

Green Team
Product Contract
Assembly Review

Product Description: Side push wheelchair

Intended Customers: Primary customer--hospitals (MGH), museums, airports, and care facilities
 Secondary customer--individuals with regular wheelchair interaction

Market: Specialized wheelchairs

Customer Need	Product Attributes	Engineering Specifications
Enhanced pusher/rider communication	<ul style="list-style-type: none"> ▪ Head rotation in conversation 	<ul style="list-style-type: none"> ▪ <45° for pusher ▪ <60° for rider
Quick and Simple change from Share Mode to Normal Mode	<ul style="list-style-type: none"> ▪ Time to change modes 	<ul style="list-style-type: none"> ▪ <4 sec for complete reconfiguration ▪ <2 sec for partial reconfiguration
Comfortable usage for pusher	<ul style="list-style-type: none"> ▪ Ergonomic pusher interface in Share and Normal Mode 	<ul style="list-style-type: none"> ▪ Pusher interface located >30 in above ground ▪ Bending angle required for 5th-95th percentile <5° ▪ Height of interface while in use ≥0.9 m
Share Mode no more physically taxing on pusher than Normal Mode	<ul style="list-style-type: none"> ▪ Similar force to push in Share Mode as Normal Mode 	<ul style="list-style-type: none"> ▪ Within 10% of 0.03*load (load = normal wheelchair + rider)
	<ul style="list-style-type: none"> ▪ Similar force to brake in Share Mode as Normal Mode 	<ul style="list-style-type: none"> ▪ Within 10% of 0.4*load
	<ul style="list-style-type: none"> ▪ Capability of motion equal in Share and Normal Modes 	<ul style="list-style-type: none"> ▪ Continuous path curvature variable between 0° and 90°
Share Mode usable in conditions where walking side-by-side is normal	<ul style="list-style-type: none"> ▪ Width in Share Mode 	<ul style="list-style-type: none"> ▪ <42 in width
Share Mode feels as safe as Normal Mode for pusher/rider	<ul style="list-style-type: none"> ▪ Fixed interface 	<ul style="list-style-type: none"> ▪ Total bend and float <5° under maximum load