




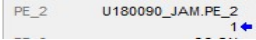
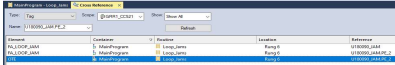
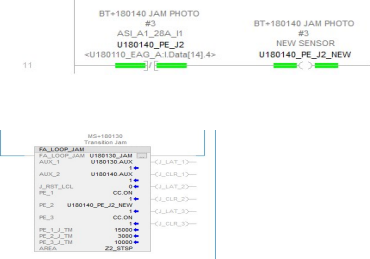
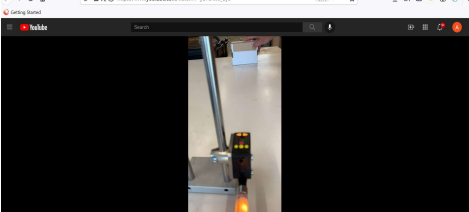


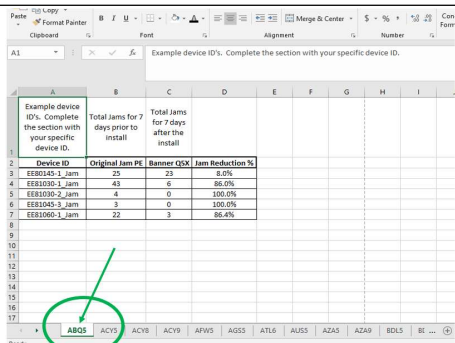
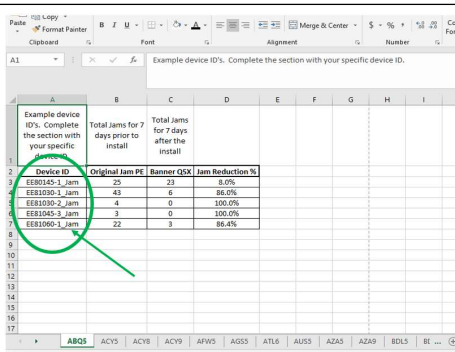
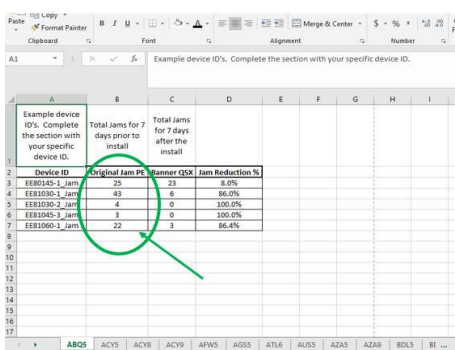
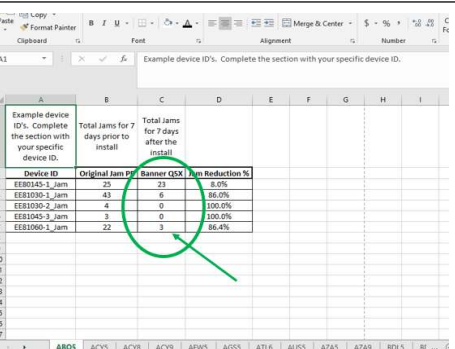
## Maintenance Job Planning/Estimating Worksheet

Planner:	WO#:	Date:
Job Contact:	Location:	Asset ID#:
Job Description: Replace current jam sensors on the collector belt with new Q5X Sensors		

### Job Scope

Job Plan Seq.	Task Description	Task Duration	Number of Resources Required	Total Estimated Labor Hours	Reference Pictures
10	*Gather all materials including any LOTO equipment and safety equipment that will be needed for the tasks. *Ensure PTP is properly filled out. *Q5X JAMAZN Sensor (APN# 41612) *Q5X Mounting Bracket (APN# 41613)	0.25	2	0.25	 
20	Q5XKLA2000-Q8-JAMAMZ APN: 41612	0.02	2	0.1	
30	Mount new sensors and attached cable. (S15l is optional)	0.04	2	0.20	
40	drill 2 inch holes for laser. (previous holes for other photoeyes can work too. 2" hole will be facilitate easier adjustments)	0.10	1	0.20	
50	In the PLC Program make note of the tag for the photoeye you are replacing. Be sure that the photoeye does not have any function other than jam detection. (ie. Full detection, product present etc.)	0.10	2	0.50	 

