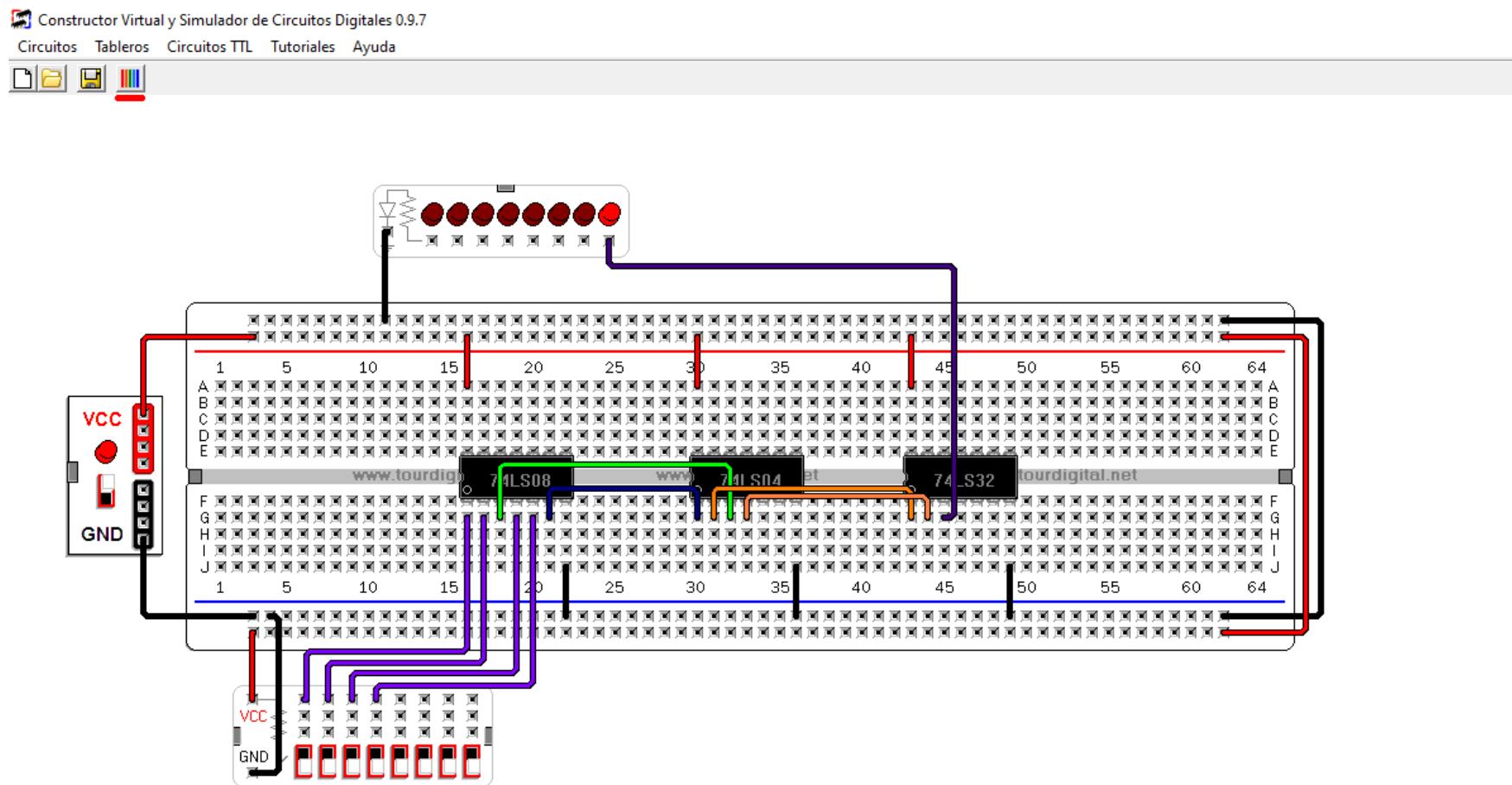


Tarea #992 Ejercicios de clase

Jose Angel Mendez Cotino

Primer protoboard



1 P rotaboard #1

$A \oplus B + C \bar{D}$

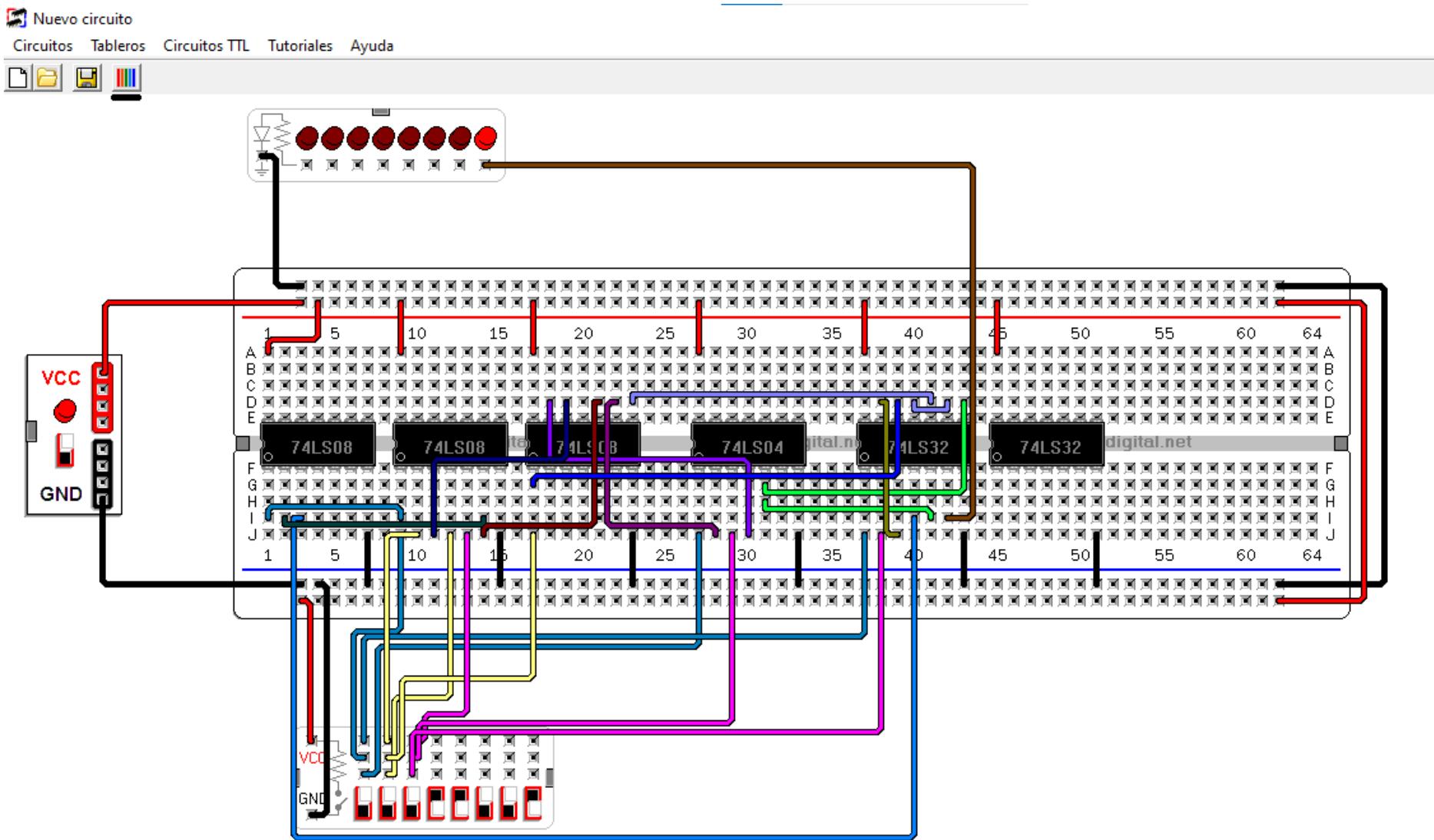
A	B	C	D	$A \oplus B$	$\bar{A}B$	$C\bar{D}$	$\bar{C}D$	$\bar{A}\bar{D} + \bar{C}\bar{D}$
0	0	0	0	0	1	0	1	1
0	0	0	1	1	1	0	1	1
0	0	1	0	1	1	0	1	1
0	0	1	1	1	1	1	0	1
0	1	0	0	1	1	0	1	1
0	1	0	1	1	1	0	1	1
0	1	1	0	1	0	1	0	1
0	1	1	1	1	1	0	1	1
1	0	0	0	1	0	1	0	1
1	0	0	1	1	0	1	0	1
1	0	1	0	1	0	1	1	1
1	0	1	1	1	1	1	0	1
1	1	0	0	1	0	0	1	1
1	1	0	1	0	0	0	1	1
1	1	1	0	1	0	0	1	1
1	1	1	1	1	0	1	0	0

