FocusBand SDK Overview   (Rev1.0 7th oct 2014)

The FocusBand SDK gives you the opportunity to take advantage of the unique features of the FocusBand EEG Headset in the creation of Apps for Sports, Wellness, Business & Gaming.
 The SDK comprises:
- API
- Documentation
- Programming samples
- Support for iOS and Android Operating Systems, with Windows to follow.

This enables you to communicate with the the FocusBand, sending commands and receiving data,
The API gives you access to the:
- FocusBand Avatar States
- Raw EEG Samples
- FocusBand Status.

Commands
An app can control the Focusband with the following commands
(int) btOpen() - Opens the device Bluetooth
(int) btClose() - Closes the device Bluetooth
(int) btConnect() - Scans for a FocusBand, and connects if found.
(int) btDisconnect() - Disconnects from the connected FocusBand
(int) btStartSampling() - Instructs the FocusBand to start sampling EEG
(int) btStopSampling() - Instructs the FocusBand to stop sampling EEG
(int) txRawEEG() - Instructs the FocusBand to start sending Raw EEG samples
(int) txAvatarStates() - Instructs the FocusBand to start sending Avatar States
All commands return an integer indicating success or cause of failure of the command

Recieved Data Events
The API transfers data to the App through events:
256/sec : FocusBand Avatar States
256/sec : Raw EEG Samples, Channel 1 and Channel 2
1 / sec   : Status

Recieved Data Structures

Data is presented in structure of the following format

FocusBand Avatar States

Blink	: Boolean
Face_Tension	: Boolean
Anxiety	: Boolean
Wide_Focus	: Boolean
Medium_Focus	: Boolean
Narrow_Focus	: Boolean
Quiet_Eye	: Boolean
Left_Brain	: Boolean
Light_Mushin	: Boolean
Medium_Mushin	: Boolean
Deep_Mushin	: Boolean

Raw EEG Sample

EEG_Sensor_1	: Integer
EEG_Sensor_2	: Integer

Status

Battery_Level	: Integer
Signal_Quality_1	: Byte
Signal_Quality_2	: Byte
Lead_Off_1	: Boolean
Lead_Off_2	: Boolean