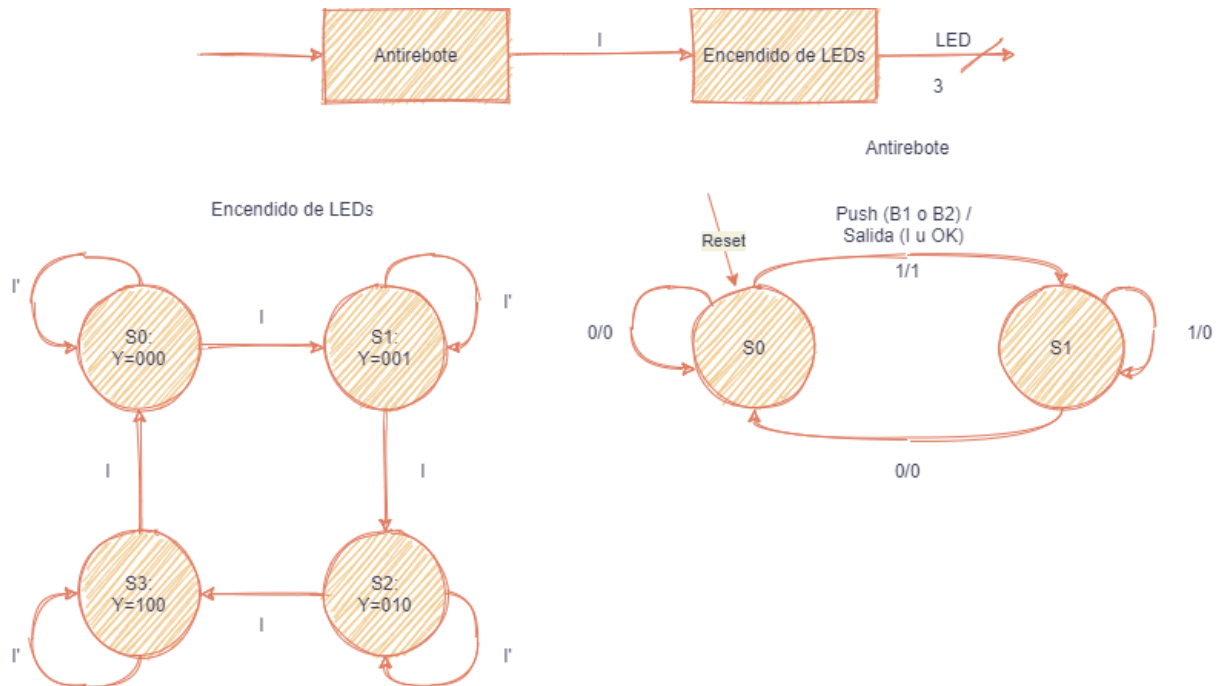


Laboratorio 7

Ejercicio 1:

Diseño:



Transición de Estados:

S1	S0	I		SN1	SN2
0	0	0		0	0
0	0	1		0	1
0	1	0		0	1
0	1	1		1	0
1	0	0		1	0
1	0	1		1	1
1	1	0		1	1
1	1	1		0	0

S1	S0	I	=>	SN1	SN2
1	0	X		1	
1	X	0		1	
0	1	1		1	
X	0	1			1
X	1	0			1

Imported from file:

```

SN1 = S1' S0 I + S1 S0' I' + S1 S0' I + S1 S0 I';
SN2 = S1' S0' I + S1' S0 I' + S1 S0' I + S1 S0 I';

```

Minimized:

```

SN1 = S1 S0' + S1 I' + S1' S0 I;
SN2 = S0' I + S0 I';

```

Salidas:

S1	S0		L2	L1	L0
0	0		0	0	0
0	1		0	0	1
1	0		0	1	0
1	1		1	0	0

Imported from file:

