DEPARTMENT OF BIOMEDICAL ENGINEERING
COLLEGE OF ENGINEERING AND APPLIED SCIENCES

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE students

FOR APPLICATION YEAR: 2024

PROJECT TITLE: Rex: A Portable, Low-Cost, Adaptive Athlete-Friendly Device for Measuring Reaction Times as an Indicator of Concussion Severity

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Project Description

This research study aims to investigate the relationship between concussion severity and reaction times in adaptive sport athletes with upper extremity impairments. The study utilizes the Rex device to collect comprehensive reaction time data, establishing baseline statistics for each athlete. By retesting athletes suspected of experiencing a concussion and comparing their post-concussion reaction times to the established baselines, insights into the severity of the concussion can be gained.

This project is in collaboration with the University of Cincinnati Medical Center with physicians and athletic trainers in orthopedics, sports medicine, etc.