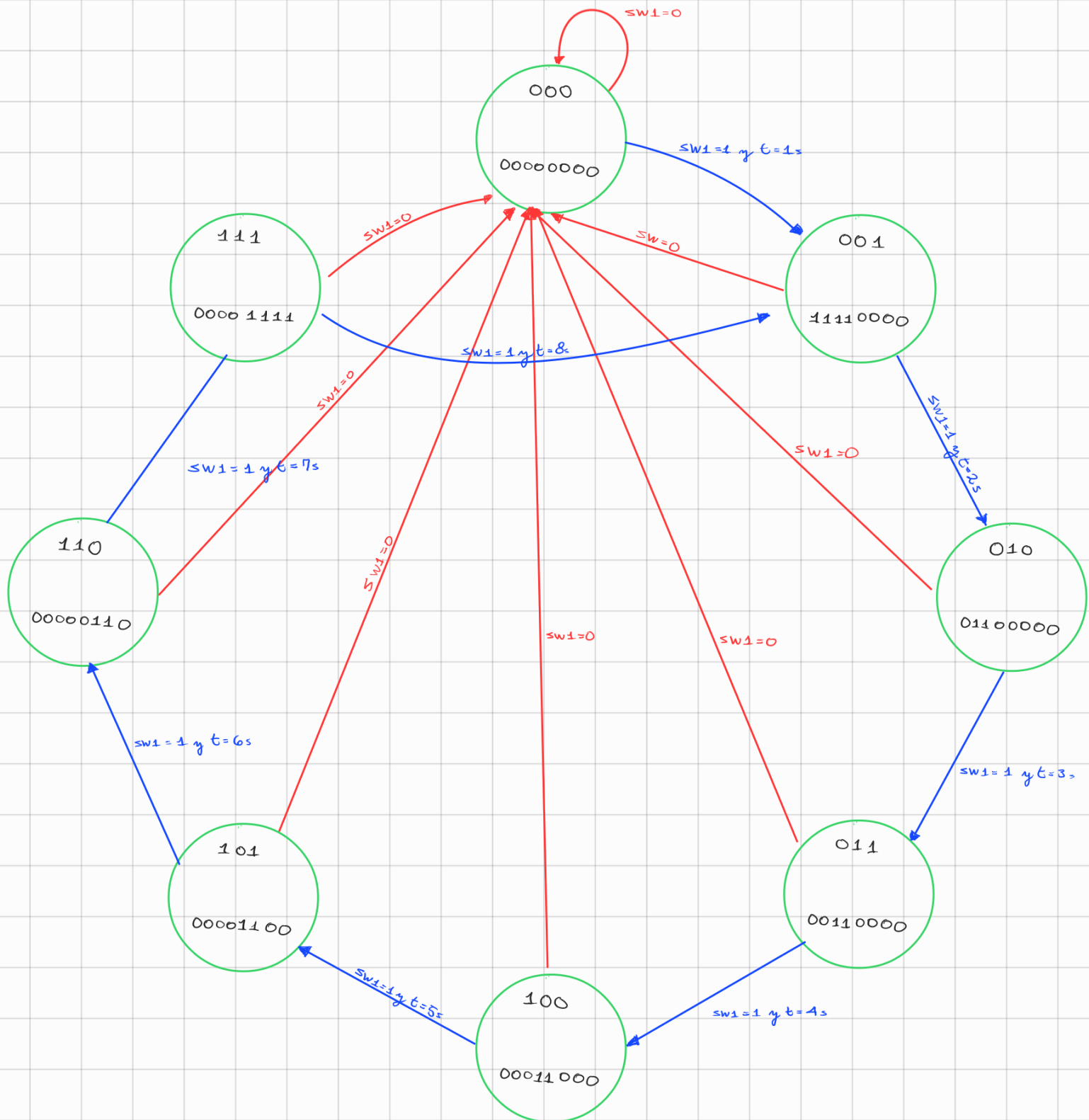


# Diagrama de estado



# Tabelas - Flip Flop

							E2		E1		E0						
SW1	E2	E1	E0	E2+	E1+	E0+	J2	K2	J1	K1	J0	K0		J	K	Q	Q+
0	x	x	x	0	0	0	x	x	x	x	x	x		0	0	0	0
1	0	0	0	0	0	1	0	x	0	x	1	x		0	0	1	1
1	0	0	1	0	1	0	0	x	1	x	x	1		0	1	0	0
1	0	1	0	0	1	1	0	x	x	0	1	x		0	1	1	0
1	0	1	1	1	0	0	1	x	x	1	x	1		1	0	0	1
1	1	0	0	1	0	1	x	0	0	x	1	x		1	0	1	1
1	1	0	1	1	1	0	x	0	1	x	x	1		1	1	0	1
1	1	1	0	0	0	0	x	1	x	1	0	x		1	1	1	0
1	1	1	1	x	x	x	x	x	x	x	x	x					

