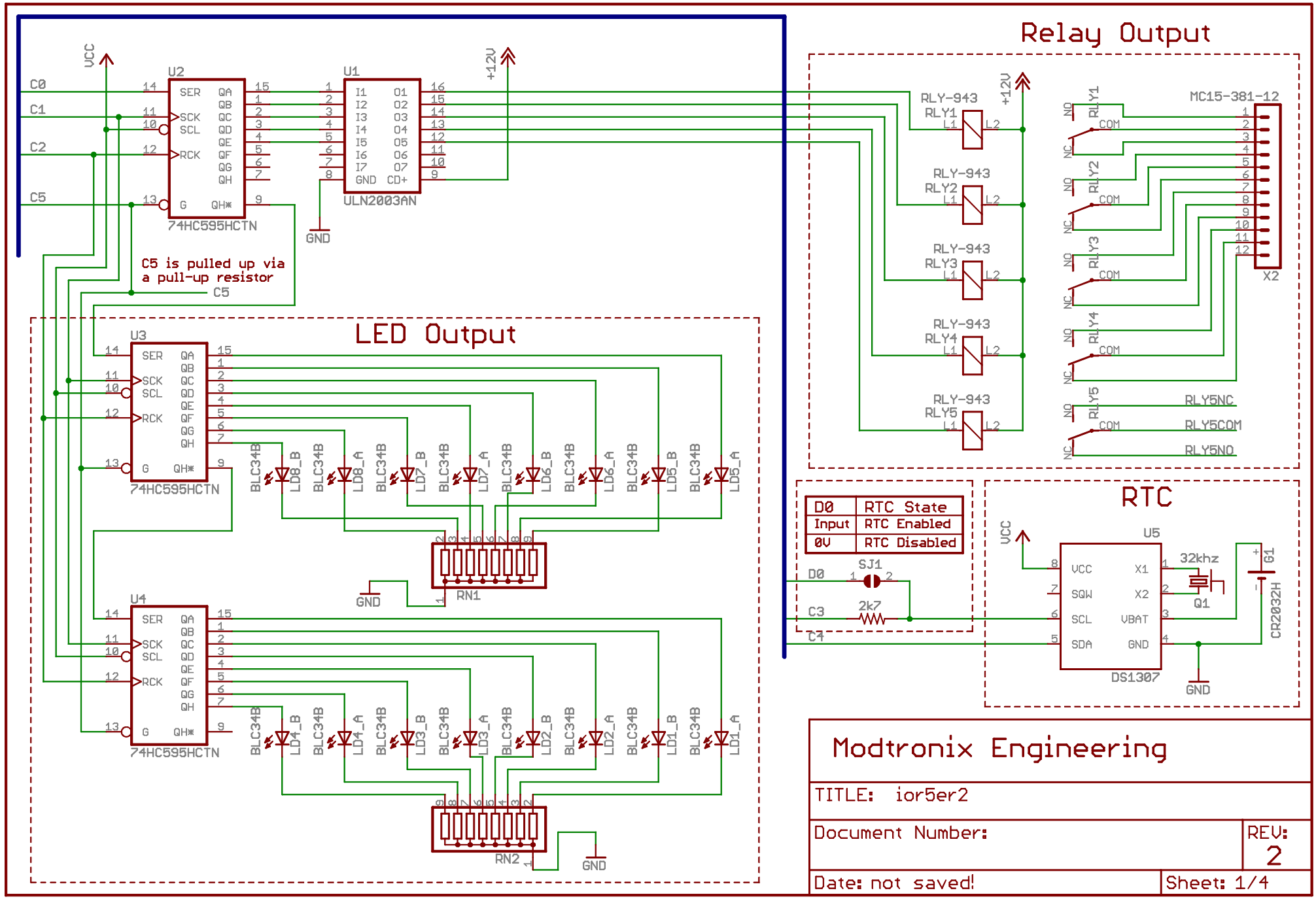
Relay Output
LED Output
RTC
C5 is pulled up via a pull-up resistor
C5
VCC
+12V
GND
U1
ULN2003AN
U2
U3
U4
74HC595HCTN
RN1
RN2
BLC34B
RLY-943
RLY1
RLY2
RLY3
RLY4
RLY5
MC15-381-12
X2
RLY5NC
RLY5COM
RLY5NO
D0 RTC State
Input RTC Enabled
0V RTC Disabled
SJ1
2k7
C3
C4
U5
DS1307
32khz
Q1
G1
CR2032H
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TITLE: ior5er2
Document Number:
REV: 2
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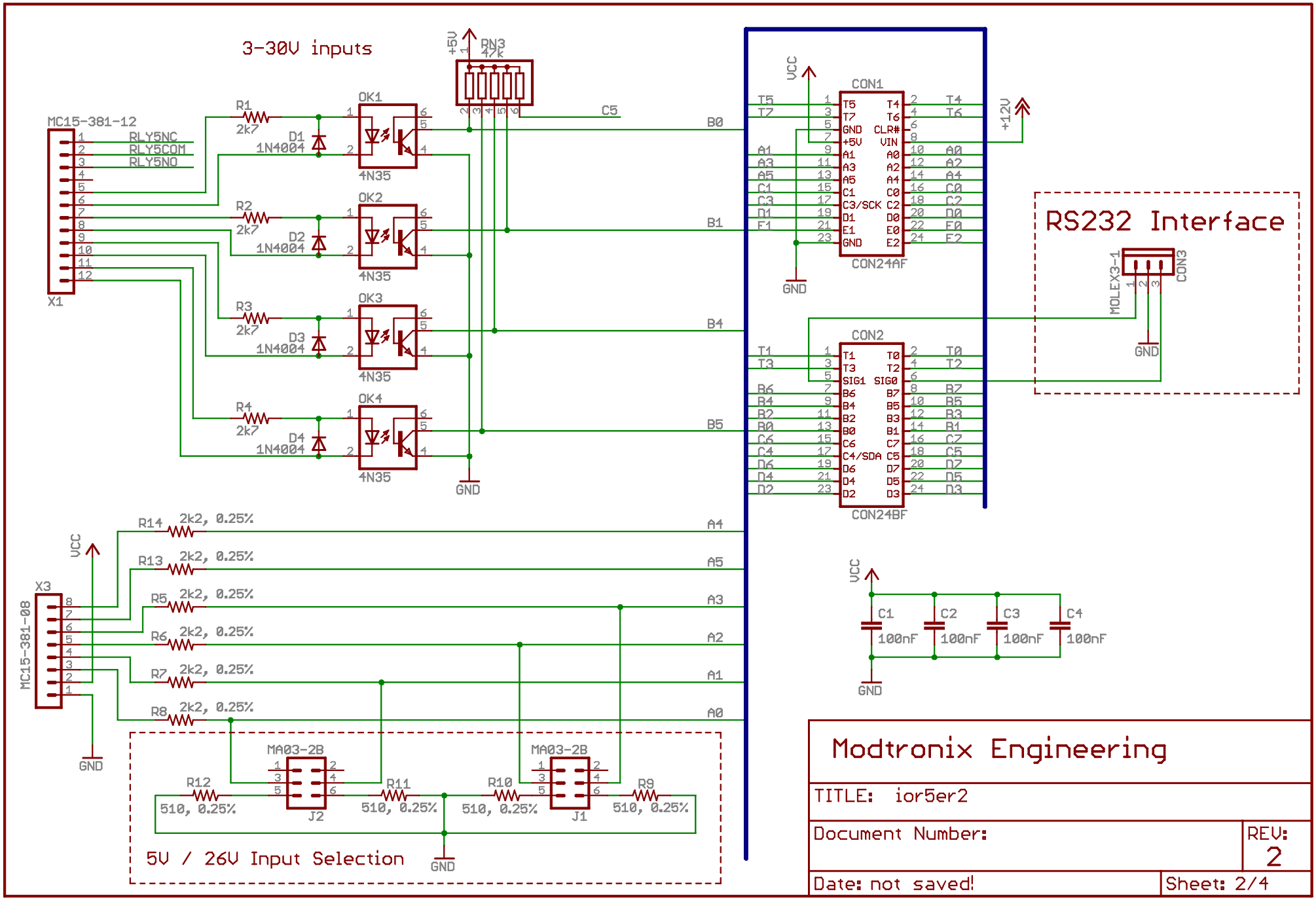
Sheet: 1/4


3-30V inputs
MC15-381-12
X1
RLY5NC
RLY5COM
RLY5NO
R1
2k7
D1
1N4004
OK1
4N35
R2
2k7
D2
