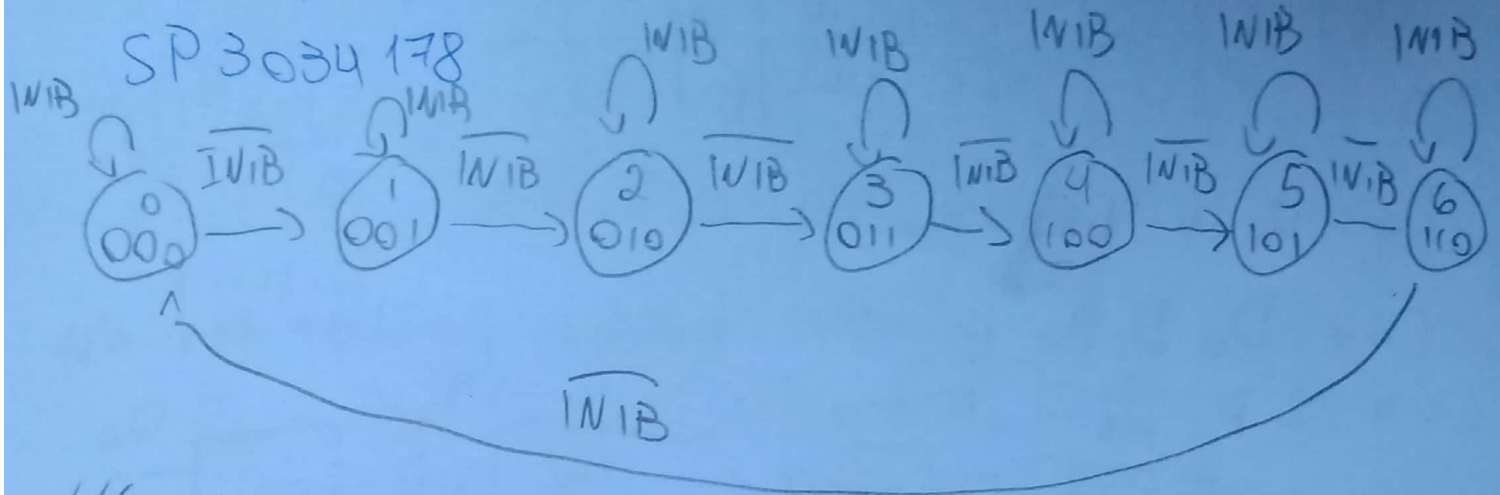


Luis Otávio Lopes Amorim

SP3034178



X/E: WIB=0

Est. atual	Próx. est.	Est. atual	Próx. est.
$Q_2 \quad Q_1 \quad Q_0$	$Q_2 \quad Q_1 \quad Q_0$	$Q_2 \quad Q_1 \quad Q_0$	$Q_2 \quad Q_1 \quad Q_0$
0 0 0	0 0 1	0 0 0	0 0 0
0 0 1	0 1 0	0 0 1	0 0 1
0 1 0	0 1 1	0 1 0	0 1 0
0 1 1	1 0 0	0 1 1	0 1 1
1 0 0	1 0 1	1 0 0	1 0 0
1 0 1	1 1 0	1 0 1	1 0 1
1 1 0	0 0 0	1 1 0	1 1 0

Mapas de Karnaugh.

D_2 :

	$Q_2 \quad Q_1 \quad Q_0$	
	000 001 011 010 110 111 101 100	
0	0 0 1 0 0 0 1 1	
1	0 0 0 0 1 1 1 1	

$D_2 = Q_2 \bar{Q}_1 + \text{WIB } Q_2 + \text{WIB } Q_1 Q_0$

D_1 :

	$Q_2 \quad Q_1 \quad Q_0$	
	000 001 011 010 110 111 101 100	
0	0 1 0 1 0 - 1 0	
1	0 0 1 1 1 - 0 0	

$$D_1 = \text{WIB } \bar{Q}_1 Q_0 + \bar{Q}_2 Q_1 \bar{Q}_0 + \text{WIB } Q_1$$

Q_2, Q_1, Q_0

D_0 :

