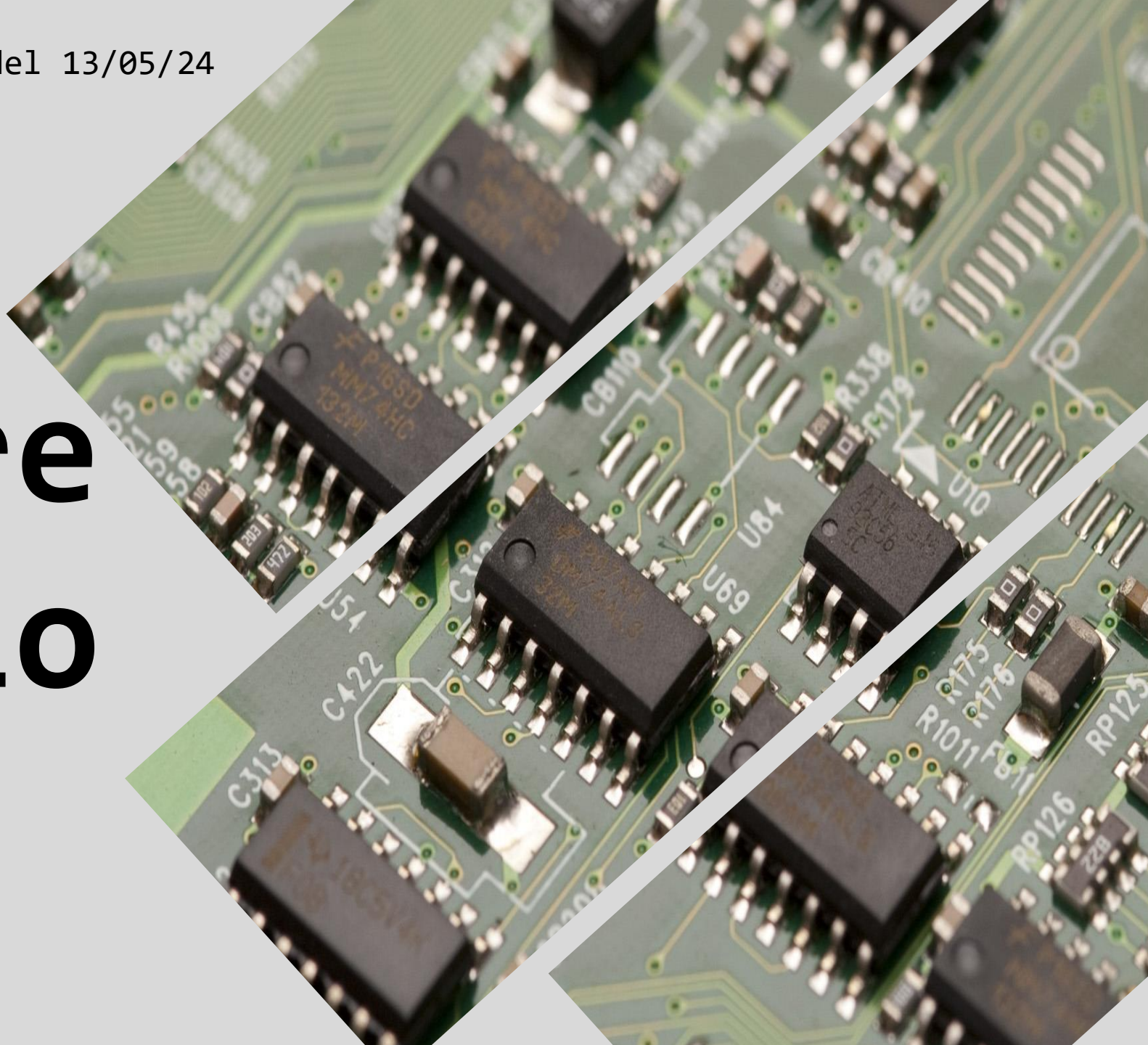
Presentazione di telecomunicazioni del 13/05/24
A cura di Daniele Toniolo 3TelB

