

FMEA Example - Failure Mode and Effects Analysis:

Process Step	Potential Failure Mode	Potential Failure Effect	Severity (S)	Potential Causes	Occurrence (O)	Current Process Controls	Detection (D)	RPN	Recommended Actions
What is the Step?	In what ways can the step go wrong?	What is the impact on the customer if the failure mode is not prevented or corrected?	How severe is the effect on the customer?	What causes the step to go wrong (i.e., how could the failure mode occur)?	How frequently is the cause likely to occur?	What are the existing controls that either prevent the failure mode from occurring or detect it should it occur?	How probable is detection of failure mode or its cause?	Risk priority number calculated as S x O x D	What are the actions for reducing the occurrence of the cause or for improving its detection? Provide actions on all high RPNs and on severity of 9 or 10
ATM Pin Authentication	Unauthorized access	<ul style="list-style-type: none"> Unauthorized cash withdrawal Very dissatisfied customer 	8	Lost or stolen ATM card	3	Block ATM card after three failed authentication attempts	3	72	
	Authentication failure	Annoyed customer	3	Network failure	5	Install load balance to distribute workload across network links	5	75	
Dispense Cash	Cash not disbursed	Dissatisfied customer	7	ATM out of cash	7	Internal alert of low cash in ATM	4	196	Increase minimum cash threshold limit of heavy used ATMs to prevent out-of-cash instances
	Account debited but no cash disbursed	Very dissatisfied customer	8	<ul style="list-style-type: none"> Transaction failure Network failure 	3	Install load balance to distribute workload across network links	4	96	
	Extra cash dispensed	Bank loses money	8	<ul style="list-style-type: none"> Bills stuck to each other Bills stacked incorrectly 	2	Verification while loading cash in ATM	3	48	