## Mapas - K

SW1E2	J2 E1E0			
	00	01	11	10
00	x	x	x	x
01	x	x	x	x
10	0	0	1	0
11	x	x	x	x

SW1E2	K2 E1E0			
	00	01	11	10
00	x	x	x	x
01	x	x	x	x
10	x	x	x	x
11	0	0	x	1

SW1E2	J1 E1E0			
	00	01	11	10
00	x	x	x	x
01	x	x	x	x
10	0	1	x	x
11	0	1	x	x

SW1E2	K1 E1E0			
	00	01	11	10
00	x	x	x	x
01	x	x	x	x
10	x	x	1	0
11	x	x	x	1

SW1E2	J0 E1E0			
	00	01	11	10
00	x	x	x	x
01	x	x	x	x
10	1	x	x	1
11	1	x	x	0

SW1E2	K0 E1E0			
	00	01	11	10
00	x	x	x	x
01	x	x	x	x
10	x	1	1	x
11	x	1	x	x

## Ecuaciones

$$J_2 = SW_1 E_1 E_0$$

$$K_2 = SW_1 E_2 E_1$$

$$J_1 = SW_1 E_0$$

$$K_1 = SW_1 (\overline{E_2} E_0 + E_2 E_1)$$

$$J_0 = SW_1 (\overline{E_1} \overline{E_0} + \overline{E_2} \overline{E_0})$$

$$K_0 = 1$$

$$J_0 = SW_1 \overline{E_0} (\overline{E_1} + \overline{E_2})$$

## Tabla de los LEDs

SW <sub>1</sub>	E <sub>2</sub>	E <sub>1</sub>	E <sub>0</sub>	a	b	c	d	e	f	g	h
0	x	x	x	0	0	0	0	0	0	0	0
1	0	0	0	1	1	1	1	0	0	0	0
1	0	0	1	0	1	1	0	0	0	0	0
1	0	1	0	0	0	1	1	0	0	0	0
1	0	1	1	0	0	0	1	1	0	0	0
1	1	0	0	0	0	0	0	1	1	0	0
1	1	0	1	0	0	0	0	0	1	1	0
1	1	1	0	0	0	0	0	1	1	1	1

# Мапуз - K

a

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	1	0	0	0
11	0	0	x	0

$$a = SW1 \overline{E2} \overline{E1} \overline{E0}$$

b

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	1	1	0	0
11	0	0	x	0

$$b = SW4 \overline{E2} \overline{E1}$$

c

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	1	1	0	1
11	0	0	x	0

$$c = SW1 \overline{E2} \overline{E0} + SW1 \overline{E2} \overline{E1}$$

$$c = SW1 \overline{E2} (\overline{E0} + \overline{E1})$$

d

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	1	0	1	1
11	0	0	x	0

$$d = SW1 \overline{E2} \overline{E0} + SW1 \overline{E2} E1$$

$$d = SW1 \overline{E2} (\overline{E0} + E1)$$

e

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	0	0	1	0
11	1	0	x	1

$$e = SW1 \overline{E2} E1 E0 + SW4 E2 \overline{E0}$$

$$e = SW1 (\overline{E2} E1 E0 + E2 \overline{E0})$$

f

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	0	0	0	0
11	1	1	x	1

$$f = SW4 E2$$

G

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	0	0	0	0
11	0	1	x	1

$$G = SW1 E2 E0 + SW4 E2 E1$$

$$G = SW1 E2 (E0 + E1)$$

H

SW1E2 \ E1E0	00	01	11	10
00	0	0	0	0
01	0	0	0	0
10	0	0	0	0
11	0	0	x	1

$$H = SW4 E2 E1$$