

### *Hand Shake Test*

**Summary:** The motor imaging test consists of showing the test subject images that resemble any part of the body, with certain order determined to best fulfill the purpose of the test.

**Images:** Artificial color images of 800x600 pixels are presented in the center of the 1366x768 pixels screen.

**Stimulus:** The stimuli used are digital representations of the hands of a human; each stimulus has a color code to facilitate identification by the test subject. The open hands are red and the closed hands are blue.

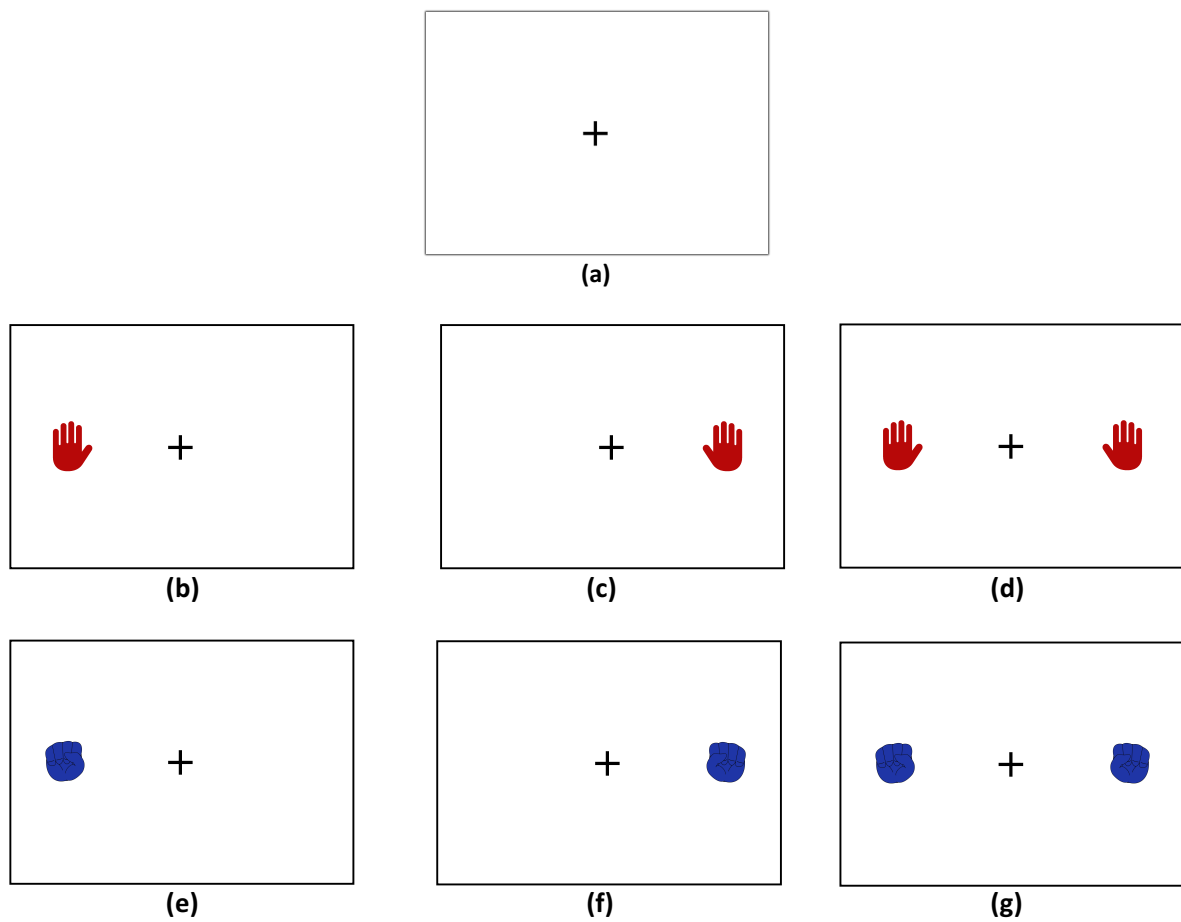
**Description:** The purpose of the test is that when viewing the image shown, the test subject generates a mental image of the part of the body that represents the image and, in doing so, generates a brain impulse, which can be acquired and registered by the acquisition system.

To further facilitate the identification of the images by the test subject, in the center of the test there is a cross in which the view of the subject is centralized and to the sides (correspondingly with the hands) the images of the extremities appear, all on a completely white background.

Each event (motor image shown) lasts 5 seconds on the screen; this provides a framework for reaction and capture of the brain signal. The complete test lasts 30 seconds.

**Sequence** (Figure 13):

- Stabilization image.
- Right hand open.
- Left hand open.
- Both hands open.
- Right hand closed.
- Left hand closed.
- Both hands closed.



**Figure 13.** Hand Shake Test setup. (a) Stabilization screen. (b) Open right hand screen. (c) Open left hand screen. (d) Screen both open hands. (e) Left hand screen closed. (f) Right hand screen closed. (g) Screen both hands closed.