

CROSS-SLOPE AND SURFACE TYPE INFLUENCE ON MANUAL WHEELCHAIR PROPULSION SYMMETRY

JUI-TE LIN, BS; DAN DING, PHD; SHIVAYOGI HIREMATH, MS; ALICIA KOONTS,
PHD; RORY COOPER, PHD; DEPARTMENT OF REHABILITATION, SCIENCE AND
TECHNOLOGY, UNIVERSITY OF PITTSBURGH, PITTSBURGH, PA; HUMAN
ENGINEERING RESEARCH LABORATORIES, DEPARTMENT OF VETERANS AFFAIRS,
PITTSBURGH, PA

This study focused on the symmetry effect of propulsion under different cross-slope degrees and terrain conditions. Experimental trials consisted of three cross-slope degrees and three types of surfaces. The result of our study showed that upper-extremity asymmetry was present within cross-slope conditions. Besides, different terrain had different impact on wheelchair propulsion.