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## Research Interests

- Cognitive Aging
- Cognitive Neuroscience
- Motor Learning
- Sensorimotor Control
- Memory
- Cognitive Control

## Links of Interest



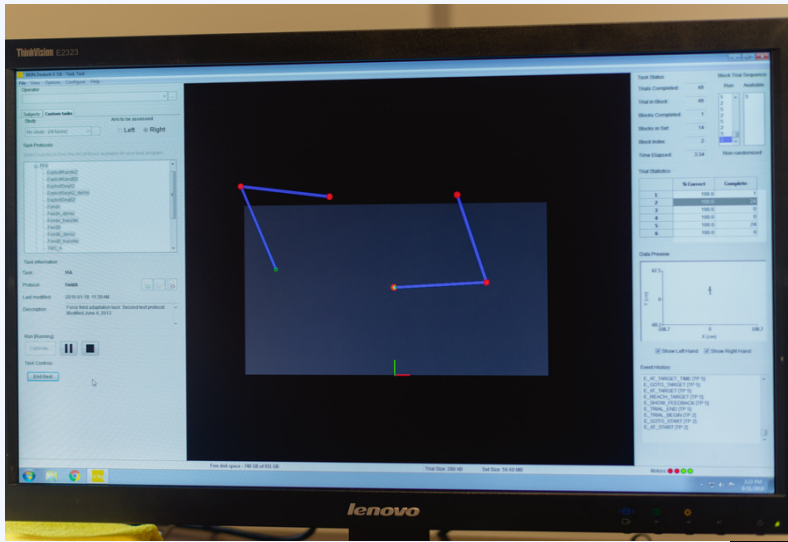
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# Research Synopsis



## **Combining robotics and neuroscience methods for cognitive aging**

Using robotic technology to measure arm reaching movements to virtual targets while recording brain activity using electroencephalography (EEG) and function near infrared spectroscopy (fNIRS) to understand the neural basis for changes in cognitive function in later adulthood.

## **Motor skill learning as a behavioral marker of early stages of Alzheimer's disease**

Identifying behavioral measures of motor skill learning that are sensitive to pre-clinical signs and early progression of cognitive impairment in dementia.

## **Age- and dementia-related changes in motor planning and decision-making as a measure of cognitive control**

Employing motor decision-making tasks to quantify differences in performance between older adults living with dementia compared to healthy younger and healthy older adults and assessing the relationship between performance of those tasks and traditional measures of cognitive control.

## **Neurophysiological mechanisms of motor learning in younger and older adults**

Investigating age-related changes in the neurophysiological signatures of motor skill learning in later adulthood.

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For more information



[Publications](#)

