MuP-Test

NOTE!!

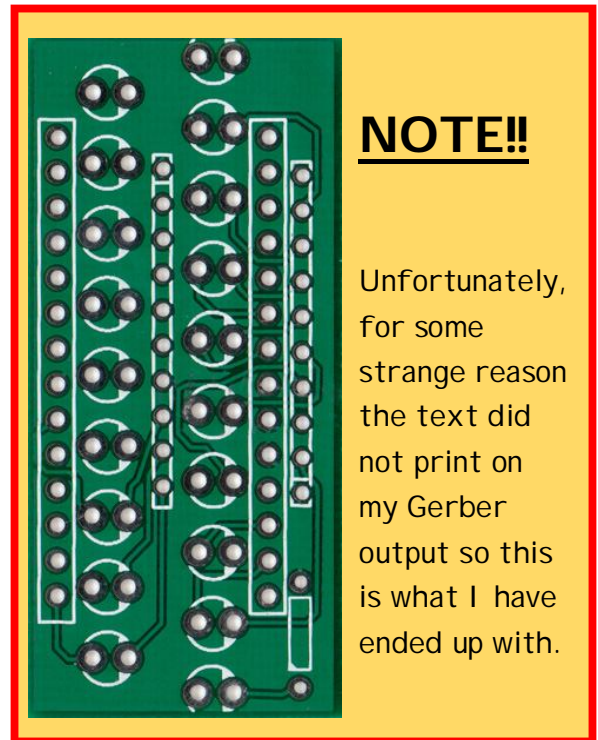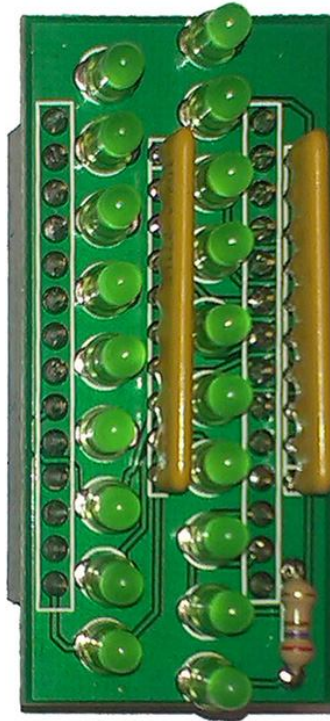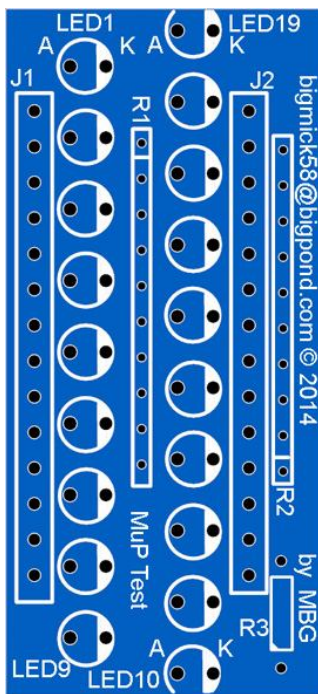Unfortunately, for some strange reason the text did not print on my Gerber output so this is what I have ended up with.

MuP-Test is one of those deceptively simple ideas that can easily be overlooked as too simplistic to be of any practical use but I have found there is nothing more satisfying after building something to immediately be able to test that everything appears to be working as expected.

