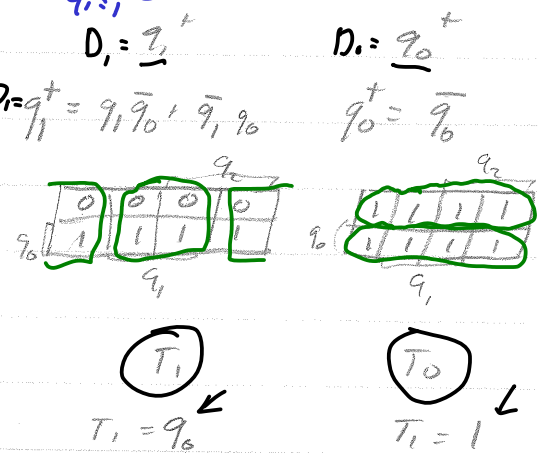
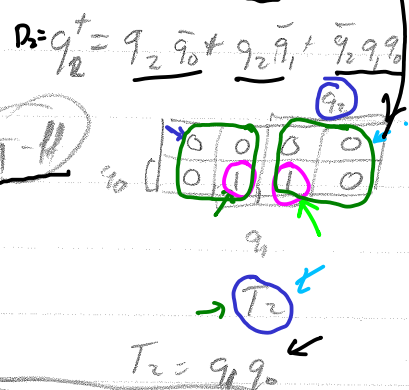
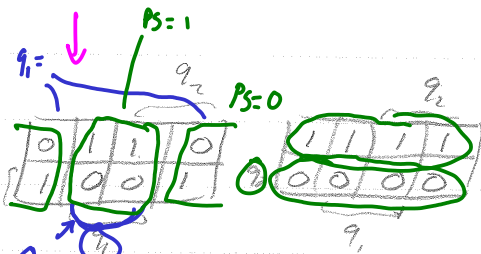
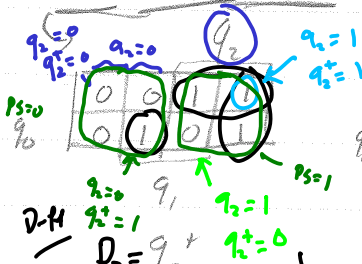


Binary counter

000 → 001 → 010

$q_2 q_1 q_0$	$x=0$	$x=1$	z
000	001	111	000
001	010	000	001
010	011	001	010
011	100	010	011
100	101	011	100
101	110	100	101
110	111	101	110
111	000	110	111

count up only



D-fl
 $Q^+ = D$
 T-fl

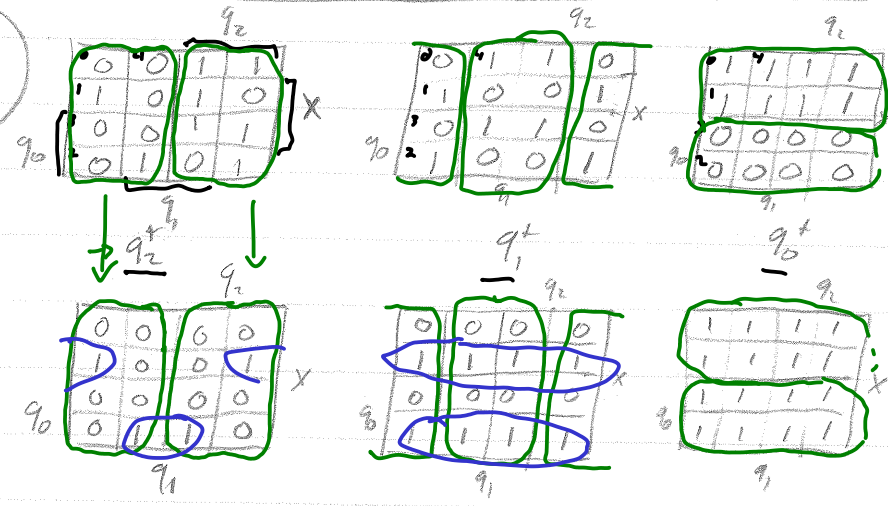
T	Q^+
0	0
0	1
1	0
1	1

$x=0$ count up
 $x=1$ count down

count up/down

next state (D-fl)

T-fl

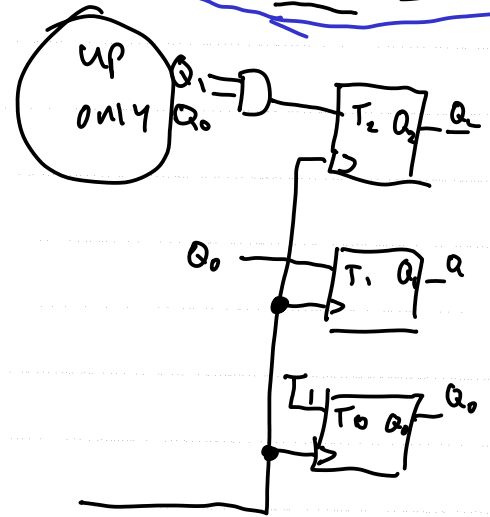
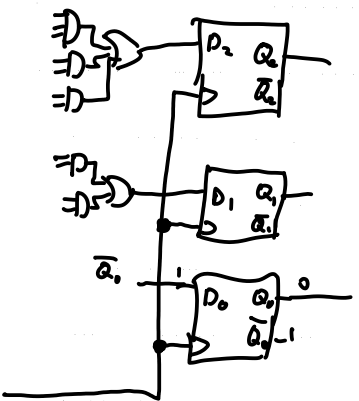


