| **Person 1** | **Person 2** |
| --- | --- |
| * Switch on the OPM system * load previous tuning and start the tuning of the MEG system (this will take long) | Welcome your participant, consent form, and go to the changing room. |
| * Save tuning and start the MEG acquisition setting (setting, preparation, subject…). Remember to turn off internal active shielding (IAS) when recording with OPM. Save preparation. * Connect to the OPM system, re-start and localize the sensors * Do an empty room recording with both OPM and MEG systems. | Prepare your participant:   * Place EEG cap * Place electrodes EOG/ECG electrodes and check impedance. * Attach HPI coils. * Fill EEG electrodes and check impedance (maybe Person 1 can help you). * Load preparation. * Digitize fiducials, HPI coils, EEG electrodes and head shape. * Save preparation. |
| * After digitization is saved, load the last preparation in MEG. * Turn off OPM sensors. Open the door and prepare your subject inside the room. | * Open the door and prepare your subject inside the room. |
| if you start with OPM:   * Seat the participant, connect HPI connector in OPM and EEG in MEG. connect the electrodes. * Push the participant and push OPM sensors in. * Give alarm bubble. * Give the participants whatever stimulation instruments are necessary for your experiment (for example earplugs, eye tracker, buttons…). * Screen and focus. * Camera. * Give instructions and close the door. | if you start with OPM:   * Seat the participant, connect HPI connector in OPM and EEG in MEG. connect the electrodes. * Push the participant and push OPM sensors in. * Give alarm bubble. * Give the participants whatever stimulation instruments are necessary for your experiment (for example earplugs, eye tracker, buttons…). * Screen and focus. * Camera. * Give instructions and close the door. |
| * In the OPM system, re-start and localize sensors again. You can check sensors’ localization (both the ones that are on and the ones that are off) with the plot\_sensors\_3D\_vtk. * Do an HPI pre-recording. When finished, run the check\_HPI and prepare for your next recording. * In the MEG system, load your EEG settings (IAS should be off). | * Talk to your participant, check that they can hear you and vice versa. Check their comfort and tell them what is happening. * Prepare your experiment in presentation (check if you want to change something in the code) and explain what kind of task the participant needs to do. |
| * Start the recording in both systems and monitor data. In the MEG system remember to select “record raw” and “average” (if needed). * Lab notes and monitor kss. * Save everything. | * Start your experiment and monitor progress. |
| if you now want to Switch to MEG, turn off the OPM sensors and open the door:   * Push out some OPM sensors, lower the participant out of the helmet and remove the helmet (taking great care not to pull any cables). * Push the chair to the MEG system and push in the participant. * Change HPI connector to MEG. * Screen and focus. * Camera. * Give instructions and close the door. | if you now want to Switch to MEG, turn off the OPM sensors and open the door:   * Push out some OPM sensors and push out the participant. * Push the chair to the MEG system and push in the participant. * Change HPI connector to MEG. * Screen and focus. * Camera. * Give instructions and close the door. |
| * In the MEG system, load your EEG and MEG settings (IAS should be on). | * Talk to your participant. * Prepare your experiment in presentation (check if you want to change something in the code) and explain what kind of task the participant needs to do. |
| * Start the recording in the MEG system and monitor data. Remember to select “record raw”, “average” and “cHPI”. * Lab notes and monitor kss * Save everything. | * Start your experiment and monitor progress. |
| Finish everything and go inside the room.   * Lower the participant out of the system * Disconnect and return electrode cables and alarm bubble. * Throw disposable EOG and ECG electrodes. Remove HPI coils and cap from the participant. * Let participant into changing room. * Clean HPI coils and put them back into the cart. Clean the cap. * Clean the room and put the OPM helmet either inside the cabinet with sensors pushed in, or back in the chair with sensors pushed out. * Throw clothes into laundry bin. | Finish everything and go inside the room.   * Lower the participant out of the system * Disconnect and return electrode cables and alarm bubble. * Throw disposable EOG and ECG electrodes. Remove HPI coils and cap from the participant. * Let participant into changing room. * Clean HPI coils and put them back into the cart. Clean the cap. * Clean the room and put the OPM helmet either inside the cabinet with sensors pushed in, or back in the chair with sensors pushed out. * Throw clothes into laundry bin. |

