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Supplementary Material

Differentiated Effects of Robot Hand Training With and Without Neural Guidance on Neuroplasticity Patterns in Chronic Stroke

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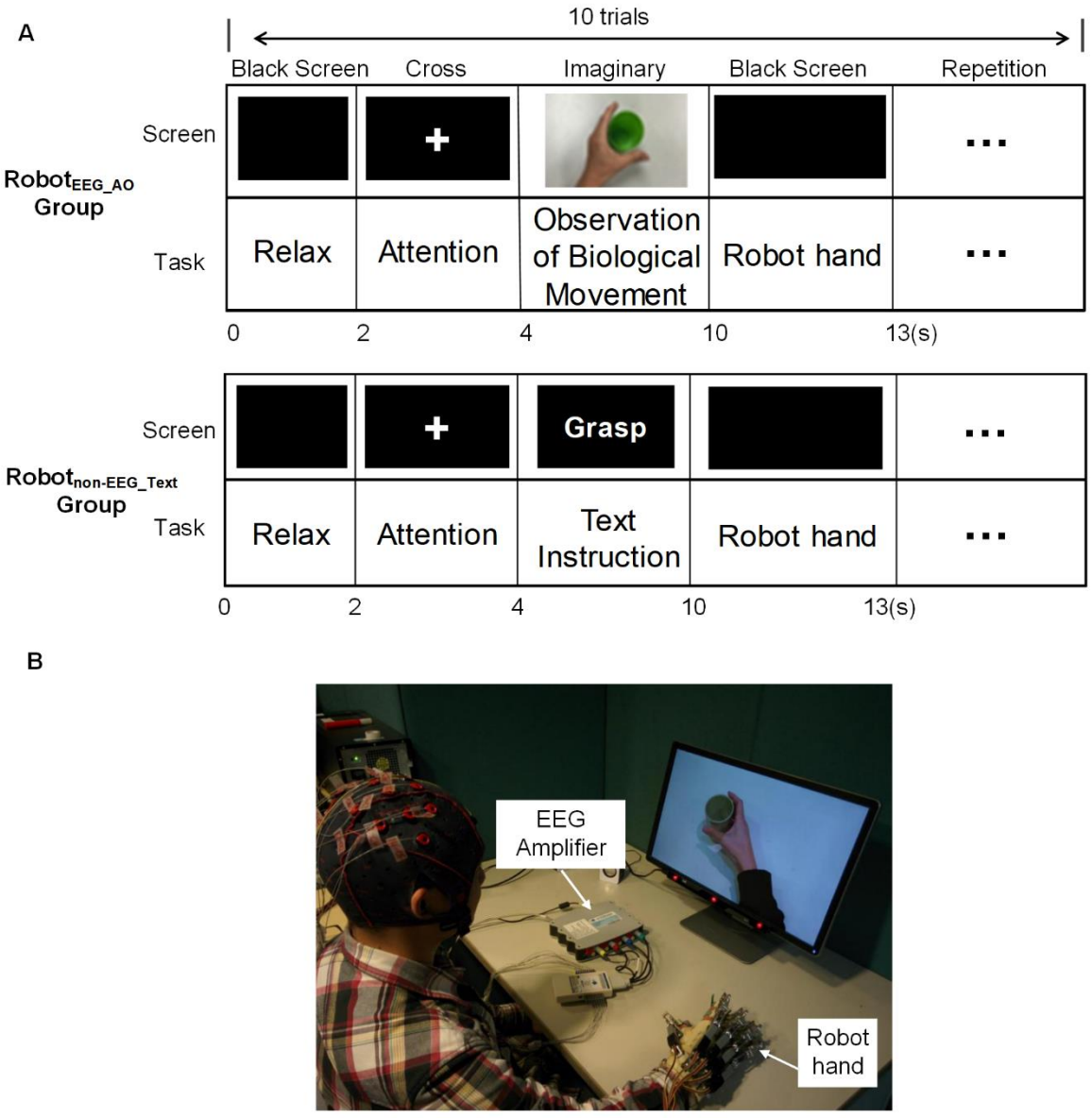
1 Supplementary Figures



Supplementary Figure 1. Experimental setup. **(A)** Experimental paradigm for two groups. During each session, 100 repetitive movements were performed by each subject with intermittent rest after every 10 trials. For $Robot_{EEG\_AO}$ group, real-time EEG were collected during imaginary and used to guide and trigger the robot hand to help grasp or release. During their imaginary, a video demonstrating either grasping or releasing a cup using the subjects' unaffected hand was applied as action observation. For $Robot_{non\text{-}EEG\_Text}$ group, no guidance from the EEG and the robot hand was triggered randomly. During their imaginary, only text instruction rather than action observation was applied. **(B)** The training system for hand training.