

$S_0 = 000 \quad S_1 = 001 \quad S_2 = 010 \quad S_3 = 011 \quad S_4 = 100$

- ۳

$S_5 = 101 \quad S_6 = 110 \quad \text{unused} = 111$

نیاز به استفاده از ۳ DFF داریم.

D_2

$Q_2 Q_1$

$Q_2 \backslash Q_1$	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	0	0	d	0
10	0	1	1	1

$$D_2 = \overline{x Q_1 Q_1'} + x Q_2 Q_1' + x' Q_1 Q_1' + x' Q_2 Q_1$$

$$Q_2 + = (Q_2 + Q_1)(x \oplus Q_1)$$

D_1

$Q_2 Q_1$

$Q_2 \backslash Q_1$	00	01	11	10
00	0	0	0	0
01	1	0	1	1
11	1	1	d	1
10	1	0	d	0

$$D_1 = x Q_1' + x Q_1 + x Q_2 + Q_2' Q_1' Q_1$$

D_0

$Q_2 Q_1$

$Q_2 \backslash Q_1$	00	01	11	10
00	1	1	1	1
01	0	0	0	0
11	0	0	d	0
10	1	1	d	1

$$D_0 = x'$$

		Z			
		$Q_1 Q_0$			
Q_2	Q_1	00	01	11	10
	0	0	0	1	0
	1	0	0	0	1
	2	0	0	1	1

$$Z = \overline{Q_2} Q_1 Q_0 + Q_2 \overline{Q_1} Q_0$$

$$= Q_2 (Q_1 + \overline{Q_1})$$

