Georgia Institute of Technology Capstone Project Spring 2022 Baek, Bunner, Jang Jia, Survance, Yerramilli

Specification Sheet - TranzVolt 2.0

			* specific numeric values are subject to change	Issued: 1/24/2022		Page: 1
			For: Tranzvolt 2.0			
No.	Date	D/W	Specification Requirements	Responsible	Source	Validation
General						
1	1/24/2022	D	Must be able to transport a minimum of 500 times	TBD	Sponsor Requirement	TBD
2	1/24/2022	D	Operating manual can be understood in less than 10* min	TBD	Sponsor Requirement	TBD
3	1/24/2022	D	Must be able to operate a minimum of 500 cycles	TBD	Sponsor Requirement	TBD
4	1/24/2022	D	Must be able to set up in less than 10* min	TBD	Sponsor Requirement	TBD
Physical Characteristics						
5	1/24/2022	D	Total apparatus must weigh less than 50* lb	TBD	Sponsor Requirement	The loads will be lifted along a ladder-like track
Electrical						
6	1/24/2022	w	Product can detect battery life and display it by some means	TBD	Self-imposed	Test battery capacity after use
7	1/24/2022	w	Must be able to lift materials at least 60 times from a fully charged battery	TBD	Self-imposed	Test in factory with arbitrary loads
8	1/24/2022	D	The product can detect the operation angle between 90 and 15 degrees	TBD	Sponsor Requirement	Test in factory with changing ladder angles
9	1/24/2022	w	The product can detect when the weight of off balance by more than 20* lbs per side	TBD	Self-Imposed	Test in factory with changing load distributions
Mechanical						
	1/24/2022	w	The payload shall not shift more than 1 inch in any direction while travelling up or down	ТВО	Self-imposed	Test in factory with arbitrary loads
Performance						
11	1/24/2022	D	Must engage an emergency braking system that brakes loads in free fall if the rope snaps within 0.05* second of rope breaking.	TBD	Sponsor Requirement	Test in factory with arbitrary loads
12	1/24/2022	D	Must have a user-friendly user interface that the average user can learn to use in less than 5* minutes	TBD	Sponsor Requirement	Survey users who have interacted with the new UI
13	1/24/2022	D	Must meet or exceed 275lbs. lift capacity	TBD	Sponsor Requirement	Test in factory with arbitrary loads
14	1/24/2022	D	Must meet or exceed 1.5ft/sec average lifting speed	TBD	Sponsor Requirement	Test in factory with arbitrary loads
15	1/24/2022	D	Must meet or exceed 32 ft lift height	TBD	Sponsor Requirement	Test in factory with provided ladder
16	1/24/2022	D	Must have deadload weight less than 20lbs	TBD	Sponsor Requirement	Test in factory with scale