

Prog1

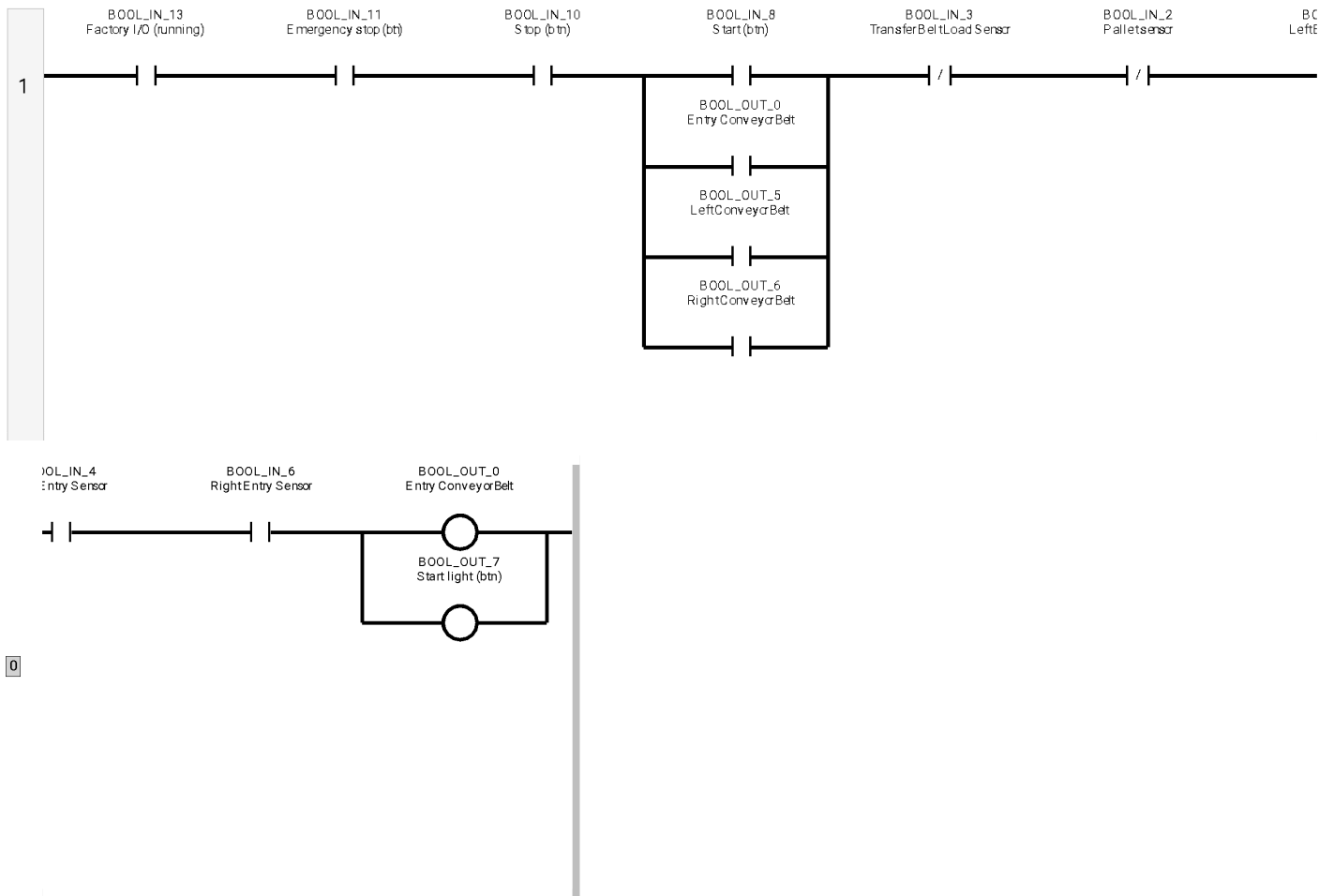
Local Variables

Name	Alias	Data Type	Dimension	Initial Value	Project Value	Comment	Direction	String Size
SmallBox_LOW		BOOL					Var	
LargeBox_HIGH		BOOL					Var	
COUNTER_VALUE		DINT		0			Var	
CTU_1		CTU		...	...		Var	
PALLET_EXIT		BOOL					Var	

