

Walk to Beat

An innovative assistive technology for Parkinson's sufferers

Challenge

Product design technology graduate Neha Shadid Chaudhry (UWE), was inspired to invent a 'smart' walking stick after witnessing her late granddad struggle with the disease for seven years, repeatedly suffering falls when his joints seized up. Neha hopes her invention can benefit some of the 127,000 Parkinson's patients in Britain who regularly experience joint freezing and abnormal gait symptoms.

Solution

The device detects when a user's limbs have frozen and they cannot continue walking. Recognising a pause in motion, the stick vibrates to help the patient regain their rhythm and get moving again. Even small vibrations can stabilise their posture or help them to walk without any assistance. The vibrating walking stick is designed to be discreet and indistinguishable from other walking sticks.

HTH Contribution

The Health Tech Hub supported Neha in the continued development of the product's circuit board. Moving from hand to machine soldering led to the implementation of boards which subsequently eliminated a large part of the wiring, making the stick streamlined and lightweight. The improved circuit board made it easier to test the sensors more reliably. It also made the product easier to manufacture and market on a large scale.

"In the Health Tech Hub, I was exposed to the highest calibre of specialists in their respective areas. Not only that but through Medilink and the HTH's extensive list of external contacts I was introduced to the right combination of expertise and market links. My project progressed so quickly - my work with the HTH allowed me to move on from prototype to a scalable operation. I would recommend using the HTH to any small company."

Neha Chaudhry

Founder of *Walk to Beat*®



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