



~~P State~~ tables

State assignment :

0	→	00
5	→	01
10	→	10
15	→	11

State tables				Drunk		Change	
$x_1$	$x_2$	$y_1$	$y_2$	$Y_1$	$Y_2$	$z_1$	$z_2$
0	0	0	0	1	0	0	0
0	0	0	1	1	1	0	0
0	0	1	0	0	0	1	0
0	0	1	1	0	1	1	0
0	1	0	0	0	1	0	0
0	1	0	1	1	0	0	0
0	1	1	0	1	1	0	0
0	1	1	1	0	0	1	0
1	0	0	0	0	0	0	0
1	0	0	1	0	0	0	1
1	0	1	0	0	0	0	1
1	0	1	1	0	0	0	1
1	1	0	0	0	0	1	0
1	1	0	1	0	1	1	0
1	1	1	0	1	0	1	0
1	1	1	1	1	1	1	0

here, the excitation table for D FF is,

same as  $Y_1$  and  $Y_2$   $D_1 = Y_1$

$D_2 = Y_2$

km AP<sub>3</sub>

$y_1, y_2$

$D_1$

	00	01	11	10
$x_1, x_2$	00	01	11	10
00	1	1	0	0
01	0	1	0	1
11	0	0	1	1
10	0	0	0	0

$$D_1 = \overline{x_1} \overline{x_2} \overline{y_1} + \overline{x_1} \overline{y_1} y_2 + x_2 y_1 \overline{y_2} + x_2 y_1 x_1$$

$y_1, y_2$

$D_2$

	00	01	11	10
$x_1, x_2$	00	01	11	10
00	0	1	1	0
01	1	0	0	1
11	0	1	1	0
10	0	0	0	0

$$D_2 = \overline{x_1} \overline{x_2} y_2 + \overline{x_1} x_2 \overline{y_2} + x_1 x_2 y_2$$

$y_1, y_2$

$Z_1$

	00	01	11	10
$x_1, x_2$	00	01	11	10
00	0	0	1	1
01	0	0	1	0
11	1	1	1	1
10	0	0	0	0

$$Z_1 = \overline{x_1} \overline{x_2} y_1 + \overline{x_1} y_1 y_2 + x_1 x_2$$

$y_1, y_2$

$Z_2$

	00	01	11	10
$x_1, x_2$	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	0	0	0	0
10	0	1	1	1

$$Z_2 = x_1 \overline{x_2} y_2 + x_1 \overline{x_2} y_1$$

clk

