



$A = "00"$ ,  $B = "01"$

$C = "10"$ ,  $D = "11"$

Present state

$y_1$   $y_0$   
0 0

0 1

1 0

1 1

Next state

$y_1$   $y_0$   
0 1  
1 0  
1 1  
0 0

output

$f_1$   $f_0$   
1 1  
1 0  
0 0  
0 1

$y_1$   $y_0$

	0	1
0	1	1
1	0	0

$$y_0 = \overline{y_0}$$

$y_1$   $y_0$

	0	1
0	0	1
1	1	0

$$y_1 = y_0 \oplus y_1$$

$$f_0 = y_0 \odot y_1$$

$f_0$   $y_1$   $y_0$

	0	1
0	1	0
1	0	1

$f_1$   $y_1$   $y_0$

	0	1
0	1	0
1	1	0

$$f_1 = \overline{y_1}$$