**PERSON 1**

1. STEP 1
   * Switch on the OPM system
   * load previous tuning and start the tuning of the MEG system (this will take long)
2. STEP 2
   * Save tuning and start the MEG acquisition setting (setting, preparation, subject…). Remember to turn off internal active shielding (IAS) when recording with OPM. Save preparation.
   * Connect to the OPM system, re-start and localize the sensors.
   * Do an empty room recording with both OPM and MEG systems.
3. STEP 3
   * After digitization is saved, load the last preparation in MEG.
   * Turn off OPM sensors. Open the door and prepare your subject inside the room.
4. STEP 4. If you start with OPM:
   * Seat the participant, connect HPI connector in OPM and EEG in MEG. connect the electrodes.
   * Push the participant and push OPM sensors in.
   * Give alarm bubble.
   * Give the participants whatever stimulation instruments are necessary for your experiment (for example earplugs, eye tracker, buttons…).
   * Screen and focus.
   * Camera.
   * Give instructions and close the door.
5. STEP 5
   * In the OPM system, re-start and localize sensors again. You can check sensors’ localization (both the ones that are on and the ones that are off) with the plot\_sensors\_3D\_vtk.
   * Do an HPI pre-recording. When finished, run the check\_HPI and prepare for your next recording.
   * In the MEG system, load your EEG settings (IAS should be off).
6. STEP 6
   * Start the recording in both systems and monitor data. In the MEG system remember to select “record raw” and “average” (if needed).
   * Lab notes and monitor kss.
   * Save everything.
7. STEP 7: if you now want to Switch to MEG, turn off the OPM sensors and open the door:
   * Push out some OPM sensors, lower the participant out of the helmet and remove the helmet (taking great care not to pull any cables).
   * Push the chair to the MEG system and push in the participant.
   * Change HPI connector to MEG.
   * Screen and focus.
   * Camera.
   * Give instructions and close the door.
8. STEP 8:
   * In the MEG system, load your EEG and MEG settings (IAS should be on).
9. STEP 9
   * Start the recording in the MEG system and monitor data. Remember to select “record raw”, “average” and “cHPI”.
   * Lab notes and monitor kss.
   * Save everything and do the rest of the tasks.
10. STEP 10:
    * Finish everything and go inside the room.
    * Lower the participant out of the system
    * Disconnect and return electrode cables and alarm bubble.
    * Throw disposable EOG and ECG electrodes. Remove HPI coils and cap from the participant.
    * Let participant into changing room.
    * Clean HPI coils and put them back into the cart. Clean the cap.
    * Clean the room and put the OPM helmet either inside the cabinet with sensors pushed in, or back in the chair with sensors pushed out.
    * Throw clothes into laundry bin.

**PERSON 2**

1. STEP 1
   * Welcome your participant, consent form, and go to the changing room.
2. STEP 2. Prepare your participant
   * Place EEG cap
   * Place electrodes EOG/ECG electrodes and check impedance.
   * Attach HPI coils.
   * Fill EEG electrodes and check impedance (maybe Person 1 can help you).
   * Load preparation.
   * Digitize fiducials, HPI coils, EEG electrodes and head shape.
   * Save preparation.
3. STEP 3
   * Open the door and prepare your subject inside the room.
4. STEP 4. If you start with OPM:
   * Seat the participant, connect HPI connector in OPM and EEG in MEG. connect the electrodes.
   * Push the participant and push OPM sensors in.
   * Give alarm bubble.
   * Give the participants whatever stimulation instruments are necessary for your experiment (for example earplugs, eye tracker, buttons…).
   * Screen and focus.
   * Camera.
   * Give instructions and close the door.
5. STEP 5
   * Talk to your participant, check that they can hear you and vice versa. Check their comfort and tell them what is happening.
   * Prepare your experiment in presentation (check if you want to change something in the code) and explain what kind of task the participant needs to do.
6. STEP 6
   * Start your experiment and monitor progress.
7. STEP 7: if you now want to Switch to MEG, turn off the OPM sensors and open the door:
   * Push out some OPM sensors, lower the participant out of the helmet and remove the helmet (taking great care not to pull any cables).
   * Push the chair to the MEG system and push in the participant.
   * Change HPI connector to MEG.
   * Screen and focus.
   * Camera.
   * Give instructions and close the door.
8. STEP 8:
   * Talk to your participant.
   * Prepare your experiment in presentation (check if you want to change something in the code) and explain what kind of task the participant needs to do.
9. STEP 9
   * Start your experiment and monitor progress.
10. STEP 10:
    * Lower the participant out of the system
    * Disconnect and return electrode cables and alarm bubble.
    * Throw disposable EOG and ECG electrodes. Remove HPI coils and cap from the participant.
    * Let participant into changing room.
    * Clean HPI coils and put them back into the cart. Clean the cap.
    * Clean the room and put the OPM helmet either inside the cabinet with sensors pushed in, or back in the chair with sensors pushed out.
    * Throw clothes into laundry bin.