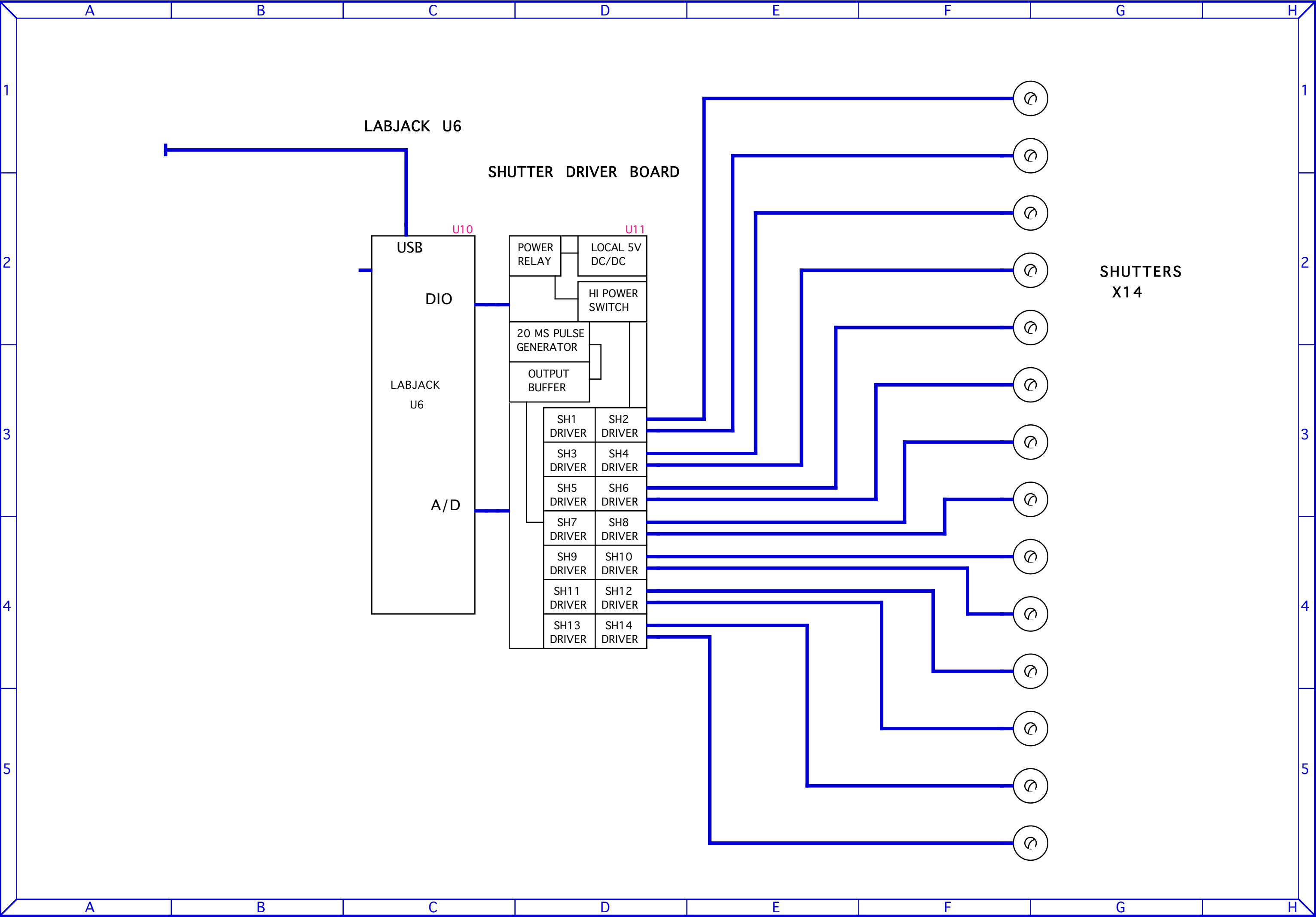




U6 PORT NAMING:

F0-7 = DIO 0 TO 7
E0-7 = DIO 8 TO 15
CIO0 = DIO 16
CIO1= DIO 17
CIO2= DIO 18
CIO13= DIO19

D I/O ASSIGNMENTS:

DIO OUTPUTS:

DIO 0 TO 13 = SHUTTER
1 TO 14 CONTROL, ON=1=OPEN
DIO16/CIO0 = SHUTTER PWR RELAY CON, 1=ON
DIO17/CIO1 = SHUTTER HI PWR CON, 1=ON
DIO18/CIO2 = SHUTTER DRV *ENABLE
LO PULSE 20MS

DIO INPUTS:

DIO 19/CIO3 = *SHFAULTOR, LO=SHUTTER DRIVER FAULT

A/D INPUTS:

