

ABSTRACT

SPIN: Sensing Propulsion In Natural Environments

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SPIN (Sensing Propulsion In Natural environments) is a tool under development that characterizes multi-day, real-world mobility patterns of manual wheelchair users. In a clinical setting, SPIN would be deployed with manual wheelchair users to collect data for a week and provide clinicians mobility information via a summary dashboard. This information would inform clinicians how to customize training and optimize personalized prescription of manual wheelchairs, improving patient outcomes.

In a research setting, mobility datasets collected by SPIN would be used to inform changes to clinical assessments like the Wheelchair Skills Test, based on the measured real-world wheelchair maneuvers and skills.

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