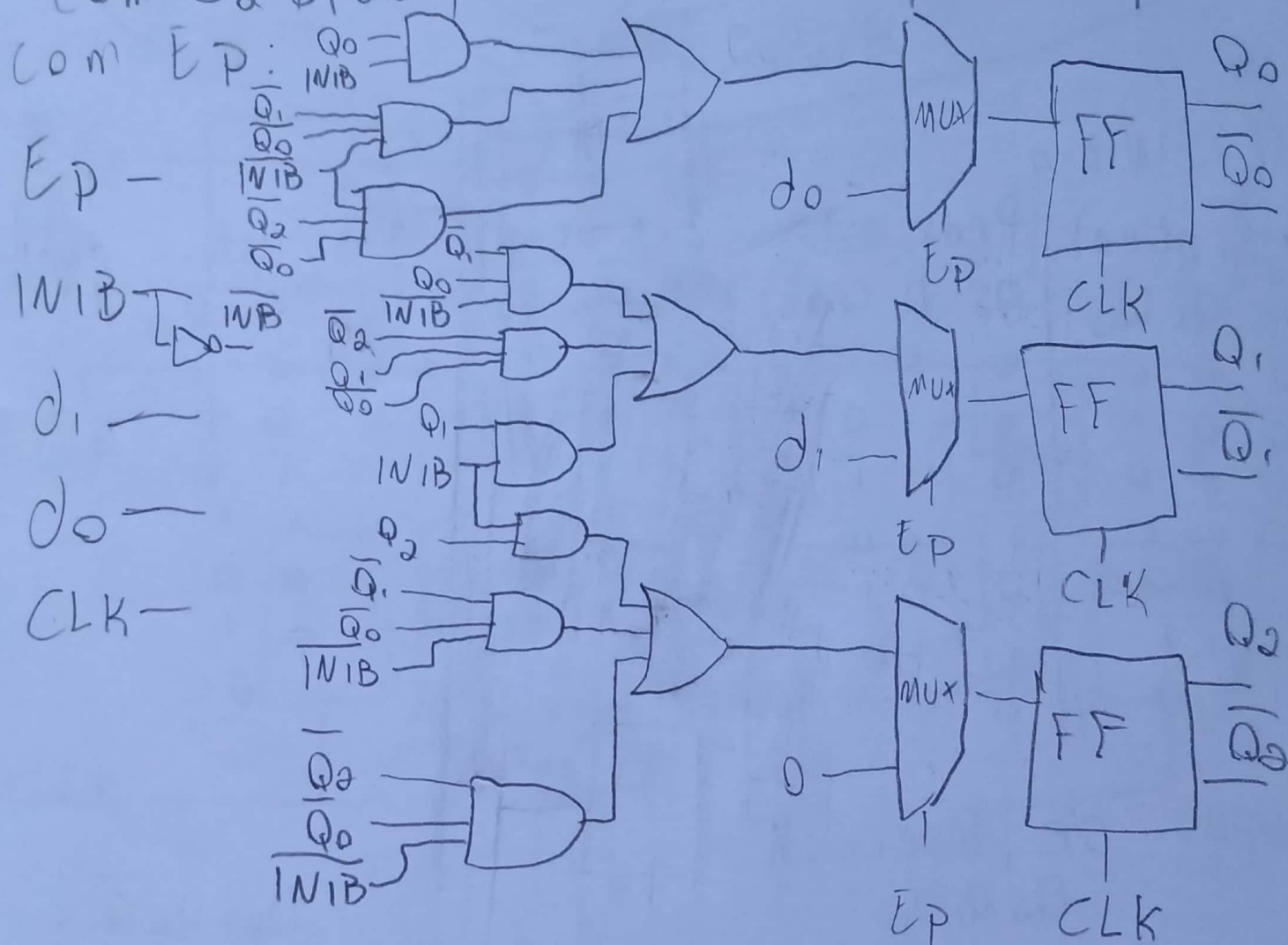
	000	001	011	010	110	111	101	100
Q_0	0	1	1	0	0	-	0	1

\overline{INIB} :

	0	1	1	0	0	-	1	0
--	---	---	---	---	---	---	---	---

$$D_0 = Q_0 \overline{INIB} + \overline{Q_1} \overline{Q_0} \overline{INIB} + \overline{Q_2} \overline{Q_0} \overline{INIB}$$

Com D_2, D_1, D_0 prontos, basta passar por MUX com EP:



