BRAINBOX PRO SOLDERING MANUAL

1. Take all components out of the bag and sort them.

2. We will start by soldering the SMD components to the PCB. This may look a bit complicated but in fact this is easier than soldering Trough Hole components.

3. At each of the SMD components – apply a bit of solder to only one of the two pads.


4. take a pair of tweezers and slide the SMD componets into place while you warm the pad that already contains solder. (TIP: look at some youtube films on SMD soldering if this is new to you)

5. Put these components in place:
   - 14 Resistors of 390R (330R are also 390R)
     - 4 resistors of 4K7
   - 2 resistors of 10K
     - 1 resistor of 100R

6. Now your PCB will look like this – solder the other sides of the SMD components:
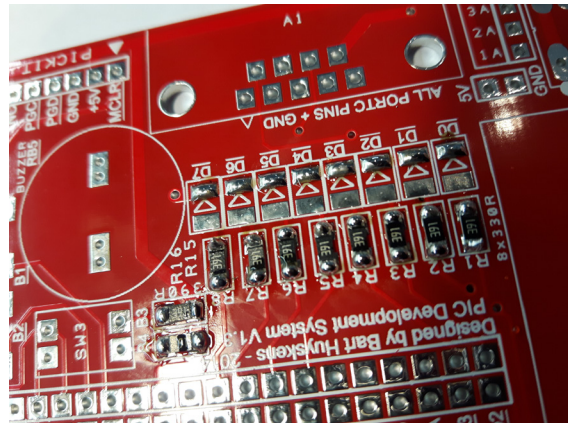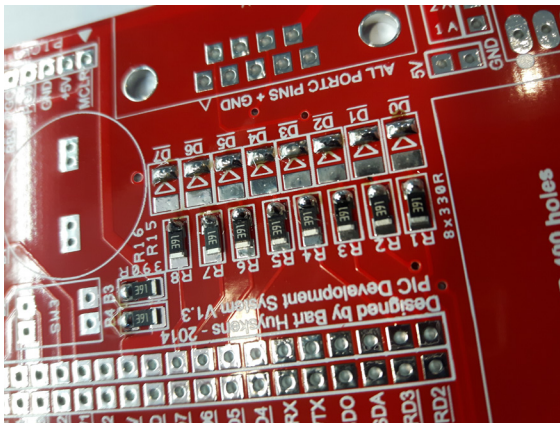
