

month because of this. When the next Raspian Release Candidate was released I tried again. In the end I found some C code on the net to reset USB after taking each image, which I wrapped in a shell script. With this in place and after a few hours in Perl I had a working proof of concept.

Q: What other problems did you encounter?

The proof of concept (not held in the camera grip) was fairly straightforward and worked well. To be honest I was amazed that the software packages I need were already available in the repository and easily installed via apt-get, for example: I found a package for writable NTFS support straight away when I went looking.

Modifying the grip was a challenge and the hardest part of the build, taking in the region of 40 hours to carefully cut and fit the components as the grip is made of tough plastic that is difficult to cut.

Q: What do you think of the potential to extend the system via GPIO?

The mind boggles at the possibilities of talking to other equipment over GPIO. For example using the Pi to drive a motorised telescope mount is something I would like to see someone do. To-date I have hooked up some transistors and resistors to the GPIO pins and can wake the camera if it enters sleep mode by emulating a half-press of the shutter release, plus I have connected a broken shutter release cable to GPIO to take photos manually.

Q: What has been the response to Camera Pi?

I have had a lot of incredibly positive feedback through my blog from both amateur and professional photographers: one asked where they can buy a Camera Pi setup. Other enthusiasts are building them and there seems to be a lot of interest. Most people seem to be aware that they can tether their camera to their laptop but had not thought about building their own computer-in-grip solution using gphoto2.

Q: What has been the reaction to the Raspberry Pi amongst your peers?

In the office the Pi has people really excited and we are using it as part of our mentoring program enabling seniors to train up others and encourage creativity. The company is

actively encouraging this which is excellent. One guy got up at 4am on the day of the release to get his order in!

Q: Do you think the Pi is an enabling device that brings an affordable development platform into commercial reach of almost anyone?

I am used to working with limited device resources of just 64-128MB RAM and once created an 8MB Linux install on Compact Flash with only a 700KB kernel. With the relatively decent CPU and RAM in the Pi, and configured with minimal RAM dedicated to the GPU (I never start the X GUI) it is perfect for my needs. I am amazed at what the Foundation has managed to achieve with the Pi's hardware for the cost and the low price definitely helps in this regard.

Q: Any final thoughts?

The Raspberry Pi has an emotional factor as it brings back a lot of 80s nostalgia as well as being an excellent, usable machine. It encourages use as a programming tool like the BBC Micro where one would type in games by hand from computer magazine listings. Eben is dead right that there has been a gap of 15+ years in teaching proper computer science in schools, focussing instead on word processing and spreadsheets. Unfortunately, many kids often don't know the fundamentals of programming when they reach university or industry. The Raspberry Pi gives them this opportunity.

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