Logic diagram:

```

graph LR
    A((A)) --> AND1[AND]
    B((B)) --> AND1
    AND1 --> NOT1[NOT]
    NOT1 --> OR1[OR]
    C((C)) --> AND2[AND]
    D((D)) --> AND2
    AND2 --> NOT2[NOT]
    NOT2 --> OR1
    OR1 --> S((S))
    
```

Segundo protoboard



2. protoboard

#2

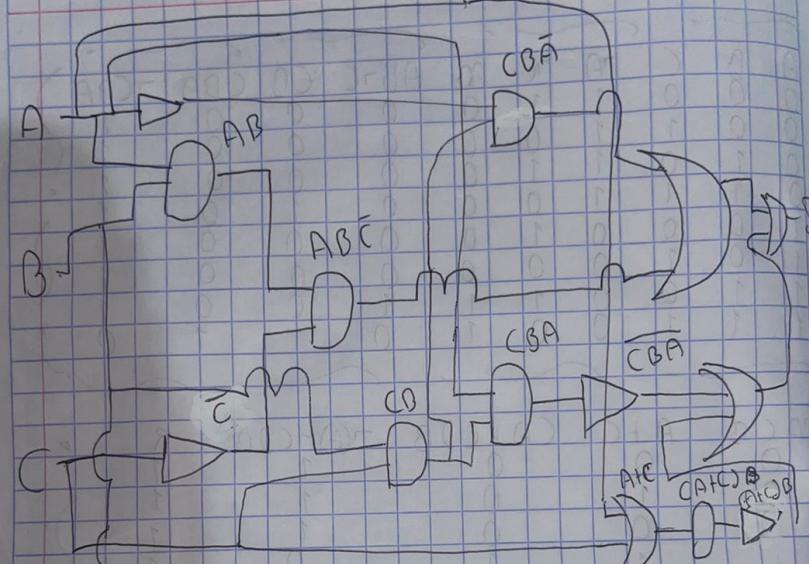
$$(A\bar{B}\bar{C} + (\bar{C}\bar{B})A + \bar{A}C\bar{B} + \bar{B}\bar{C}(A))$$

A	B	C	\bar{A}	\bar{B}	\bar{C}	AB	$\bar{A}\bar{B}$	\bar{C}	$\bar{B}\bar{C}$	$\bar{C}\bar{A}$	$\bar{A}\bar{B}\bar{C}$	
0	0	0	1	1	1	0	0	0	0	0	1	
0	0	1	1	1	0	0	0	0	0	0	1	
0	1	0	1	1	1	0	0	0	0	0	1	
0	1	1	1	0	0	0	0	1	0	0	1	
1	0	0	0	1	0	0	0	0	0	0	1	
1	0	1	0	0	0	0	0	0	0	0	1	
1	1	0	0	1	1	1	0	0	0	0	1	
1	1	1	0	0	1	0	1	0	1	0	0	

