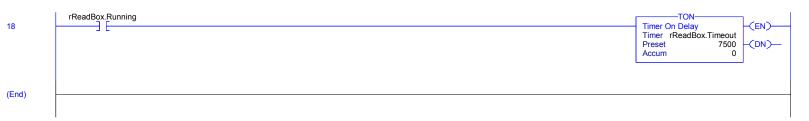




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r_ReadBox - Ladder Diagram GrahamPgkRob:GrahamPkgRob:ProcessRoutines Total number of rungs in routine: 19

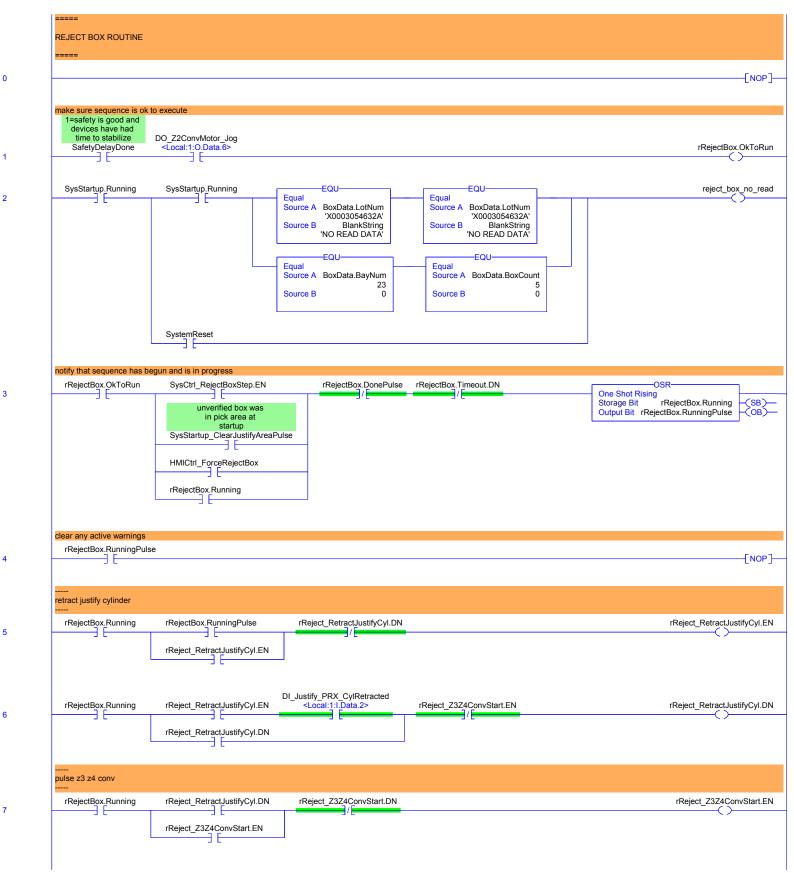
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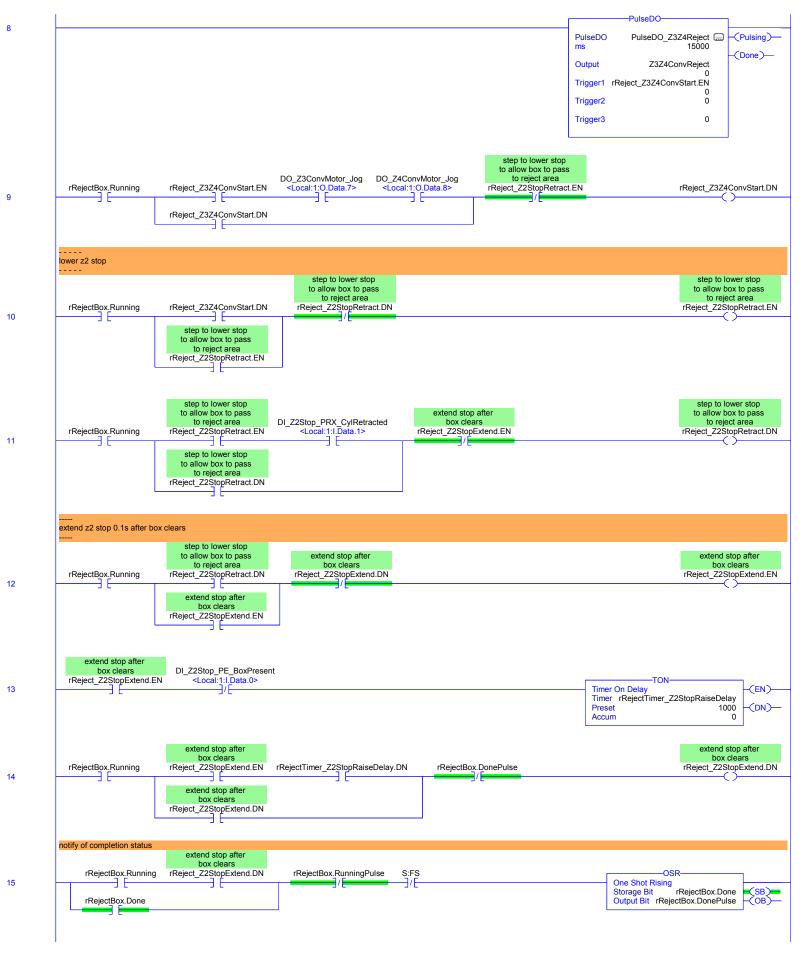


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GrahamPgkRob:GrahamPkgRob:ProcessRoutines

Total number of rungs in routine: 17

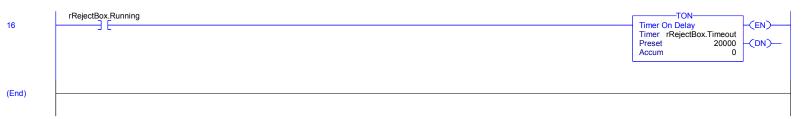




r_RejectBox - Ladder Diagram GrahamPgkRob:GrahamPkgRob:ProcessRoutines

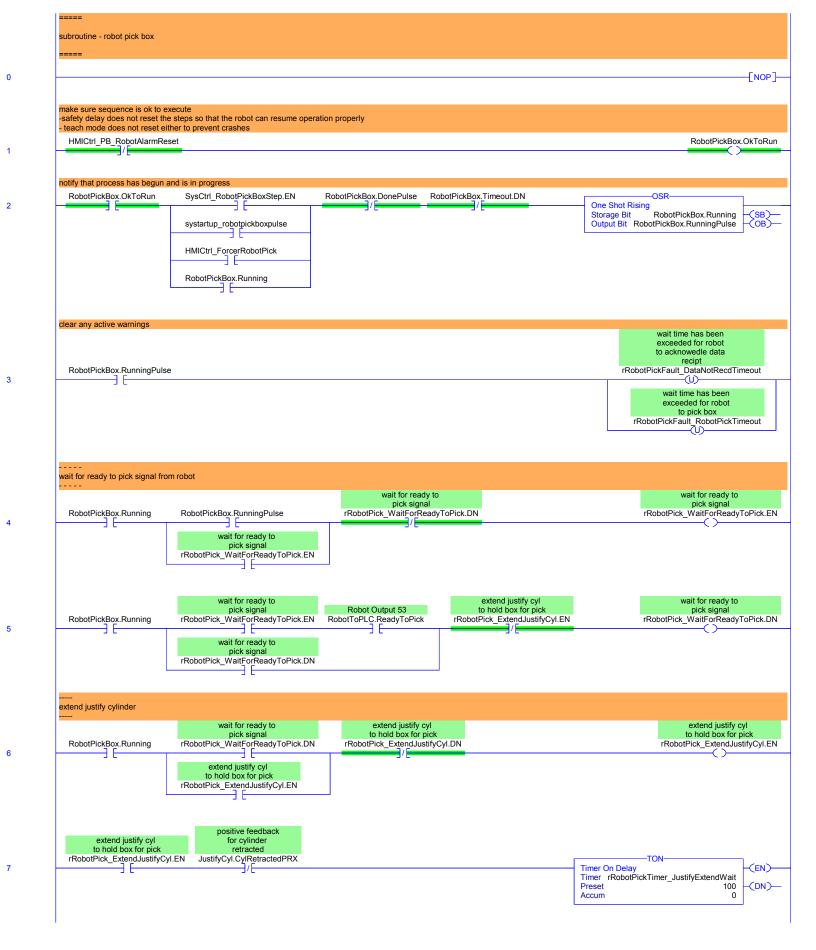
2/18/2019 2:17:59 PM Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob 20180605 F.ACD