Rung1 Diagram

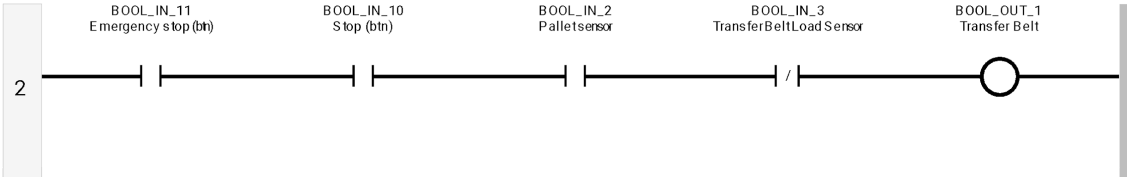
ENTRY CONVEYOR LOGIC

Unless there's a pallet on the transfer belt, or if the regular stop or emergency stop have been signaled, we want the entry conveyor to be running



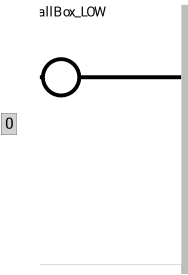
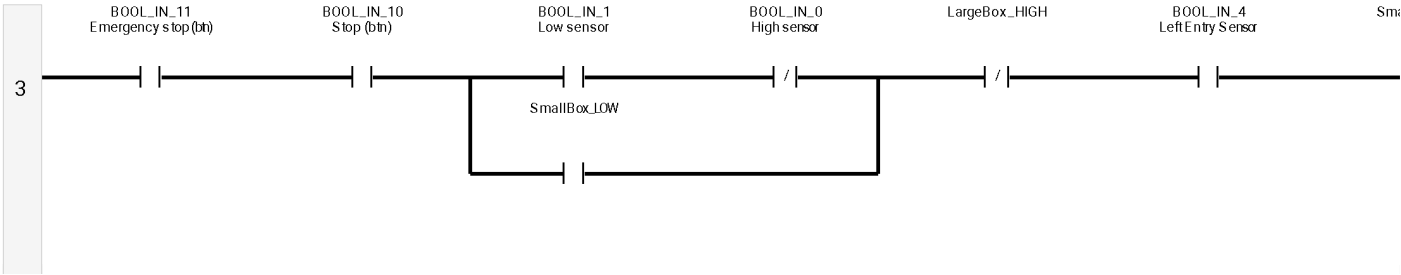
Rung2 Diagram

If a pallet has been detected yet it is not on the transfer belt, load it onto the transfer belt



