LED:

LED green 1   : PortB0

LED yellow 1 : PortB1

LED red1   : PortB2

LED green 2   : PortB3

LED yellow 2 : PortB4

LED red 2   : PortB5

All of them are also connected to Resistors which have value 330 Ohm

LCD:

RS   : PortD0

RW   : GND

E   : PortD1

D4   : PortD4

D5   : PortD5

D6   : PortD6

D7   : PortD7

74hc595 (expand connection pins to control 7-segment leds):

SH_SP : PortC0

DS (first 74hc595 receives data) : PortC1, the others will connect to Q7 of the nearby

ST_CP : PortC2

Data will be transfered through Q7 to DS of each 74hc595

7-segment LEDs:

Each of leds will connect from Q0 to Q5 of 74hc595

Buttons:

Button1: PortD2 (INT0)

Button2: PortD3 (INT1)

5V regulatior   : supply 5V for ATmega328, LCD and 74hc595

2.2V regulator   : supply 2.2V for buttons, LEDs and 7-segment leds

Flow chart :