Sommatore Parallelo

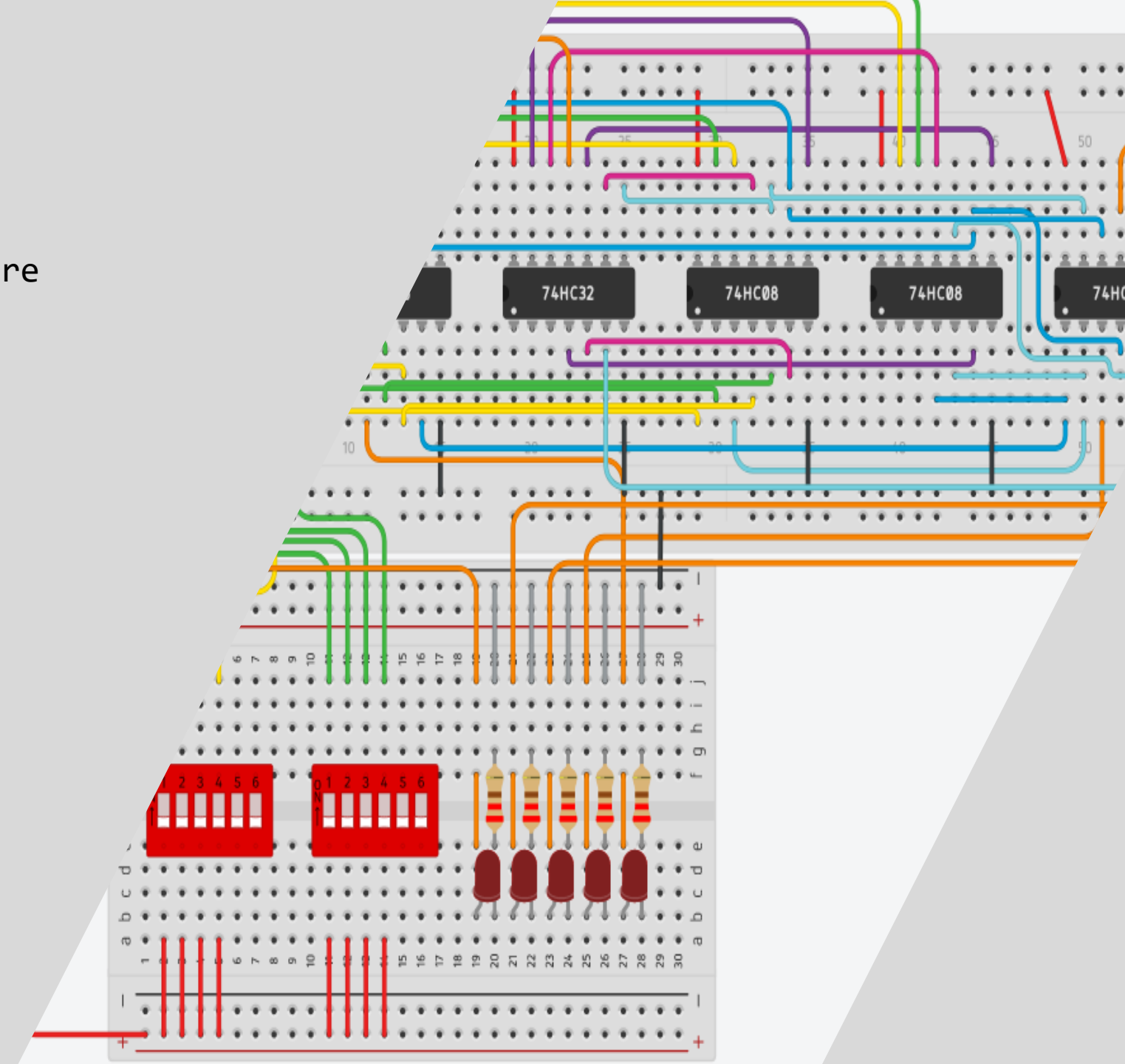


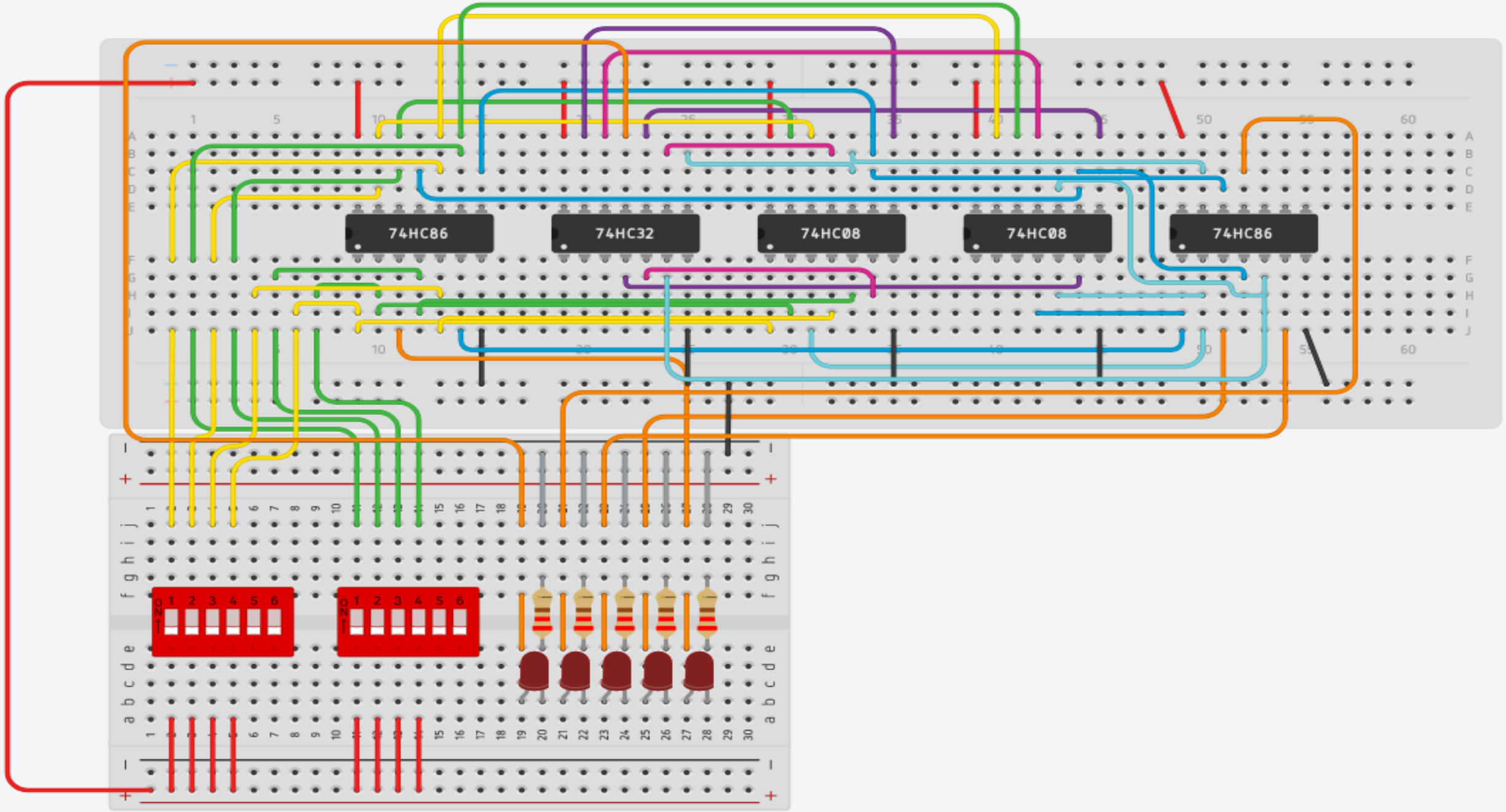