$SN1 = S1' S0 I + S1 S0' I' + S1 S0' I + S1 S0 I';$

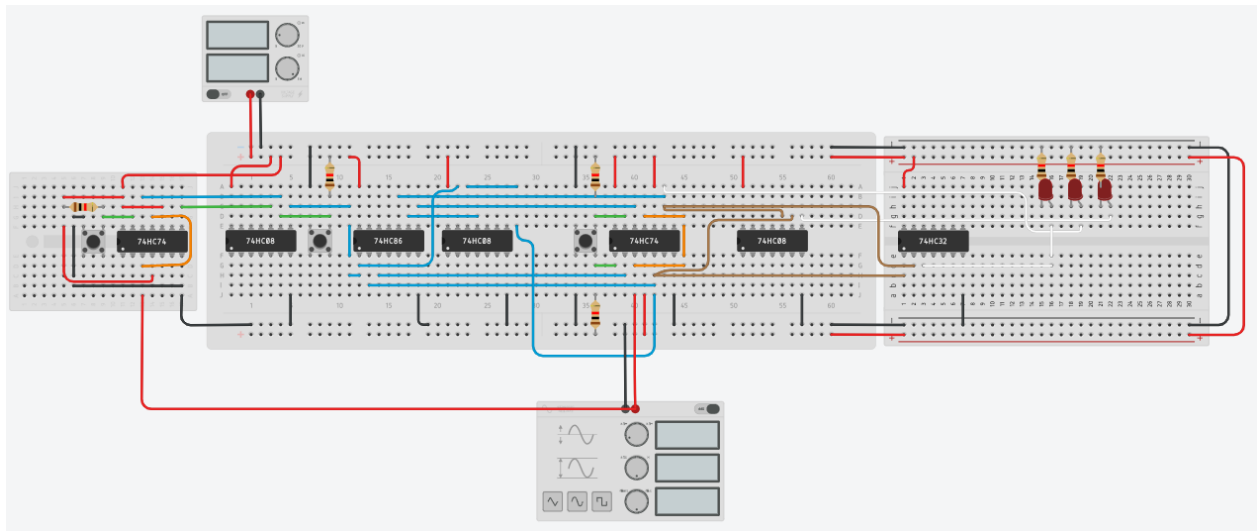
$SN2 = S1' S0' I + S1' S0 I' + S1 S0' I + S1 S0 I';$

Minimized:

$SN1 = S1 S0' + S1 I' + S1' S0 I;$

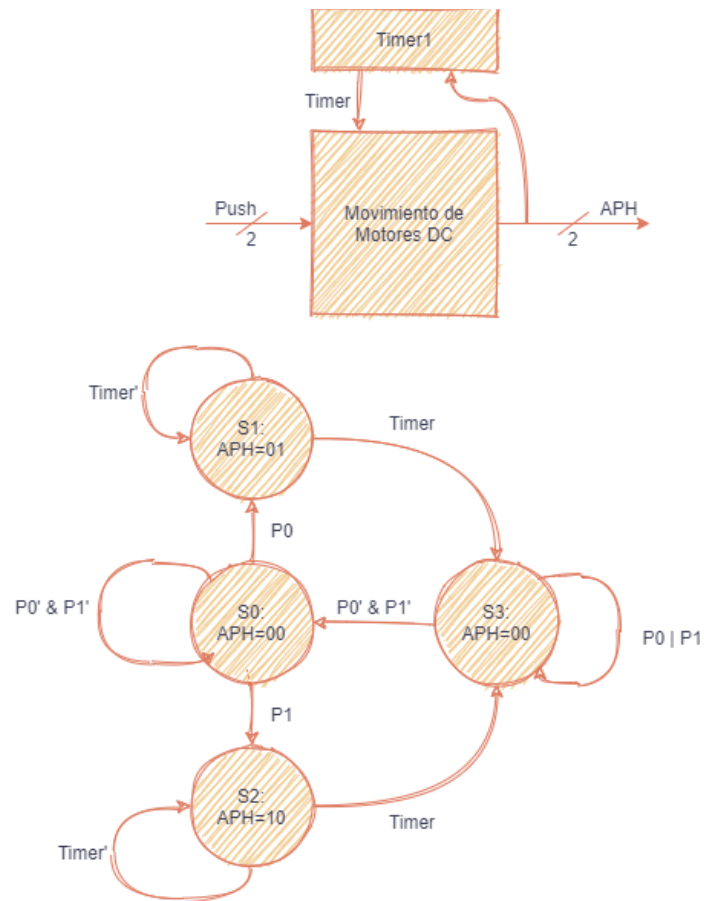
$SN2 = S0' I + S0 I';$

Implementación:



Ejercicio 2:

Diseño:



Transición de Estados:

