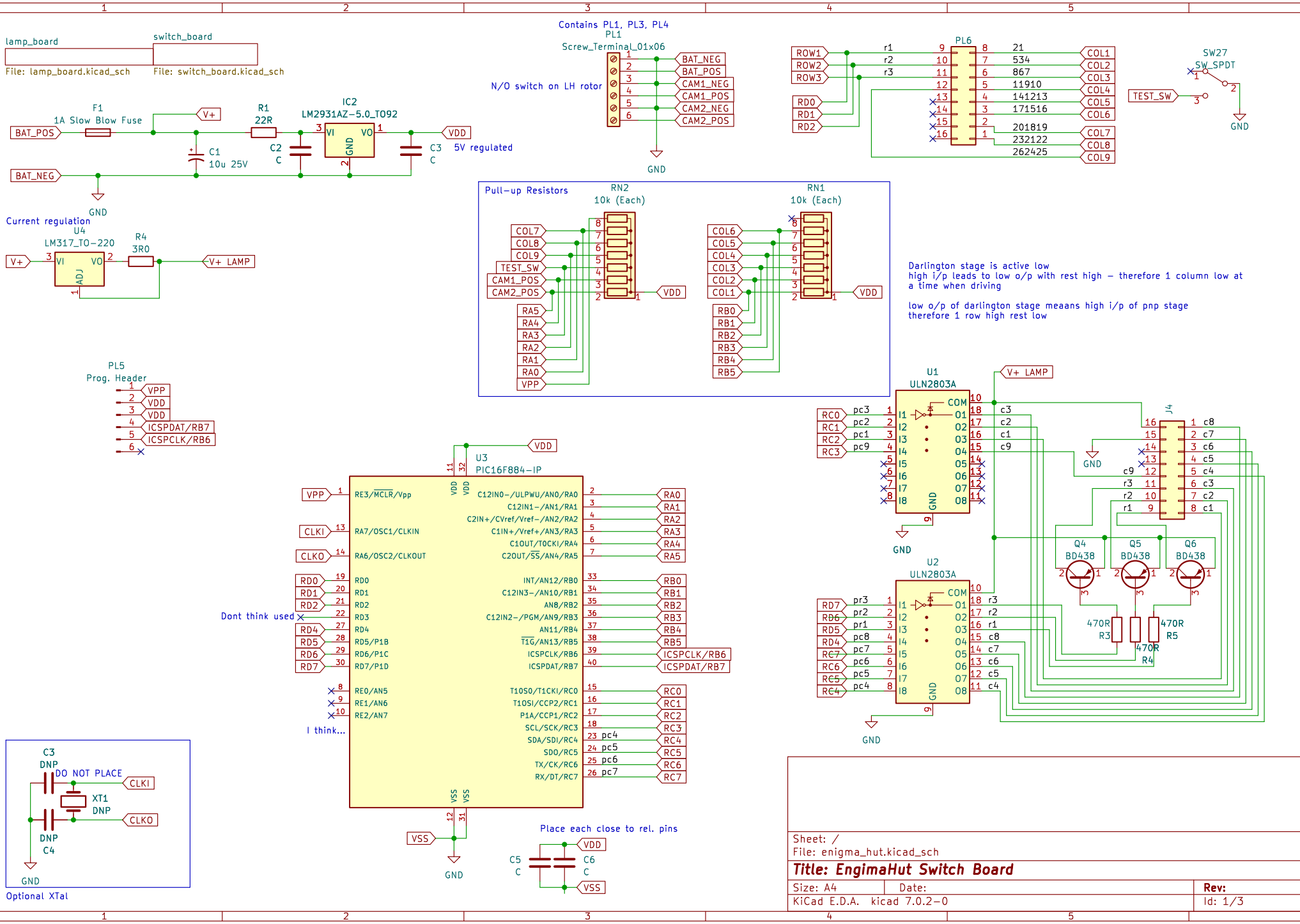
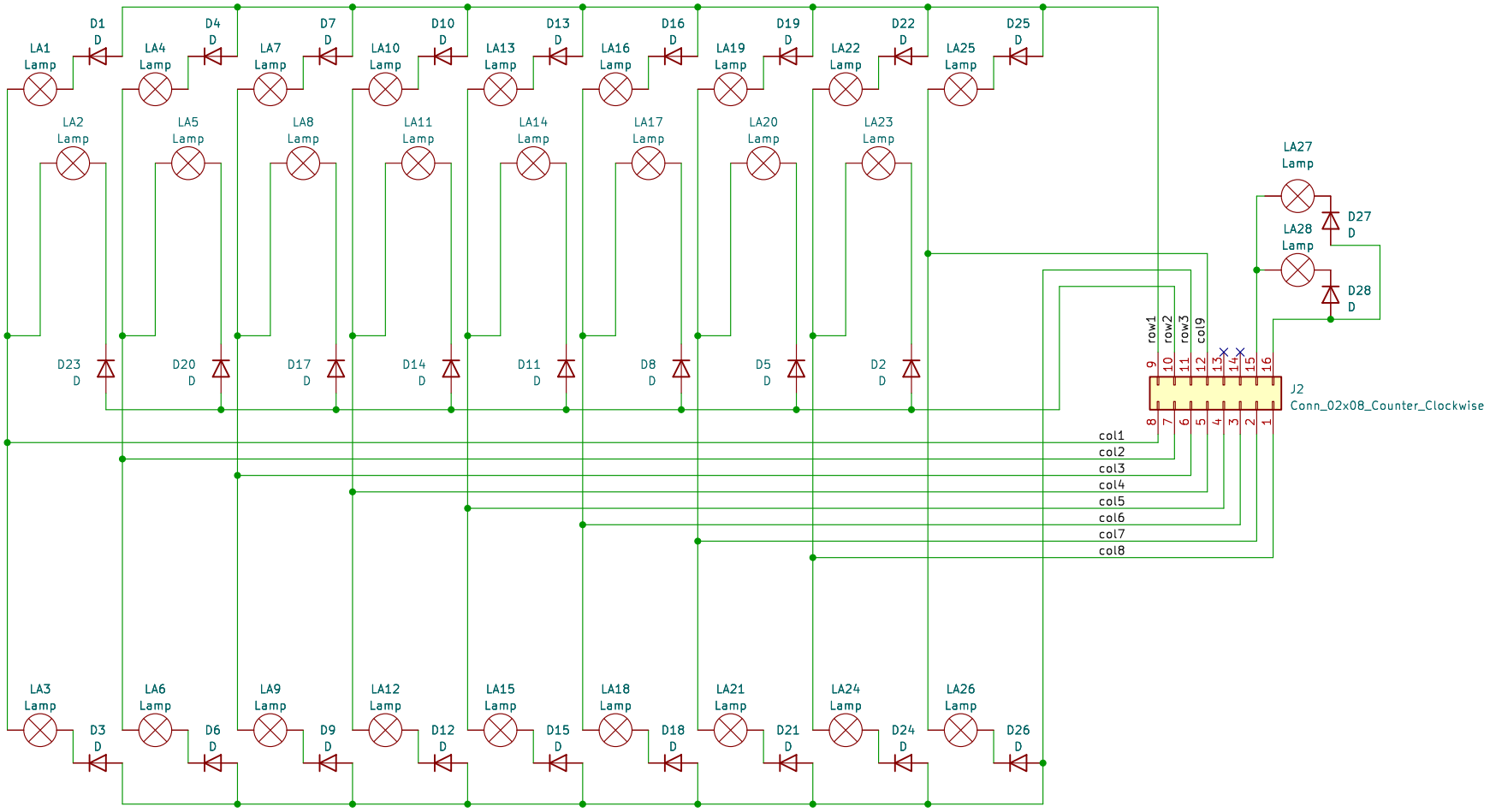