Strumenti e materiali

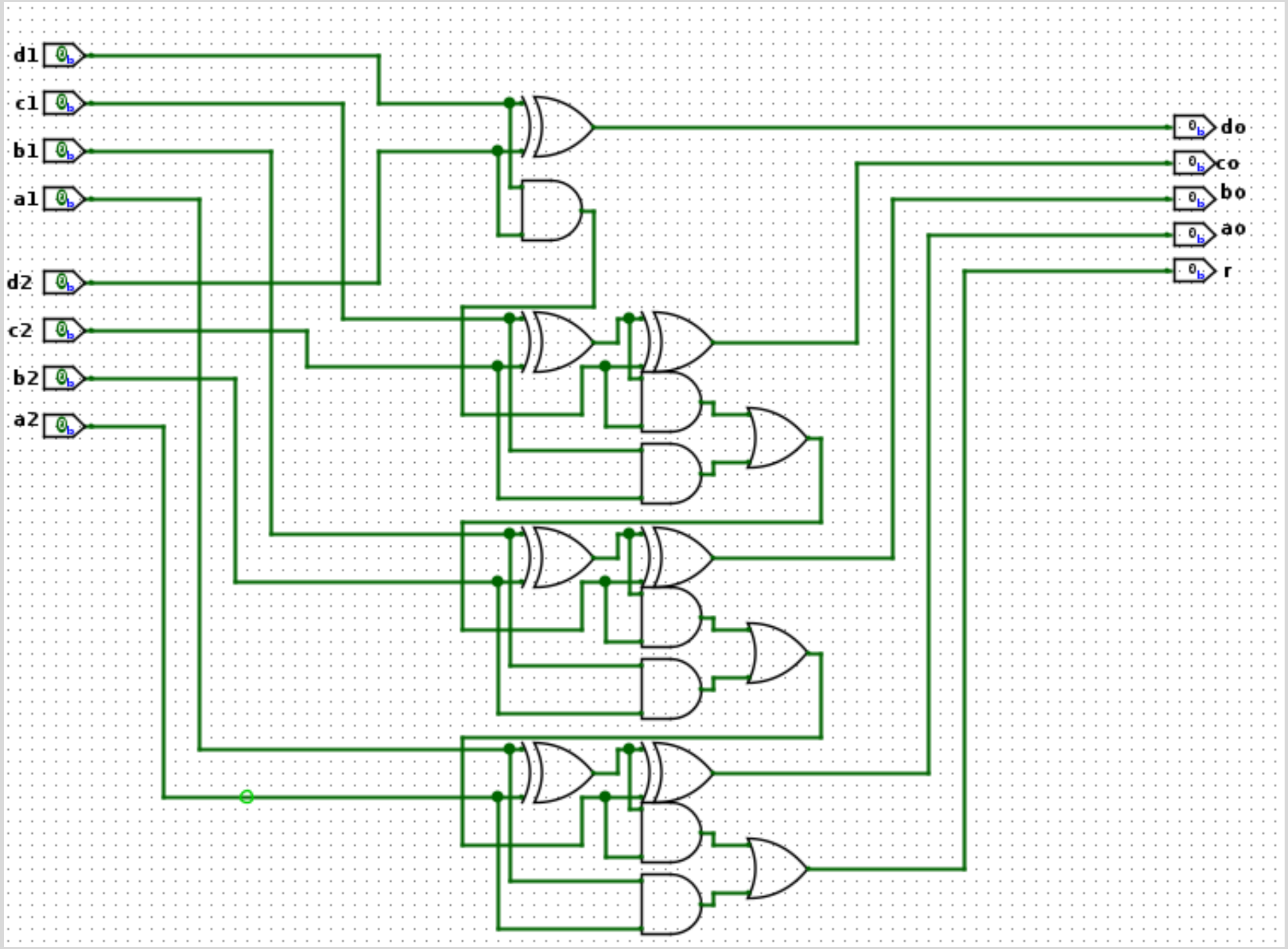
-Jumper
-Integrato 7408 (AND) x2
-Integrato 7486 (XOR) x2
-Integrato 7432 (OR)
-Breadboard
-Led
-Interruttori
-Alimentatore da banco (S:10mV P:30V)