AIN0 = SHUTTER 1 STATE, HI = >2VOLTS = OPEN
AIN1 = SHUTTER 2 STATE, HI = >2VOLTS = OPEN
AIN2 = SHUTTER 3 STATE, HI = >2VOLTS = OPEN
AIN3 = SHUTTER 4 STATE, HI = >2VOLTS = OPEN
AIN4 = SHUTTER 5 STATE, HI = >2VOLTS = OPEN
AIN5 = SHUTTER 6 STATE, HI = >2VOLTS = OPEN
AIN6 = SHUTTER 7 STATE, HI = >2VOLTS = OPEN
AIN7 = SHUTTER 8 STATE, HI = >2VOLTS = OPEN
AIN8 = SHUTTER 9 STATE, HI = >2VOLTS = OPEN
AIN9 = SHUTTER 10 STATE, HI = >2VOLTS = OPEN
AIN10 = SHUTTER 11 STATE, HI = >2VOLTS = OPEN
AIN11 = SHUTTER 12 STATE, HI = >2VOLTS = OPEN
AIN12 = SHUTTER 13 STATE, HI = >2VOLTS = OPEN
AIN13 = SHUTTER 14 STATE, HI = >2VOLTS = OPEN

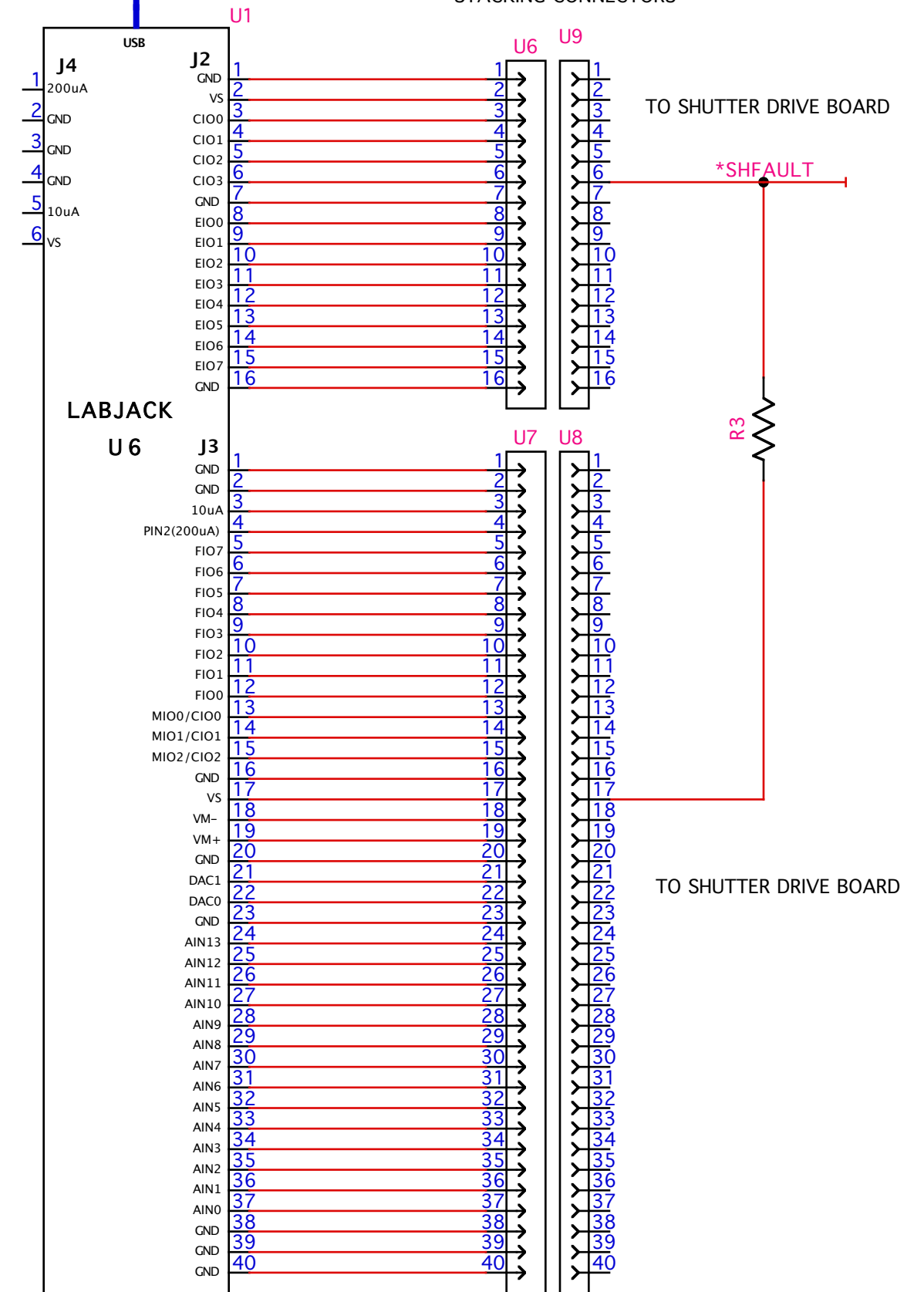
SHUTTER OPERATION:

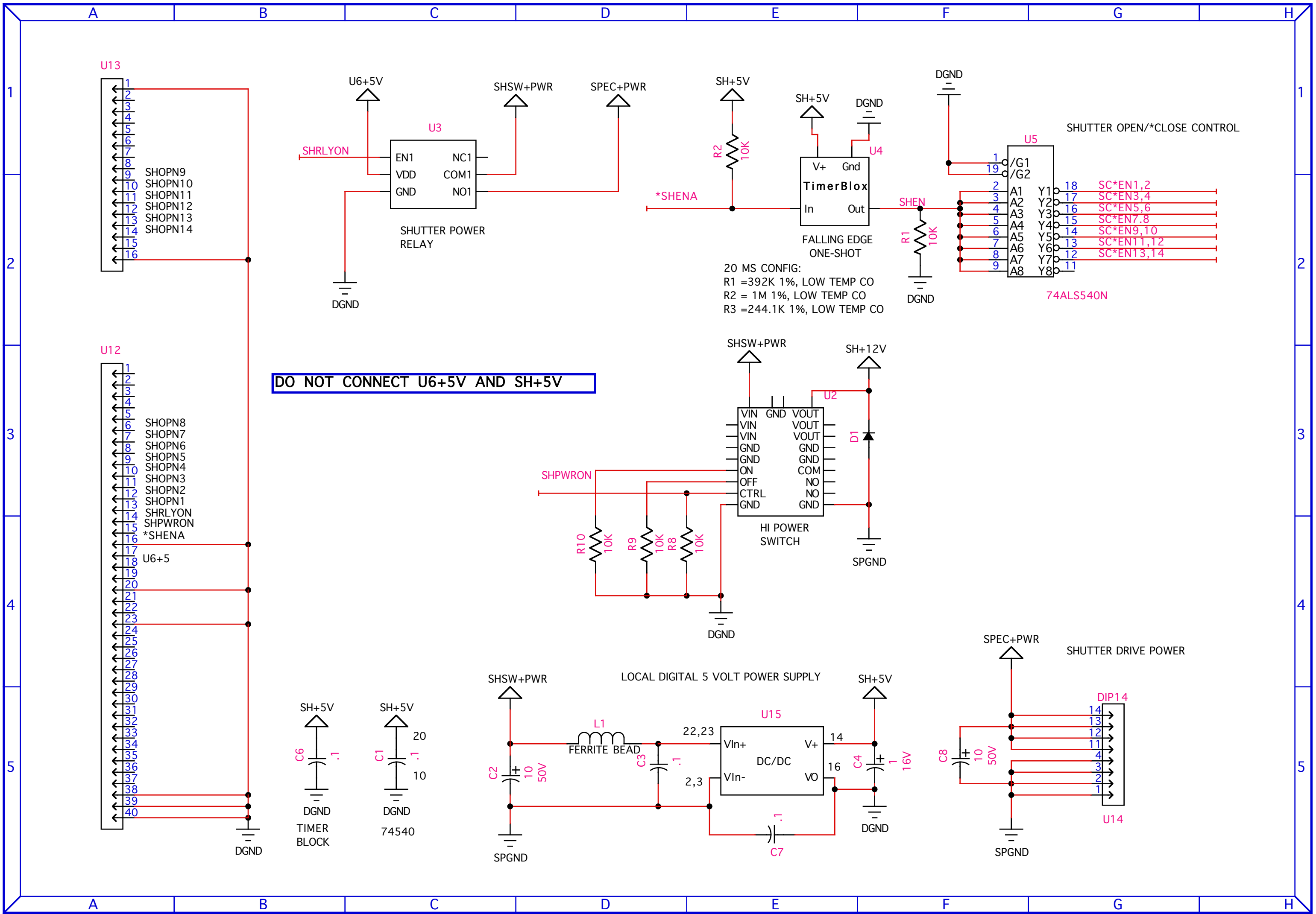
1. SET U6 TO DEFAULT STATE -
 - DIO0-18 SET TO OUTPUT
 - DIO19 SET AS INPUT
 - SET DIO16,17,18 TO HI STATE
 - SET DIO0-13 TO DESIRED SHUTTER STATE (CLOSED=LO OR OPEN=HI)
2. POWER ON RELAY CON HI=ON
3. SET SHUTTER DRV *ENABLE, HI=1= INACTIVE
4. SET SHUTTER 1-14 CONTOL, HI=1=OPEN
5. SET SHUTTER HI POWER, CONTROL ON=HI=1
6. PULSE SHUTER DRV *ENABLE, LOW=OFF FOR 20MS (ALL SHUTTERS ARE SET)
7. READ SHUTTER STATE, HI=1=OPEN,
 - CONFIRM PROPER STATE
 - CHECK FOR FAULT CONDITION, IF FAULT - SKIP TO #8 BELOW
8. RETRY AS NEEDED TO SET
9. POWER OFF SHUTTER HI POWER
10. POWER OFF SHUTTER PWR RELAY

