# Open {Culture} Tech

#### http://Pi.GATE.ac.uk/

### inexpensive hardware for interactive arts and sciences

After the success of the Raspberry Pi, more low-cost, low-power computers are arriving. We looked at some of them...

Turns out there are a lot of these things out there. Quite a few predating the Pi. We got our hands on what we could and tried them out. We installed either Debian or Ubuntu Linux then ran through a series of benchmarks.

The full review is available online at http://pi.gate.ac.uk/

Great.

## What can I do with them?

A wide variety of free and open software exists supporting digital art and science. Let's take a look...



#### APC8750

Big. Lots of ports. VGA output is a nice touch. Pretty snappy response when using it. Kind of a desktop replacement in the end. Me? I'd put it in the kitchen for listening to music.

800 MHz ARMv6, 512 MB RAM. \$49.



#### BeagleBone Black

A hacker's board. More GPIO than you can shake a stick at. Really pretty flashing LEDs. Neither of which fix to the fundamental flaw. It's a hacker's board. You need the patience of a saint to get anywhere.

1 GHz ARMv7, 512 MB RAM. \$45.



#### Cubieboard

A lot has been jammed in. There's SATA and infrared. It's a quick setup and works well enough. One word: NAS. Network attached storage. No one that sees this will think of anything else, although there is GPIO.

1 GHz ARMv7, 512 MB RAM. \$49.



#### DreamPlug

So polished, and that's reflected in the price. Still, it's perfect for the next step up from an OpenWRT router. It's got dual-gigabit Ethernet. And eSATA. And audio. And Wi-fi. (It's a bit bigger too.)

1.2 GHz ARMv5, 512 MB RAM. \$149.



#### **GIMF**

The GNU Image Manipulation Program. Name says it all. Draw to your heart's desire.



#### **Audacity**

Audacity: Free Audio Editor and Recorder. Also available to music students here!



#### Inkscape

Inkscape: Draw Freely. Vector (scalable) graphics. This poster was made with this!



#### Python

Python Programming Langague. A simple but powerful way to work.



#### MK802+ Mini PC

For every computer that's huge there's one that's tiny. This is it. Probably the best responsiveness out of any system tested. Tiny comes at a price though, there's a huge power brick.

1 GHz ARMv7, 1 GB RAM. \$59.



#### Pi Model B

What to say about what's already a classic? The best bit of Raspberry Pi is community. Meet up with other locals interested at a Raspberry Jam. Walk down to Maplin and buy one. It's hard to beat.

700 MHz ARMv6, 512 MB RAM. \$35.



#### Pi Model A

The hardware hacker's Raspberry Pi. Lower power and fewer ports. If you really need those ports it's cheaper to get a model B, but otherwise the A is it's smaller cousin.

700 MHz ARMv6, 256 MB RAM. \$25.



#### TonidoPlug2

This is really an appliance and in Piano black looks it. It takes a SATA hard drive and is a NAS. That you can install your own software onto. Beware though - there's nothing but SATA, USB, and Wi-fi.

800 MHz ARMv5. 512 MB RAM. \$119.



#### **Processing**

Visual arts programming. Used here at the university in the Music department!



#### Firefox

Mozilla Firefox Web Browser. Based on Netscape. Remember that?



#### Octave

GNU Octave. An advanced interactive calculator.



#### LibreOffice

LibreOffice from the Document Foundation. A complete office suite, based on Sun's StarOffice.



Linux is becoming more main mainstream. Maybe you've heard of these?





Android