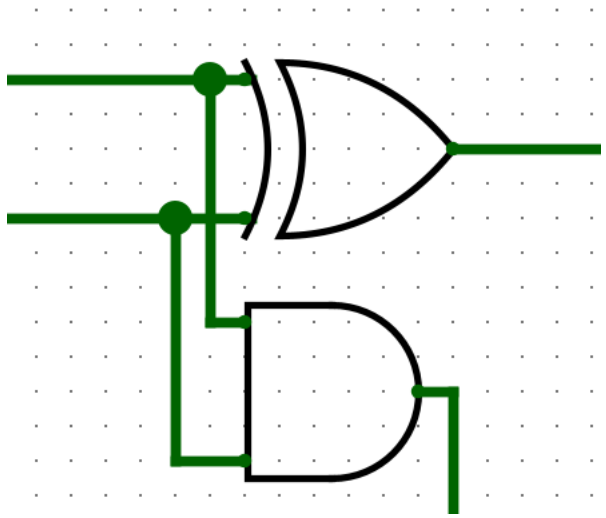
Scopo del Circuito

Il circuito rappresenta un sommatore parallelo a 4 bit




74HC86
74HC32
74HC08
74HC08
74HC86

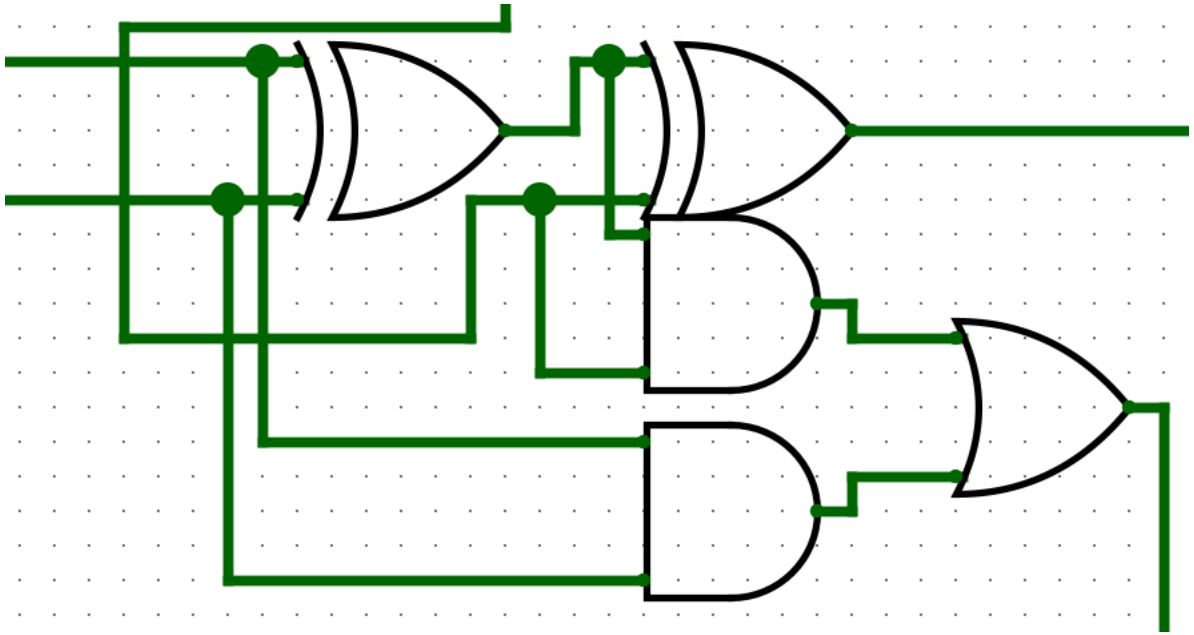

d1
c1
b1
a1
d2
c2
b2
a2
do
co
bo
ao
r



A	B	Y	R
0	0	0	0
0	1	1	0
1	0	1	0
1	1	0	1

Y=A’B+AB’

