



State Assignment

4 FF

A 0000

B 0001

C 0010

D 0011

E 0100

F 0101

G 0110

H 0111

I 1000

J 1001

$$ST_4 = ST_1 ST_2 ST_3 + ST_4 ST_1' MD + ST_4' ST_3 ST_5 ST_1' SD MD$$

$$SR = ST_3 ST_2 ST_1$$

$$SY = ST_3 ST_2 ST_1'$$

$$SB = \sim(ST_3 ST_2)$$

$$MG = ST_3' ST_1 + ST_3' ST_2 ST_1'$$

$$MY = ST_3 ST_2' ST_1'$$

$$MR = ST_4' ST_3' ST_2' ST_1' + ST_4 + ST_3 ST_2 + ST_3 ST_2' ST_1'$$

$$MA = ST_4 ST_3' ST_2' ST_1'$$

MD SD

Output

State	00	01	11	10	MR	MY	MG	MA	SR	SY	SB
0000	0001	0001	0001	0001	1	0	0	0	1	0	0
0001	0010	0010	0010	0010	0	0	1	0	1	0	0
0010	0011	0011	0011	0011	0	0	1	0	1	0	0
0011	0011	0100	0100	0100	0	0	1	0	1	0	0
0100	0101	0101	0101	0101	0	1	0	0	1	0	0
0101	0001	0110	0110	1001	1	0	0	0	1	0	0
0110	0111	0111	0111	0111	1	0	0	0	0	0	1
0111	1000	1000	1000	1000	1	0	0	0	0	1	0
1000	0001	0001	1001	1001	1	0	0	0	1	0	0
1001	0000	0000	0000	0000	1	0	0	1	1	0	0