Randomise switch
D1 LED +5V
SW1 SW_SPST
RANDOM
GND

Arduino Nano
+5V
+5V
3V3
VIN
RESET RESET AREF A0 A1 A2 A3 A4 A5 A6 A7
GND GND
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

Direction LEDs
D4 LED
D5 LED
R8 1k
INC_LED
D6 LED
R10 1k
DEC_LED
GND

Gate voltage
+12V
L78L09_TO92 U1
V_GATE
330nF C3
VI GND VO
100nF C4
GND

Clock in
J1 AudioJack
GND
R5 100k
+5V R1 1k
D2 LED
10k R2
Q1 2N3904
R4 1k
C1 220nF
CLOCK_IN
1M R6
D3 1N5817
SW2 SW_Push
GND

Reset in
J2 AudioJack
GND
R12 100k
+5V R7 1k
D5 LED
10k R9
Q2 2N3904
R11 1k
C2 220nF
RESET_IN
1M R13
D7 1N5817
SW3 SW_Push
GND

Flip in
J3 AudioJack
GND
R17 100k
+5VR14 1k
D8 LED
10k R15
Q3 2N3904
R16 1k
C5 220nF
FLIP_IN
1M R18
D9 1N5817
SW4 SW_Push
GND

Inv
J4 AudioJack
GND
R19 100R
U3B TL084
Glide
U3A TL084
R20 47k
CV_OUT1
SW5 SW_SPST
A1M RV17
C6 470nF
B100k RV18 Scale
R22 100k
+12V
B100k RV19 Offset
-12V
Non-inv
J5 AudioJack
GND
R23 100R
U3C TL084
R21 10k
R33 10k
GND
D26 LED
LED D27
R24 1k
U3D TL084
C7 100nF
-12V +12V
TL084 U3E

Inv
J14 AudioJack
GND
R58 100R
U4B TL084
Glide
U4A TL084
R59 47k
CV_OUT2
SW6 SW_SPST
A1M RV20
C8 470nF
B100k RV21 Scale
R61 100k
+12V
B100k RV22 Offset
-12V
Non-inv
J15 AudioJack
GND
R62 100R
U4C TL084
R60 10k
R65 10k
GND
D36 LED
LED D37
R64 1k
U4D TL084
C10 100nF
-12V +12V
TL084 U4E

SER_DATA SER_CLOCK SER_LATCH
+5V
EXPANSION_CLOCK
EXPANSION_LATCH
SER SRCLK SRCLK RCLK OE
VCC
QA QB QC QD QE QF QG QH QH'
GND
U2 74HC595
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
GND
R34 10k R35 10k R36 10k R37 10k R38 10k R39 10k R40 10k R41 10k
Step LED
D28 LED D29 LED D30 LED D31 LED D32 LED D33 LED D34 LED D35 LED
R42 1k R43 1k R44 1k R45 1k R46 1k R47 1k R48 1k R49 1k
R50 100R R51 100R R52 100R R53 100R R54 100R R55 100R R56 100R R57 100R
Gate out
J6 J7 J8 J9 J10 J11 J12 J13
AudioJack
GND

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

github.com/TimMJN/Arduino-Sequencer
TimMJN
Sheet: /
File: arduino_sequencer.sch
Title: Arduino sequencer
Size: A3   Date: 19-01-2021   Rev: 1.02
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