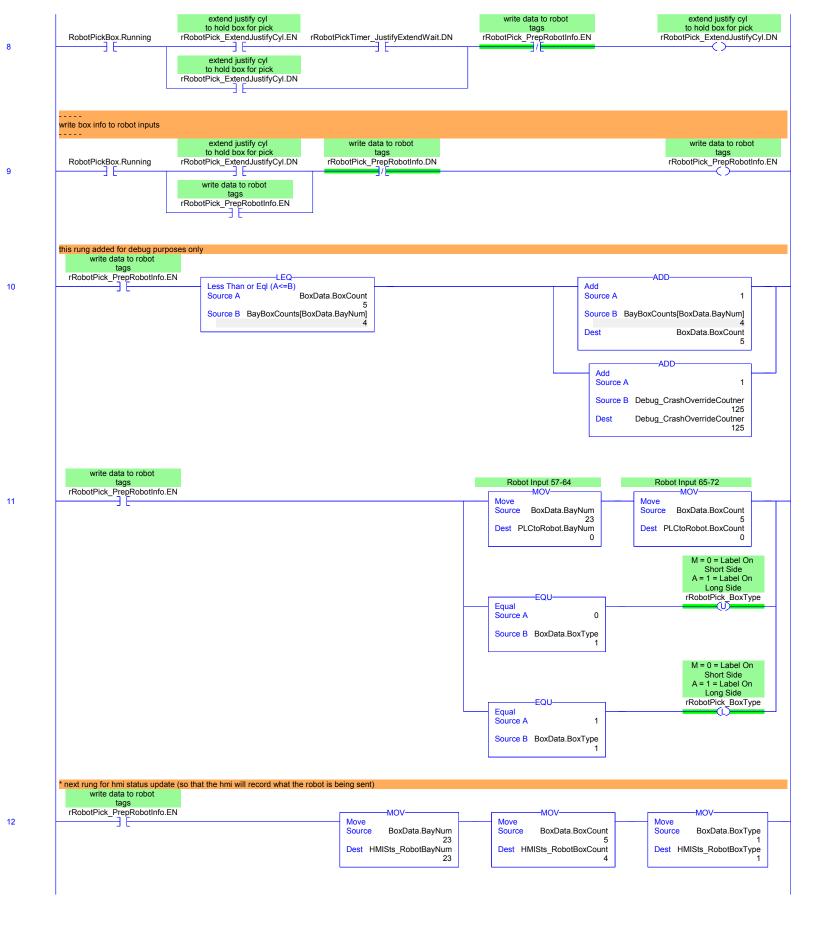
Total number of rungs in routine: 17

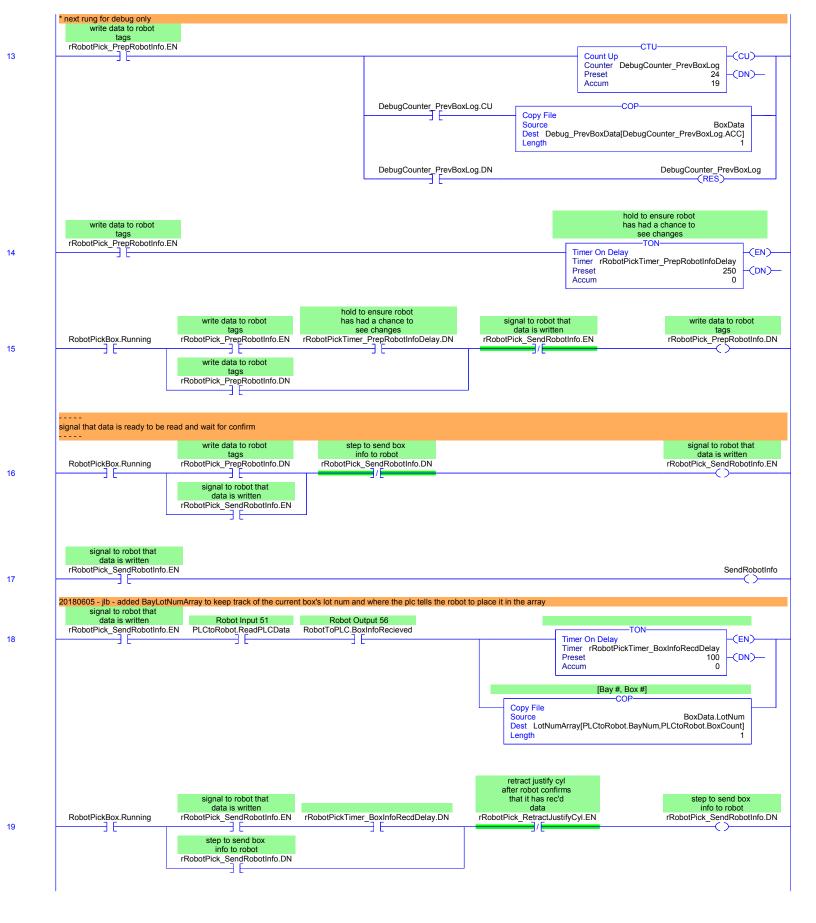


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Total number of rungs in routine: 32



