HPI coil preparation

1) Preparative steps

- Turn Polhemus on
- Make sure that necessary equipment is present
- Remove all metallic objects from the subject and big metals from around and yourself
- Attach the Polhemus transmitter on the back of the chair, wire going downwards
- Prepare the data acquisition software

2) Position HPI coils to the scalp or cap

- Attach the 5 coils firmly to the scalp (not hair!) as high as possible
- 2 behind ears, 2 on the temples, one on the forehead
- take care to not cross the eyes, ears, or back of the head with the cables
- if you use EEG, it has its own fixing points for coils

3) Document nasion and pre-auricular locations for later use if needed and if OK to all

- Use mobile or decent camera, remember to add subject ID

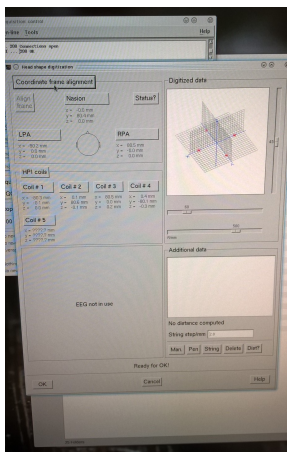
4) Put the glasses, headband or the receiver element on the subject

- The equipment should not cover the points to be digitised
- Tighten the glasses or tape the transmitter cable to the chair with tape to make sure they don’t move
- From this step on, minimise subject head movements (avoid interaction for a while)

5) Digitize anatomical landmarks, HPI coils, EEG electrodes and extra points

- Start by selecting Coordinate frame alignment, difference between left and right pre-auricular points max 5 mm
- If you have an assistant, individual points/coils can be clicked with the mouse
- Do at least 50 extra points evenly around head (if EEG not used)
- Check HPI coil digitization by performing "Check" on that part
- Save the preparation

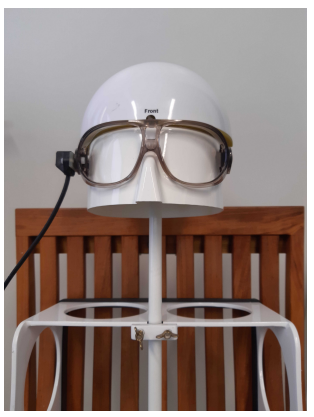
6) Perform the HPI measurement once subject is in MEG
- Suggested by the system when data collection started
- Check that Polhemus vs. MEG coil localization difference is < 2 mm
- If the results are not acceptable, redo HPI measurements a couple of times
- If this is not helping, reposition the subject and retry a couple of times again
- When "Accept" is suggested, take note of the head coordinates origin
- Check cHPI in Acquicition if you want to compensate head movements



Polhemus transmitter behind the chair

Locations of HPI-coils

Locations of the nasion and the right preauricular point



Digitisation pen