

Utilizando sensores de dispositivos móveis em Pure Data

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IME - USP

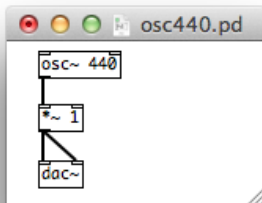
25 de agosto de 2014

Motivação

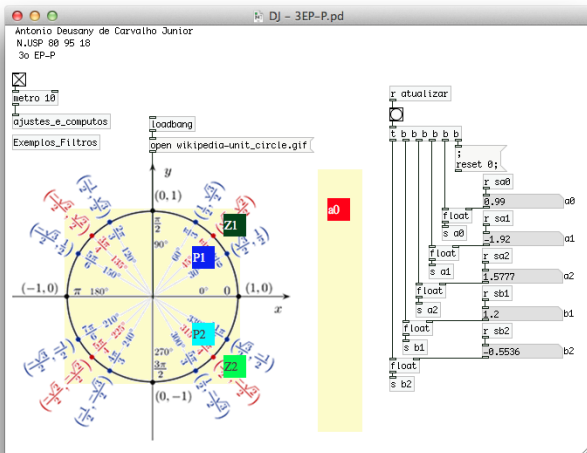
Sensors2PD

Referências

Pure Data



Pure Data



libpd.cc

- ▶ C
- ▶ Java
- ▶ Objective-C
- ▶ C++
- ▶ Python
- ▶ Unity3D
- ▶ Lua / Löve2D
- ▶ C#
- ▶ Processing*

libpd.cc



FRACT OSC by Phosfiend Systems



Ninja Jamm by Ninja Tune, Seeper



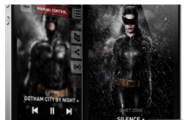
TOnOA by Rafael Redondo



Wave Trip by Lucky Frame



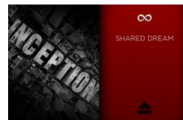
Kiss Remixer App



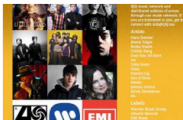
The Dark Knight Rises Z+



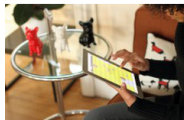
Bad Hotel



Inception: The App



RjDj



Pugs Luv Beats

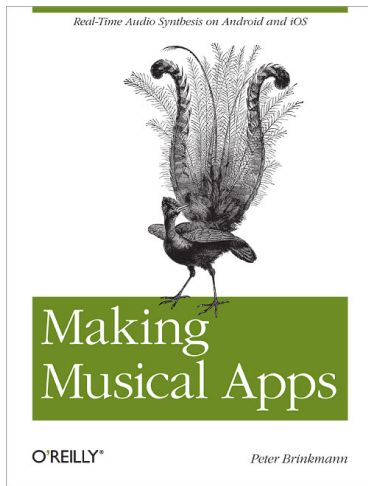


Dimensions



NodeBeat

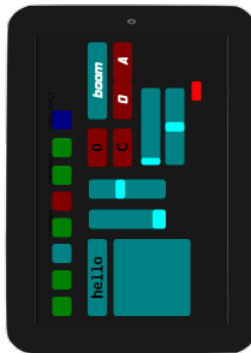
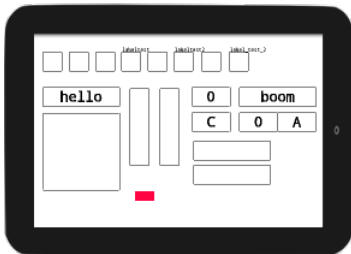
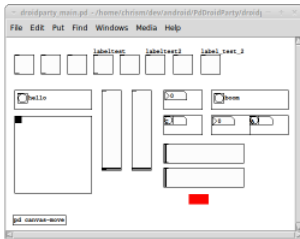
libpd.cc



PdDroidParty

- ▶ Abstrações
- ▶ MIDI
- ▶ Fontes
- ▶ Imagens em SVG
- ▶ Aplicativos completos

PdDroidParty



Android - Sensors

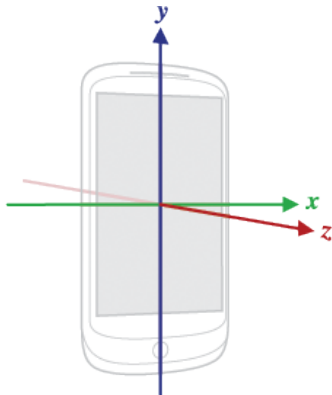
Table 2. Sensor availability by platform.

