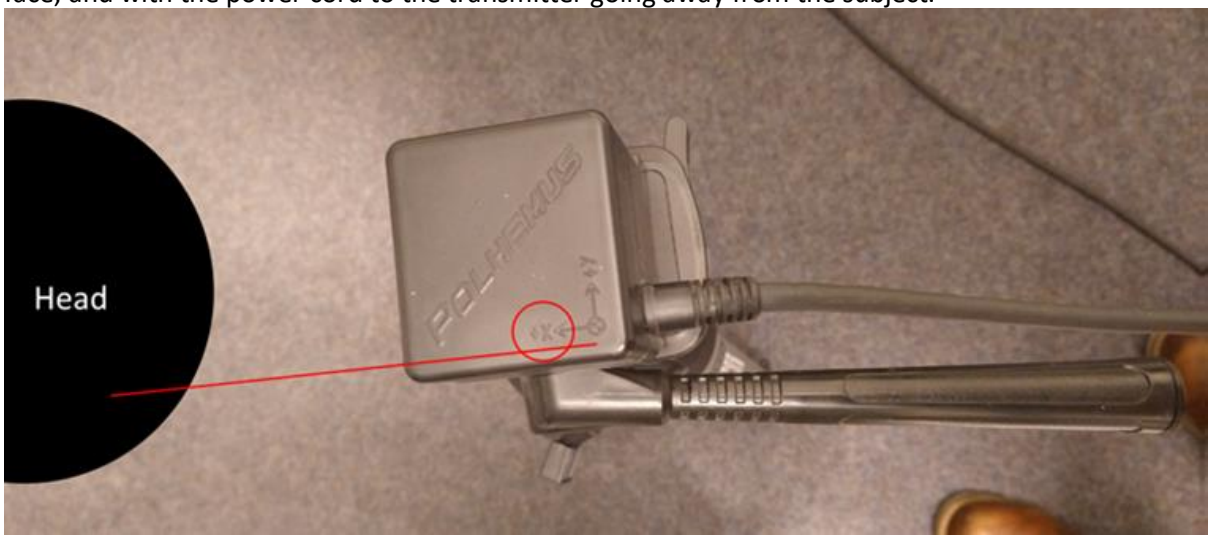
INSTRUCTIONS FOR HEAD AND ELECTRODES DIGITISATION WITH POLHEMUS FASTRACK FOR EEG LAB OHBA

In the plastic container next to the Polhemus, find:

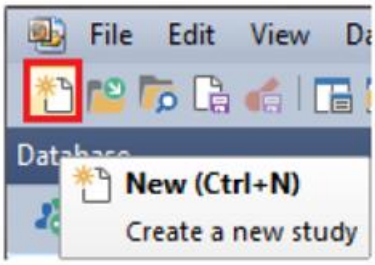
- Glasses with receivers
- Receiver pen
- USB cable, which needs to be connected from the Polhemus to the Acquisition PC

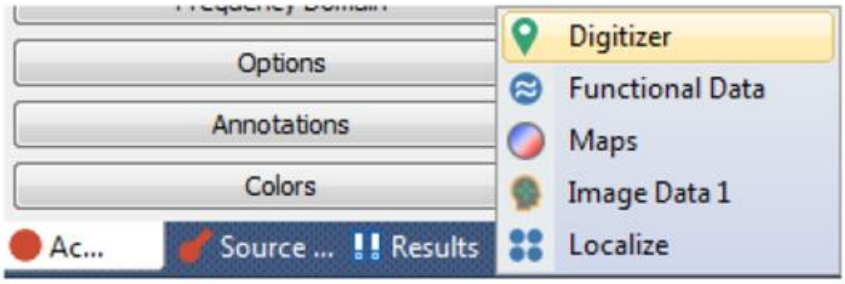
1. Prior to starting the digitization process, you should have the subject sit on a comfortable chair in an upright position. The chair should have good back support, but should not have any head support to obstruct access to the back of the head. You should be able to move easily around the subject so that all electrodes are easily accessible with the digitizing stylus.
2. Position the magnetic transmitter on the tripod less than 30cm from the subject's face. Be sure that the orientation of the transmitter is such that the positive X axis is in line of site with the subject's face, and with the power cord to the transmitter going away from the subject.



