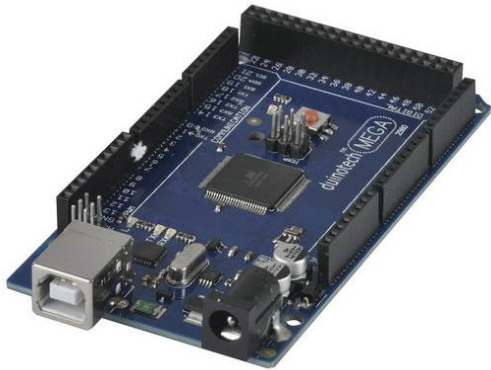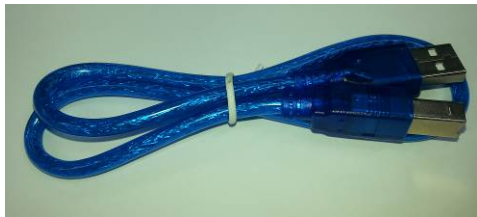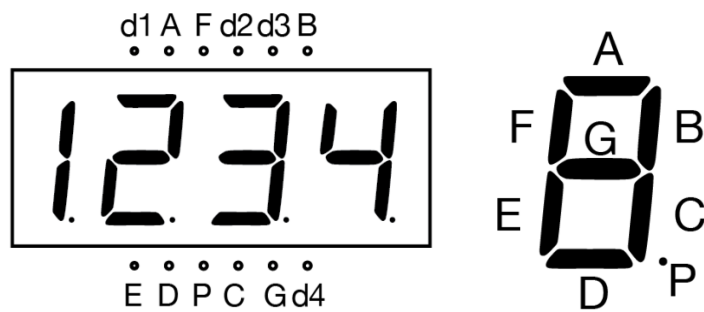## *XC4286 Contents:*

1 x Duinotech MEGA – see XC4420

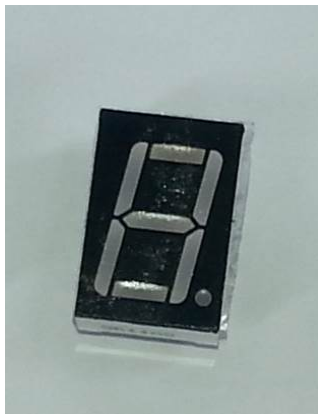1 x Solderless Breadboard – see PB8815
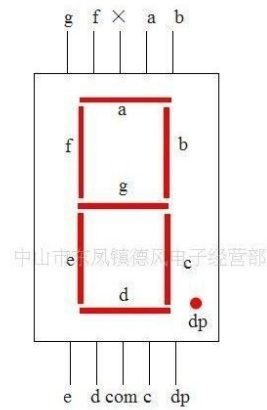
1 x USB Cable

1 x 4 Digit 7-Segment display:

Segments are anodes, digits are cathodes.

1 x 1 Digit 7-Segment display:

Common Cathode.

1 x 8x8 Dot Matrix Display:
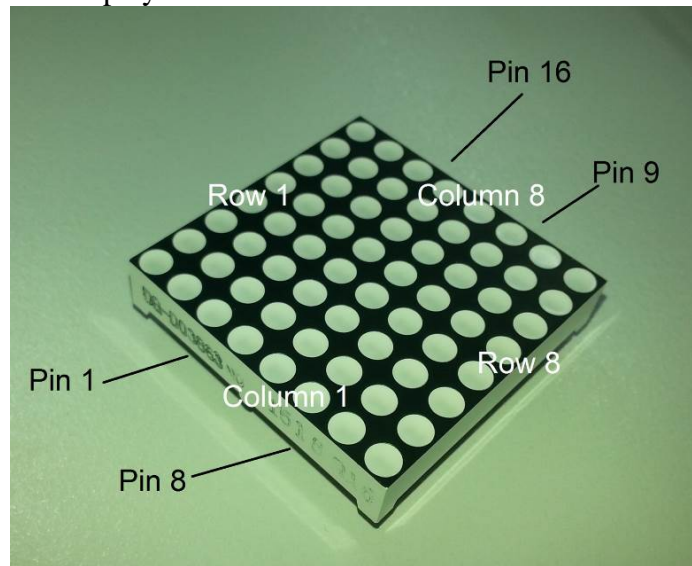
Pin	Column (Anode)	Row (Cathode)
1	4	
2	2	
3		2
4		3
5	1	
6		5
7	3	
8	6	
9	8	
10		4
11		6
12	5	
13		1
14	7	
15		7
16		8