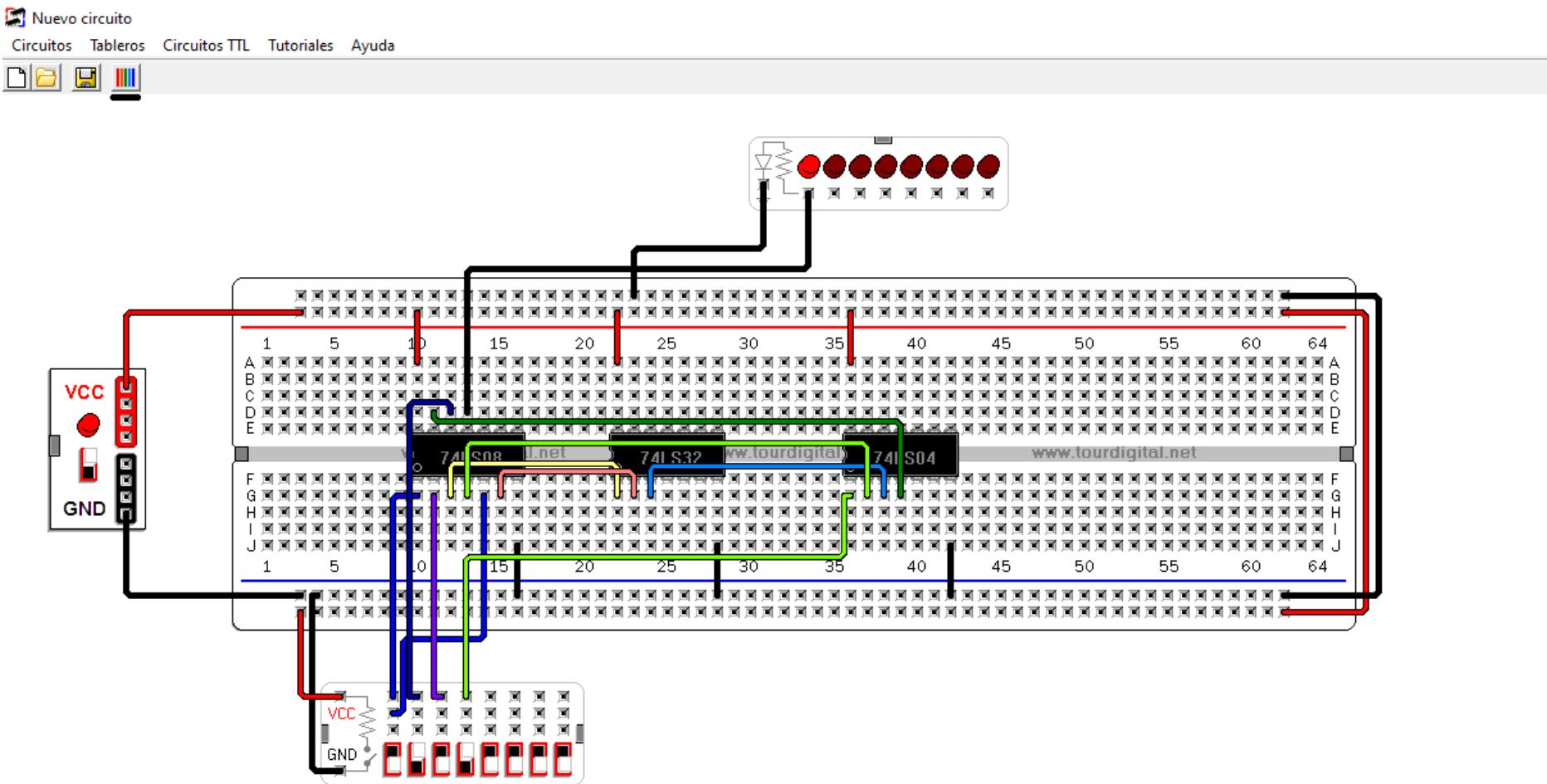
	$\bar{A}C$	$A + C$	$(A + C)\bar{B}$	$\bar{(A + C)}B$	R	
0	0	0	0	1	1	
0	1	1	0	1	1	
0	0	0	0	1	1	
1	1	1	1	0	1	
0	1	1	0	1	1	
0	1	0	0	1	1	
0	1	1	1	0	0	