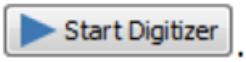
3. The receiver are affixed to eye glasses frame. Position these glasses over the cap, taking care not to move the glasses during digitization (measuring the nasion can be difficult, but possible). It is not necessary to have the head in a fixed location, although the subject should be instructed to keep his head still. The important point is to have the receivers form a triangular plane around the head; measurements are made at the point of the stylus, in relation to the plane.

4. Open Curry, and create a new Digitizer study

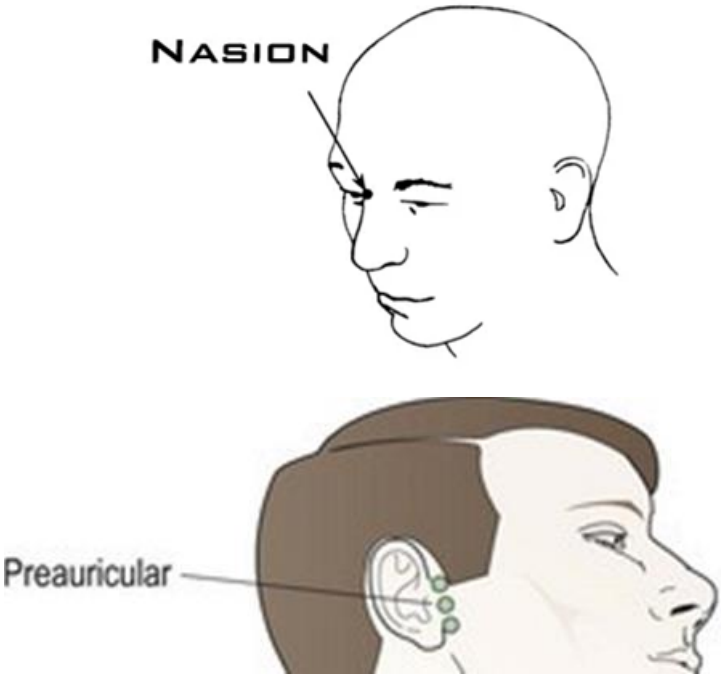


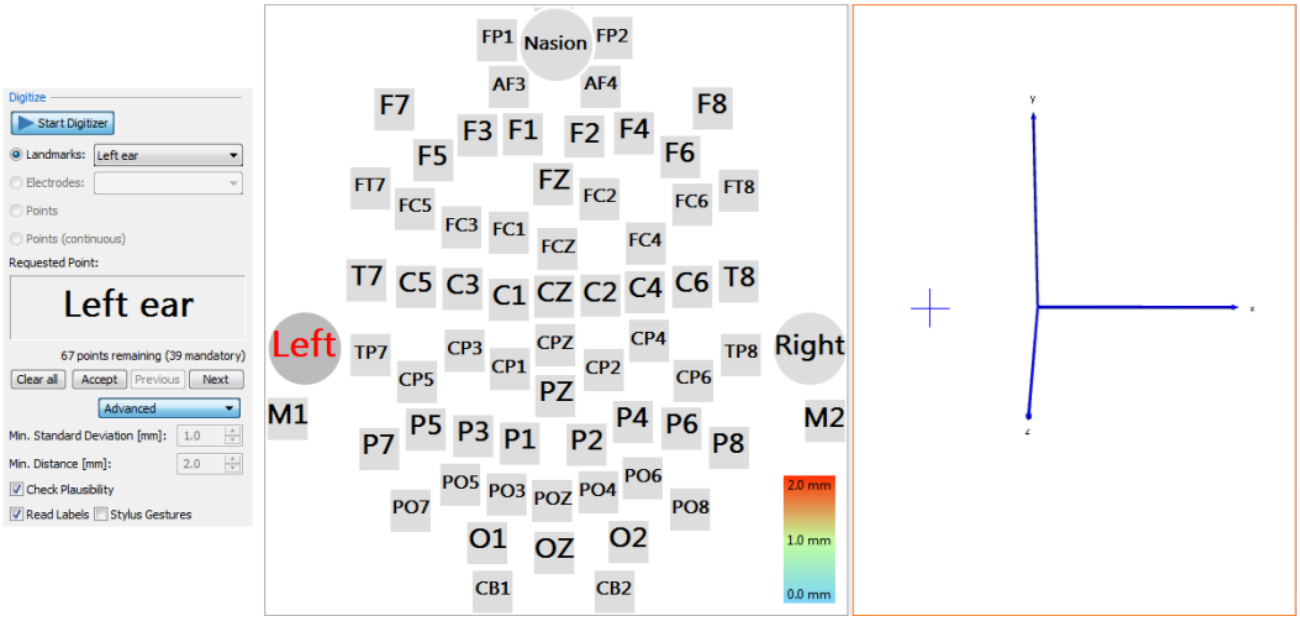


5. Select
    a) Device - **Polhemus Fastrack**
    ~~b)~~ Labels From - ~~Amplifier Configuration (or other, i.e.~~ **Montage**~~))~~
        i) Select your Quickcap montage
    c) You can decide whether to digitise all electrodes, or select “Interpolate Position” and only digitize a subset of electrode (18, 38 or sparse)
6. Now click the Connect to 3D Digitizer button

