

Need	Attribute	Metric	Unit	Value	Confidence	Owner	Reference
Easily stopped	Uses instinctive behavior to stop forward motion	Instinctive stopping motion	[binary]	Yes	5	Actuator	
	Non-dexterous stopping motion	Requirement to use fingers when stopping	[binary]	No	5	Frame	
Customizable to user	Force adjustable	Initial brake activation range (per side)	[lbs]	7.5-22.5	3	Actuator	4
	Height adjustable	Height adjustment range	[in]	>10	5	Frame	1
Feels secure	Has various levels of stability	Gradual brake activation	[binary]	Yes	5	Brakes	
	Can lock when in stop position	Ability to lock when stationary	[binary]	Yes	5	Actuator	
	Frame feels stiff	Vertical displacement under \pm 5lb loading	[in]	<0.5	4	Actuator	
Moves easily	Mobile while bearing weight	Minimum brake activation load (per side)	[lbs]	7.5	4	Actuator	4
	Non-user loading does not impede motion	Only direct user loading activates brakes	[binary]	[Yes]	5	Actuator, Frame	
	Easily pushed forward	Forward-directed force	[lbs]	<12	4	Brakes	3
	No lifting required to move forward	Requirement to lift	[binary]	No	5	Actuator	
	Fits through doors	Width	[in]	<28	5	Frame	2
Can be transported by the user	Lightweight	Weight (of walker)	[lbs]	<15	4	Frame	1
Durable	System lasts for several years	Distance moved by brake surface under 50% of full brake load	[miles]	>100	4	Brakes	
Easily stored	Compact when not in use	Depth when folded	[in]	<6	3	Frame	
1. From typical Invacare 2 wheeled walker product specifications							
2. From ADA building requirements.							
3. Bachschmidt, R., et al. "Quantitative Study of Walker-Assisted Gait in Children With Cerebral Palsy: Anterior Versus Posterior Walkers", IEEE, 2000.							
4. Range of user weights obtained from benchmarking, typical body weight % exerted obtained from various rehabilitation research							
Specifications are ordered by priority.							
The ownership of each specification is assigned to one of three task forces: brakes, actuator, or frame.							
Confidence level is on a scale of one to five with five being extremely confident							