ECE315 Lab 2 Winter 2017 Schematic
Please use VCC=3.3 Volts for both the encoder and the multiplexor
All grounds need to be common
Pins for the Tutorial and Lab 1 are included for information only

+3.3V

U2
74HC257

1A 2
1B 3
2A 5
2B 6
3A 11
3B 10
4A 14
4B 13
S   1
OE 15
VCC 16
GND 8

1Y 4
2Y 7
3Y 9
4Y 12

GNDREF

J2Header

Heartbeat Signal   1   2   Context Switch Signal
                          3   4
                          5   6
                          7   8
                          9   10
                          11 12
                          13 14
LED1 - On-Board   15 16   LED2 - On-Board
LED5 - On-Board   17 18   LED3 - On-Board
LED6 - On-Board   19 20   LED7 - On-Board
                          21 22
LED4 - On-Board   23 24   LED8 - On-Board
LCD_CLOCK   25 26   LCD_RESET
LCD_C_D_LINE   27 28   LCD_DATA_OUT
                          29 30
                          31 32
                          33 34
                          35 36
                          37 38
                          39 40
                          41 42
                          43 44
                          45 46
                          47 48
                          49 50

CONN_02X25

+3.3V

U1
MM74C922

Keypad Pin E   1   Y1
Keypad Pin F   2   Y2
Keypad Pin D   3   Y3
Keypad Pin C   4   Y4

A   17
B   16
C   15
D   14

VCC 18

Keypad Pin H   11 X1
Keypad Pin G   10 X2
Keypad Pin B   8   X3
Keypad Pin A   7   X4

XOE 13
DA 12
OSC 5
KBM 6

GND 9

GNDREF

C2
1.0 uF

C1
0.1 uF

GNDREF