instituto de telecomunicações

FCT Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA
PEst-OE/EEI/LA0008/2011
PEst-OE/EEI/LA0008/2013

BITalino: DiY Body Signals

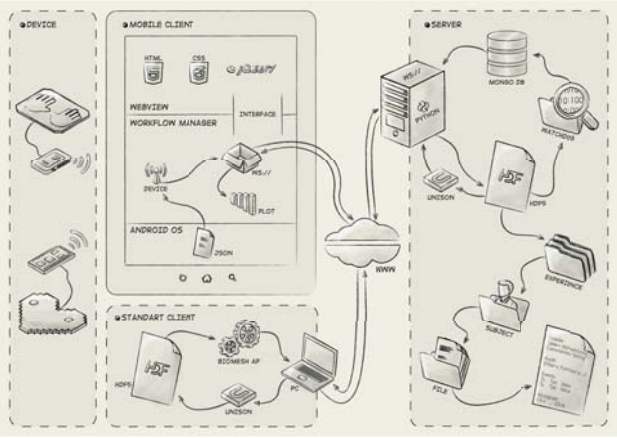
Background and challenges

Problems

> **Prohibitive costs** of biosignal acquisition hardware
> **Lack or precision** of low-cost alternatives
> Proprietary **hardware** & **software**

Existing DiY Hardware

> Designed for **physical computing**
> **Poor real-time** data transfer capabilities
> **Limited** modularity for prototyping of wearables



Description and main innovation

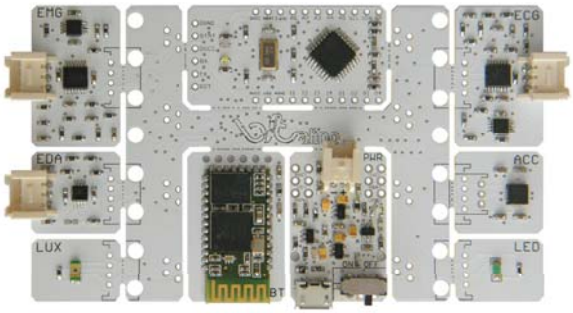


Fig. 1 – BITalino biosignal acquisition hardware

Fig. 2 – SignalBIT biosignal acquisition software

BITalino

> Modular **design**
> **All-in-one** form factor
> **Low-cost** toolkit available for everyone
> Compatible with **3rd-party equipment**

SignaBIT

> Real-time **visualization**
> Data **recording & replay**

Other Facilities

> **APIs** for all mainstream languages
> BioSPPy signal **processing toolbox**
> 3D **models** for enclosures

Achievements

> Engadget **Insert Coin Top 10** 2013
> **Biggest innovation** Exame Inf. awards 2013
> **Most innovative** technology at MIT PT E3 forum
> **1200+ users worldwide** in 1 year

> 2 **Journal** papers
> 7 **Conference** proceedings

> 1 Technology transfer **agreement**

plux

IT Grant "Android Biometrics Platform"
FCT PTDC/EEI-SII/2312/2012 LearningS

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