$T_2 = \bar{x} q_1 q_0 + x \bar{q}_1 q_0$

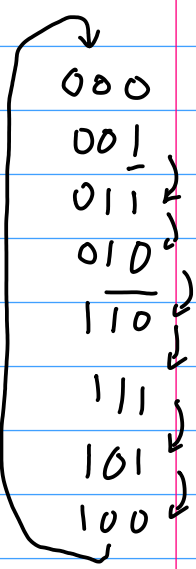
$T_1 = \bar{x} q_0 + x \bar{q}_0$

$T_0 = 1$

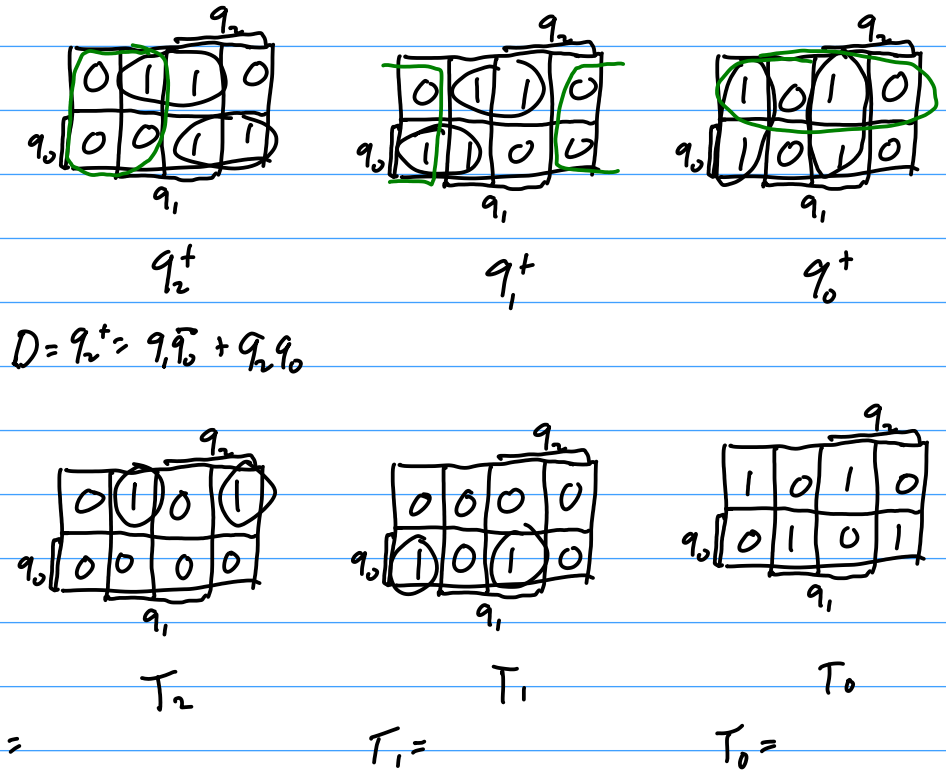
up only



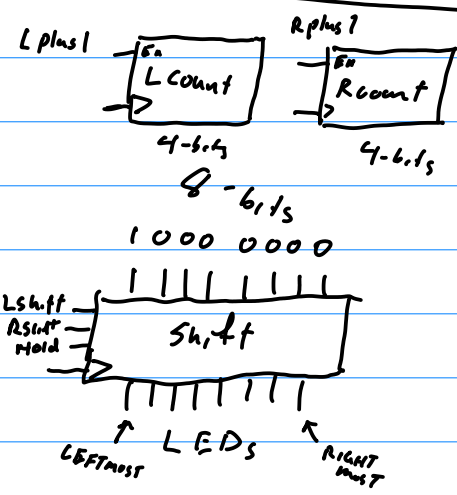
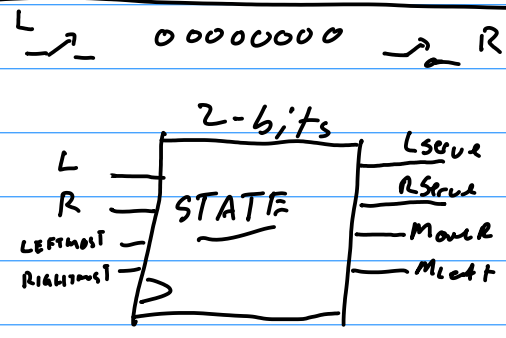
Gray Code Counted



PS $q_2 q_1 q_0$	NS $q_2^+ q_1^+ q_0^+$
000	001
001	011
011	110
010	010
110	000
111	100
101	111
100	101



PONG



Have not yet considered inputs "LEFTMOST" & "RIGHTMOST"

state assignment

	PS	NS				Z
	Inputs	q_2	q_1	q_0		
Lserv	00	00	00	11	11	1000
Rserv	01	01	10	01	10	0100
MoveL	10	10	00	01	01	0010
MoveR	11	11	00	01	00	0001

16 columns

Needs mealy