7. Use the same technique to solder all the other SMD components:
    a. 2 diodes (be aware of the polarity)
    b. 2 capacitors (grey components – no print) of 22pF
    c. 9 leds – be aware of the polarity – the side of the led that misses a small triangular corner is the cathode (- side)
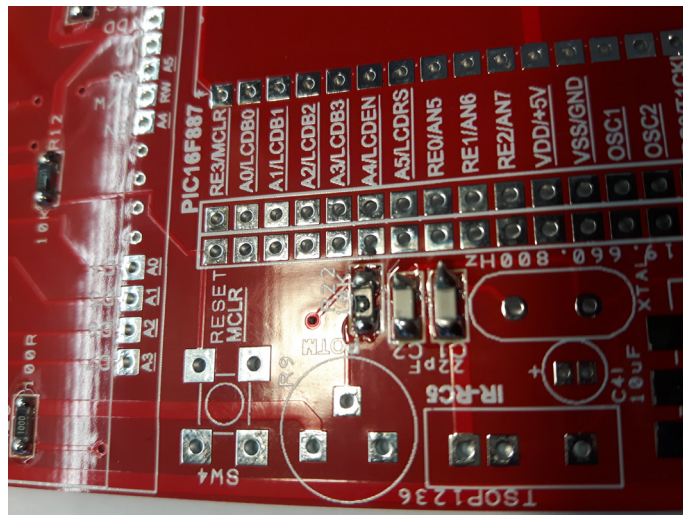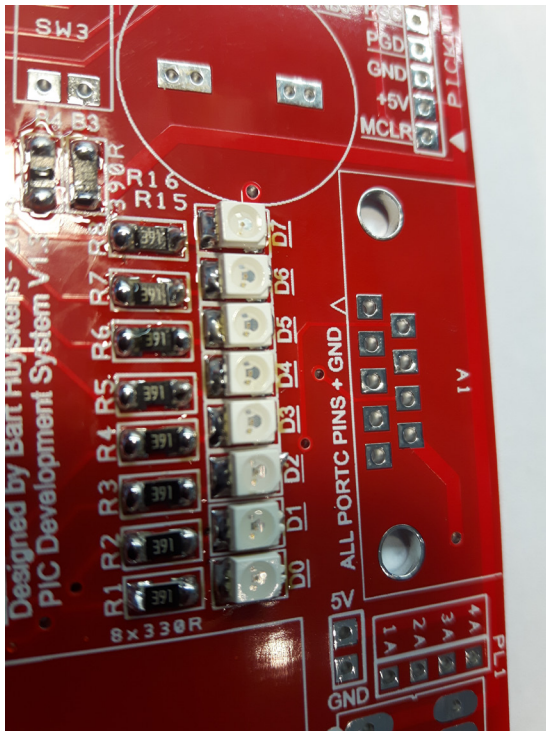
8. Now solder all trough hole components – starting with the lowest and working your way up to the highest components.
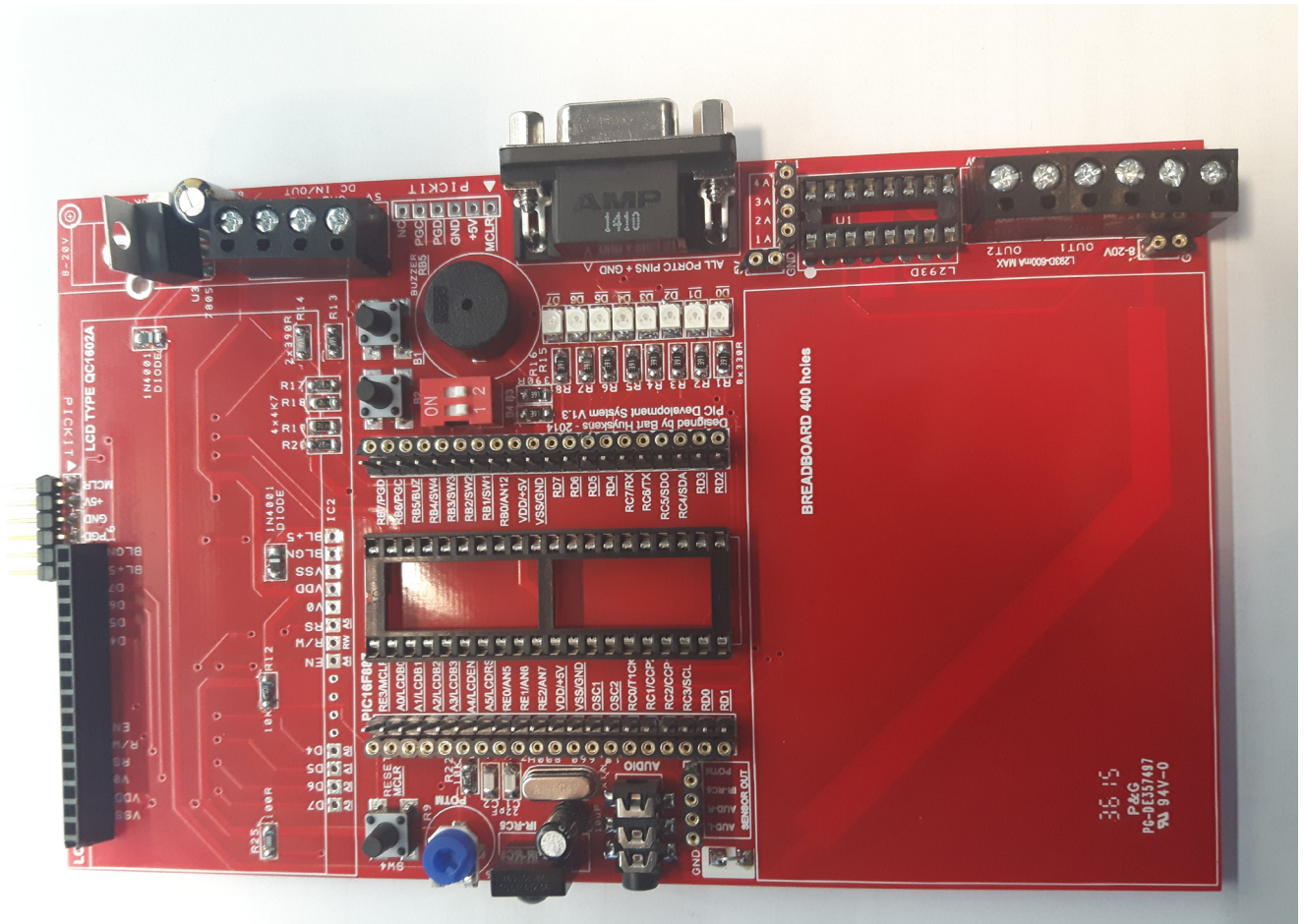
9. Solder a male connector to the LCD

10. Mount the LCD and the Breadboard to the PCB
11. Download the DEMO-ALL program from **www.E2CRE8.be** and start testing
    a. We use PICKIT2 – but the cheap PICKIT2 clone from China will do fine
    b. We use the Hitech C compiler and MPLAB - but it will also work with other software.

Need support: barthuyskens@e2cre8.be