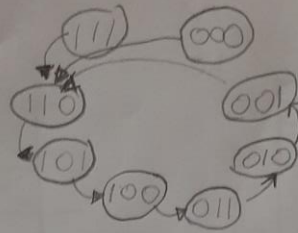


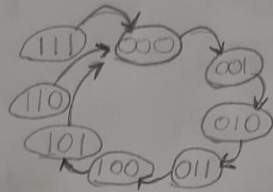
EJERCICIO 3

Variable de Control: 0

Ejercicio 3



Variable de Control: 1



	Estado Presente				Estado Siguiente			Entradas de Control				Q
	S	A	B	C	A	B	C	J _A	K _A	J _B	K _B	
0	0	0	0	0	1	1	0	1	X	1	X	0
1	0	0	0	1	1	1	0	1	X	1	X	0
2	0	0	1	0	0	0	1	0	X	X	1	1
3	0	0	1	1	0	1	0	0	X	X	0	0
4	0	1	0	0	0	1	1	X	1	1	X	1
5	0	1	0	1	1	0	0	X	0	0	X	0
6	0	1	1	0	1	0	1	X	0	X	1	1
7	0	1	1	1	1	1	0	X	0	X	0	0
8	1	0	0	0	0	0	1	0	X	0	X	1
9	1	0	0	1	0	1	0	0	X	1	X	0
10	1	0	1	0	0	1	1	0	X	X	0	1
11	1	0	1	1	1	0	0	1	X	X	1	0
12	1	1	0	0	1	0	1	X	0	0	X	1
13	1	1	0	1	0	0	0	X	1	0	X	0
14	1	1	1	0	0	0	0	X	1	X	1	0
15	1	1	1	1	0	0	0	X	1	X	1	0

Gerardo José Villeda Erazo

Ejercicio 3

JA

BC	00	01	11	10
SA	00	01	11	10
00	1 ₀	1 ₁	0 ₃	0 ₂
01	X ₄	X ₅	X ₇	X ₆
11	X ₁₂	X ₁₃	X ₁₅	X ₁₄
10	0 ₈	0 ₉	1 ₁₁	0 ₁₀

$$JA = \underbrace{\bar{S}\bar{B}}_{G_1} + \underbrace{SBC}_{G_2}$$

JB

BC	00	01	11	10
SA	00	01	11	10
00	1 ₀	1 ₁	X ₃	X ₂
01	1 ₄	0 ₅	X ₇	X ₆
11	0 ₁₂	0 ₁₃	X ₁₅	X ₁₄
10	0 ₈	1 ₉	X ₁₁	X ₁₀

$$JB = \underbrace{\bar{A}}_{D_c} + \underbrace{\bar{S}\bar{C}}_{G_1} + \underbrace{\bar{A}C}_{G_2}$$

BC

SA	00	01	11	10
00	0 ₀	0 ₁	0 ₃	1 ₂
01	1 ₄	0 ₅	0 ₇	1 ₆
11	1 ₁₂	0 ₁₃	0 ₁₅	1 ₁₄
10	1 ₈	0 ₉	0 ₁₁	1 ₁₀

$$D_c = \underbrace{A\bar{B}\bar{C}}_{G_1} + \underbrace{\bar{S}B\bar{C}}_{G_2} + \underbrace{S\bar{A}C}_{G_3}$$

KA

BC	00	01	11	10
SA	00	01	11	10
00	X ₀	X ₁	X ₃	X ₂
01	1 ₄	0 ₅	0 ₇	0 ₆
11	1 ₁₂	1 ₁₃	1 ₁₅	1 ₁₄
10	X ₈	X ₉	X ₁₁	X ₁₀

$$KA = \underbrace{\bar{S}\bar{B}\bar{C}}_{G_1} + \underbrace{SB}_{G_2} + \underbrace{SC}_{G_3}$$

