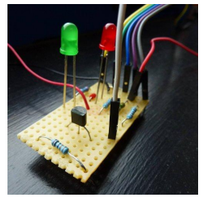
Open {*Culture*} Tech

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...

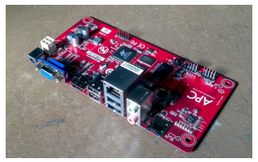
Turns out there are a lot of these things out there. Quite a few predating the Pi. We got our hands on what we could and tried them out. We installed either Debian or Ubuntu Linux then ran through a series of benchmarks.

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

Great.

What can I do with them?

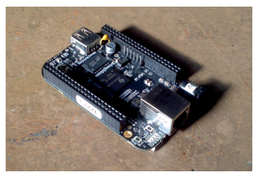
A wide variety of free and open software exists supporting digital art and science. Let's take a look...



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.

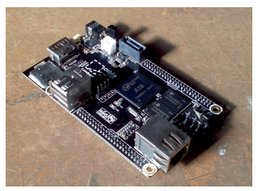
800 MHz ARMv6, 512 MB RAM. $49.



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

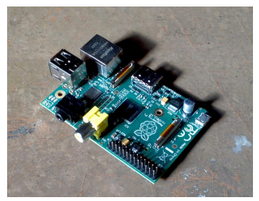
So polished, and that's reflected in the price. Still, it's perfect for the next step up from an OpenWRT router. It's got dual-gigabit Ethernet. And eSATA. And audio. And Wi-fi. (It's a bit bigger too.)

1.2 GHz ARMv5, 512 MB RAM. $149.

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.

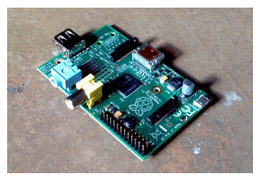
1 GHz ARMv7, 1 GB RAM. $59.



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.

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 Langague. A simple but powerful way to work.

Octave

GNU Octave. An advanced interactive calculator.

LibreOffice

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

Linux

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

Ubuntu

Android