② 4 bits \rightarrow 4 estados \rightarrow 4 FF's

$P_i:$

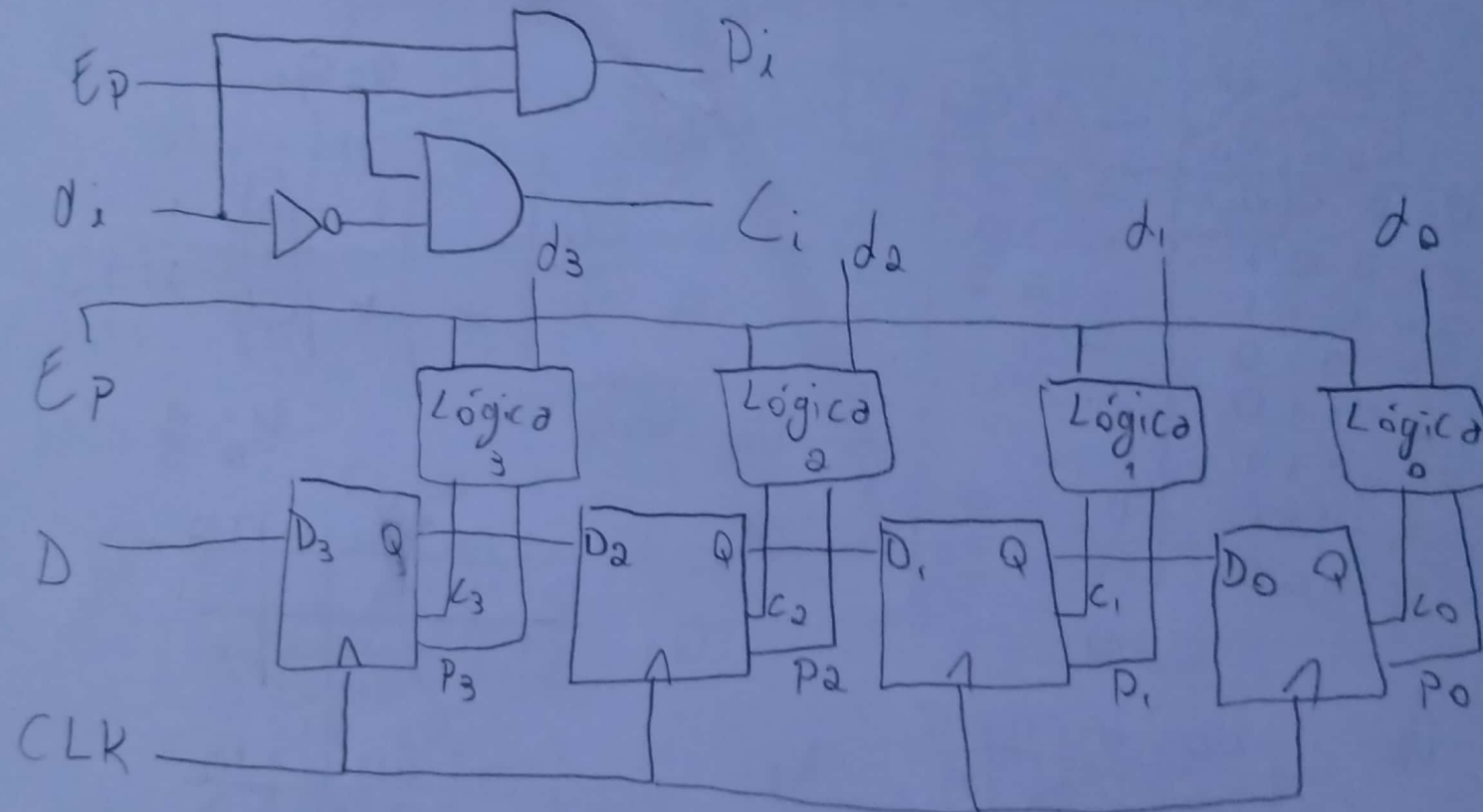
$d_i \backslash \bar{E}P$	0	1
0	0	0
1	0	1

$C_i:$

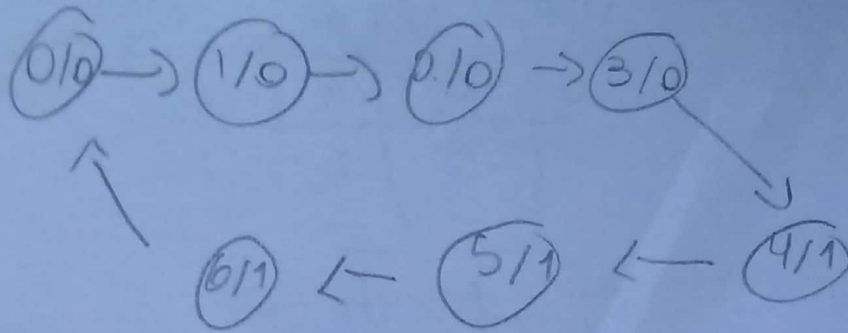
$d_i \backslash \bar{E}P$	0	1
0	0	1
1	0	0

$$P_i = \bar{E}P \cdot d_i$$

$$C_i = \bar{E}P \cdot \bar{d}_i$$



B) Grafo:



11E:

$Q_2 Q_1 Q_0$	$Q_2 Q_1 Q_0$	f
0 - 0 0 0	0 0 1	0
1 - 0 0 1	0 1 0	0
3 - 0 1 1	1 0 0	0
2 - 0 1 0	0 1 1	0
6 - 1 1 0	0 0 0	1
1 - 1 1 1	-	-
5 - 1 0 1	1 1 0	1
4 - 1 0 0	1 0 1	1

J_0 :

$Q_2 Q_1$	00	01	11	10
Q_0	0	1	1	0
1	x	x	-	x

$$J_0 = \overline{Q_2 Q_1}$$

K_0 :

$Q_2 Q_1$	00	01	11	10
Q_0	0	x	x	x
1	1	1	-	x

$$K_0 = 1$$

J_1 :

$Q_2 Q_1$	00	01	11	10
Q_0	0	0	x	0
1	1	1	-	1

$$J_1 = Q_0$$

K_1 :

$Q_2 Q_1$	00	01	11	10
Q_0	0	x	0	1
1	x	1	-	x

$$K_1 = Q_0 + Q_2$$

J_2 :

$Q_1 Q_2$	00	01	10	11
Q_0	0	0	x	x
1	0	1	-	x

$$J_2 = Q_0 Q_1$$

K_2 :

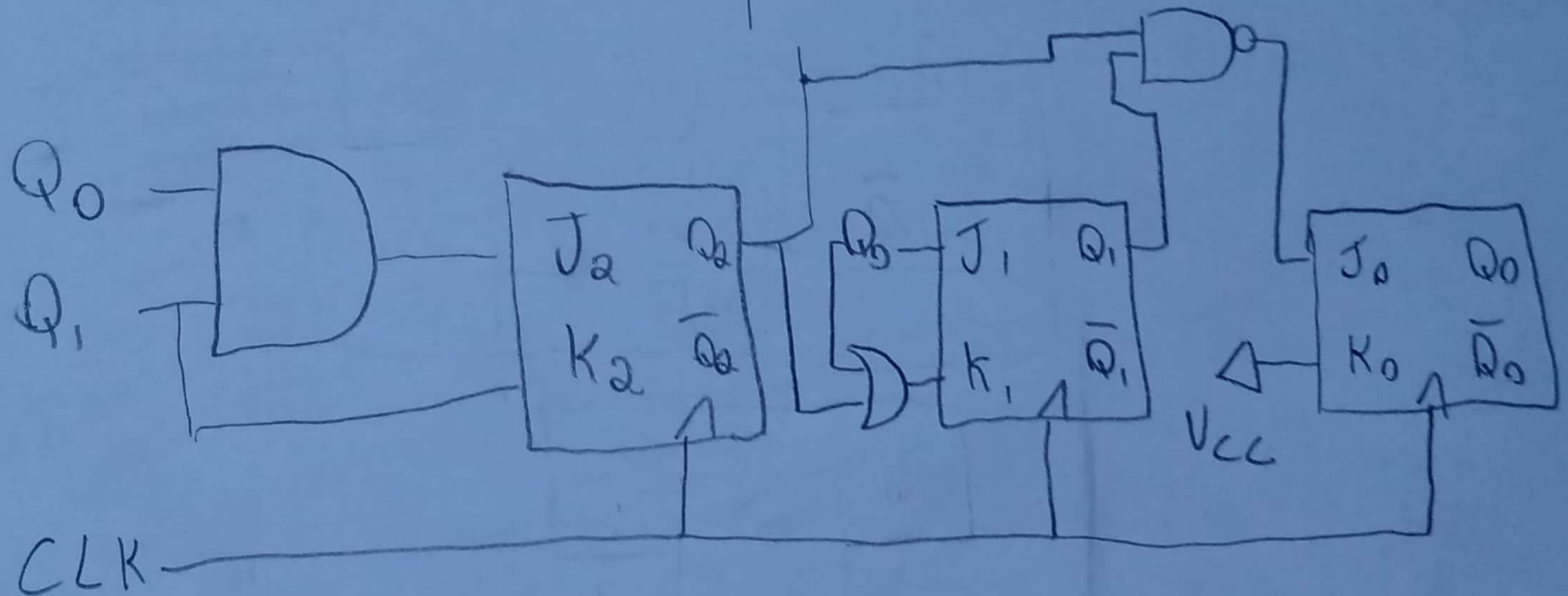
$Q_1 Q_2$	00	01	11	10
Q_0	0	x	x	0
1	x	x	x	0

