Platform to develop medical applications using biosignals.

**Issue**

All available platforms in the market for biosignal acquisition have very closed technologies in terms of user’s accessibility to the acquired signals. Therefore, the signal acquisition only works with their specific software and it is not possible or not an easy task to link their platforms to Matlab, Labview, VB, or other high-level or low-level technical computer languages or interactive environments. This makes for hobbyists, engineering students and engineers not an easy task to develop their own applications using biosignals, since they have to struggle with the hardware development to acquire those signals first and not being able to focus on their own application.

Moreover, there’s no platform that brings together this biomedical field to the technology trends: big data, Internet of Things, etc.

**Idea**

A special hardware will be used to acquire the biosignals. This HW could be configure via the mobile phone or computer, to acquire different signals; e.g., EMG, EEG, ECG, etc. The acquired signals will be sent to the mobile phone or the computer (extra module for Bluetooth input) for digital processing and/or monitoring. If the mobile phone has an internet connection, the signals could also be displayed online.

An easy-to-use software platform will be provided in order to develop applications for the mobile phone or the computer. Each measurement, that goes to the computer or the mobile phone will be saved in and then synchronized in an online database.

**Revenue model**

The following methods are intended to be used in order to have a profitable business.

* Retail of electronic platform.
* Clinical study: companies will post their experiments and will pay people around the world to do their tests for them. A percentage fee has to be paid for each posted experiment.
* Biosignal database: all signals acquired by the phone will be sent to a database in the cloud. This will be accessible for people with a “premium” account.
* Consumables: partner with companies that sell electrodes, sell their products on the website and get a commission out of it.

**Market**

The following ideas will be used to get attraction of the product.

* Student competitions: provide the HW and a monetary price.
* Involve universities with Biomedical Engineering courses.
* Create videos online on how to do specific applications (e.g., move mouse with EEG).
* Program for kids or refugees to be interested about engineering.
* The signal of the month: post interesting signals online and people will vote each month for the most useful signal. Winner will get an award. This will motivate people to share their measurements.