lamp_board
File: lamp_board.kicad_sch
switch_board
File: switch_board.kicad_sch
Contains PL1, PL3, PL4
PL1
Screw_Terminal_01x06
N/O switch on LH rotor
BAT_NEG
BAT_POS
CAM1_NEG
CAM1_POS
CAM2_NEG
CAM2_POS
GND
PL6
ROW1
ROW2
ROW3
RD0
RD1
RD2
r1
r2
r3
21
534
867
11910
141213
171516
201819
232122
262425
COL1
COL2
COL3
COL4
COL5
COL6
COL7
COL8
COL9
SW27
SW_SPDT
TEST_SW
F1
1A Slow Blow Fuse
V+
BAT_POS
BAT_NEG
R1
22R
C1
10u 25V
C2
C
IC2
LM2931AZ-5.0_TO92
VI
VO
GND
C3
C
5V regulated
VDD
Current regulation
U4
LM317_TO-220
ADJ
R4
3R0
V+ LAMP
Pull-up Resistors
RN2
10k (Each)
RN1
10k (Each)
TEST_SW
CAM1_POS
CAM2_POS
RA5
RA4
RA3
RA2
RA1
RA0
VPP
RB0
RB1
RB2
RB3
RB4
RB5
Darlington stage is active low
high i/p leads to low o/p with rest high – therefore 1 column low at a time when driving
low o/p of darlington stage meaans high i/p of pnp stage
therefore 1 row high rest low
PL5
Prog. Header
VPP
VDD
VDD
ICSPDAT/RB7
ICSPCLK/RB6
U3
PIC16F884-IP
RE3/MCLR/Vpp
RA7/OSC1/CLKIN
RA6/OSC2/CLKOUT
RD0
RD1
RD2
RD3
RD4
RD5/P1B
RD6/P1C
RD7/P1D
RE0/AN5
RE1/AN6
RE2/AN7
C12IN0-/ULPWU/AN0/RA0
C12IN1-/AN1/RA1
C2IN+/CVref/Vref-/AN2/RA2
C1IN+/Vref+/AN3/RA3
C1OUT/T0CKI/RA4
C2OUT/SS/AN4/RA5
INT/AN12/RB0
C12IN3-/AN10/RB1
AN8/RB2
C12IN2-/PGM/AN9/RB3
AN11/RB4
T1G/AN13/RB5
ICSPCLK/RB6
ICSPDAT/RB7
T1OSO/T1CKI/RC0
T1OSI/CCP2/RC1
P1A/CCP1/RC2
SCL/SCK/RC3
SDA/SDI/RC4
SDO/RC5
TX/CK/RC6
RX/DT/RC7
Dont think used
I think...
VSS
Place each close to rel. pins
C5
C
C6
C
U1
ULN2803A
U2
ULN2803A
COM
GND
RC0
RC1
RC2
RC3
RD7
RD6
RD5
RD4
RC7
RC6
RC5
RC4
J4
Q4
BD438
Q5
BD438
Q6
BD438
470R
R3
470R
R4
470R
R5
C3
DNP
DO NOT PLACE
XT1
DNP
DNP
C4
CLKI
CLKO
Optional XTal
Sheet: /
File: enigma_hut.kicad_sch
Title: EngimaHut Switch Board
Size: A4
Date:
Rev:
KiCad E.D.A. kicad 7.0.2-0
Id: 1/3

