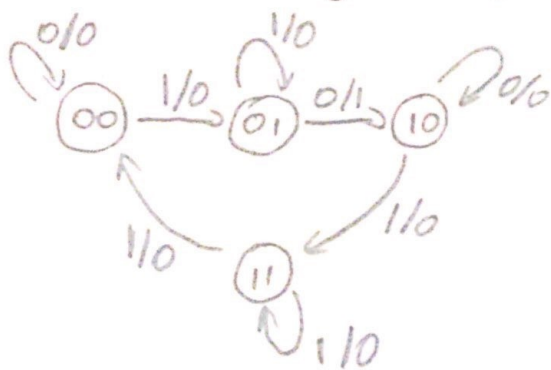


State Diagram (mealy machine)



Present State / Next State Table.

Present State		i/p	Next State		Flip-Flop Equations		o/p
x	y		x'	y'	Dx	Dy	
0	0	0	0	0	0	0	0
0	0	1	0	1	0	1	0
0	1	0	1	0	1	0	1
0	1	1	0	1	0	1	0
1	0	0	1	0	1	0	0
1	0	1	1	1	1	1	0
1	1	0	0	0	0	0	1
1	1	1	1	1	1	1	0

Dx

in \ xy	00	01	11	10
0		1		1
1			1	1

$$D_x = in \cdot X + X Y' + in' X' Y$$

Dy

in \ xy	00	01	11	10
0				
1		1	1	1

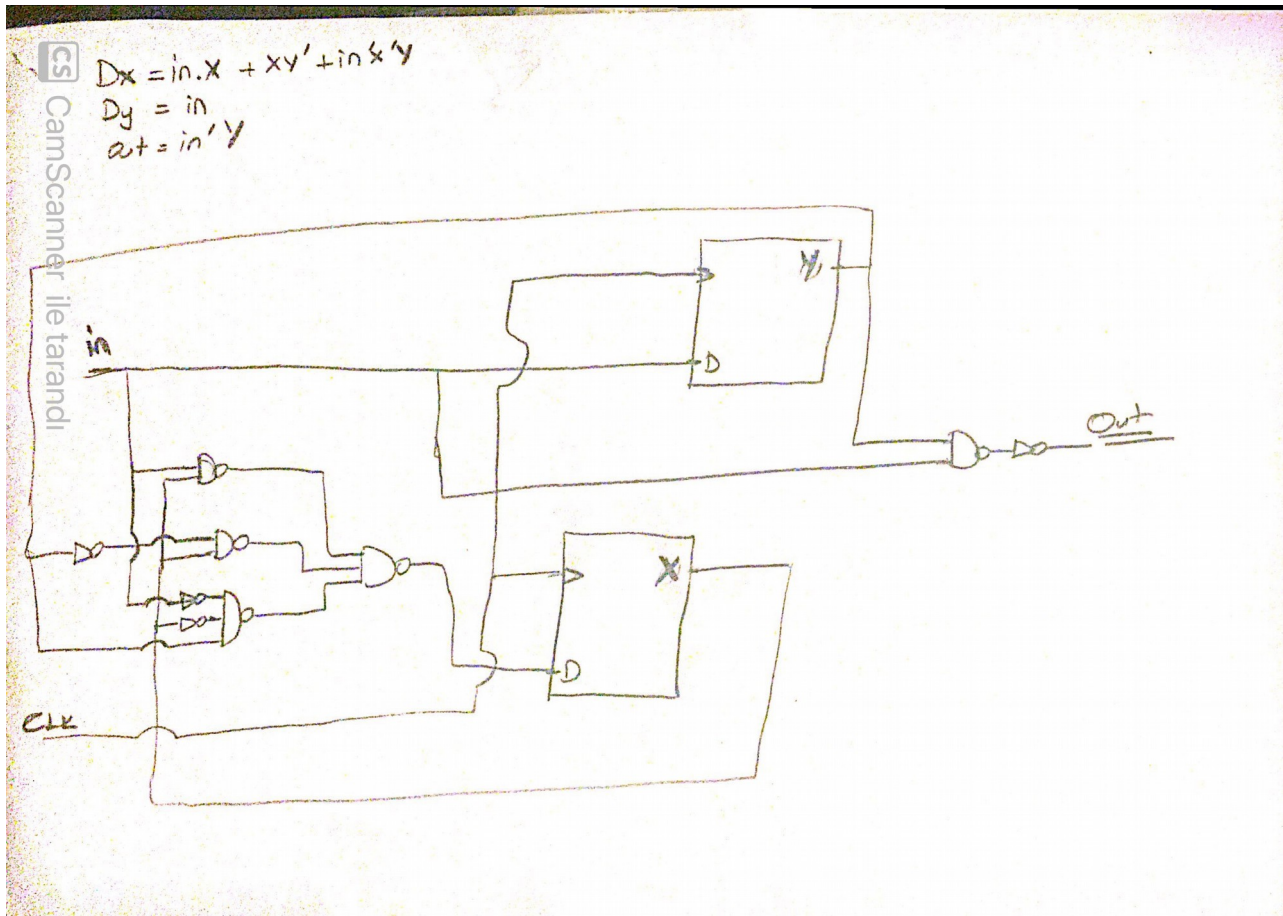
$$D_y = in$$

Out

in \ xy	00	01	11	10
0			1	1
1				

$$Out = in' \cdot Y$$

# Logical design



## *Magic layout*

