

Description of component, subsystem, or function	Symptom (what?)	Effect (so what)	Failure mode (why?)	Probability of failure	Severity of effect	Risk priority
Extruder	PLA filament is not extruded	part fabrication is not completed	stepper motor for advancing filament is slipping	4	4	16
			extruder nozzle is clogged	2	4	8
			filament is melting too far up extruder	4	4	16
Bed	PLA part is warping (detaching from surface)	part thickness varies	PLA is not adhering to bed	3	3	9
			extruder part surface quality is low	2	2	4
			part fabrication is not completed because part is dislodged	2	4	8

		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