2. protoboard

#2



Tercer protoboard



3. Protoboard

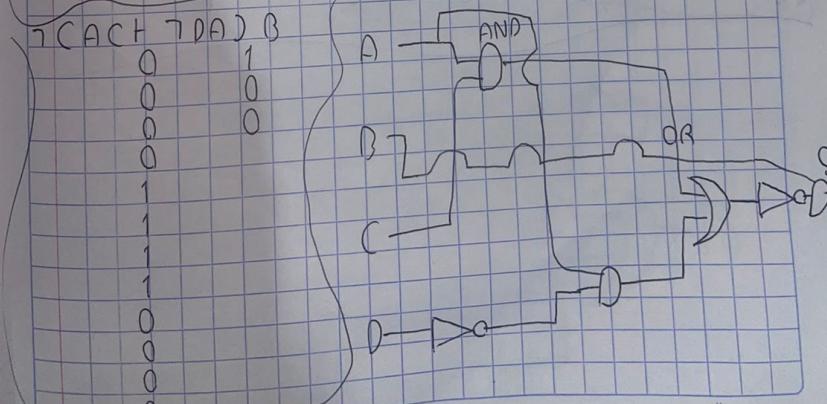
#3

$$(A'C + \bar{D}A)B$$

A	B	C	D	AC	$\neg D$	$\neg D \cdot A$	$A \cdot \neg D \cdot A$	$\neg A \cdot \neg D \cdot A$
0	0	0	0	0	1	0	0	1
0	0	0	1	0	0	0	0	0
0	0	1	0	0	1	0	0	1
0	0	1	1	0	0	0	0	1
0	1	0	0	0	1	0	0	1
0	1	0	1	0	0	0	0	1
0	1	1	0	0	1	0	0	1
0	1	1	1	0	0	0	0	1
1	0	0	0	0	1	1	1	0
1	0	0	1	0	0	0	0	1
1	0	1	0	1	1	1	1	0
1	0	1	1	1	0	0	1	0
1	1	0	0	0	1	1	0	1
1	1	0	1	0	0	0	1	0
1	1	1	0	1	1	1	1	0
1	1	1	1	1	0	0	0	0

