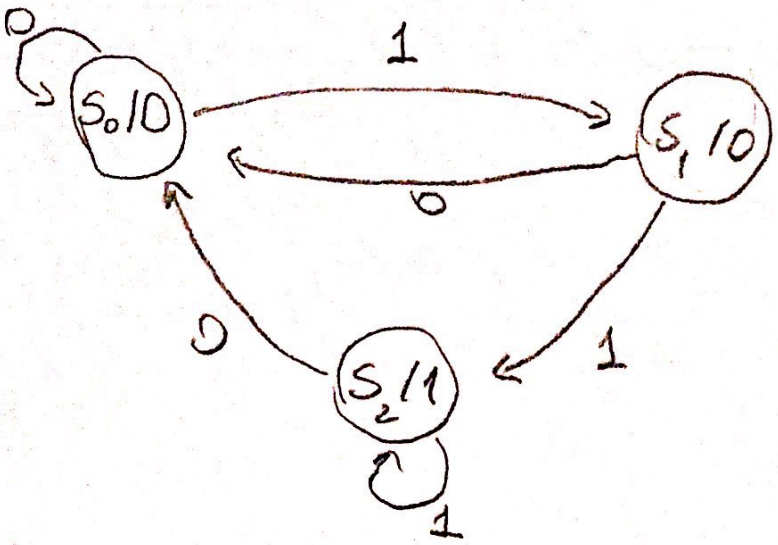


S_0	0	1	0
S_1	1	1	1
S_2	1	0	0

State Assignment:

$S_0 \rightarrow 00$

$S_1 \rightarrow 01$

$S_2 \rightarrow 10$

$S_3 \rightarrow 11$ | don't care

State Table

Present State A	Present State B	Input x	Next State A	Next State B	Output
0	0	0	0	0	0
0	0	1	0	1	0
0	1	0	0	0	0
0	1	1	1	0	0
1	0	0	0	0	1
1	0	1	1	0	1
1	1	0	X	X	X
1	1	1	X	X	X

(2 of them)
D flip-flops

A \ Bx	00	01	11	10
0	0	0	0	0
1	1	1	X	X

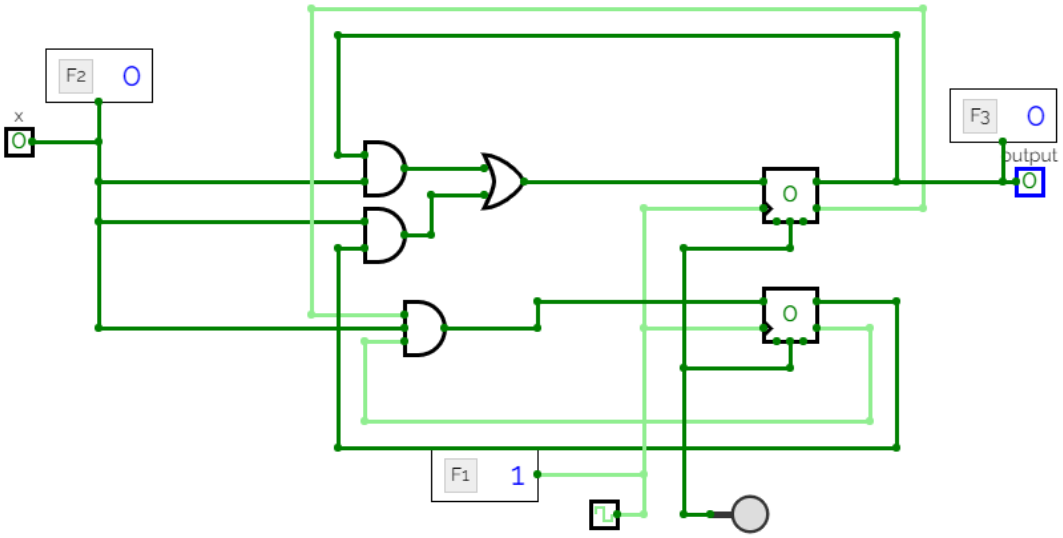
$y = A$

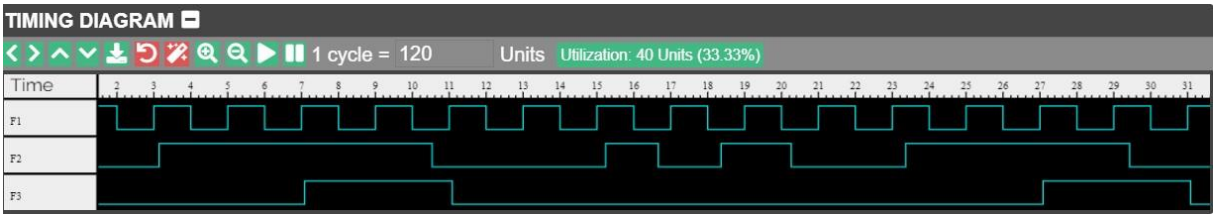
A \ Bx	00	01	11	10
0	0	0	1	0
1	0	1	X	X

$D_A = Ax + Bx$

A \ Bx	00	01	11	10
0	0	1	0	0
1	0	0	X	X

$B_B = A'B'x$


F2
O
x
O
F3
O
output
O
O
O
F1
1


TIMING DIAGRAM
1 cycle = 120
Units
Utilization: 40 Units (33.33%)
Time
F1
F2
F3