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[Research Paper]

A Low-Cost Solution for Quantification of Movement during DBS Surgery

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Highlights

- The low-cost, open-source system presented accurately quantifies movement
- The system captures tremor and somatotopic testing movements
- The system operates in synchrony with intraoperative neurophysiological recordings

Keywords: Deep brain stimulation; Movement quantification; Somatotopy; Parkinson's disease; Tremor; Neurophysiology

Abstract

Background: During the deep brain stimulation (DBS) electrode implantation operation with microelectrode recordings (MER) in awake patients, somatotopic testing and test