1N4004
OK2
4N35
R3
2k7
D3
1N4004
OK3
4N35
R4
2k7
D4
1N4004
OK4
4N35
+5V
RN3
4.7k
C5
GND
B0
B1
B4
B5
VCC
CON1
CON24AF
+12V
GND
CON2
CON24BF
RS232 Interface
MOLEX3-1
CON3
GND
VCC
X3
MC15-381-08
R14 2k2, 0.25%
R13 2k2, 0.25%
R5 2k2, 0.25%
R6 2k2, 0.25%
R7 2k2, 0.25%
R8 2k2, 0.25%
A4
A5
A3
A2
A1
A0
GND
MA03-2B
J2
R12
510, 0.25%
R11
510, 0.25%
MA03-2B
J1
R10
510, 0.25%
R9
510, 0.25%
5V / 26V Input Selection
GND
VCC
C1
100nF
C2
100nF
C3
100nF
C4
100nF
GND
Modtronix Engineering
TITLE: ior5er2
Document Number:
REV:
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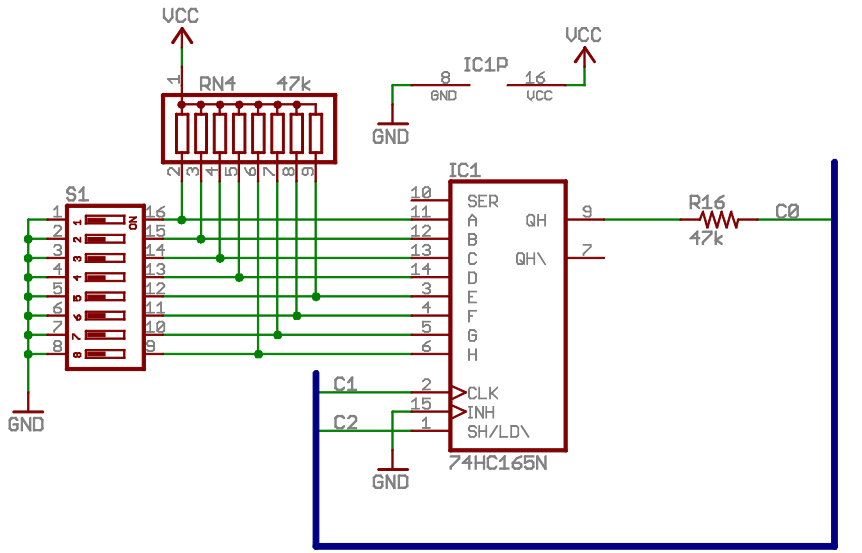
Date: not saved!
Sheet: 2/4

All input and output shif registers have to be read and written to together:

- Configure C0 as an output
- Clock out all data for the serial/parallel shift registers on C0
- Output a pulse (high-low-high) onto C2. This will do two things:
  1) Latch serial data out of serial/parallel shif registers (on rising edge of clock)
  2) Latch parallel data in to parallel/serial shif registers (on low level)
- Configure C0 as an input (so we can read parallel/serial shift registers)
- Clock in all data latched (on low C2) into parallel/serial shif registers

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