

# Using MEG to Assess Oscillations in the Brain During Tactile Stimulation at CUBRIC, Cardiff University



Installation of New Galileo Tactile Stimulator at CUBRIC, Cardiff University

Brainbox recently had the opportunity to support the installation of a new [Galileo Tactile Stimulator](#) at the Cardiff University Brain Research Imaging Centre ([CUBRIC](#)) with Research Fellow [Dr Holly Rossiter](#).

The new system will be used by neuroscience researchers at CUBRIC to supplement their work using non-invasive brain stimulation and imaging techniques. "We are trying," Dr Holly Rossiter tells us, "to assess the role of the primary somatosensory and primary motor cortex in sensorimotor integration using pneumatic tactile stimuli to the hand."

The Galileo Tactile Stimulus System is an 8-channel, pneumatic evoked tactile stimulation device uniquely designed for use in fMRI, fNIRS, MEG, EEG and PET environments.

On the use of the stimulator in her research, Holly explains that it will build upon some of her [past work investigating the role of beta oscillations in the sensorimotor cortices](#), "There is an idea that different frequencies of brain waves are involved in top-down motor commands and bottom-up sensory feedback, so using magnetoencephalography (MEG) to assess oscillations in the brain during tactile stimuli will help us to answer that question."

As with most researchers, the team at Cardiff University have had their research interrupted over the past year. "We were halfway through recording our latest study when COVID shut the centre down for scanning, so it has been frustrating but we're now back up and running and acquiring new imaging data to analyse."

With the lab back open, Dr Holly Rossiter hopes to publish her research using the [Galileo system](#) in the coming months, with her future research goals set on starting an exciting new study that will look at how different anaesthetic drugs can affect sensorimotor integration, and the oscillations that are associated with it. She explains, "Our future studies will focus [...] on understanding how motor and somatosensory areas of the brain communicate during movement to revise and correct."

We look forward to hearing more about Holly and the team at CUBRIC's research soon.

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Full information on the Galileo Tactile Stimulator, and a brief introduction to tactile stimulation, can be [found on the Brainbox website](#). If you're interested in using tactile stimulation in your own research, [get in touch with us here](#).

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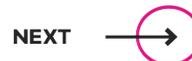
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[Breakfast Workshop: Introduction to Focused Ultrasound Neuromodulation](#)  
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[Brainbox Initiative Conference 2022](#)  
*Wellcome Collection, London*  
22 Sep 2022



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