

Present state	Input	Next state	Output
000	0	001	0
000	1	000	0
001	0	010	0
001	1	000	0
010	0	011	0
010	1	000	0
011	0	100	0
011	1	000	0
100	0	101	0
100	1	000	0
101	0	110	0
101	1	000	0
110	0	110	0
110	1	111	0
111	0	001	0
111	1	000	1

D_2

$D_2 \backslash D_1 D_0$	00	01	11	10
00	0	0	1	1
01	0	0	1	0
11	0	0	0	0
10	0	1	0	1

$$D_2 = D_2 \bar{D}_0 \bar{X} + D_2 D_1 \bar{D}_0 + D_2 \bar{D}_1 \bar{X} + \bar{D}_2 D_1 D_0 \bar{X}$$

D_1

$D_1 \backslash D_2 D_0$	00	01	11	10
00	0	1	1	0
01	0	0	1	0
11	0	0	0	0
10	1	0	0	1

$$D_1 = D_1 \bar{D}_0 \bar{X} + D_2 D_1 \bar{D}_0 + \bar{D}_2 D_0 \bar{X}$$

D_0

$D_0 \backslash D_2 D_1$	00	01	11	10
00	1	1	0	1
01	0	0	1	0
11	0	0	0	0
10	0	0	1	0

$$D_0 = \bar{D}_2 \bar{D}_0 \bar{X} + \bar{D}_1 \bar{D}_0 \bar{X} + D_2 D_1 \bar{D}_0 \bar{X} + D_2 D_1 D_0 \bar{X}$$