

# Open CULTURE Tech

## Inexpensive hardware for interactive art and science

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...



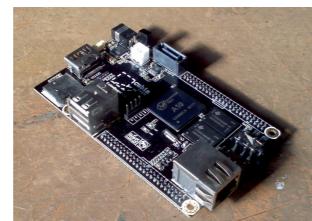
### APC8750

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.



### 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 sage to get anywhere.



### 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.



### DreamPlug

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



### 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.



### Pi Model B

What to say about what's in my mind 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.



### 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 its smaller cousin.



### 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.



### GIMP

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



### Inkscape

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



### Processing

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



### Firefox

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



### Audacity

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



### Python

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



### Octave

GNU Octave. An advanced interactive calculator.



### Linux

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



### Ubuntu



### Android