Clock in — J1 AudioJack, R5 100k, R6 1M, D3 1N5817, Q1 2N3904, R2 10k, R1 1k +5V, D2 LED, R4 1k, SW2 SW_Push, C1 100nF — CLOCK_IN

Reset in — J2 AudioJack, R12 100k, R13 1M, D7 1N5817, Q2 2N3904, R9 10k, R7 1k +5V, D5 LED, R11 1k, SW3 SW_Push, C2 100nF — RESET_IN

Flip in — J3 AudioJack, R17 100k, R18 1M, D9 1N5817, Q3 2N3904, R15 10k, R14 1k +5V, D8 LED, R16 1k, SW4 SW_Push, C5 100nF — FLIP_IN

Randomise switch — SW1 SW_SPST, R3 1k, D1 LED +5V — RANDOM

Direction LEDs — D4 LED, R8 1k — INC_LED; D6 LED, R10 1k — DEC_LED; GND

Gate voltage — +12V, C3 330nF, U1 L78L09_TO92 (VI, GND, VO), C4 100nF — V_GATE; GND

Arduino Nano — +5V, RESET, RESET, AREF, A0, A1, A2, A3, A4, A5, A6, A7, GND, GND; +5V, 3V3, VIN, GND; D0/RX, D1/TX, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13; Arduino_Nano A1; CLOCK_IN, RESET_IN, FLIP_IN, RANDOM, INC_LED, DEC_LED, SER_DATA, SER_CLOCK, SER_LATCH

Expansion header — EXPANSION_CLOCK, EXPANSION_LATCH, EXPANSION_DATA — J17 Conn_01x03

Inv / Non-inv (top) — J4 AudioJack Inv, R19 100R, U3B TL084, U3C TL084, R23 100R (J5 Non-inv), R21 10k, R33 10k, D26 LED, D27 LED, R24 1k, Glide SW5 SW_SPST, RV17 A1M, C6 470nF, U3A TL084, RV19 B100k, RV18 B50k Scale, R20 10k — CV_OUT1, R22 10k +12V, Offset -12V, U3D TL084, C7 100nF -12V/+12V, TL084 U3E

Inv / Non-inv (bottom) — J14 AudioJack Inv, R58 100R, U4B TL084, U4C TL084, R62 100R (J15 Non-inv), R60 10k, R65 10k, D36 LED, D37 LED, R64 1k, Glide SW6 SW_SPST, RV20 A1M, C8 470nF, U4A TL084, RV22 B100k, RV21 B50k Scale, R59 10k — CV_OUT2, R61 10k +12V, Offset -12V, U4D TL084, C10 100nF -12V/+12V, TL084 U4E

SER_DATA, SER_CLOCK, SER_LATCH — +5V, U2 74HC595 (SER, SRCLK, RCLK, OE, VCC, GND, QA, QB, QC, QD, QE, QF, QG, QH, QH'), EXPANSION_CLOCK, EXPANSION_LATCH, EXPANSION_DATA

CV 1 — RV1 B100k, RV2 B100k, RV3 B100k, RV4 B100k, RV5 B100k, RV6 B100k, RV7 B100k, RV8 B100k; D10 1N4148, D11 1N4148, D12 1N4148, D13 1N4148, D14 1N4148, D15 1N4148, D16 1N4148, D17 1N4148 — CV_OUT1

CV 2 — RV9 B100k, RV10 B100k, RV11 B100k, RV12 B100k, RV13 B100k, RV14 B100k, RV15 B100k, RV16 B100k; D18 1N4148, D19 1N4148, D20 1N4148, D21 1N4148, D22 1N4148, D23 1N4148, D24 1N4148, D25 1N4148 — CV_OUT2; GND

Buffer — R25 10k, R26 10k, R27 10k, R28 10k, R29 10k, R30 10k, R31 10k, R32 10k; Q4 2N3904, Q5 2N3904, Q6 2N3904, Q7 2N3904, Q8 2N3904, Q9 2N3904, Q10 2N3904, Q11 2N3904 — V_GATE

Step LED — R34 10k, R35 10k, R36 10k, R37 10k, R38 10k, R39 10k, R40 10k, R41 10k; R42 1k, R43 1k, R44 1k, R45 1k, R46 1k, R47 1k, R48 1k, R49 1k; D28 LED, D29 LED, D30 LED, D31 LED, D32 LED, D33 LED, D34 LED, D35 LED; R50 100R, R51 100R, R52 100R, R53 100R, R54 100R, R55 100R, R56 100R, R57 100R; GND

Gate out — J6 AudioJack, J7 AudioJack, J8 AudioJack, J9 AudioJack, J10 AudioJack, J11 AudioJack, J12 AudioJack, J13 AudioJack

Power — +12V, C11 330nF, U5 L7805 (IN, GND, OUT), +5V, C12 100nF, GND; -12V, R63 10R, C9 10uF, C13 10uF, R66 10R, +12V; J16 Conn_02x05; GND