

4017 Sequencer V1.8

Based on the revered 4017 integrated circuit, this step sequencer boasts an 8-step sequence length, granting you the power to shape intricate musical patterns with ease.

Rotary switch allows on-the-fly adjustment and reset at any step, putting you in complete control of your composition. For even finer precision, utilize the reset CV input to orchestrate your sequences down to the microbeat.

Each of the eight steps features a dedicated potentiometer for CV and a responsive gate switch. The internal clock, driven by a 555 IC, ensures accurate timing. Seamlessly sync with external clocks to integrate flawlessly with your setup, or leverage the clock out feature to reign as the master sequencer of your modular universe.

Please note, this advanced build is not suited for beginners and requires meticulous attention during assembly. The densely populated PCB and wiring requirements demand an experienced hand.

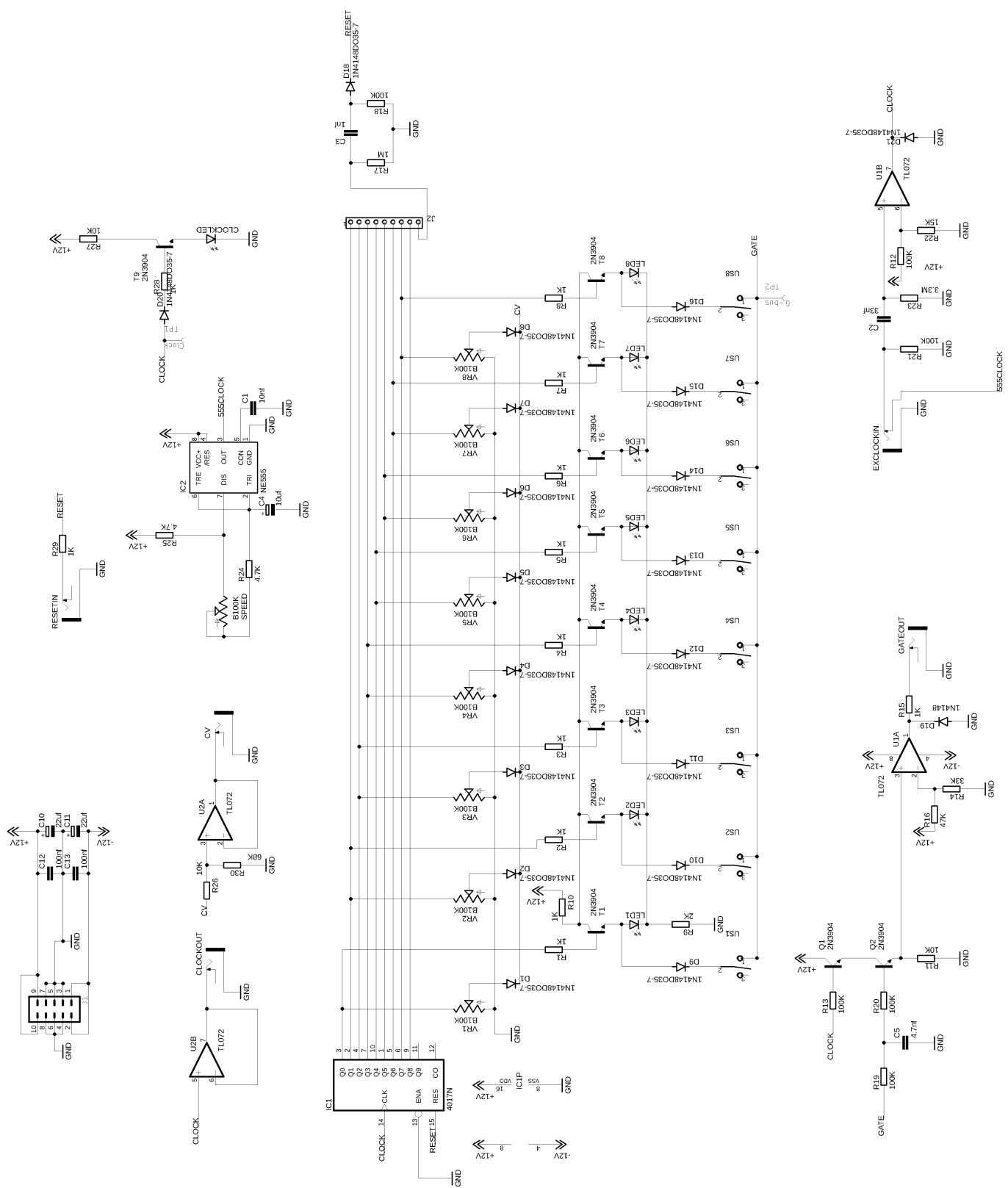


Bom

Qty	Value	Part Number
1	10 Pin IDC Socket / Euro Power	J1
9	3mm LED	CLOCKLED, LED1, LED2, LED3, LED4, LED5, LED6, LED7, LED8
1	SP12T Rotary Switch (Stop at 8)	Connect to J2 with hook up wire.
6	100K	R12, R13, R18, R19, R20, R21
2	100nf	C12, C13
3	10K	R11, R26, R27
1	10nf	C1
1	10uf	C4
1	15K	R22
12	1K	R1, R2, R3, R4, R5, R6, R7, R8, R10, R15, R28, R29
1	1M	R17
19	1N4148	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14, D15, D16, D18, D19*, D20, D21
1	1nf	C3
2	22uf	C10, C11
1	2K	R9
11	2N3904	T1, T2, T3, T4, T5, T6, T7, T8, T9, Q1, Q2
1	3.3M	R23
1	33K	R14
1	33nf	C2
2	4.7K	R24, R25
1	4.7nf	C5
1	4017N	IC1
1	47K	R16
1	68K	R30
9	B100K / 9mm Vertical Pot.	SPEED, VR1, VR2, VR3, VR4, VR5, VR6, VR7, VR8
1	Clock Test Point	TP1
1	Gate Bus Test Piont	TP2
1	NE555	IC2
8	SPDT-ON-ON / Switch	U\$1, U\$2, U\$3, U\$4, U\$5, U\$6, U\$7, U\$8
5	PJ398SM / Jack Socket	CLOCKOUT, CV, EXCLOCKIN, GATEOUT, RESETIN
2	TL072	U1, U2

Use capacitors rated 25V or higher.

Schematic



Configuring D19 For Gate Pulse Limiting

Option 1: 5.1V Gate Pulse Limiting

A 5.1V zener diode (e.g., any 5.1V zener) can be used with D19 to restrict the gate voltage between 0V and 5.1V. This is useful for circuits or logic gates that have a lower voltage tolerance.

Option 2: Up to 12V Gate Pulse Limiting

A 1N4148 diode can be used with D19 to achieve a wider gate pulse range of approximately 0V to 12V. This is suitable for circuits that can handle a broader voltage swing.

Calibration

No calibration is needed.



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