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Abstract
The refitted vehicles are the main transportation for long-distance movement for wheelchair users in Taiwan. However, there are lots of shortages due to bad design and perturb users seriously, they are: (a). the bad matching of driving system and improper structure of refitted vehicles; (b). lack of the consideration of human factors; (c). the rough refitting process due to the poverty of profession and unqualified components; (d). lack of the integration of team work service, such as product development, rehabilitation engineering, professional clinician and human factors engineering. Those problem lead to difficult operation of body transfer and getting in and out the vehicle and increase the risk during driving.

Therefore, we will use observation and interview method to probe into the problem of the user uses in this research, and using the Quality Function Deployment method to change user"s demand into engineering parameter, while determining the demand weight of require quality, we will get the answer by using the Analytic Hierarchy Process method, and make use of the Failure Mode and Effects Analysis method to be the feed back of the bottleneck technology for the Quality Function Deployment. The aims of this study are to design and development a vehicle for long-distance movement for wheelchairs based on the consumer’s life style and needs, and expect to be able to improve new products planning quality by this study, for the sake of reducing the new products development cost, shortening new product development, and then improving the successful probability of new product development effectively.
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