MuP-Test has 19 LEDs, one for each general I/O pin available on the MicroMite and has been designed specifically to test my version of the MicroMite hereafter called MuP.
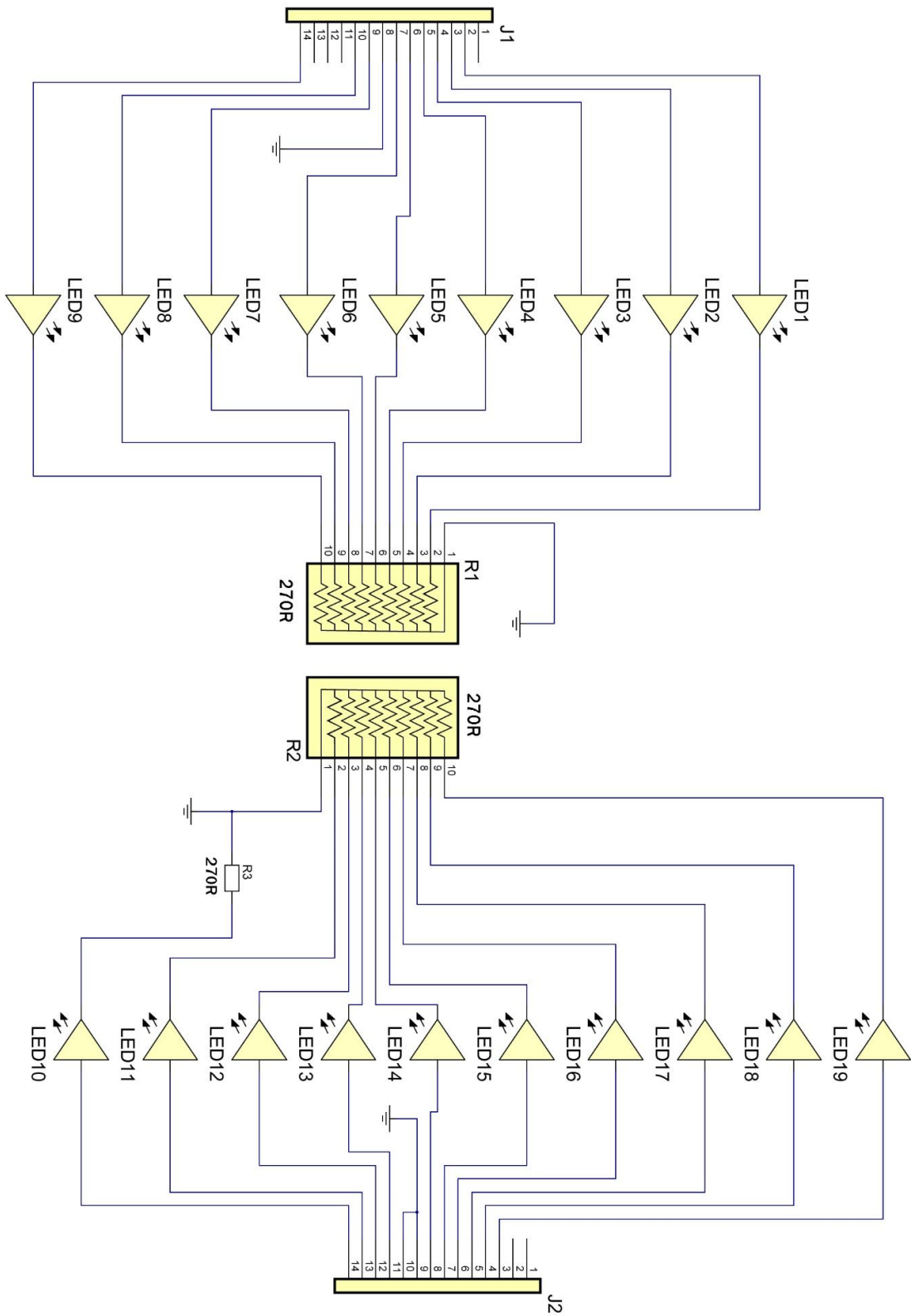
For further information on Geoff Graham's fantastic Micromite processor see:

http://geoffg.net/micromite.html

For further information on Mick's uMite PCB (MuP Ver2.) see the manual here:

http://www.users.on.net/~tassyjim/stuff/MuP%20PCB%20V2.pdf

Mup-Test Schematic:

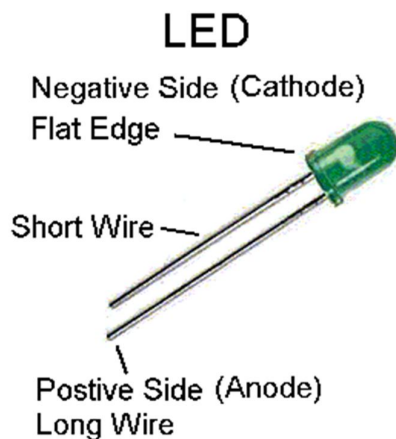|	MuP-Test		
	Bill of Materials		
J1	14way header -Typically Female	Select to mate with your MuP	
J2	14way header -Typically Female	Select to mate with your MuP	
R1	270R 10pin Type -A Resistor Pack	9 Resistors, 1 common leg	
R2	270R 10pin Type -A Resistor Pack	9 Resistors, 1 common leg	
R3	270R 1/4W	5%	
Led 1-20	3mm LED	Same batch for brightness consistency	

Construction:

Building MuP-Test is very easy, but because components are soldered on both sides of the PCB I recommend this order of assembly.

Start by soldering in the resistor network R1, taking care that it is correctly orientated.

There is a small black dot on the resistor pack, indicating the Common leg, this is identified on the overlay by the box around the pin, see below.
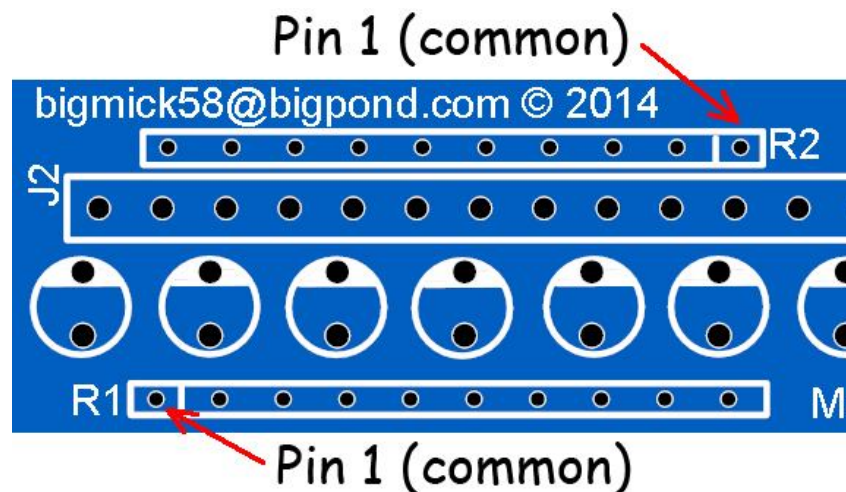
Next solder the LEDs. The LEDs are polarity conscious and the **Cathode** is identified by the semicircular shading on the overlay. There are several ways to identify LED polarity.

The **CATHODE** usually is shorter and has a small flat edge.

The **ANODE** is usually the longer lead

Next mount the Female headers, J1 & J2, (or Male if your MuP has females fitted for J4 and J5) to the **UNDERSIDE** of the MuP-Test board being careful not to melt the LEDS with the iron, Then solder the 2nd resistor pack R2 followed by the sole resistor, R3.

MuP-Test is now complete.

Testing your MuP with MuP-Test:

Plug the MuP-Test into your MuP (make sure that the LED1 and LED19 are towards the ICSP header, J1 of the MuP) and then run the following short piece of `brilliantly written' ☺ ☺ ☺ code on your MuP and watch the LEDs go through their routine.

You should see each LED on for 1/4sec then off for 1/4sec and light in turn, if an LED doesn't light or two LEDs light at the same time then there is something wrong with the soldering on your MuP (if a missing LED then likely an unsoldered pin, If 2 LEDs light simultaneosly then likely a solder short)

```
Start:
For p=2 To 26
  If p=8 Then p=9
  If p=11 Then p=14
  If p=19 Then p=21
    SetPin p,8
    Print "Testing Pin ";p
lop:
    Pin(p)=1
    Pause 250
  Pin(p)=0
  Pause 250
' a$ = Inkey$              ' If there is a fault in the pattern remove the remark at the start
' If a$="" Then Goto lop   ' of these 2 lines and press a key to cycle through each LED.
Next p
Goto Start
```

Have fun!! (which is what it is all about)

For further support queries or PCBs/kit pricing options for MuP-Test, MuP Ver. 2 or any of my other offerings drop me an email.

Mick Gulovsen
bigmick58@bigpond.com