

Risk Evaluation						Risk Control
HAZARD (Danger)	INITIATOR (Potential cause of Hazard)	HARM (Potential adverse effect)	SEVERITY	OCCURRENCE	RPN	RISK MITIGATION
Broken Display and Exposed Electronics	Wall Dock Installation Failure	Separation of enclosure parts, sharp plastic debris, broken glass, exposed electronics, and could fall on foot.	5	1	5	Provide wall mount prep cleaning pads (isopropanol) and thermally stable adhesive pads that can support 2x device weight (safety factor of 2)
	User Drops Device		4	3	12	Provide a variety of colored accessory cases.
	Kick-Stand failure		3	5	15	Silicone feet to provide traction
	Cable tug risk.		5	5	25	Magnetic charging cable to provide immediate strain relief without damaging device.
Water Ingress and Water Damage	Water Ingress & Humidity Exposure	Electrocution and device malfunction.	1	4	4	Conformally coat internal electronic components Integrate liquid ingress protection membranes for speakers, microphones, and buttons
Unreliable Device Power Supply	Battery Failure	Device and data cannot be accessed. Short Circuit may result in battery fire and the release of noxious fumes	5	1	5	Integrate double redundancy battery management system to provide accurate SOC, balance battery cells, and monitor pack health.
	Charger Failure	Device propagates dangerous electrical surge and compromises Battery and Charger.	4	1	4	Charger shall feature a fuse and will require serial communication with the battery management system before enabling power delivery.
Data Loss	Electrical Failure	Existential copies of medical records are lost.	1	1	1	Develop a local or remote backup system to achieve information.
	Mechanical Damage		3	5	15	
Desynchronization	Poor Connectivity	Poor receptions might limit synchronization, data transfer from local devices, and provide out of date information and increase user frustration.	1	3	3	Integrate multiple antennae to maximize WiFi, Bluetooth, and LTE/5G reception.
Enclosure Warping	Thermal expansion	Warping of the device defeats water ingress protection measures and exposes electronics. Warping applies stress to other components.	1	1	1	Select lightweight chassis materials with a high impact resistance and low warping threshold.
	Repeated Drops		3	5	15	PC-ABS, Nylon with 30% Glass Fill, Aluminum, Magnesium.