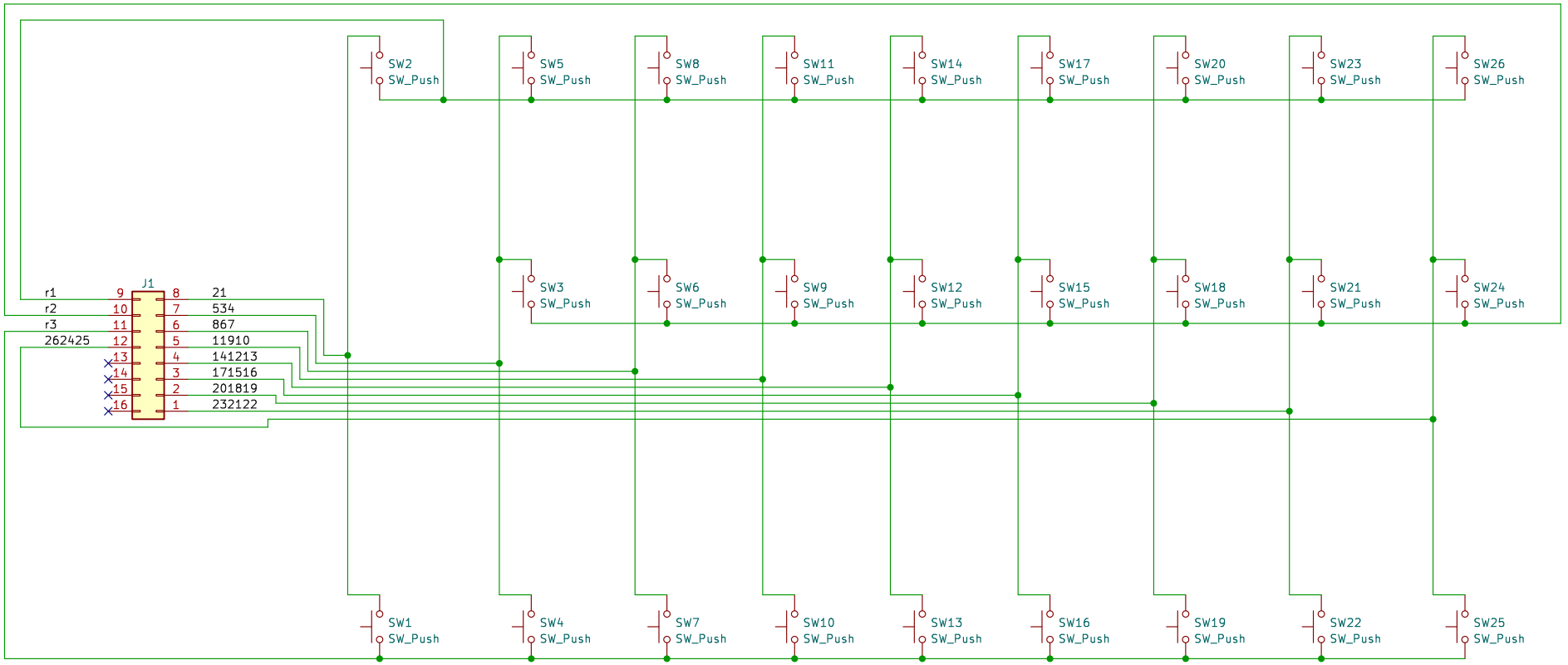


Sheet: /lamp_board/
File: lamp_board.kicad_sch

Title: Lamp Board Schematic

Size: A4	Date:	Rev:
KiCad E.D.A. kicad 7.0.2-0		Id: 2/3

connector as seen from the switch side of board
pin 1 in correct place – cannot be seen with body of connector in place
Switches arranged in keypad matrix format.



Sheet: /switch_board/
File: switch_board.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2-0		Id: 3/3