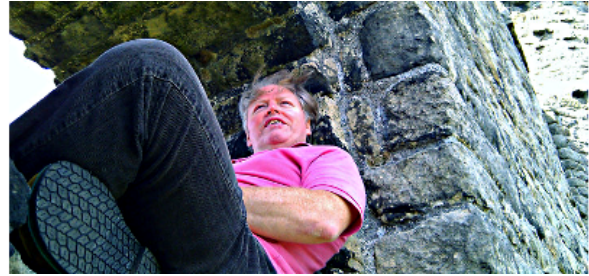# Wiring Pi

GPIO Interface library for the Raspberry Pi

Shift Library

WiringPi includes a simple shift library. This allows you to shift 8-bit data values out of the Pi, or into the Pi from devices such as shift-registers (e.g. 74×595) and so-on, although it can also be used in some bit-banging scenarios.

To use, you need to make sure your program includes the following files:

```
#include <wiringPi.h>
#include <wiringShift.h>
```

Then the following two functions are avalable:

- **uint8_t shiftIn (uint8_t dPin, uint8_t cPin, uint8_t order) ;**

This shifts an 8-bit data value in with the data appearing on the **dPin** and the clock being sent out on the **cPin**. Order is either **LSBFIRST** or **MSBFIRST**. The data is sampled after the **cPin** goes high. (So **cPin** high, sample data, **cPin** low, repeat for 8 bits) The 8-bit value is returned by the function.

- **void shiftOut (uint8_t dPin, uint8_t cPin, uint8_t order, uint8_t val) ;**

The shifts an 8-bit data value **val** out with the data being sent out on **dPin** and the clock being sent out on the **cPin**. order is as above. Data is clocked out on the rising or falling edge – ie. **dPin** is set, then **cPin** is taken high then low – repeated for the 8 bits.