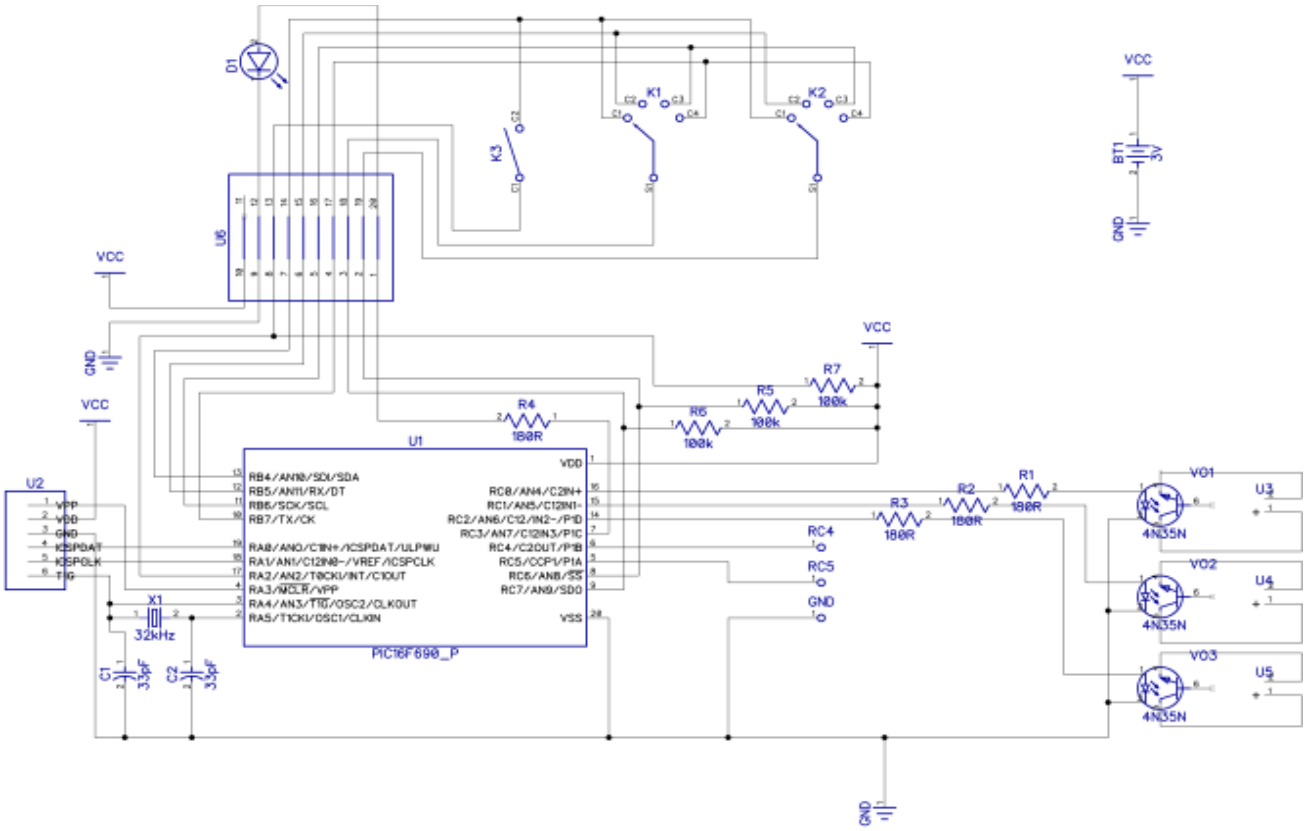
# HARDWARE DESIGN OF INTERVALOMETER

The basic schematic is shown below, exported from DipTrace. Feel free to play with the source code.



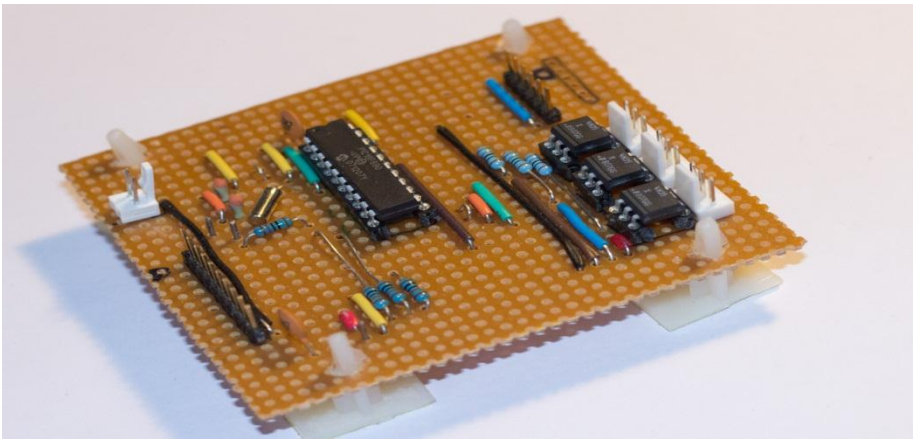

There's very little here beyond the basic outline above. Switches K1 and K2 set the interval. To save input pins we arrange them in a matrix which we scan in software. Switch K3, an addition simply enables or disables the third output, which might be used to control camera power.

| | K2 / RC6 / value | K1 / RC7 / unit |
|---|---|---|
| **RB4** | 1 | second |
| **RB5** | 3 | minute |
| **RB6** | 10 | hour |
| **RB7** | 30 | day |

We have a couple of spare outputs on PORTC, and they're brought out to test pads. Normally, we use RC4 to generate a calibration signal.

Finally, U2 is a standard Microchip ICSP header, suitable for a PICKit2 or similar programmer.

A prototype was built on stripboard,



but I designed a simple PCB too. If you'd like to build your own, then you might find the gerber files on GitHub. As you can see, it's a very simplePCB:

# Testing

If you do build the board, it is probably wise to set the interval to 10 seconds so that you get some action fairly quickly.

There is also a useful test signal on RC5. You should see a 16kHz signal with a very low duty-cycle: the on-time is about 490µs.

Source: http://www.mjoldfield.com/atelier/2011/08/intervalometer.html