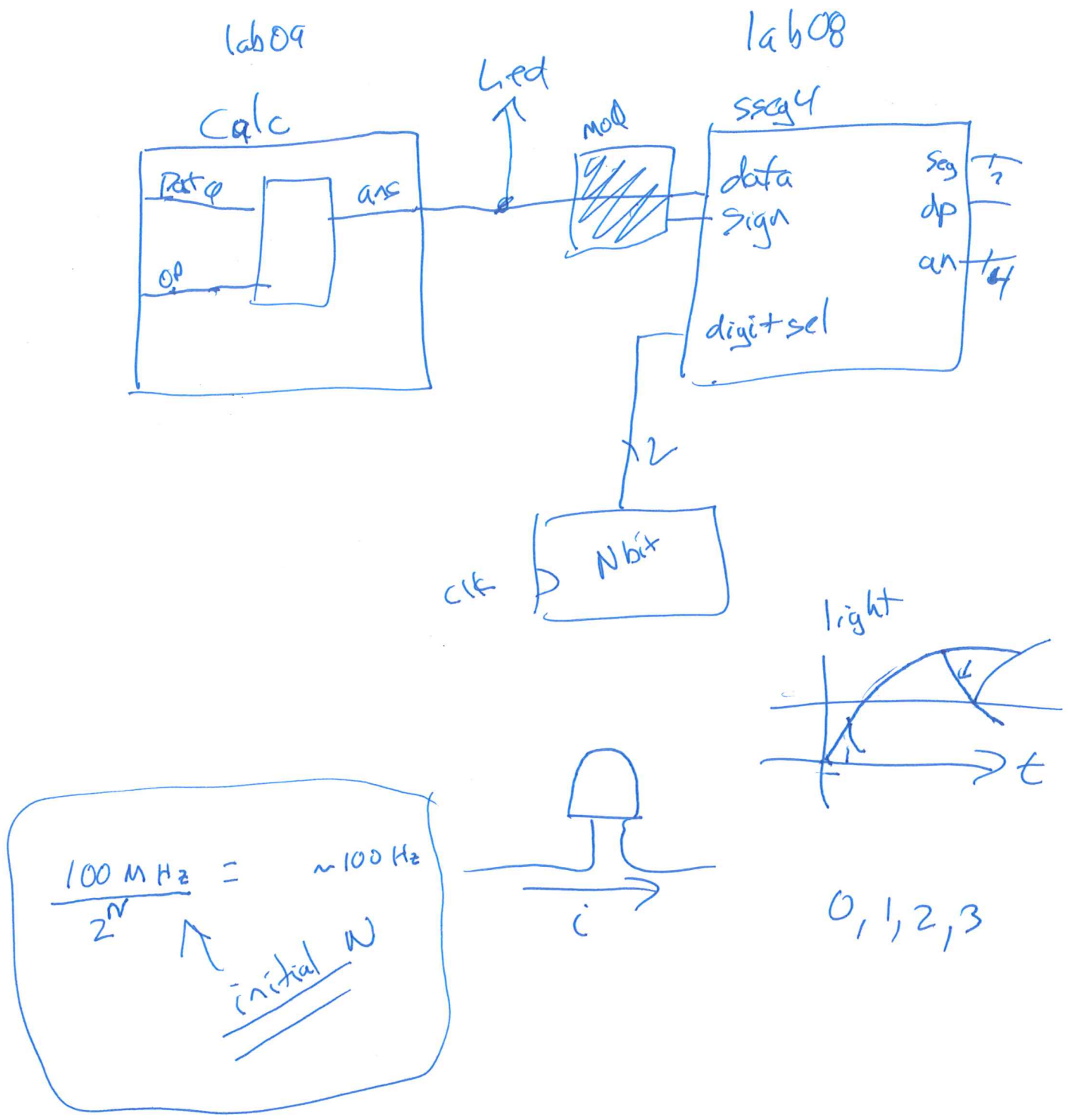
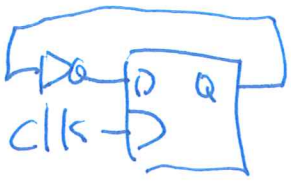
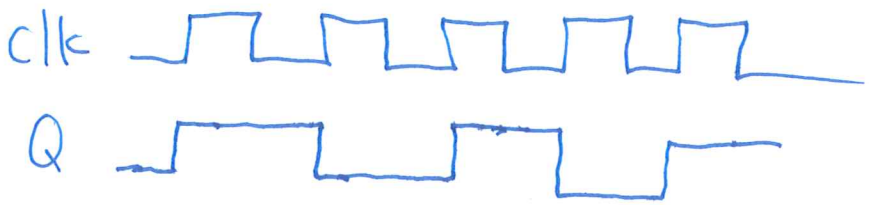
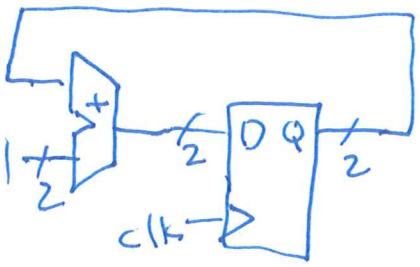
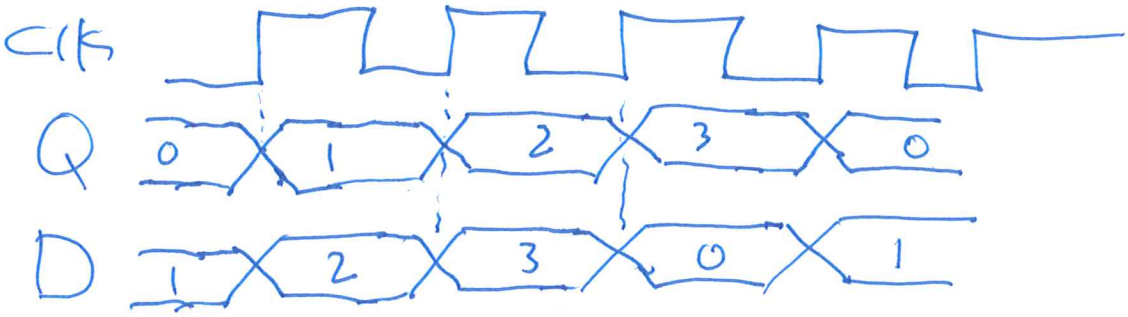

