

P15551 Risk Assessment

ID	Risk Item	Effect	Cause	Likelihood	Severity	Importance	Action to Minimize Risk	Owner
	<i>Describe the risk briefly</i>	<i>What is the effect on any or all of the project deliverables if the cause actually happens?</i>	<i>What are the possible cause(s) of this risk?</i>			L*S	<i>What action(s) will you take (and by when) to prevent, reduce the impact of, or transfer the risk of this occurring?</i>	<i>Who is responsible for following through on mitigation?</i>
1	Not being able to find the parts we need for our print head	Project delay	Limited availability	1	2	2	Wide range of research regarding the parts we need	Entire team
2	Heat management	Printer head fails, plastic pellets melted too soon	High temperatures & poor insulation	3	3	9	Insulation research, multiple solutions, possible fail/safe	Kylan
3	Improper research calculations	Coming in over budget/failed part	Buying wrong parts	2	3	6	Thorough research and calculations	Entire team
4	Inability to print for 10 hours	Failure to meet customer requirements	Clogging/heat management/lack of pellet supply/non-uniform flow rate	2	3	6	Good insulation, constant pressure, constant pellet supply, interchangeable nozzles	Entire team
5	Team Complications	Project delays	Miscommunication, disagreements, scheduling conflicts	3	2	6	Communicate, set up meetings prior, talk to team facilitator	Entire team
6	Failure to provide adequate operation manual	Not meeting customer requirements	Improper documentation along the way	1	3	3	Adequate engineering notebook	Alyssa
7	Safety	Inflicted injury/death	High temperatures, automated parts, shop environment	2	3	6	Paying attention, heat management	Entire team
8	Delayed part delivery	Project delays	Unreliable suppliers	1	2	2	Purchase from reliable sources	Alyssa
9	Scope creep	Project delays	Trying to incorporate too much	2	2	4	Functionality first, stick to project plan	Alyssa
10	Unavailable customer	Project delays, lack of communication	Busy	3	1	3	Clear communication, alternative resources	Alyssa

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.