

Checklist for using the MEG lab

Before the participant arrives

- Make sure MEG has been tuned
- On Acquisition computer: Sign into sinuhe, Neuromag, Data Acquisition
- **Load project and LOAD SETTINGS**
- Switch on: MSR lights, power (in cabinet), projector, CCTV, eye-tracker and stimulus PC
- Check trigger cables to interface box on control desk
- Check response pads
- Check that eye-tracker and triggers are registering in MEG (if required)
- Audio (if required): check sound and prepare ear pieces
- HPI coils: check resistance with Ohm-meter and prepare with tape
- Electrodes: prepare with sticker washers and have gel and syringes ready
- Glasses (if required): prepare MEG glasses with appropriate lenses
- Paperwork: have consent forms and instructions ready

Preparing the participant

- Explain procedure and task to the participant
- Have participant sign the consent form
- Show changing room, offer locker and give scrubs
- Ask to remove shoes, metal object and makeup (if required)
- Offer participant toilet and drink
- Attach the HPI coils and electrodes (ECG, EOG, EMG) and EEG cap (if required)
- On sinuhe: enter the participants details under PATIENT
- Digitize the head

The MEG scan

- Seat the participant in the MSR room
- Repeat instructions if necessary
- Plug in electrodes and coils. Check ECG, EOG and EMG signals on Acquisition PC
- Give earphones (if required)
- Raise chair and check if participant comfortable
- Install table if required
- Eye-tracker and response pads (if required): place on top of table
- Shut the MSR door
- Speak to participant over the intercom
- Measure head position
- Start MEG recording
- Start stimuli
- Intercom: turn off if normal subject and leave on one-way if patient

*At the end of each recording block save the dataset or before it reaches 2GB (around 20 minutes)

After the recording

- At the end of each session remove participant from MSR, remove coils and electrodes
- Bring to changing room to collect their belongings and offer sink or shower if EEG has been used
- Polhemus: switch off, clean stylus pen and HPI coils with alcohol wipe
- Electrodes: clean using the toothbrush and hang to dry
- EEG cap: (if used) wash and hang to dry
- Make sure there is no tape and stickers left on floor, chairs and tables in lab and MSR
- Log off sinuhe
- If last recording of the day: switch off CCTV, eye-tracker PC, Stimulus PC, Projector and MSR lights
- Log your study, stating that all went well or logging any problems you encountered

Specific Project Settings

1. Projector Screen distance: width x height

2. Trigger box: Buttons/lines

3. Configuration for Electrodes and sensors (e.g., ECG, EOG, EMG)

4. Digitisation and participant immobilisation settings

5. Eye-tracker settings (e.g., distance from participant, binocular or monocular, calibration)

6. Grip-force/ joystick

7. Visual display settings (on PC)

8. Audio settings (on PC)

9. LFP (if required)

10. Folder on Stim PC