lab09
lab08
Led
Calc
mod
sseg4
Rst
op
ans
data
sign
seg
dp
an
digit sel
2
clk
Nbit
light
t
i
0, 1, 2, 3
100 MHz = ~100 Hz
2^N
initial N



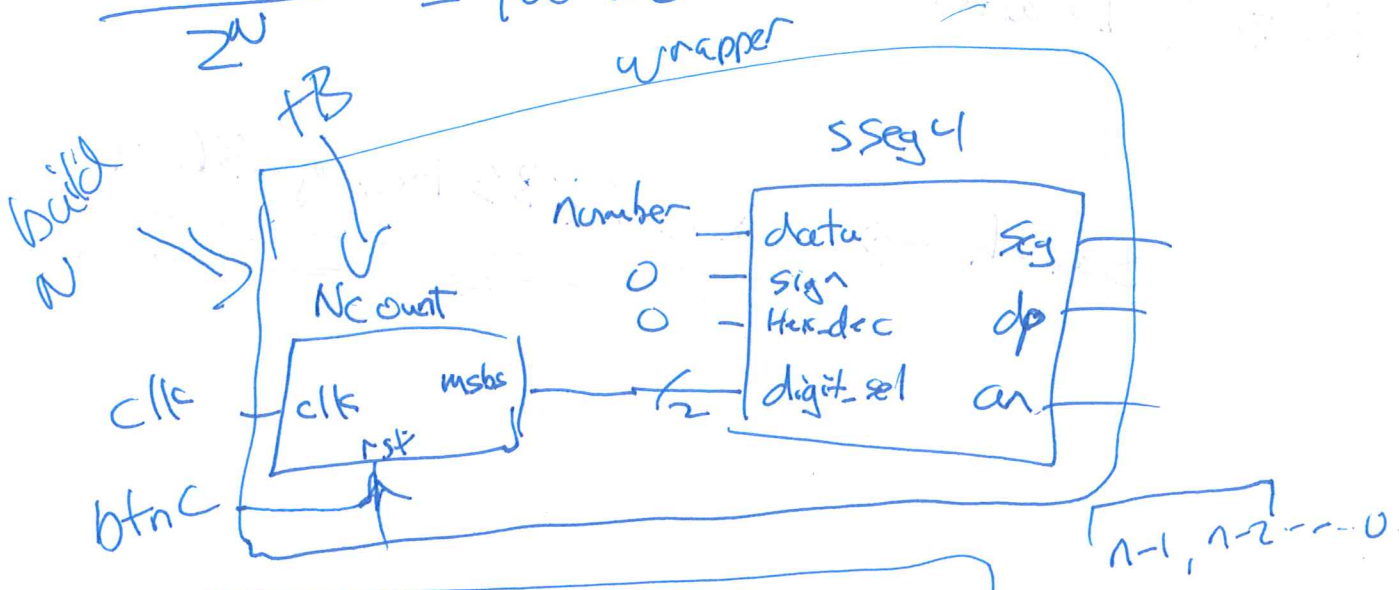


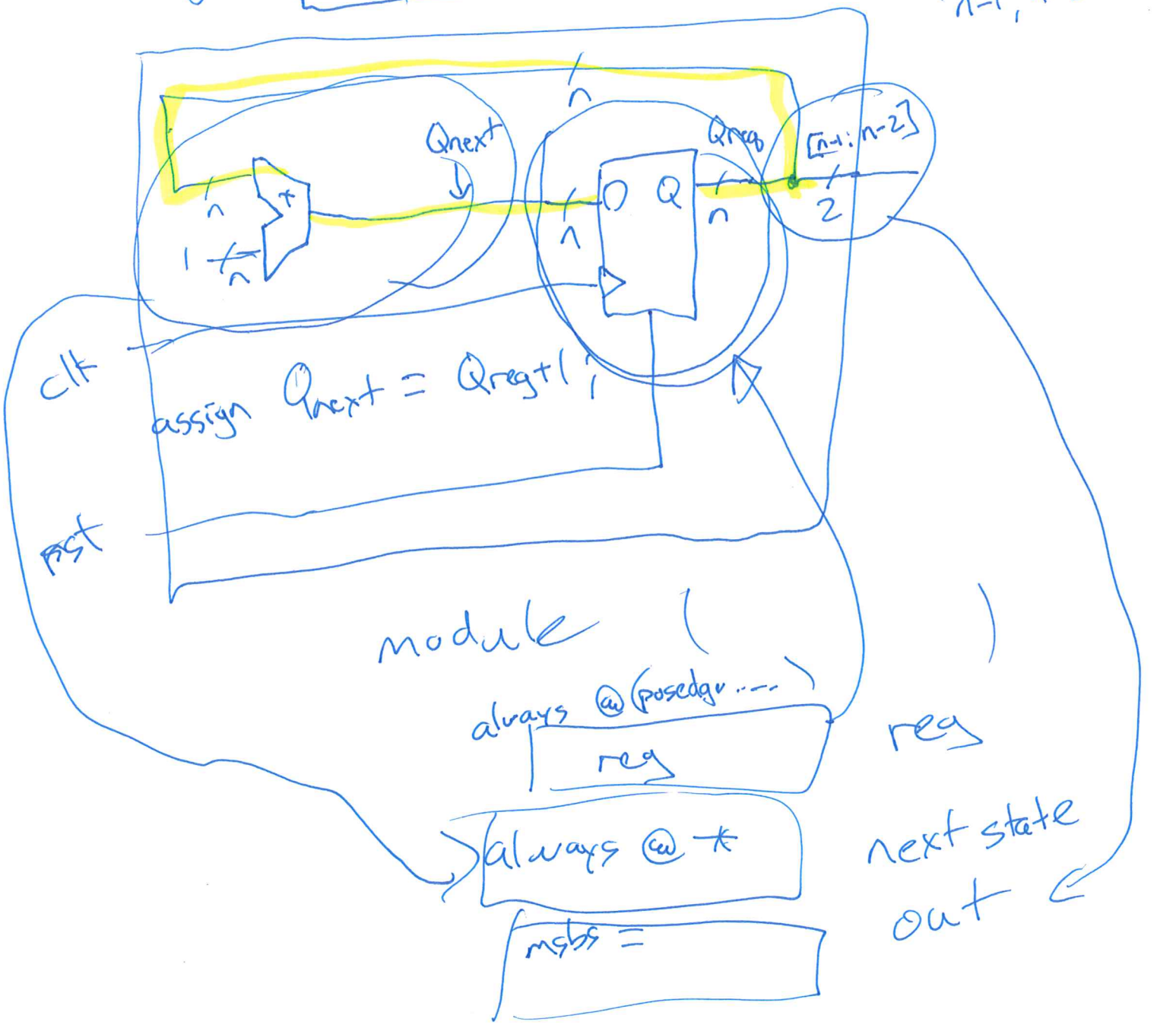


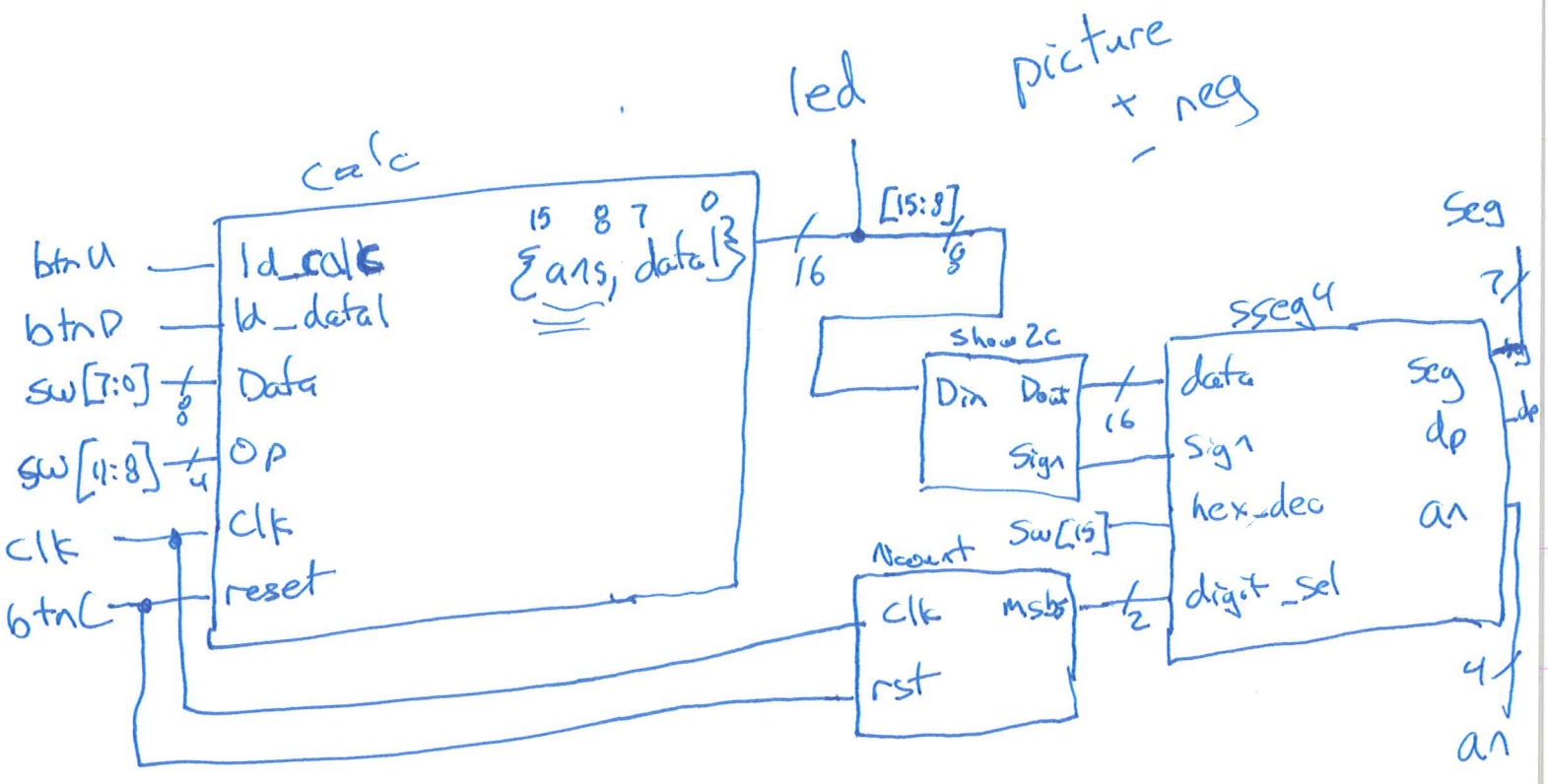
100

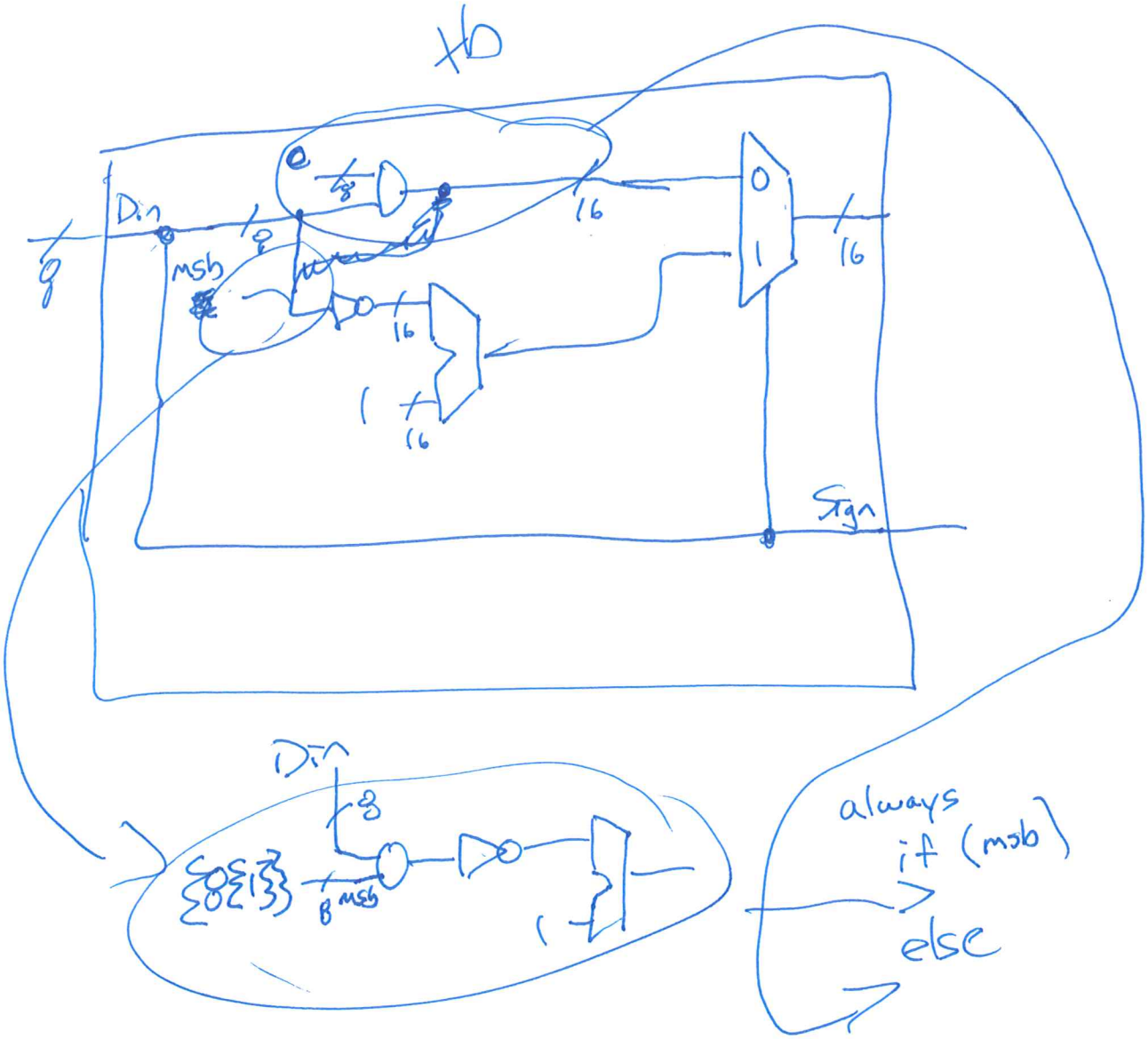


$\frac{100\ MHz}{2^N} = 100\ Hz$






led
picture
+ neg
calc
btnU
btnD
sw[7:0]
sw[11:8]
clk
btnC
ld_calc
ld_data
Data
OP
clk
reset
15 8 7 0
{ans, data}
16
[15:8]
8
show2c
Din
Dout
Sign
16
sseg4
data
sign
hex_dec
digit_sel
sw[15]
2
seg
dp
an
4
an
Ncount
clk
rst
msb


16
Din
8
msb
16
1
16
16
Sign
Din
8
{8{1'b0}}
8
msb
1
always
if (msb)
else

lab 10 ⇒ new deliverables

Deliverables

1. all .sv files
2. output of test bench for ncount with N a small # (say $2 < N < 6$)
3. picture of board with all four digits at full stregth and no blinking

and

N value that accomplished this

4. output of testbench for show_2c.sv which takes an 8 bit 2's comp number and outputs a sign bit (1 = neg) and a magnitude (8 bits) (should test a few pos & neg numbers
5. picture of your board after calculating (i) a positive and (ii) a negative number. I want to see the entire board ⇒ <sw, led, sseg>