R=AB



A	B	C	Y	R
0	0	0	0	0
0	0	1	1	0
0	1	0	1	0
0	1	1	0	1
1	0	0	1	0
1	0	1	0	1
1	1	0	0	1
1	1	1	1	1

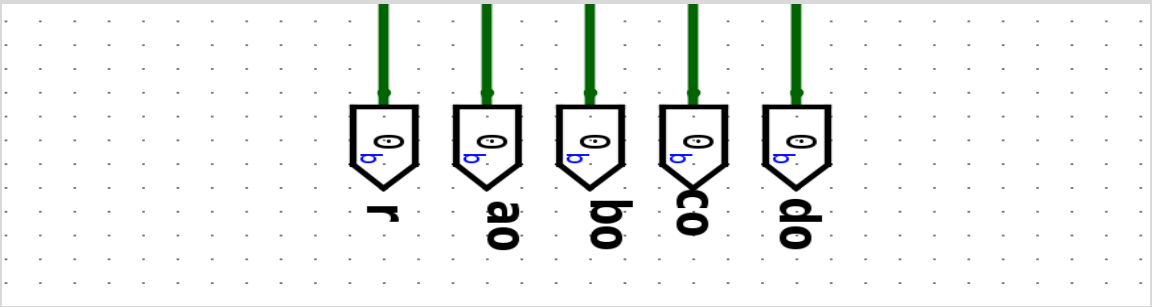
Y=C(A’B’+AB)+C’(A’B+AB’)