60	In the FA_LOOP_JAM AOI (or similar jam AOI used) where the photoeye is used change the jam timer to for this photoeye to 3 seconds. (you may need to add an extra rung of logic to activate the aoi as a 0 instead of a 1 on a jam condition depending on the AOI used)	15 min	2	0.50		
70	Using the attached video link teach and adjust the sensor timer to 2 seconds. This will add to a total of 5 seconds before you get a jam fault. (PLC time + Sensor Time)	0.10	2	0.25	 <a href="https://www.youtube.com/watch?v=sXLK2xaDWhI">https://www.youtube.com/watch?v=sXLK2xaDWhI</a>	
80	Using the attached video, adjust background suppression.	0.10	2	0.25	 <a href="https://www.youtube.com/watch?v=vdYOWj6_dy8">https://www.youtube.com/watch?v=vdYOWj6_dy8</a>	
90	Once complete with sensor teaching and PLC timer changes. Turn on the conveyor and verify everything is working as intended. Manually block the eye to ensure the timer stops the conveyor in the 5 seconds that have been programmed.	0.04	2	0.20	[Picture]	
100	Complete a before and after jam report analysis. Fill out the Quip to compare the 7 days before the change and the 7 days after the change to see the results.	0.10	1	0.25	For Air Sites:	<a href="https://quip-amazon.com/hC6cA3AI5qnrw/AIR-ONLY-Jam-tracking-before-and-after-Q5X-install">https://quip-amazon.com/hC6cA3AI5qnrw/AIR-ONLY-Jam-tracking-before-and-after-Q5X-install</a>
					For AR Sortable Sites:	<a href="https://quip-amazon.com/YD2aA4LIBKrV/ARS-ONLY-Jam-tracking-before-and-after-Q5X-install">https://quip-amazon.com/YD2aA4LIBKrV/ARS-ONLY-Jam-tracking-before-and-after-Q5X-install</a>
					For Sort Center Sites:	<a href="https://quip-amazon.com/iXOCA4YqdyWM/Sort-Center-ONLY-Jam-tracking-before-and-after-Q5X-install">https://quip-amazon.com/iXOCA4YqdyWM/Sort-Center-ONLY-Jam-tracking-before-and-after-Q5X-install</a>

100.1	Click on your site tab in the quip	0.01			
100.2	Type in each device ID corresponding to the sensor that was changed	0.20	1	0.20	
100.3	Run a jam report to collect data for a total of 7 day prior to and after the sensor change. Use the Jam Slayer Policy to assist with this step.	0.20	1	0.20	<a href="https://policy.amazon.com/guideline/51722">https://policy.amazon.com/guideline/51722</a>
100.4	Collect the total number of jams each device has experienced for 7 total days <b>prior</b> to the sensor swap. Fill in the Quip with the total number of jams for each device.	0.20	1	0.20	
100.5	Collect the total number of jams each device has experienced for 7 total days <b>after</b> the sensor swap. Fill in the Quip with the total number of jams for each device.	0.20	1	0.20	
130	Additional installation videos if needed.			0.00	SICK Swap: <a href="https://broadcast.amazon.com/videos/396616">https://broadcast.amazon.com/videos/396616</a> Allen Bradley Swap: <a href="https://broadcast.amazon.com/videos/396617">https://broadcast.amazon.com/videos/396617</a>
Total Job Plan Duration:		1.39	Total Backlog Labor Hours:		3.16
Materials Required					
Seq#	Material Description/Specification	Quantity	Price/Unit	Total Cost	SKU#
1	Q5XKLAF2000-Q8-JAMAMZ APN: 41612	1	\$373.71	\$ 373.71	

	SMBQ5XFA Mounting Bracket				
2	APN: 41613	1	\$16.00	\$16.00	
	<b>Optional:</b> S15L sensor: S15LGYPQ				
	APN: 48707				
3		1	\$25.86	\$25.86	
			\$0.00	\$-	
			\$0.00	\$-	
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Total Material Cost:				\$	415.57
Safety Requirements					
Permits:	Confined Space Entry	Hot Work	Lockout/Tagout		
PPE:	Safety Glasses, Safety Shoes, Gloves				
You will need to order one sensor and one bracket for each jam sensor you will be replacing.					
Special Tools Needed:					

(Insert Job Site Photos)