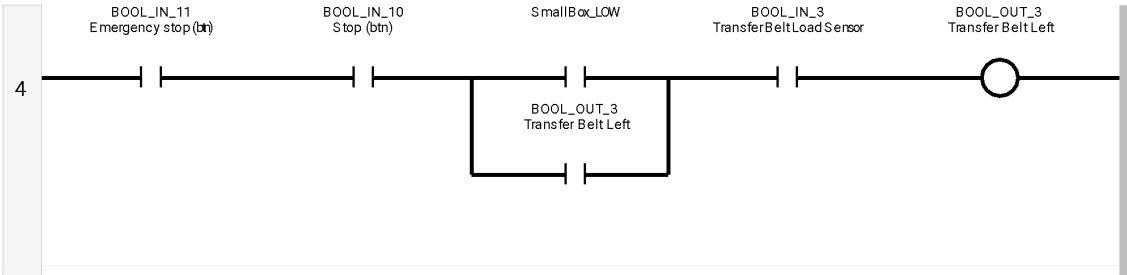
Rung3 Diagram

Logic to determine if the box on a pallet is small

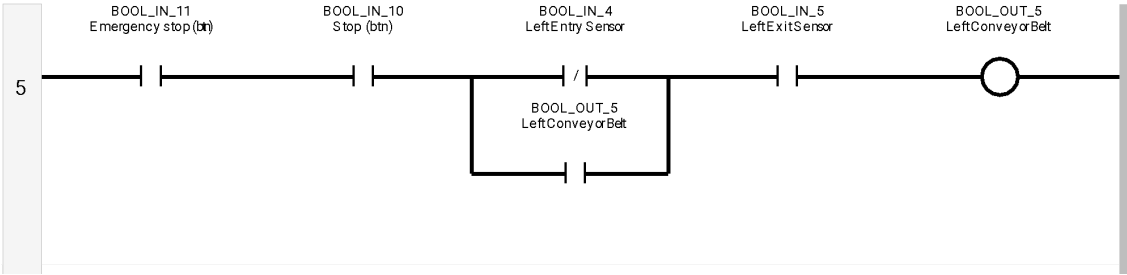


Rung4 Diagram

If we loaded a small box onto the pallet, transfer it to the left conveyor belt

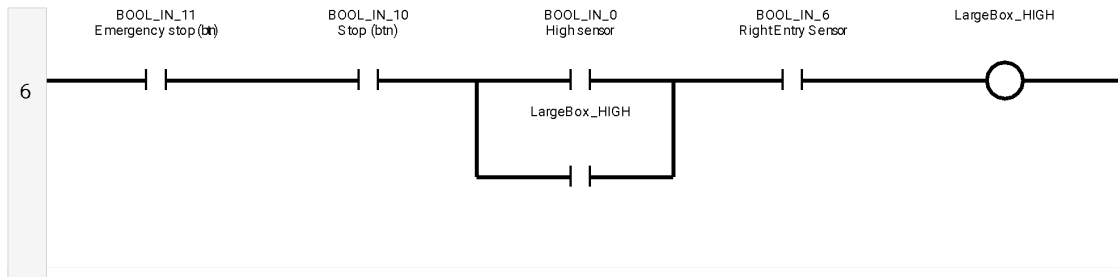


Rung5 Diagram



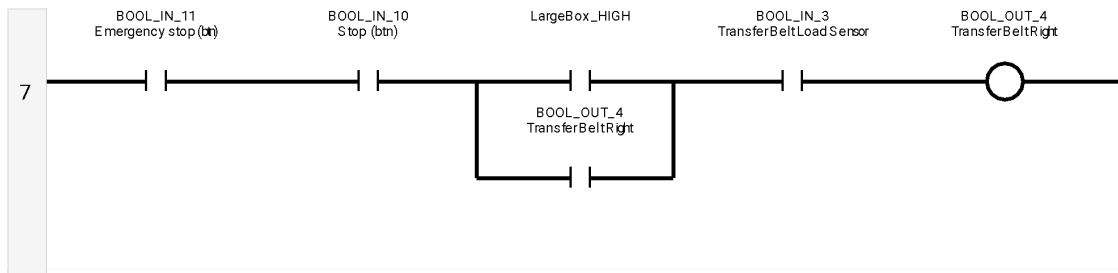
Rung6 Diagram

Logic to determine if the box on a pallet is large

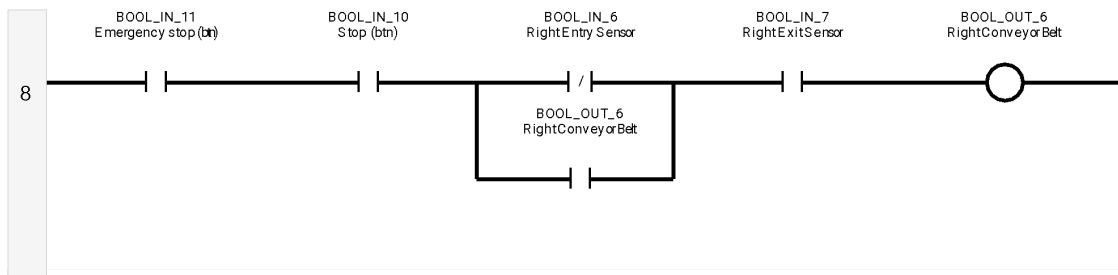


**Rung7 Diagram**

If we loaded a large box onto the pallet, transfer it to the right conveyor belt



**Rung8 Diagram**

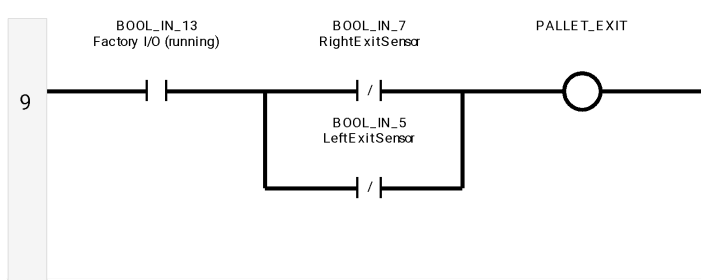


**Rung9 Diagram**

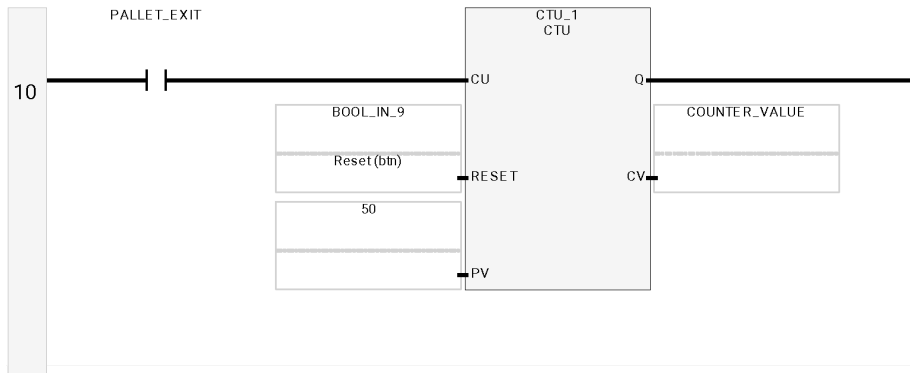
COUNTER LOGIC