$$\neg(A'C + \neg D \cdot A)B$$

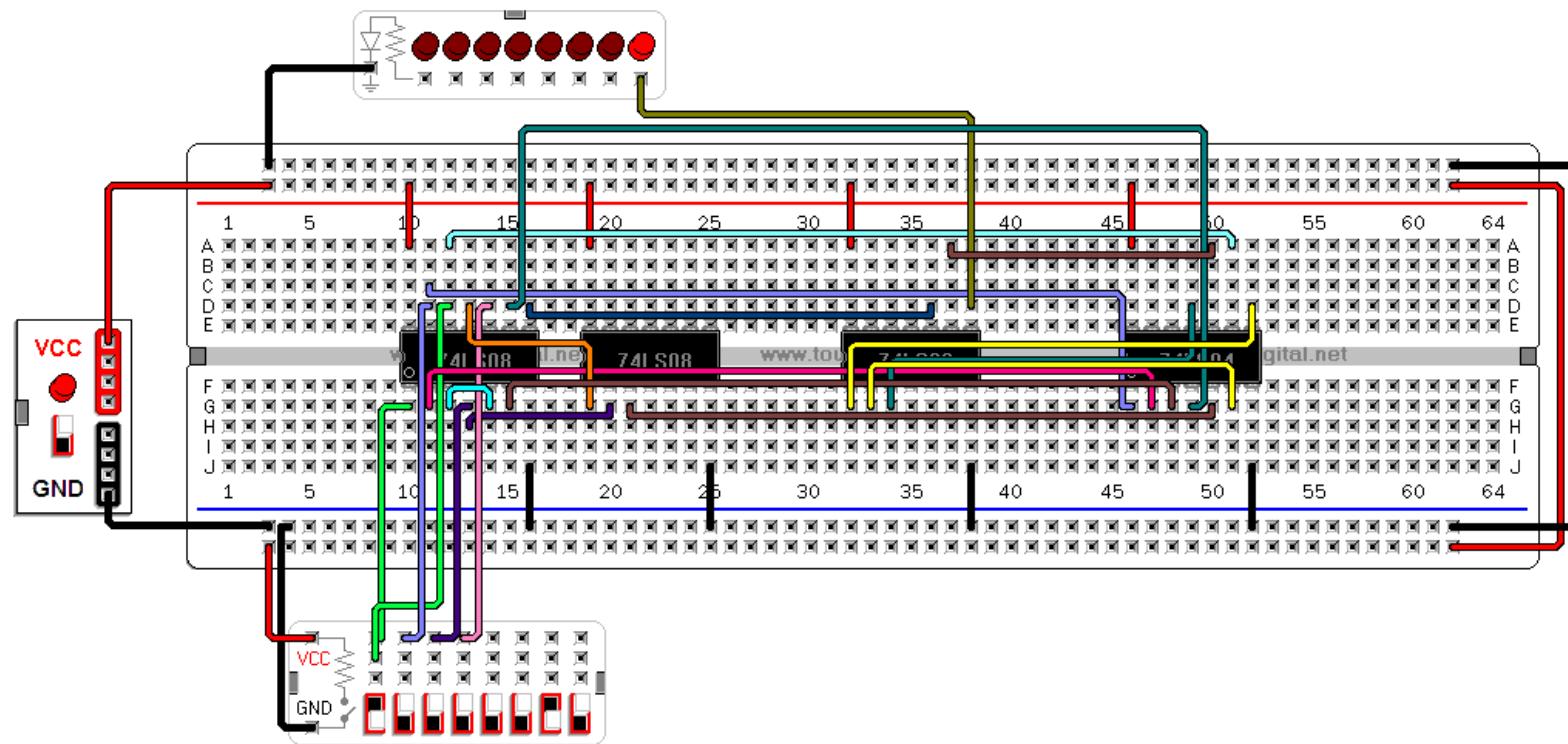
0	1
0	0
0	0
1	1
1	1
0	0
0	0
0	0



Cuarto protoboard

 Constructor Virtual y Simulador de Circuitos Digitales 0.9.7

Circuitos Tableros Circuitos TTL Tutoriales Ayuda



Up Protoboard
#4

$$\overline{(A \bar{B} C D)} + \overline{(A B C + \bar{A})}$$

A	B	C	D	\bar{B}	$A \bar{B} C$	$\bar{A} \bar{B} C$	$\bar{A} \bar{B} \bar{C} D$
0	0	0	0	1	0	1	0
0	0	0	1	1	0	1	0
0	0	1	0	1	0	1	0
0	0	1	1	1	0	1	1
0	1	0	0	0	0	1	0
0	1	0	1	0	0	1	0
0	1	1	0	0	0	1	1
0	1	1	1	0	0	1	1
1	0	0	0	1	0	1	0
1	0	0	1	1	0	1	0
1	0	1	0	1	0	0	0
1	0	1	1	1	0	1	0
1	1	0	0	0	0	1	0
1	1	0	1	0	0	1	1
1	1	1	0	0	0	1	0
1	1	1	1	0	0	1	1

$$ABC \quad \bar{A} \bar{B} \bar{C} \quad \bar{A} \bar{B} C + \bar{A} \quad \bar{A} (\bar{B} C + \bar{D}) \quad \bar{A} (\bar{B} C + \bar{D}) + \bar{C} (\bar{A} B + \bar{D})$$

0	1	1	0	0
0	1	1	0	1
0	1	1	1	0
0	1	1	1	1
0	1	1	1	0
0	1	1	0	1
0	1	1	0	0
0	1	1	0	1
0	1	1	1	0
0	1	1	1	1
0	1	1	1	0
0	1	1	0	0
0	1	1	0	1
0	1	1	1	0
0	1	1	1	1
1	0	0	0	1
1	0	0	1	1
1	0	1	0	0
1	0	1	1	0
1	1	0	0	0
1	1	0	1	1
1	1	1	0	0
1	1	1	1	1

