SIR

U4E
74AHC04

U4F
74AHC04

U10
74HC595

+5V

R7.5k
R1 MISO

SER   VCC   QA   DB0
              QB   DB1
SRCLK   QC   DB2
SRCLR   QD   DB3
RES   QE   DB4
CSI   QF   DB5
RCLK   QG   DB6
Sx OE   QH   DB7

GND   QH'

GND

S

U3A
74HC74

SCH

Serial clock out

+5V
GND

D   S   Q   SCLK

C   R   Q'

U1D
74AHC02

SCL

RES

U11
74HC165

+5V

GND   DS   VCC   Q7   MOSI
DB0   D0   Q7
DB1   D1
DB2   D2
DB3   D3
DB4   D4
DB5   D5
DB6   D6
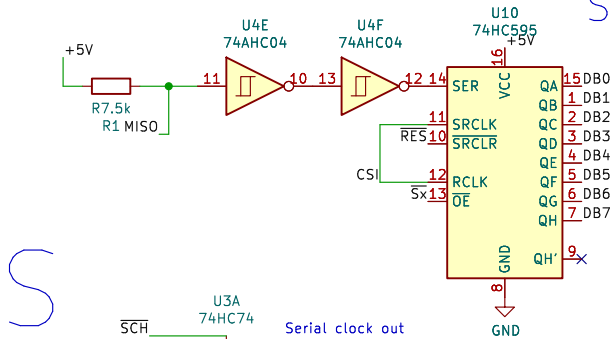DB7   D7

xS   PL

CSO   CP
GND   CE   GND

GND

SOR

Serial IO

Implements SPI functionality
with dedicated SER/DES registers