1 x 6AA Battery Holder:

Assorted Resistors:

      8 x 220 R (red-red-black-black-brown)

      5 x 10k R (brown-black-black-red-brown)

      5 x 1k R (brown-black-black-brown-brown)

Assorted LEDs:

RGB LED Module – Common Anode, separate cathodes for Red, Green and Blue:
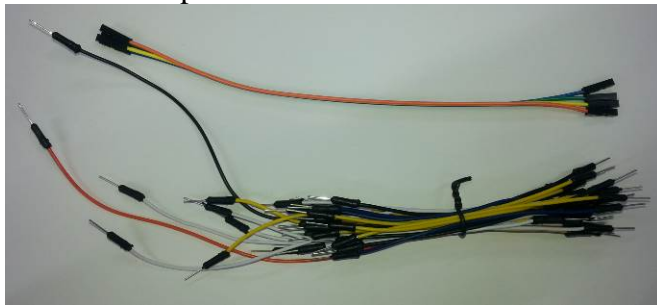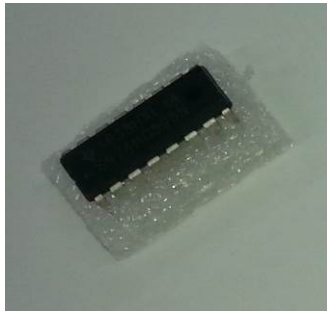
4 x Tactile Switches:
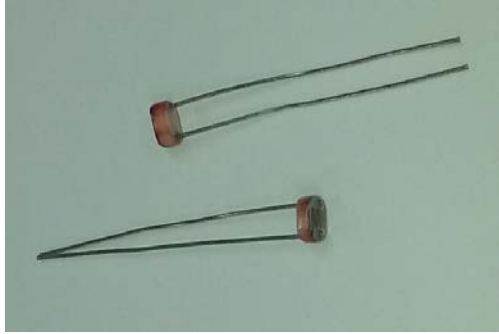

2 x Piezo Sounders:

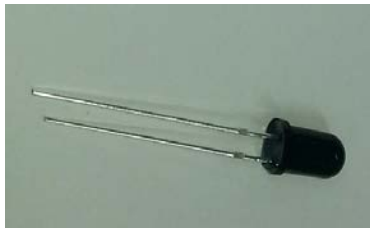Assorted Jumpers:

1 x 74HC595- See ZC4895:

1 x 50k potentiometer:

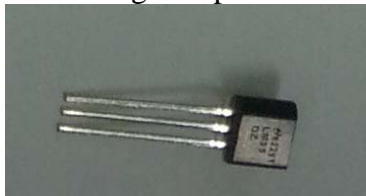2 x Light dependent resistor (1k in light, 5k in the dark):

1 x IR LED:

1 x IR Receiver:

1 x Analog Temperature sensor:

1 x 17 Button IR Remote Control:

1 x 40 pin Header:

1 x 2 Channel Relay Module—similar to XC4440:

1 x 2x16 LCD Display with HD44780 IC:

Pin Functions

Signal	No. of Lines	I/O	Device Interfaced with	Function
RS	1	I	MPU	Selects registers. 0: Instruction register (for write) Busy flag: address counter (for read) 1: Data register (for write and read)
R/W̄	1	I	MPU	Selects read or write. 0: Write 1: Read
E	1	I	MPU	Starts data read/write.
DB4 to DB7	4	I/O	MPU	Four high order bidirectional tristate data bus pins. Used for data transfer and receive between the MPU and the HD44780U. DB7 can be used as a busy flag.
DB0 to DB3	4	I/O	MPU	Four low order bidirectional tristate data bus pins. Used for data transfer and receive between the MPU and the HD44780U. These pins are not used during 4-bit operation.