From JAMBOREE to CamJam!

SEVEN SEGMENTS OF Pi

in the classroom

Part 2 - " Happy 2nd Birthday Raspberry Pi!"

This week I was going to talk about VGA Adapters for the Raspberry Pi but about 10 days ago Mike emailed me to say "Are you going to the Manchester Jamboree?"
I must admit at the time it wasn't on my radar! So I looked up the Web Site and realised that, not only was it to be the Manchester Jamboree…

…and the Raspberry Pi 2nd Birthday Celebration!

…it was to be held in conjunction with the "Education Innovation" Conference & Exhibition…

…so would not only be attended by Raspberry Pi enthusiasts, it would be attended by people from the world of education, looking at how to implement the government initiative to get pupils programming. I therefore **had** to be there!

So this week's Blog will be about my 2 days last week at Manchester Central Conference Centre...

…attending the "Education Innovation" Conference & Exhibition and Manchester Jamboree and Raspberry Pi 2nd Birthday Party Celebrations which turned out to be 2 of the best "Pi Days" I have had! (Anyone waiting with baited breath for me to talk about VGA Adapters will have to wait a week or two!)

"Happy 2nd Birthday Raspberry Pi!"

It was another early morning alarm on Thursday morning. 3.30 a.m!

I wanted to get to Manchester by about 8am and it's a long drive from Berkshire! As I had my breakfast I received an email from Alan O'Donohoe, who was organising the Jamboree, saying Albert Hickey wouldn't be able to do his "Slice of Pi" talks and would I like to talk in his place. So I volunteered to do a "Slice of Pi" talk on the "Seven Segments of Pi" at 4 pm that afternoon.

Since I had been a late addition to the list of attendees I had no idea if there would be space for me to set up my "Seven Segments of Pi" exhibition stand and demo, but I packed it in the car, none the less! I arrived at about 8.30am with everyone frantically setting up their stands ready for the 9.30am start. I found the CPC stand…

…with Kevin Howson waiting for the rest of the CPC people to arrive. I told him about the "Seven Segments of Pi" only for him to tell me that CPC have just added it to their catalogue! I therefore negotiated a corner of their stand for me to set up my stand and demo!!

At about 4pm on Thursday afternoon I did my "Seven Segments of Pi" presentation, which was hosted by Alan, who manages to keep the audience fully entertained in those hand-over minutes as one speaker is disconnecting their laptop from the projector and the next speaker is plugging their laptop in! I am told all of these "Slice of Pi" talks were videoed, so maybe in a few days it will be available for the world to see!

Over the 2 days I spent some time on my stand but I spent much of my time going round the other stands talking to people from the education world and people from the Raspberry Pi community, many of which I only previously knew as names on a Web Site. In particular it was great to talk to **Simon Monk**…
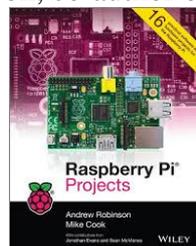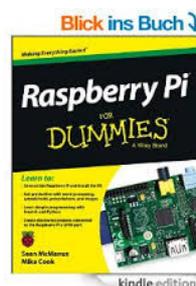

…whose Web Site I had found back in May 2012 just after I had received my first Raspberry Pi, and, in response to the pupil who kept asking me **"Yes…but what does it *do*?"** I had decided to try hooking the GPIO up to an old Seven Segment Display I found in my electronic junk box. Through his guidance I found you needed to be in "Super User" mode to access the GPIO. You also needed to import RPi.GPIO to drive the GPIO from Python. I then (eventually) found that the GPIO were referenced by their P1 Connector pin number, *not* the GPIO number on the schematics *or* the Broadcom GPIO number!!!

It was also great to talk to Mike Cook, co-author of "Raspberry Pi Projects"…

and "Raspberry Pi for Dummies…

…whose entertaining discussions were in danger of seriously undermining his online persona where he calls himself "Grumpy" Mike Cook! One nugget of information I got from him was about SD Cards, and the fact that not all SD Cards are created equally! I had already found that after taking an image of a complete 4GByte SD Card it was not always possible to fit the .img file onto another 4GByte SD Cards since the original SD Card may have been a full 4GBytes but the other "4GByte" SD Card may only be 3.9GBytes! In particular Mike said he had found the Raspberry Pi runs faster with some SD Cards than with others! His recommendations were, DON'T use "Class 10" SD Cards. DO use "Class 6" SD Cards. And in terms of brand probably Samsung and SanDisk are the best. Can anyone else confirm "Grumpy" Mike Cook's findings?

Whilst it was great to talk to these Raspberry Pi enthusiasts, the real value to me of the Jamboree was it taking place in conjunction with the "Education Innovations" Conference and Exhibition.

I talked to several quite influential people in the world of education and if anything further comes out of these discussions I will include details in later Blogs. But the clear message I got about the barrier to schools adopting the Raspberry Pi for teaching programming is that many teachers are daunted by the complexity! That is everything from knowing what bits to buy in addition to the Raspberry Pi itself (PSU's, Mice, Keyboards, Monitors, Adapter Cables), to programming the SD Card, to understanding the vagaries of Linux. And that is before they even start teaching programming! So, *we need to help teach the teachers!*

…has made a start with their "Getting Started Tutorial Sheets" and the…

…initiative to get people like myself to register with them so we can help schools is also an excellent start, but there is a great deal more to be done! Videos can be expensive to produce, but a good set of training videos could make the life of a teacher, who has been told they must teach programming from September 2014, just a little bit easier!

Anyway, next week I will be back to talking about how the "Seven Segments of Pi" evolved in the Classroom, but I would like to finish by giving a huge vote of thanks to Alan O'Donohoe…

…and his "Jam Makers" for putting on such a wonderful Jamboree and 2nd Birthday Party, and acknowledge whoever's idea it was to link it with the "Education Innovation" Conference & Exhibition. Pure genius! Just what the "Raspberry Pi in the Classroom" initiative needed!

If you are interested in learning more about the Seven Segments of Pi visit my Web Site www.SevenSegmentsOfPi.com or watch the "Seven Segments of Pi" YouTube Video. You can also watch Carrie Anne Philbin playing "Figure Eight My Pi" at the CamJam, courtesy of Alex at RasPi TV.

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Innovations in Education