Versatile Bio Amplifier Datasets

Recording Protocol

This document serves as a reference for understanding the protocol followed when recording each dataset with the Versatile Bio device and its sensors, which can be found in the Download Center link: Bitbrain Versatile Bio Amplifier.

1. **BVP Signal Dataset (VERSATILEBIO_BVP)**

The BVP sensor was connected to channel 1 of the analog input.

The dataset comprises a two-minute recording in which the subject performed a simple task for one minute and rested for one minute.

2. **ECG Signal Dataset (VERSATILEBIO_ECG)**

The bipolar cable for measuring ECG was connected to channel 1 of the ExG input.

The dataset comprises a two-minute recording in which the subject performed a simple task for one minute and rested for one minute.

3. **EMG Signal Dataset (VERSATILEBIO_EMG)**

The bipolar cable for measuring EMG was connected to channel 1 of the ExG input.

The dataset includes a two-minute recording of the subject performing muscle efforts at specific times during the recording.

4. **GSR Signal Dataset (VERSATILEBIO_GSR)**

The GSR sensor was connected to channel 1 of the analog input.

The dataset comprises a two-minute recording in which the subject performed a simple task for one minute and rested for one minute.

5. **Air Flow Signal Dataset (VERSATILEBIO_AIR_FLOW)**

The air flow sensor was connected to channel 1 of the analog input.

The dataset includes a two-minute recording of baseline breathing conditions.

6. **Respiratoy Effort Signal Dataset (VERSATILEBIO_RESP)**

The respiratory effort band sensor was connected to channel 1 of the analog input.

The dataset includes a two-minute recording of baseline breathing conditions.

7. **Snore Signal Dataset (VERSATILEBIO_SNORE)**

The snore sensor was connected to channel 1 of the analog input.

The dataset includes a two-minute recording of snoring at specific points throughout the recording.

8. **Temperature Signal Dataset (VERSATILEBIO_TEMP)**

The temperature sensor was connected to channel 1 of the analog input.

The dataset includes a two-minute recording of ambient temperature conditions.

9. **Multimodality Dataset (DIADEM_EEG_VERSATILEBIO_EMG_BVP_RESP)**

The bipolar cable for measuring EMG was connected to channel 1 of the ExG input of the Versatile Bio device.

The BVP sensor was connected to channel 1 of the analog input (Versatile Bio device).

The respiratory effort band sensor was connected to channel 2 of the analog input (Versatile Bio device).

The dataset includes a two-minute recording. For the first minute, the subject performs muscle exertion at specific moments while keeping their eyes open. For the second minute, the subject rests with their eyes closed.