Sensor	Android 4.0 (API Level 14)	Android 2.3 (API Level 9)	Android 2.2 (API Level 8)	Android 1.5 (API Level 3)
TYPE_ACCELEROMETER	Yes	Yes	Yes	Yes
TYPE_AMBIENT_TEMPERATURE	Yes	n/a	n/a	n/a
TYPE_GRAVITY	Yes	Yes	n/a	n/a
TYPE_GYROSCOPE	Yes	Yes	n/a ¹	n/a ¹
TYPE_LIGHT	Yes	Yes	Yes	Yes
TYPE_LINEAR_ACCELERATION	Yes	Yes	n/a	n/a
TYPE_MAGNETIC_FIELD	Yes	Yes	Yes	Yes
TYPE_ORIENTATION	Yes ²	Yes ²	Yes ²	Yes
TYPE_PRESSURE	Yes	Yes	n/a ¹	n/a ¹
TYPE_PROXIMITY	Yes	Yes	Yes	Yes
TYPE_RELATIVE_HUMIDITY	Yes	n/a	n/a	n/a
TYPE_ROTATION_VECTOR	Yes	Yes	n/a	n/a
TYPE_TEMPERATURE	Yes ²	Yes	Yes	Yes

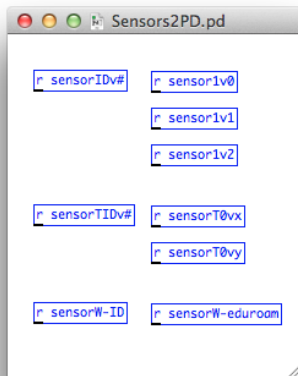
¹ This sensor type was added in Android 1.5 (API Level 3), but it was not available for use until Android 2.3 (API Level 9).

² This sensor is available, but it has been deprecated.

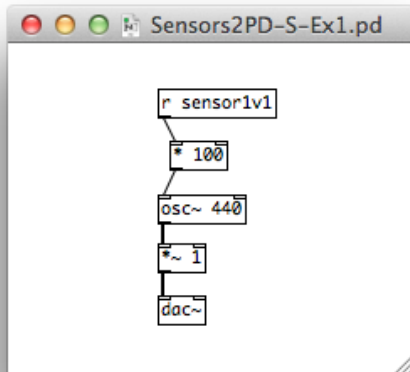
Android - Axis



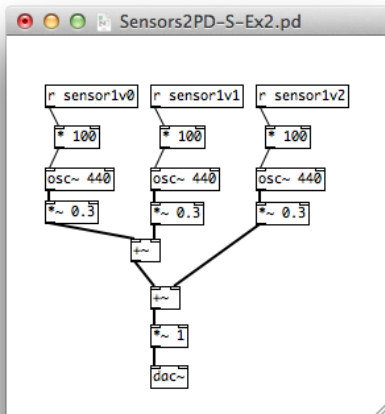
Sensors2PD



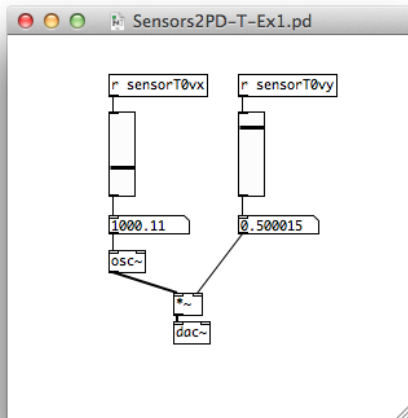
Sensors2PD - Exemplo Sensores



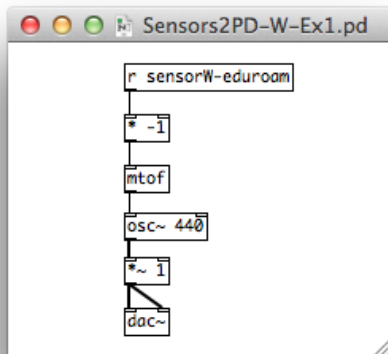
Sensors2PD - Exemplo Sensores



Sensors2PD - Exemplo Multitouch



Sensors2PD - Exemplo WiFi



Referências

- ▶ github.com/deusanyjunior/Sensors2PD
- ▶ puredata.info
- ▶ libpd.cc
- ▶ droidparty.net
- ▶ developer.android.com/guide/topics/sensors

Obrigado



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