樹莓派, 樹莓派之學習, 樹莓派之教育

【鼎革・革鼎】：RASPBIAN STRETCH《六之I・導言》

2017-11-26 | 懸鉤子 | 發表迴響

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DoA on ReSpeaker 4-Mic Array for Raspberry Pi

With DoA(Direction of Arrial), ReSpeaker 4-Mic Array is able to find the direction where the sound source is located.

1. setup voice engine

```
pi@raspberrypi:~ $ source ~/env/bin/activate                    # activate the virtual, if w
(env) pi@raspberrypi:~ $ cd ~/4mics_hat
(env) pi@raspberrypi:~/4mics_hat $ sudo apt install libatlas-base-dev     # install snowboy
(env) pi@raspberrypi:~/4mics_hat $ sudo apt install python-pyaudio        # install pyaudio
(env) pi@raspberrypi:~/4mics_hat $ pip install ./snowboy*.whl             # install snowboy
(env) pi@raspberrypi:~/4mics_hat $ pip install ./webrtc*.whl              # install webrtc f
(env) pi@raspberrypi:~/4mics_hat $ cd ~/
(env) pi@raspberrypi:~ $ git clone https://github.com/voice-engine/voice-engine
(env) pi@raspberrypi:~ $ cd voice-engine/
(env) pi@raspberrypi:~/voice-engine $ python setup.py install
```

2. Run the demo under virtualenv. Please wake up respeaker with saying `snowboy` and we will see the direction.

```
(env) pi@raspberrypi:~/voice-engine $ cd ~/4mics_hat
(env) pi@raspberrypi:~/4mics_hat $ python kws_doa.py
```

Play with Alexa, Baidu and Snowboy

1. Get Alexa or Baidu authorization

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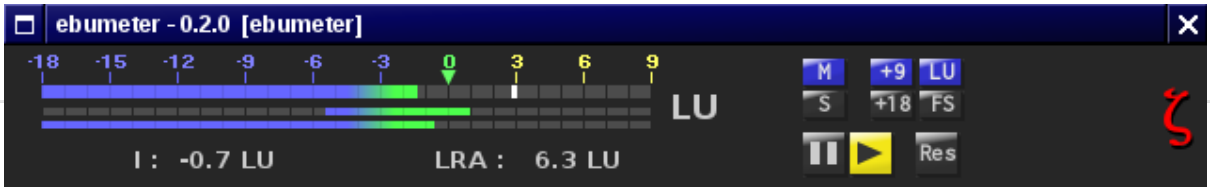
之設計目的，惟願先講『響度計』呦◎

Ebumeter – Quick guide

Ebumeter provides level metering according to the **EBU R-128** recommendation. The current release implements all features required by the EBU document except the oversampled peak level monitoring. This will be added in a future release.



The upper bargraph shows either the **Momentary** or the **Short term** loudness as selected by the **M** and **S** buttons to the right. The two thinner ones below display the **Loudness range (LRA)** and the **Integrated loudness (I)** which are also shown in numerical form.

The **+9** and **+18** buttons switch between the two ranges required for an EBU-mode meter. The **LU** and **FS** buttons select either the relative scale in LU or the absolute one in LUFS.

The **Stop, Start** and **Reset** buttons control the **Integrated loudness** measurement.

JACK Audio Connecti...
jmeters
jmeters-0.4.1
ebumeter - 0.4.0 [ebu...
EN
17:20
回收筒
JACK Audio Connection Kit [(default)] Started.
Start
Stop
Quit
Messages
Session
Setup...
Connect
Patchbay
About...
00:00:00
jmeters
jmeters-0.4.1
dB
L
R
ebumeter - 0.4.0 [ebumeter]
LU
Pk
I : --
LRA : --