

SCULLCOM HOBBY ELECTRONICS

STAIR-STEP GENERATOR PROJECT

PARTS LIST

C1, C3, C4, C6, C7, C10, C11 - 100nF
C2 - 2200uF
C5 - 470uF
C8, C9 - 10uF
D1, D2, D3, D4, D5, D6, D7, D8, D9 - 1N4148 (small switching diode)
JP1, JP2 - 2 pin SIL option link with link plug
JP3, JP4, JP5, JP6, JP7, JP8, JP9, JP11 - Wire Links
JP10 - 3 pin SIL option link with link plug
P1 to P6 - PCB terminal pins
R2, R10 - 100K
R3, R9, R11, R12 - 1K
R4 - 7.68K ($\pm 0.1\%$) (RS stock No. 701-7673) or 7.5K ($\pm 1\%$)
R5 - 3.24K ($\pm 0.1\%$) (RS stock No. 701-7550) or 3.3K ($\pm 1\%$)
R6 - 1.74K ($\pm 0.1\%$) (RS stock No. 754-8758) or 1.8K ($\pm 1\%$)
R7 - 1K ($\pm 0.1\%$) (RS stock No. 701-7383) or 1K 1K ($\pm 1\%$)
R8 - 562 Ω ($\pm 0.1\%$) (RS stock No. 701-7305) or 560 Ω ($\pm 1\%$)
RV2 - 1M Potentiometer or Preset
RV3 - 1K Preset
RV4 - 10K Preset
S1 - Rotary Switch, 6 Way, Through Hole (RS Components Ltd stock No. 665-196)
SW2 - Single Pole ON-OFF-ON switch or 3 pin SIL option link with link plug
U1 - LTC1799 Linear Technology precision oscillator in SOT-23 (5 pin) package
U2 - LM7812 12 volt regulator
U3 - LM7805 5 volt regulator
U4 - 74HC4017 Johnson decade counter with 10 decoded outputs
U5 - TLE2426 Texas Instruments, Supply Rail Splitter, "virtual ground" in TO-92 package
U6 - NE5532P Texas Instruments, Dual Op Amp
U7 - 74LS390 Texas Instruments 4-stage, Decade, Decade Counter/Divider
XTL1 - 5V 1MHz Crystal Oscillator Modules Through Hole (DIL-14 format) available on eBay from seller ha5ia for £2.98. Link below:
http://www.ebay.co.uk/itm/181176576561?_trksid=p2057872.m2749.l2649&ssPageName=STRK%3AMEBIDX%3AIT

1 x 8 pin DIL socket
2 x 16 pin DIL socket
1 x 15v or 18v DC power adapter