S1	S0	P1	P0	TIMER		SN1	SNO
0	0	0	0	X		0	0
0	0	0	1	X		0	1
0	0	1	0	X		1	0
0	0	1	1	X		0	0
0	1	X	X	0		0	1
0	1	X	X	1		1	1
1	0	X	X	0		1	0
1	0	X	X	1		1	1
1	1	0	0	X		0	0
1	1	1	0	X		1	1
1	1	0	1	X		1	1
1	1	1	1	X		1	1

```

S0 P1 P0' TIMER + S1' S0 P1 P0 TIMER + S1 S0' P1' P0' TIMER' + S1 S0' P1' P0' TIMER + S1 S0' P1' P0
TIMER' + S1 S0' P1' P0 TIMER + S1 S0' P1 P0' TIMER' + S1 S0' P1 P0' TIMER + S1 S0' P1 P0 TIMER' + S1
S0' P1 P0 TIMER + S1 S0 P1' P0 TIMER' + S1 S0 P1' P0 TIMER + S1 S0 P1' P0' TIMER' + S1 S0 P1' P0' TIMER
+ S1 S0 P1 P0 TIMER' + S1 S0 P1 P0 TIMER;
SNO = S1' S0' P1' P0 TIMER' + S1' S0' P1' P0 TIMER + S1' S0 P1' P0' TIMER' + S1' S0 P1' P0' TIMER +
S1' S0 P1' P0 TIMER' + S1' S0 P1' P0 TIMER + S1' S0 P1 P0' TIMER' + S1' S0 P1 P0' TIMER + S1' S0 P1 P0
TIMER' + S1' S0 P1 P0 TIMER + S1 S0' P1' P0' TIMER + S1 S0' P1' P0' TIMER + S1 S0' P1 P0' TIMER + S1
S0' P1 P0 TIMER + S1 S0 P1' P0 TIMER' + S1 S0 P1' P0 TIMER + S1 S0 P1 P0' TIMER' + S1 S0 P1 P0' TIMER
+ S1 S0 P1 P0 TIMER' + S1 S0 P1 P0 TIMER;

```

Minimized:

```

SN1 = S1 S0' + S1 P1 + S1 P0 + S0' P1 P0' + S1' S0 TIMER;
SNO = S1' S0 + S0 P1 + S0 P0 + S1' P1' P0 + S1 S0' TIMER;

```

Salidas:

S1	S0		APH1	APH0
0	0		0	0
0	1		0	1
1	0		1	0
1	1		0	0

Imported from file:

```
APH1 = S1 S0';
```

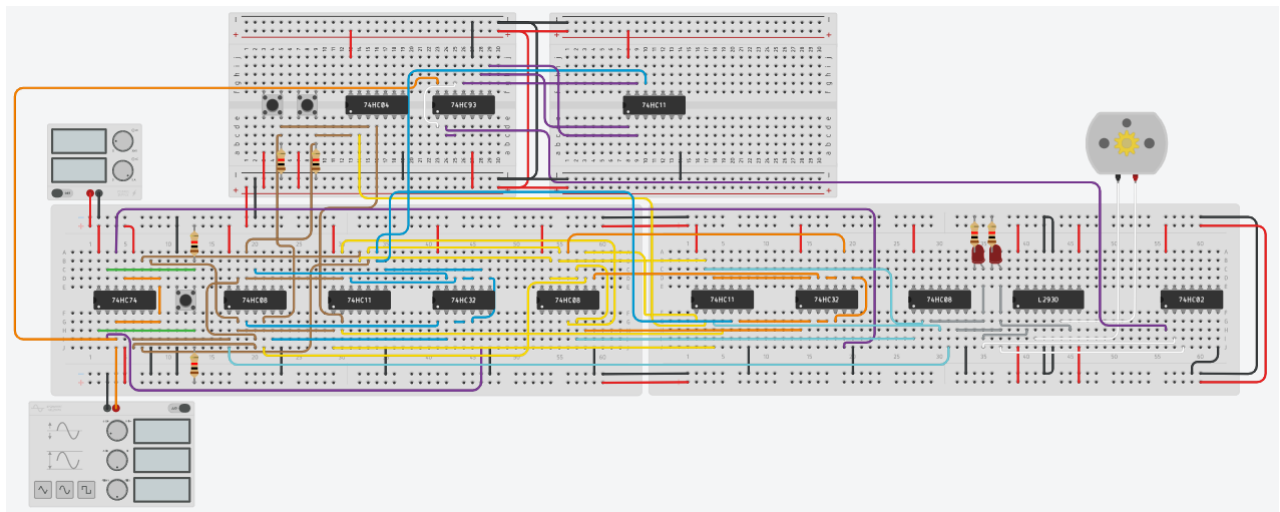
```
APH0 = S1' S0;
```

Minimized:

```
APH1 = S1 S0';
```

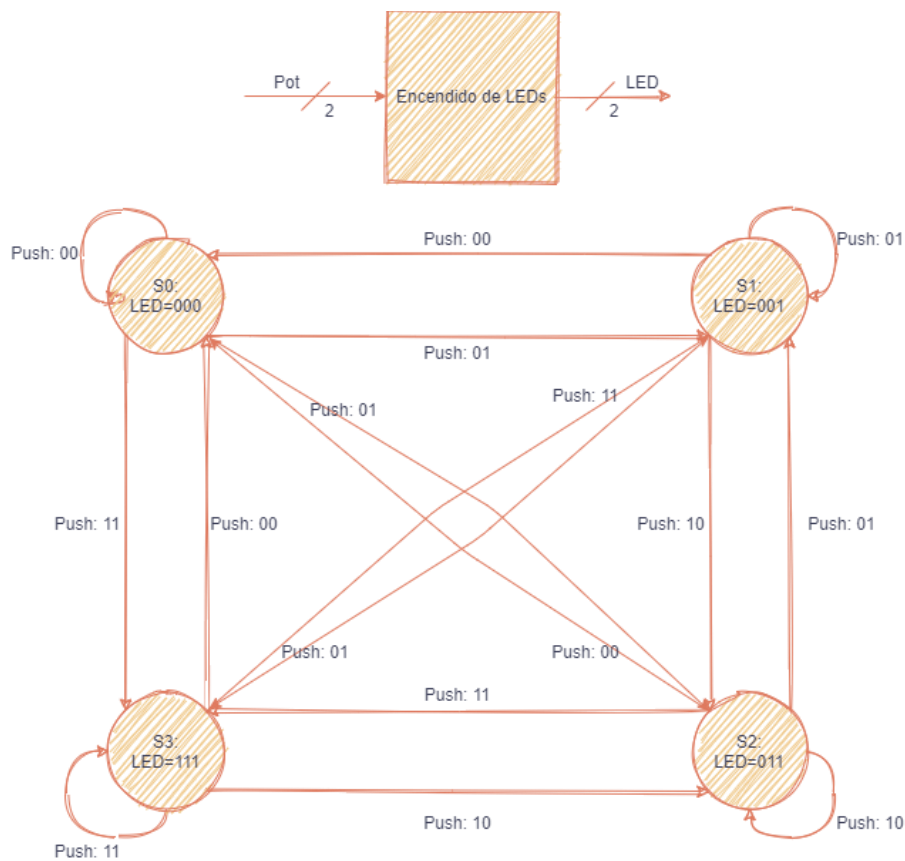
```
APH0 = S1' S0;
```

Implementación:



Ejercicio 3:

Diseño:



Transición de Estados:

S1	S0	P1	P0		SN1	SNO
0	0	0	0		0	0
0	0	0	1		0	1
0	0	1	0		1	0
0	0	1	1		1	1
0	1	0	0		0	0
0	1	0	1		0	1
0	1	1	0		1	0
0	1	1	1		1	1
1	0	0	0		0	0
1	0	0	1		0	1
1	0	1	0		1	0
1	0	1	1		1	1
1	1	0	0		0	0
1	1	0	1		0	1
1	1	1	0		1	0
1	1	1	1		1	1

S1	S0	P1	P0	=>	SN1	SN0	Imported from file:
X	X	1	X		1		$SN1 = S1' S0' P1 P0' + S1' S0' P1 P0 + S1' S0 P1 P0' + S1' S0 P1 P0 + S1 S0' P1 P0' + S1 S0' P1 P0 + S1 S0 P1 P0' + S1 S0 P1 P0;$
X	X	X	1			1	$SN0 = S1' S0' P1' P0 + S1' S0' P1 P0 + S1' S0 P1' P0 + S1' S0 P1 P0 + S1 S0' P1' P0 + S1 S0' P1 P0 + S1 S0 P1' P0 + S1 S0 P1 P0;$
							Minimized:
							$SN1 = P1 ;$
							$SN0 = P0 ;$

Salidas:

S1	S0		L2	L1	L0
0	0		0	0	0
0	1		0	0	1
1	0		0	1	1
1	1		1	1	1

S1	S0	=>	L2	L1	L0	Imported from file:
1	1		1			$L2 = S1 S0;$
1	X			1		$L1 = S1 S0' + S1 S0;$
1	X				1	$L0 = S1' S0 + S1 S0' + S1 S0;$
X	1				1	Minimized:
						$L2 = S1 S0;$
						$L1 = S1 ;$
						$L0 = S1 + S0;$

Implementación:

