

Equipment Information

Duorhythm Experiment

2407231450

The equipment listed in this information sheet will be used in the Duorhythm experiment. The use of these equipments is required to obtain detailed understanding of the processing done by human minds, brains, and bodies during the experiment.

Please read this information carefully if you consider participating in the Duorhythm experiment.

Electroencephalogram (EEG)

An electroencephalogram measures the brain electrical activity. An EEG device consists of amplifiers and a number of electrodes which will pick up the brain's electrical signals non-invasively from the surface of the scalp.

The EEG measurement requires some amount of preparation, both by yourself at home and in the laboratory before the experiment. The procedure is safe and the EEG recording itself does not induce any pain to you.



Preparation at home

To make the EEG-measurement run more smoothly, you should:

- Wash your hair with shampoo and dry it. Do not use hair conditioner, foam, gel, or hairspray. Do not braid your hair (we would have to undo the braids otherwise).
- Wear clothes that you do not mind getting dirty if some electrode gel gets on them.
- If you use face cream or make up, areas that the electrodes will come in contact will be cleaned with alcohol based abrasive gel.

Preparation in the laboratory

An EEG cap (as seen in the photo) will be put on to your head. In this cap, 64 measuring electrodes will be attached. Your eyes, nose, and mouth will remain uncovered. However, a strap must be fastened under the chin to secure the electrode in place.

A small amount of conductive gel will be applied between the electrodes and the scalp to maintain conductivity between the electrodes and the scalp. The gel will be inserted by a syringe with a blunted needle. You might feel the contact with the needle, but it will not pierce the skin.

The preparation will take about 1 hour. After the completion of the experiment, the experimenter will remove the EEG cap and electrodes from your head. If you want, you can wash and dry your hair in a shower room near the experimental laboratory. You can use the shampoo, towel, and hair dryer available in the laboratory, or bring your own if you wish.

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Gamepad (DualSense)

A DualSense™ controller will be used to control actions in the game. You will mainly be using the left joystick and right buttons to control your actions during the game.