KB

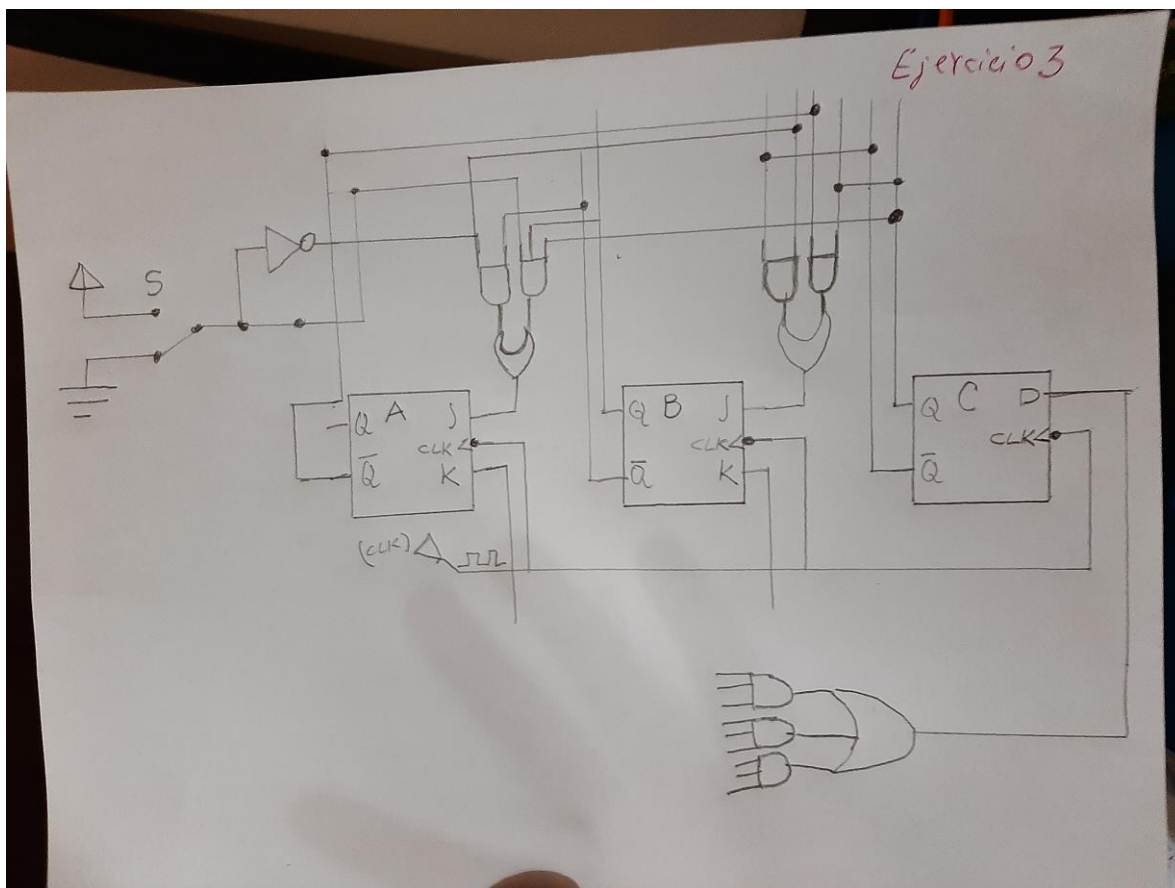
BC	00	01	11	10
SA	00	01	11	10
00	X ₀	X ₁	0 ₃	1 ₂
01	X ₄	X ₅	0 ₇	1 ₆
11	X ₁₂	X ₁₃	1 ₁₅	1 ₁₄
10	X ₈	X ₉	1 ₁₁	0 ₁₀

$$KB = \underbrace{\bar{S}\bar{C}}_{G_1} + \underbrace{SA}_{G_2} + \underbrace{SC}_{G_3}$$

BC

SA	00	01	11	10
00	0	1	3	2
01	4	5	7	6
11	12	13	15	14
10	8	9	11	10

Gerardo José Villeda Erazo VE16IO4001



EJERCICIO 4

Gerardo José Villada Erazo

Ejercicio 4

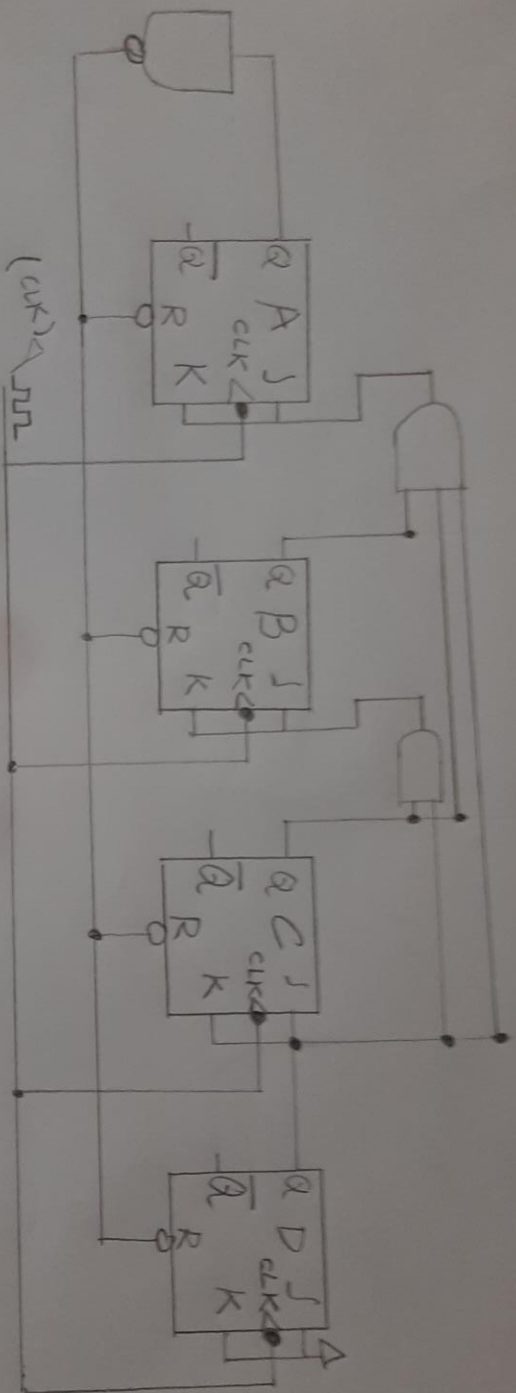
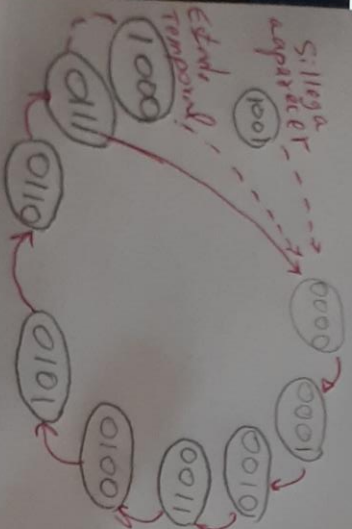


Diagrama de Transición de Estado



Secuencia de conteo

	A	B	C	D
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

Estado Temporal Necesario para borrar el conteo