

Protocol – functional movements

Movements

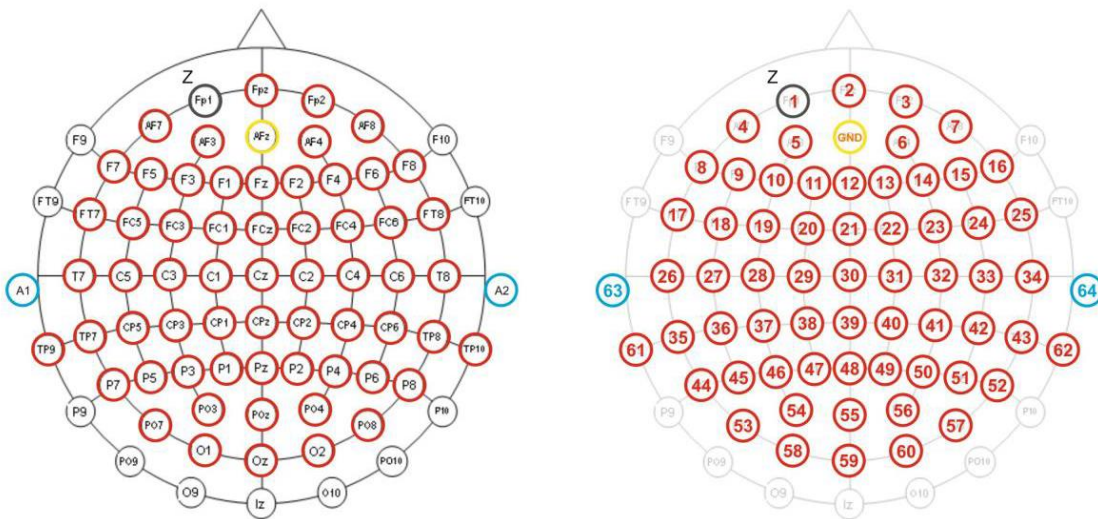
- Movement 1: Reach for a glass of water – drink – place the glass on the table.
- Movement 2: Throw a ball from the right hand to the left hand.
- Movement 3: Lift a tray from the table – place the tray on table again.
- Movement 4: Push a glass from position A to position B.
- Movement 5: Pick up a pen from the table – write the letter 'H' – place the pen on the table again.

All movements were performed in a seated position.

The order of the movements was randomized in blocks:

Blok 1	Blok 2	Blok 3	Blok 4	Blok 5
10 x Mov 1	10 x Mov 3	10 x Mov 2	10 x Mov 5	10 x Mov 4
10 x Mov 3	10 x Mov 4	10 x Mov 5	10 x Mov 2	10 x Mov 1
10 x Mov 5	10 x Mov 1	10 x Mov 4	10 x Mov 3	10 x Mov 2
10 x Mov 4	10 x Mov 2	10 x Mov 3	10 x Mov 1	10 x Mov 5
10 x Mov 2	10 x Mov 5	10 x Mov 1	10 x Mov 4	10 x Mov 3

Electrode positions



Another EEG system was used to record subject 6,7 and 8 where only 4 electrodes were recorded (FCz, Cz, C3 and C4). For the other subjects, 64 channels EEG were recorded with a sampling frequency of 512 Hz. The experimenter counted down “3,2,1,Go”, on ‘Go’ the experimenter hit the ‘s’ key on the keyboard and the subject initiated the movement. When the subject had finished the task, the experimenter hit the ‘s’ key again. Thus, the epochs should be contained between two ‘s’ separated by ~2-3 s.

Subjects

12 healthy volunteers participated in the study (6 men and 6 women: 23±3 years old).