CONTROL INTERFACES EVALUATION OF THE PERSONAL MOBILITY AND MANIPULATION APPLIANCE

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This paper reports on the control interface evaluation of the Personal Mobility and Manipulation Appliance (PerMMA), a personal assistive robot recently developed to provide both mobility and manipulation assistance. Participants with both lower and upper extremity impairments (N=14) were recruited to operate PerMMA to complete up to 3 ADL tasks in a single session. The users? performance in completing all tasks and pre/post-evaluation questionnaires showed the ease in learning and usefulness of PerMMA?s control interfaces. As a part of the iterative development, results of this work will serve as supporting evidence and identify further areas for improvement of PerMMA.