

Present state		i/p	next states		D-flip flop		o/p
x	y		x'	y'	D _x	D _y	
0	0	0	0	1	0	1	0
0	0	1	0	0	0	0	1
0	1	0	1	0	1	0	1
0	1	1	1	1	1	1	0
1	0	0	0	0	0	0	1
1	0	1	0	1	0	1	0
1	1	0	1	1	1	1	0
1	1	1	1	0	1	0	1

o/p, D_y, D_x \rightarrow $\bar{i} \bar{x} \bar{y}$, $\bar{i} x y$, $i \bar{x} \bar{y}$, $i x y$

xy	00	01	11	10
i/p	0	1	1	0
i	0	1	1	0

~~D_x = y~~
D_x = y

xy	00	01	11	10
i/p	1	0	1	0
i	0	1	0	1

$D_y = \bar{i} \bar{x} \bar{y} + \bar{i} x y + i \bar{x} \bar{y} + i x y$
(i/p \rightarrow i)

xy	00	01	11	10
i/p	0	1	0	1
i	1	0	1	0

$o/p = \bar{i} \bar{x} \bar{y} + \bar{i} x \bar{y} + i \bar{x} \bar{y} + i x y$

