

Associated Test Plan	Variable of Interest	Engineering Requirement (s) Satisfied	Best Repeatable Value	Ideal Criteria	Pass/Fail
TP1	Time to assemble (sec)	ER3	140 seconds	<180 seconds	Pass
TP1	# of Scratches on Mobility Aid	ER1	0	0	Pass
TP1	Measure the maximum diameter of damage (inches)	ER23	0 inches	0 inches	Pass
TP1	# of Assembly Errors	ER1, ER2, ER21, ER26	0	0	Pass
TP1	Time to detach (sec)	ER3	70 seconds	<120 seconds	Pass
TP1	Time to egress (sec)	ER4		<30 seconds	NA
TP1	Time to store (sec)	ER18		<120 seconds	NA
TP1	Volume of collapsed Overcomer in storage location (cubic feet)	ER24	22.5 cubic ft.	<8 cubic ft.	Fail
TP2	Weight of Attachment Frame	ER6	5.3 kg or 11.7 lbs	<5 lb	Fail
TP2	Weight of Catch and Throw Module	ER5	Catching: 1.5 kg or 3.3 lbs Throwing: 2.9 kg or 6.4 lbs	Total<10 lb	Pass
TP3	Exit Velocity (from the moment the ball leaves the throwing device) (ft/s)	ER27	24 ft/s	20-30 ft/s	Pass

TP3	End velocity (right before the ball lands in target) (ft/s)	ER27	24 ft/s	20-30 ft/s	Pass
TP3	Launch angle (degrees)	ER11, ER12, ER13	45	45	Pass
TP3	End coordinates (X,Y,Z)	ER11, ER12, ER13	(18.8, 0, 0.4)	(15, 0, 0)	Pass
TP3	Horizontal distance travelled (ft)	ER11, ER12, ER13	18.8 ft	15 ft	Pass
TP3	Max Vertical distance travelled (ft)	ER11, ER12, ER13	4.5 ft	<12ft	Pass
TP3	Incremental force to start moving mobility device forward due to The Overcomer	ER7		2.2 ft-lbs or 2.98 Nm	
TP3	Module extension from front of mobility aid (ft)	ER9		1 ft.	
TP3	Crank or Motor		Motor	Motor	Pass
TP4	% of Users Find Aesthetically Pleasing	ER16		>90%	