

MSD Project Risk Assessment

Project Risk Assessment

ID	Risk Item	Effect	Cause	Probability	Severity	Impact	Action to Minimize Risk	Owner
	Describe the risk briefly	What is the effect on any or all of the project deliverables if the cause actually happens?	What are the possible cause(s) of this risk?			L*S	What action(s) will you take (and by when) to prevent, reduce the impact of, or transfer the risk of this occurring?	Who is responsible for following through on mitigation?
1	Long lead time on parts	Make the project late	real world scenario	9	9	81	Order long lead parts at end of first quarter	Kellen
2	Running out of budget	Unable to complete project	mismanagement of team funds	3	9	27	Completion of budget to manage costs	Kellen
3	Design Malfunctions	Push project schedule potentially making the project late	Poor equipment or design	3	9	27	Accurate analysis of working system	AJ and Chris
4	Poor Team Dynamics	Unable to Complete quality team work	Reduce quality of team project	1	9	9	Communication and even distribution of tasks	team
5	Miss team deadlines	Unhappy client/Lower grade in course	Poor management of team time	1	9	9	Complete team project timeline	team

6	Team Scheduling Conflicts	Unable to complete team work/discussion	Flexibility of group members	3	3	9	Create fix schedules to meet every week	team
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Technical Risk Assessment

ID	Risk Item	Effect	Cause	Likelihood	Severity	Importance	Action to Minimize Risk	Owner
7	Motor Housing Rotates on Bike Frame	Generator housing is not held in place allowing the generator to turn to produce current	Fixture to hold generator is not robust/strong enough	3	9	27	Create generator housing with strong clamp with rubber lining to prevent slippage	Chris
8	End of Motor shaft does not press firmly against bike wheel	Generator is unable to spin at rated speed to produce current	Clamp to hold generator housing moves or bike tire is bent	3	9	27	Design a spring to help hold generator shaft against the bike wheel	Chris

9	Bread Board/PCB does not output correct voltage/current	Phone is unable to charge	Circuits of Breadboard/PCB are not correct	3	9	27	Create simulation of Breadboard/PCB to observe the voltage/current outputs	AJ
10	Generator Produces too much heat	Generator burns up	Generator spins too fast, Housing does not dissipate heat, or phone requires too much electric load for specified generator	1	9	9	End of generator shaft has correct size wheel to run at rated speed	Chris
11	Bike Charger damages phone	Burn the phone up or phone won't charge	Circuit design does not protect phone	3	9	27	A voltage regulator is used to prevent the phone from receiving too much voltage	AJ
12	Bread Board produces too much heat inside housing	Bread board malfunctions	Enclosed Housing does not dissipate heat	9	9	81	Heat Transfer Analysis to determine heat sync required	Chris/AJ

Likelihood scale	Severity scale
1 - This cause is unlikely to happen	1 - The impact on the project is very minor. We will still meet deliverables on time and within budget, but it will cause extra work
2 - This cause could conceivably happen	2 - The impact on the project is noticeable. We will deliver reduced functionality, go over budget, or fail to meet some of our Engineering Specifications.
3 - This cause is very likely to happen	3 - The impact on the project is severe. We will not be able to deliver, or what we deliver will not meet the customer's needs.

“Importance Score” (Likelihood x Severity) – use this to guide your preference for a risk management strategy	
Prevent	Action will be taken to prevent the cause(s) from occurring in the first place.
Reduce	Action will be taken to reduce the likelihood of the cause and/or the severity of the effect on the project, should the cause occur
Transfer	Action will be taken to transfer the risk to something else. Insurance is an example of this. You purchase an insurance policy that contractually binds an insurance company to pay for your loss in the event of accident. This transfers the financial consequences of the accident to someone else. Your car is still a wreck, of course.
Accept	Low importance risks may not justify any action at all. If they happen, you simply accept the consequences.