

# SCULLCOM HOBBY ELECTRONICS – DC VOLTAGE CALIBRATOR - PARTS LIST

## Main PCB

- 1 of TC962EPA MICROCHIP DC/DC Adjustable Charge Pump Voltage Converter, DIP-8 (Farnell order code 1467789)
- 1 of MCP4922-E/P MICROCHIP Digital to Analogue Converter, Dual, 12 bit, DIP-14 (Farnell order code 1292244)
- 1 of MAX6241BEPA+ (U10) MAXIM Voltage Ref., 4.096V, 0.02 %,  $\pm 2.5\text{ppm}/^{\circ}\text{C}$ , DIP-8 (Farnell order code 2799201)  
*(Alternatively the MAX6341CPA+ can be used but is more expensive)*
- 2 of DG303BDJ-E3 VISHAY DG303BDJ-E3 Analogue Switch, Dual SPDT, 2 Ch., DIP-14 (Farnell order code 1102500)
- 2 of INA105KP TEXAS INSTRUMENTS Differential Amplifier, DIP-8 (Farnell order code 1651850)
- 1 of MCP1501-10E/SN - Voltage Reference 1.024V, NSOIC-8 (Farnell order code 2524545)
- 1 of LM7815ACT ON SEMICONDUCTOR Linear Voltage Reg, Fixed +15V, TO-220AB-3 (Farnell order code 2451065)
- 1 of LM7915CT TEXAS INSTRUMENTS Fixed LDO Voltage Reg, -15Vout, TO-220-3 (Farnell order code 9490450)
- 1 of LM7805ACT ON SEMICONDUCTOR Linear Voltage Reg, Fixed +5Vout, TO-220-3 (Farnell order code 2296047)
- 1 of 1N5338BRLG - Zener Single Diode, 5.1 V, 5 W, 5 %, 200 °C (Farnell order code 2317463)
- 1 of 1N4007 - Standard Recovery Diode, 1 kV, 1 A, 480 mV, 30 A (Farnell order code 1651091)
- 1 of BOURNS 3299W-1-103LF, 10Kohm, 500 mW,  $\pm 10\%$ , Trimpot, 25 turns (Farnell order code 9353704)
- 1 of 220uF 35V Electrolytic Capacitor (5mm pitch)(Farnell order code 1712588) or (Rapid order code 11-3928)
- 5 of 100uF 25V Electrolytic Capacitor (2.5mm pitch)(Farnell order code 1144620) or (Rapid order code 11-3921)
- 1 of 22uF 25V Tantalum Capacitor (for C2) (Rapid order code 11-0670)
- 1 of 22uF 16V Tantalum Capacitor (for C18) (Rapid order code 11-1026)
- 1 of 1uF 25V Tantalum Capacitor (for C14) (Rapid order code 11-1036)
- 10 of 100nF 63V Polyester Box Capacitor – Kemet R82DC3100AA50K – (Farnell order code 2763208)
- 1 of 2.2uF 25V Ceramic Capacitor (SMD type 1206) (Farnell order code 1907355)
- 1 of 220pF 50V KEMET C0805C221J5GACTU Multilayer Ceramic Capacitor-type 0805 (Farnell order code 1414679)
- 1 of DC Power Connector Jack, 5 A, 2.1 mm, Through Hole Mount (FC68148 DC10A Cliff Electronic Components)
- 3 of 2 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of 3 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of 4 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of 10 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of TruConnect 2 Way Single Row PCB Header Plug - 2.54mm pitch (for J3)(Rapid Electronics order code: 22-0520)
- Also XH 2.5mm plugs to match above sockets with leads – eBay purchase
- 2 of Small Heat Sink (TO220) for +15V and +5V Regulators (Rapid order code 36-0115)

## Display/Nano PCB

- 1 of 240x320 SPI TFT LCD Touch Panel Serial Port Module 2.8" +PCB ILI9341 5V/3.3V - eBay purchase
- 1 of Arduinio Nano – eBay purchase
- 1 of 2 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of 3 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of 10 pin XH 2.5mm Connector PCB Header Sockets (JST XH Style) – eBay (seller 18robots) or other supplier
- 1 of 56 ohm 1% Metal Film Resistor (R1) (Vishay MBB02070C5609FC100 or similar)
- 9 of 10Kohm 1% Metal Film Resistor (R2 to R10) (Vishay MBB02070C1002FC100 or similar)
- 3 of TruConnect DS1023-1\*15 S01 15 Way Single Row PCB Socket 2.54mm Pitch (Rapid order code: 19-0086)  
Two used for Arduino Nano socket and one for TFT Display socket (cut to 14 pin)  
*(Alternatively you can solder the connecting pins from both the Arduino Nano and TFT direct to PCB)*
- Also XH 2.5mm plugs to match above sockets with leads – eBay purchase

## Suppliers web sites I used (but other suppliers can be used such as DigiKey and Mouser)

<http://www.farnell.com>

<https://www.rapidonline.com>