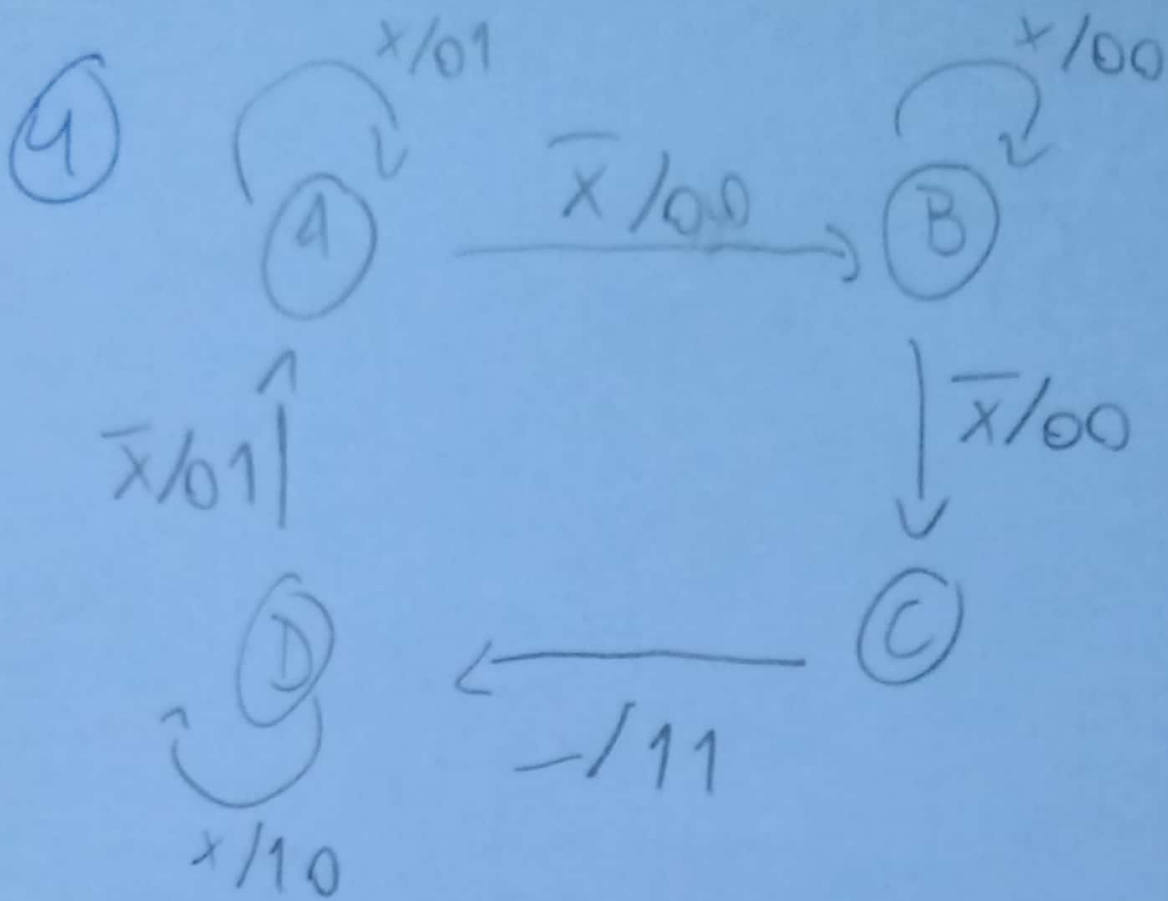
$$K_2 = Q_1$$

f:

	$Q_2 Q_1$	00	01	11	10
Q_0	0	0	0	1	1
1	1	0	0	-	1

$$f = Q_2$$





A: homogêneo C: direto P/D
 B: homogêneo D: heterogêneo

