

Description of component, subsystem, or function	Symptom (what?)	Effect (so what)	Failure mode (why?)	Probability of failure	Severity of effect	Risk priority
Sousaphone arms	Each side isnt bent to correct angle.	The holes don't line up on the brackets.	We are bending the brackets by hand.	4	4	16
			The Jig isnt lined up on the brackets.	3	4	12
			Store bought part and the brackets arent always the same	2	4	8
Wood Base 2x6	Counter drilled holes are varying depths for bolts.	Bolts tighten differently for each part.	Drilling counter sunk holes by hand.	3	3	9
		part failure is random.	Cant calculate when parts will fail.	2	4	8
		part bases are not interchangeable.	Each base is drilled to a different dimension.	4	4	16

		Very				
		Probable	Probable	Occasional	Remote	Improbable
		5	4	3	2	1
Catastrophic	4	20	16	12	8	4
Critical	3	15	12	9	6	3
Marginal	2	10	8	6	4	2
Negligible	1	5	4	3	2	1

Severity of Effect

Catastrophic	The failure causes substantial damage to the product itself or related items (including people), requiring repair.
Critical	The failure causes significant damage to the product itself or related items, requiring repair.
Marginal	The failure causes some damage to the product itself or related items, potentially requiring repair.
Negligible	The failure causes no significant damage.

Probability of Failure

Very	
Probable	Every time
Probable	Most times
Occasional	Observed multiple times during the project.
Remote	Might be possible during the project.
Improbable	Maybe observed once during the project or predicted to happen after hand off.

Remedial action	Probability of failure after action	Severity of effect after action	Risk Priority	Total Score before action	Total score after action was applied
Have facilities bend the brackets since they have machines to do it.	1	4	4		
Create a bolt down system to hold the Jig steady and in place.	2	4	8		
Check each part before using it, and do any adjusting as needed.	1	4	4		
Use the Mill with measuring system to create holes accurately.	1	3	3		
Check depths and don't use unless they are correct.	1	2	2		
If parts are not interchangeable fix them so that they are.	2	2	4		

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16
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