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We want to update the display as CTU\_1.CV is increased, which requires a separate boolean check (since CTU\_1.Q is not true until CV >= PV)

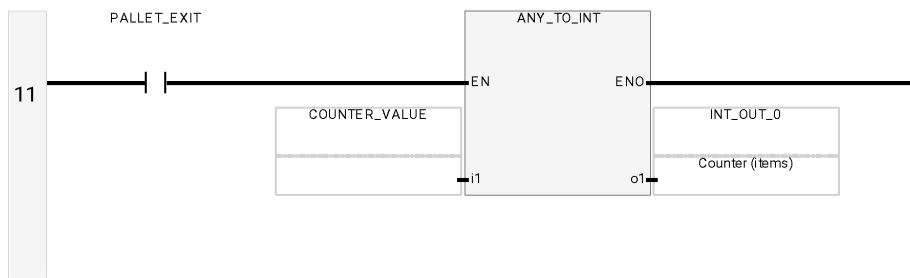


**Rung10 Diagram**



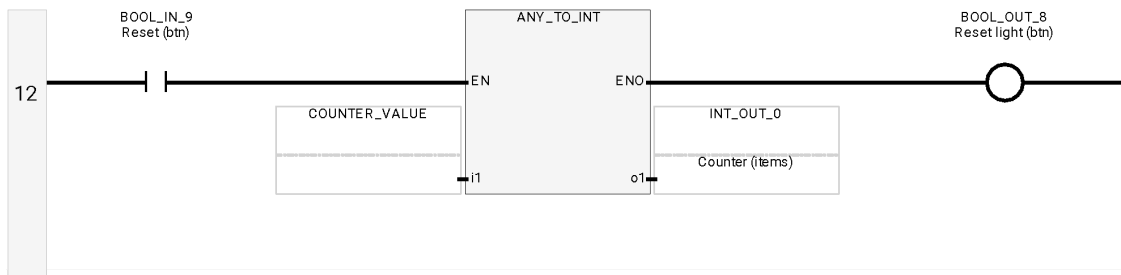
**Rung11 Diagram**

Since CTU\_1.CV is a DINT, while the counter display is an INT, we need to convert THEN assign it



**Rung12 Diagram**

Rung 8 already handles the reset of the counter, while this rung handles the display and button light

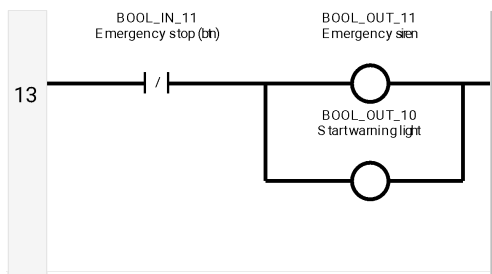


**Rung13 Diagram**

**EMERGENCY AND REGULAR STOP BUTTON LOGIC**

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We want the emergency to be on until it is manually turned off, while the regular stop can be turned off if the start button is pushed



**Rung14 Diagram**

