

# EEG DATA CAPTURE PROCESS

**PREREQUISITE:** Install the following application on your android phone: **eegID**

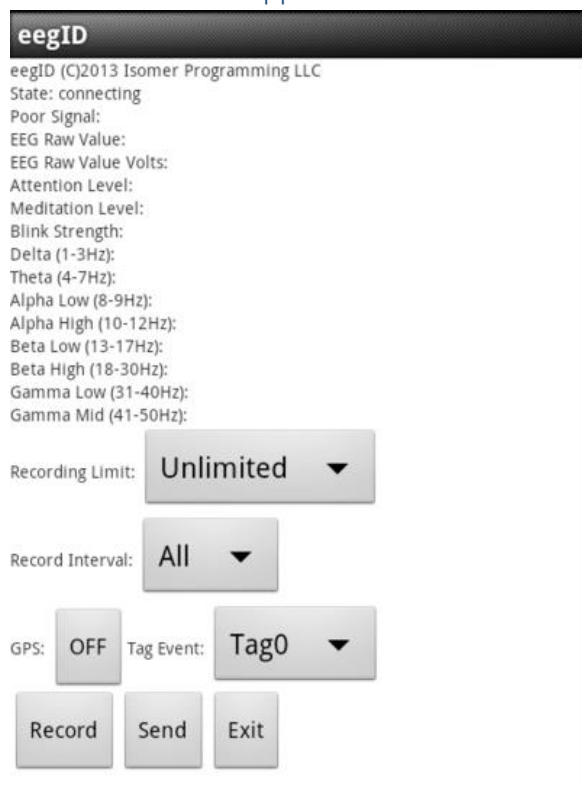
eegID is an Android application developed by Isomer Programming LLC. It enables you to connect over Bluetooth to a NeuroSky MindWave Mobile Headset, and view EEG data. This data can be recorded and stopped at will, or configured with a maximum recording limit (ex: 30min, or 10MB), after which a spreadsheet-importable comma-separated values (CSV) file including time stamps of all signal records listed above is prompted to the user to optionally email as an attachment

A minimum record interval may also be specified (ex: every 1 minute). The last recorded eegIDRecord.csv file is located on the external storage device within the folder "eegid"; file extraction via USB connection to a computer may be necessary if your selected recording limit exceeds the standard 10MB email attachment size.

**It can be downloaded for free from Google Play Store:**

<https://play.google.com/store/apps/details?id=com.isomerprogramming.application.eegID>

## Screenshot of the Application



## Screenshot of Output Sample in \*.csv file

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## BEFORE THE EXPERIMENT

Before the experiment, please ensure the following. This is vital for the success of the experiment, as any brainwave fluctuation unrelated to the experiment will distort the results.

- That you will be undisturbed for the required duration.
- Turn off all distractions and notifications, preferably switch your mobile phone to **do not disturb** and turn off the mobile data connection/Wi-Fi, so that no incoming calls stop the data capture process.
- That there is sufficient memory on your phone.
- That you are seated in a quiet place, surrounded with minimal noise for the experiment.
- That you are comfortable.

## TO BEGIN THE EXPERIMENT

Follow the steps below in order:

- Pair the MindWave Mobile headset with your mobile phone via Bluetooth.
- Wear the headset and adjust it so that it doesn't slip off during the experiment.
- Open the application eegID and check if **State: CONNECTED**. The state MUST be CONNECTED. If not, check that your MindWave is correctly paired with the mobile Bluetooth.
- **Poor Signal** must be **0**. If it is non-zero value, adjust your headset to a suitable position so the electrodes are in contact with your skin. Refer MindWave Mobile headset pamphlet. You must get a continuous zero value to begin the experiment. (If recording signal is 0, you will also be able to actively view the brain data on the application)
- **Recording limit** should be **unlimited**.
- **Record Interval** should be **1 second**.
- Leave the other parameters as they are.
- Start video play.
- Click on **Record**.

- After the video is over, unlock your phone and **stop recording** on the application. A notification box will open asking you about sharing the recording, click on email, you should now mail the recording to yourself from the email id configured on your phone. If not, find another way to transfer the data to your computer.
- You now have the required data on your computer in \*.csv file format.

Before you perform the actual experiment, capture trial data for one minute with **time interval 1 second** while testing the application (don't watch the video during this) and transfer it to your computer. Open the file for viewing on your PC to ensure the data has been extracted. This is to familiarise yourself with the data capture and transfer process.