

SCULLCOM HOBBY ELECTRONICS

Function Generator MK2 Project Parts List

Main PCB

- 1 of Arduino Nano V3.0 ATmega328P CH340 5V 16MHz (eBay purchase) (**U11**)
- 1 of Blue Serial IIC/I2C/TWI 2004 20x4 LCD Display Module for Arduino (eBay purchase) (**LCD**)
- 1 of XR-2206 Function Generator IC (eBay purchase) (**U6**)
- 1 of LT1014CN - OP Amp, Quad, DIP14 (Farnell Order Code: 1651881) (**U8**)
- 1 of DG303BDJ-E3 - Analogue Switch, Dual Channel, SPDT, DIP14 (Farnell Order Code: 1102500) (**U7**)
- 1 of ADG452BNZ - Analogue Switch, Quad Channel, SPST, DIP16 (Farnell Order Code: 1079313) (**U9**)
- 1 of MCP4822 Dual 12bit DAC, SPI, PDIP8 (Farnell Order Code: 1439413) (**U10**)
- 2 of NE5532P Dual Very Low Noise OP Amp (Farnell Order Code: 1106092) (**U1, U5**)
- 1 of 74HC14 Inverter, Schmitt Trigger, 5.2 mA, 2 V to 6 V, DIP-14 (Farnell Order Code: 9591125) (**U2**)
- 1 of 2N3904 NPN Transistor (Farnell Order Code: 1574370) (**Q1**)

- 1 of 500 ohm Vertical 25 turn preset BOURNS 3296W-1-501LF (Farnell Order Code: 9353283) (**RV8**)
- 2 of 10K Vertical 25 turn preset BOURNS 3296W-1-103LF (Farnell Order Code: 9353186) (**RV1, RV5**)
- 2 of 20K Vertical 25 turn preset BOURNS 3296W-1-203LF (Farnell Order Code: 9353240) (**RV6**)
- 2 of 50K Vertical 25 turn preset BOURNS 3296W-1-503LF (Farnell Order Code: 9353305) (**RV11, RV14**)
- 2 of 1M Vertical 25 turn preset BOURNS 3296W-1-504LF (Farnell Order Code: 9353313) (**RV3, RV2**)
- 2 of 10K Potentiometer Linear (Farnell Order Code: 2771753) or (Rapidonline Order Code: 65-0753) (**RV4, RV7**)
- 1 of 100K Potentiometer Linear (Farnell Order Code: 1823538) or (Rapidonline Order Code: 65-0756) (**RV15**)

- 1 of 10 ohm $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R34**)
- 1 of 1K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R13**)
- 2 of 1.2K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R17, R18**)
- 2 of 2.2K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R4, R7**)
- 3 of 1.8K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R1, R2, R3**)
- 2 of 4.7K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R6, R16**)
- 14 of 10K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R5, R8, R10, R11, R12, R14, R15, R20, R27, R28, R29, R30**)
- 1 of 22K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R26**)
- 3 of 33K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R23, R24, R33**)
- 4 of 220K $\pm 1\%$ 0.6W or 0.25W metal film resistor (**R22, R25, R31, R32**)

- 18 of 100nF 63V 5mm Kemet Polyester Box Capacitor (Farnell Order Code: 2309064) (**C2, C4, C8, C11, C15, C22, C24, C25, C26, C29, C31, C33, C34, C35, C37, C39, C41**)
- 3 of 10nF 100V 5mm Kemet Polyester Box Capacitor (Farnell Order Code: 2429335) (**C27, C36, C38**)
- 1 of 1nF 63V 5mm Kemet Polyester Box Capacitor (Farnell Order Code: 2429343) (**C28**)
- 1 of 1 μ F DC Film Capacitor, 63 V, PET (Polyester), $\pm 5\%$, R82 Series, Radial Box (Farnell Order Code: 2429339) (**C21**)
- 8 of 10 μ F 25V electrolytic (Farnell Order Code: 1902913) (**C3, C5, C14, C16, C23, C32**)

- 1 of Rotary Encoder BOURNS PEC11R-4215F-S0024 24 Detents, 24 Pulses (Farnell order code: 2474844) or 20 Detents, 20 Pulses (**SW1 Rotary Encoder**)
- 2 of Pushbutton Switch, Off-(On) (Farnell Order Code: 1634682) or similar (Waveform and Freq. Range buttons)

- 3 of 8 pin DIP Socket (MULTICOMP) (Farnell order code: 1103844)
- 3 of 14 pin DIP Socket (MULTICOMP) (Farnell order code: 1103845)
- 2 of 16 pin DIP Socket (MULTICOMP) (Farnell order code: 1103846)
- 2 of 15Way Single Row PCB Socket 2.54mm Pitch (www.rapidonline.com - Order Code: 19-0086)
- 8 of JST XH 2.54mm 0.1" - 2 Pin PCB Plug and Socket (eBay purchase) (**J1, J2, J3, J4, J5, J7, J11, J13**)
<https://www.ebay.co.uk/itm/272253345370>
- 4 of JST XH 2.54mm 0.1" - 3 Pin PCB Plug and Socket (eBay purchase) (**GAIN, DC OFFSET, SPI, Carrier Level**)
- 2 of JST XH 2.54mm 0.1" - 4 Pin PCB Plug and Socket (eBay purchase) (**DISPLAY, POWER**)
- 1 of JST XH 2.54mm 0.1" - 5 Pin PCB Plug and Socket (eBay purchase) (**SW1 Rotary Encoder socket**)