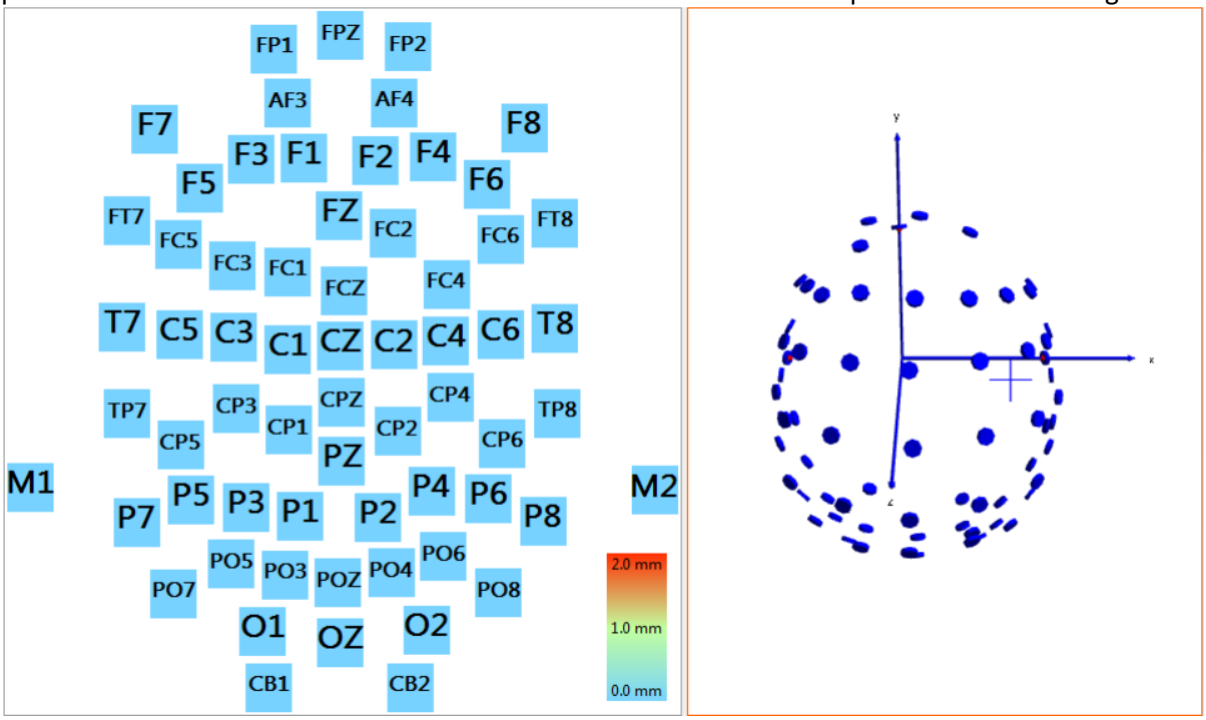


7. The Software is going to read out loud the point to digitize, which you will do by positioning the tip of the pen in the selected area, and pressing the button on the side of the pen
   Left is Periauricular point on left year.
   Right is Periauricular point on left year.
   Nasion is the area exactly between the eyes





8. Follow the audio to digitize all electrodes, by clicking the stylus button, or the button, to record the position. The next electrode will flash. Continue in this manner until all position have been digitized.



1. Saving the positions: If you are acquiring EEG data in the same study before or after digitizing, the positions will be automatically stored with the recording. If you are digitizing without recording EEG data you have to manually save your positions *click on "Save"* . Curry will recognize that the digitized positions were stored, and will remind you to save the positions explicitly when you close the study if the positions were not already saved.
   NB: As you digitize the electrodes, you will also see a list of Distances in the Output (only if you have Interpolation and Debugging enabled). These are the distances between the measured point and the previously interpolated position. As the process continues, these differences should become smaller and more stable.