Stroop Task CHUV: How To Use

Installation

- You need to have Unity installed with version 2022.3.34f1.
- You need to clone the Github repository either using SSH or HTTPS.
- You need to connect the Arduino to the “Unity computer” and to connect the Arduino to the EEG system. You also need to launch the EEG system on the “EEG computer”.
- You can now launch the project! Well done! you’re ready to run the task :)

Parameters

There are 3 things to modify:

- The parameters file: This file can be found in the “prefab” folder in unity assets and is called “parameters.txt”. You can open this file to modify the parameters and once modified, verify that the file is in the TaskLogic (hierarchy) -> ParametersReader (Inspector) in the unity hierarchy. If not, drag and drop it in the TaskLogic -> ParametersReader “file” parameter. The parameter file has the following parameters:
    - fix_cross: the time the fixation cross lasts on the screen in seconds.
    - blank: the time the blank screen lasts in seconds.
    - stim_max: the maximum time the word stays visible on the screen in seconds.
    - iti_min and iti_max: the min and max time of the ITI in seconds. the ITI is chosen randomly between the min and max.
    - t_neutral_rep: number of neutral repetitions for the training part.
    - t_cong_rep: number of congruent repetitions for the training part.
    - t_incong_rep: number of incongruent repetitions for the training part.
    - t_rand: boolean, if true the words are randomized in such a way that the same word is not repeated more than twice (for the training part). If false, no randomization.
    - m_neutral_rep: number of neutral repetitions for the main part.
    - m_cong_rep: number of congruent repetitions for the main part.
    - m_incong_rep: number of incongruent repetitions for the main part.
    - m_rand: boolean, if true the words are randomized in such a way that the same word is not repeated more than twice (for the main part). If false, no randomization.
    - nb_blocks: the number of blocks.
    - resting_time: the resting time in seconds.
    - do_training: boolean, if true, the training is done. If false, the training is skipped.
- The TaskLogic (hierarchy) -> Task Logic (inspector): Here, you can modify the keyboard keys to start and answer as well as the trigger numbers that are going to be shown on the EEG when triggered.

- The name of the output file: You can modify the name of the output file in the TaskLogic (hierarchy) -> TaskLogger (inspector) tab. To know where the output file is stored, the path is written in the unity console whenever you start running the task.

The task itself:

This Unity project has been developed following the task explained on the following powerpoint: PowerPoint Link