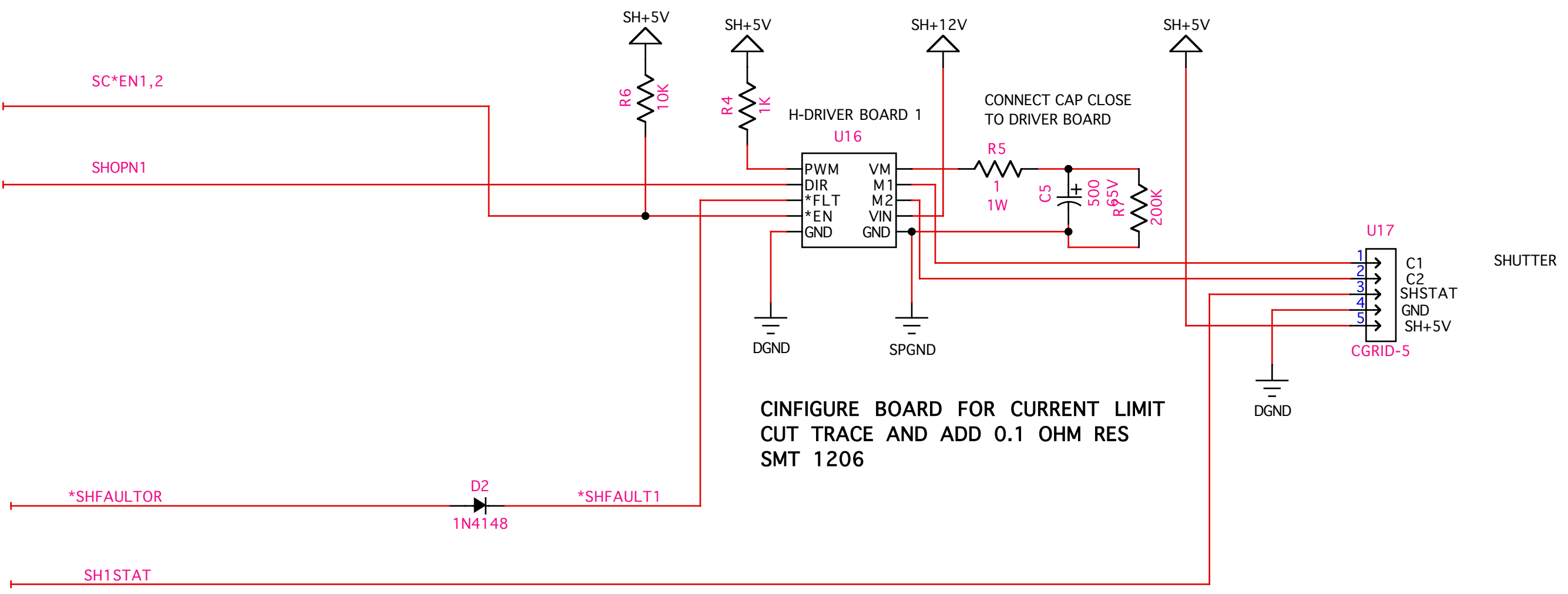
F0 = DIO0 = SH1
F1 = DIO1 = SH2
F2 = DIO2 = SH3
F3 = DIO3 = SH4
F4 = DIO4 = SH5
F5 = DIO5 = SH6
F6 = DIO6 = SH7
F7 = DIO7 = SH8
E0 = DIO8 = SH9
E1 = DIO9 = SH10
E2 = DIO10 = SH11
E3 = DIO11 = SH12
E4 = DIO12 = SH13
E5 = DIO13 = SH14

CIO0 = DIO16 = RELAY CON
CIO1 = DIO17 = SS SWITCH
CIO2 = DIO18 = SHUTTER PULSE
CIO3 = DIO19 = SHUTTER FAULT

TO
FALCON
USB







ONLY 1 OF THE 14 DRIVERS IS SHOWN HERE

DO NOT CONNECT DGND AND SPGND ON THIS BOARD