Clock input

J1 AudioJack2
GND
R4 100k
R5 1M
D2 1N5817
Q1 2N3904
R1 1k
R2 10k
D1 LED
R3 1k
CLOCK_IN
C1 100nF
SW1 SW_Push
GND
+5V

Arduino

RATE_IN
+5V
+5V 3V3
VIN
RESET RESET
AREF
A0 A1 A2 A3 A4 A5 A6 A7
GND GND
D0/RX D1/TX D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13
SS MOSI MISO SCK
CLOCK_IN GATE_OUT CLOCK_SEL
A1 Arduino_Nano_v2.x
GND

Gate output

J2 AudioJack2
GND
R7 100R
D3 LED
R9 1k
Q2 2N3904
R8 10k
R6 10k
V_GATE
GATE_OUT
GND

SD Card Module

A2 SD_CARD_MODULE
SS CS
SCK SCK
MOSI MOSI
MISO MISO
+5V VCC
GND GND

Clock/rate select

SW2 SW_SPST
GND
CLOCK_SEL
*switch closed = external clock
+5V
RV1 B100k
RATE_IN
C7 100nF
GND

Power

+12V
U1 L78L09
C2 330nF
VI VO
GND
C3 100nF
V_GATE
GND

+12V
U2 L78L05
C4 330nF
VI VO
GND
C5 100nF
+5V
GND

GND
C6 10uF
R10 10R
+12V
J3 Conn_02x05
GND

TimMJN
Sheet: /
File: arduino_morse_gate_generator_schematic.sch
Title: Arduino Morse Gate Generator
Size: A4 | Date:
KiCad E.D.A. eeschema (5.1.8)-1 | Id: 1/1
Rev: