

2027 Summer Research Project

School of Psychology • Primary Supervisor: Dr Sam Armstrong

Section	Description
Project title	Timing Cues and Movement Preparation
Hours & delivery	25–35 hours per week for 6 weeks (11 Jan – 19 Feb 2027). On campus, UQ St Lucia. Flexible hours and days, Mon–Fri. Two positions available.
About the project	In the moments before a movement, activity in the human motor system builds up in preparation to act. This build-up is usually described as a gradual ramp, but it may instead be a slow wave that rises and falls at a regular rate. Recordings of brain activity alone cannot separate these two possibilities, so whether motor preparation ramps or oscillates is not yet known. This project uses behaviour to address this question. Participants respond as quickly as possible to targets that follow either a single warning cue or a series of regularly timed cues, with some targets arriving slightly early or late. Depending on progress, the experiment may incorporate brain stimulation (tACS) and can be tailored to scholars' interests and the studies running in the lab.
What you'll do	• Help set up and pilot the computer-based task • Recruit, book and test adult participants • Assist with brain stimulation sessions (once trained), if included • Organise and screen data
What you'll learn	Scholars participating in this project will gain practical experience in cognitive/behavioural neuroscience research, including: • Conducting computer-based experiments with human participants • Learning how reaction time studies are designed and executed • Participant recruitment and laboratory testing • Learning basic approaches to analysing experimental results
Project outcomes	A clean dataset that feeds into the lab's ongoing research and a short summary of what the data show. The work may contribute to a conference presentation or publication.
Who should apply?	This project is suited to students with a background in psychology who are interested in cognitive neuroscience and experimental research. Preference will be given to students in their 3rd or 4th year, although exceptional 2nd-year students will also be considered.
Team & supervision	Dr Sam Armstrong
Additional opportunities	
Additional requirements	
Contact	Students are strongly encouraged to contact the supervisor before applying - samuel.armstrong@uq.edu.au