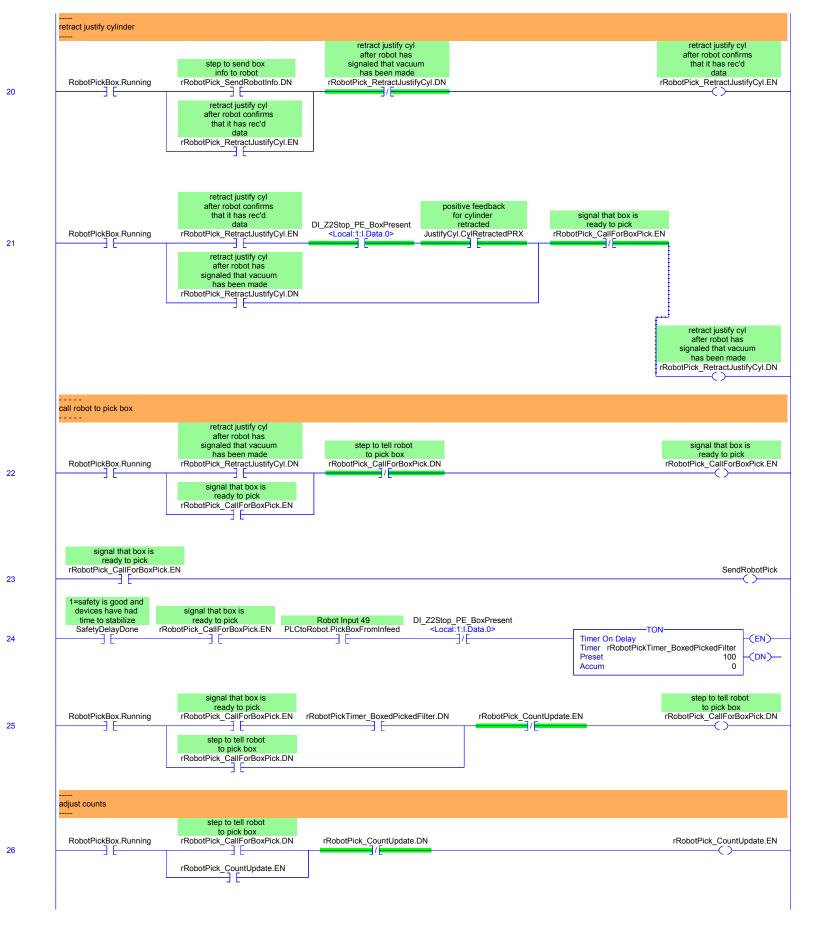




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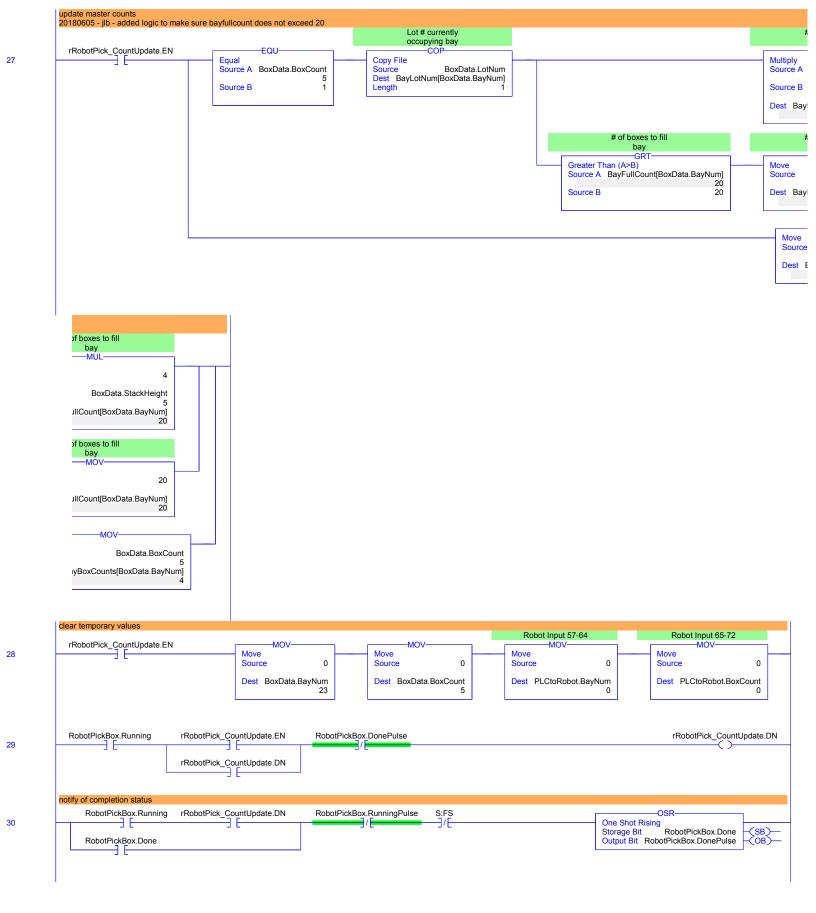
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GrahamPgkRob:GrahamPkgRob:ProcessRoutines Total number of rungs in routine: 32



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Total number of rungs in routine: 32 Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob_20180605_F.ACD

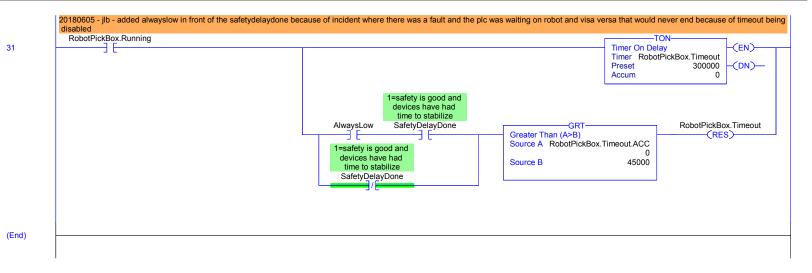


r_RobotPickBox - Ladder Diagram

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GrahamPgkRob:GrahamPkgRob:ProcessRoutines
Total number of rungs in routine: 32



SubRoutines - Ladder Diagram

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GrahamPgkRob:GrahamPkgRob:ProcessRoutines Total number of rungs in routine: 5



MainRoutine - Ladder Diagram
GrahamPgkRob:MainTask:MainProgram

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Total number of rungs in routine: 1

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Total number of rungs in routine: 1	Z:\Shared\JLB Lib\JLB Prj\Portfolio\Packaging Robot\GrahamPkgRob_20180605_F.AC
	e

GrahamPgkRob		
	Listing	1
GrahamPkgRob		
MainRoutines		
MainRoutines		_
	1	3
R01_AlarmWarnN		
2	1	4
R02_SystemSts		_
	1	8
R03_SystemStartu		
	1	10
R10_SystemCtrl		
	1	13
R11_PnuematicCt		
	1	17
R20_ScannerIO		
	1	20
R21_SystemIO		
	1	22
R22_RobotEIO		
2	1	26
R23_CameraEIO		
	1	28
R30_HMISts		
	1	31
R31_HMICtrl		
2	1	33
R32_BaySts		
_	1	34
ProcessRoutines		
r_EvaluateBox		
	1	44
r_PositionBox		
0	1	47
r_ReadBox		
•	1	50
r_RejectBox		
	1	55
r_RobotPickBox		
•	1	58
SubRoutines		
	1	64
MainTask		
MainProgram		
MainRoutine		

Ladder Diagram65