R=AB+BC+AC

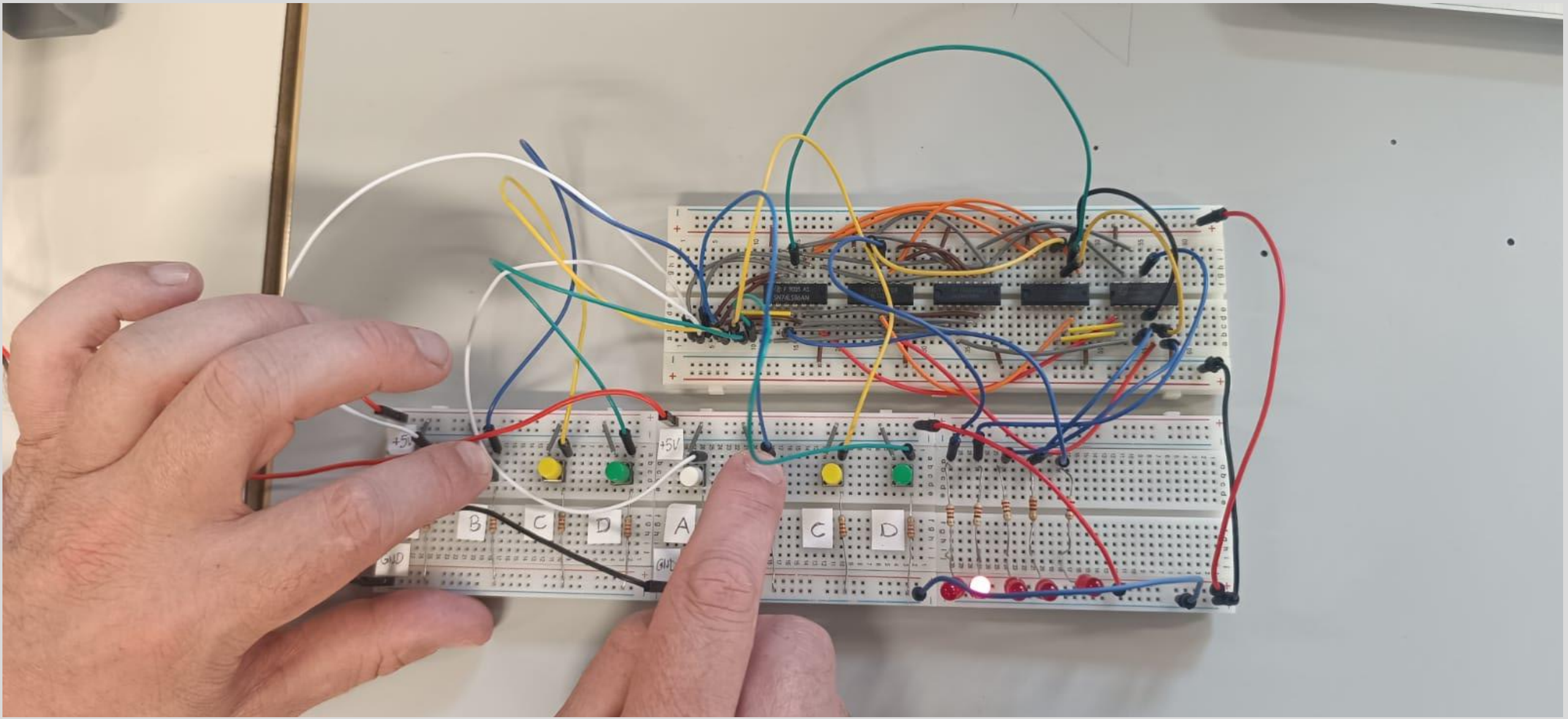
Input

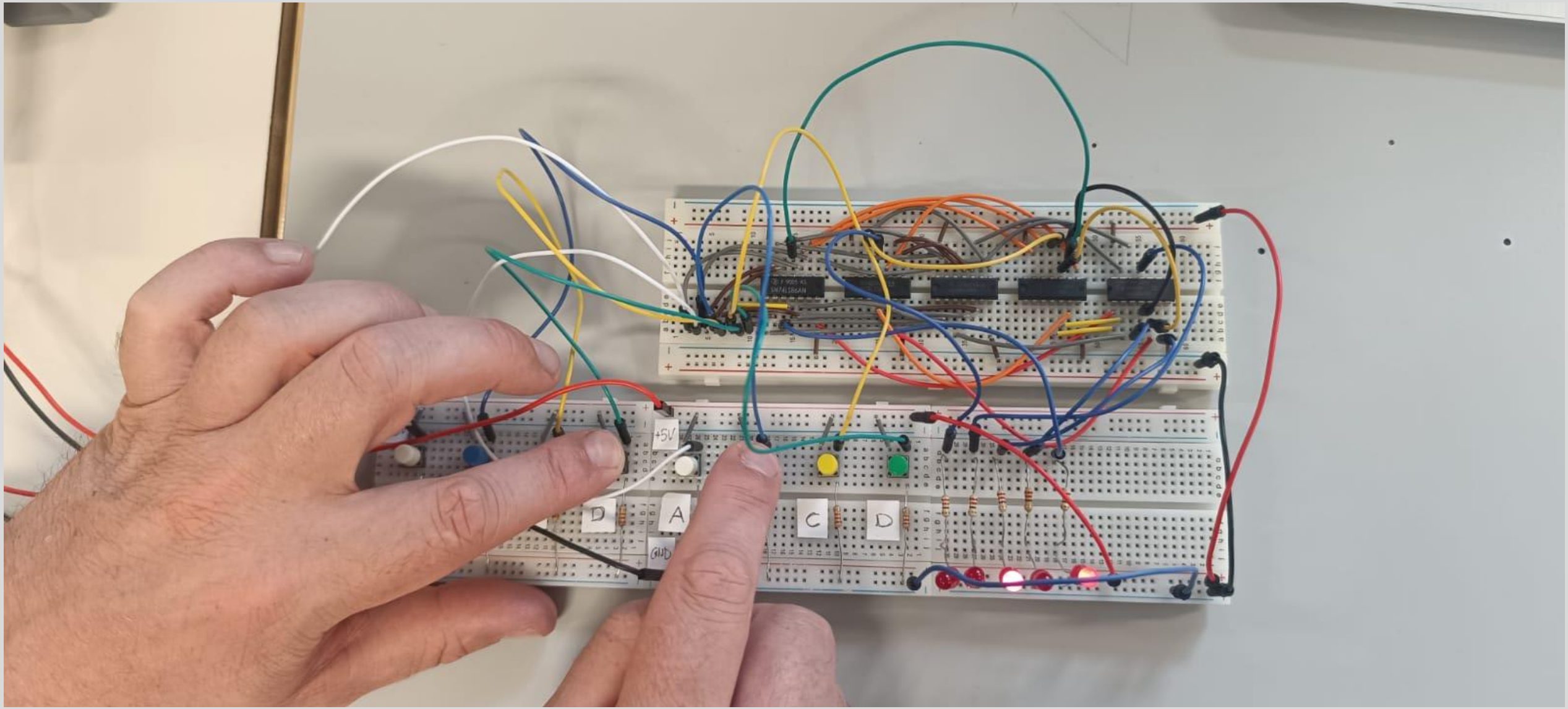
Output

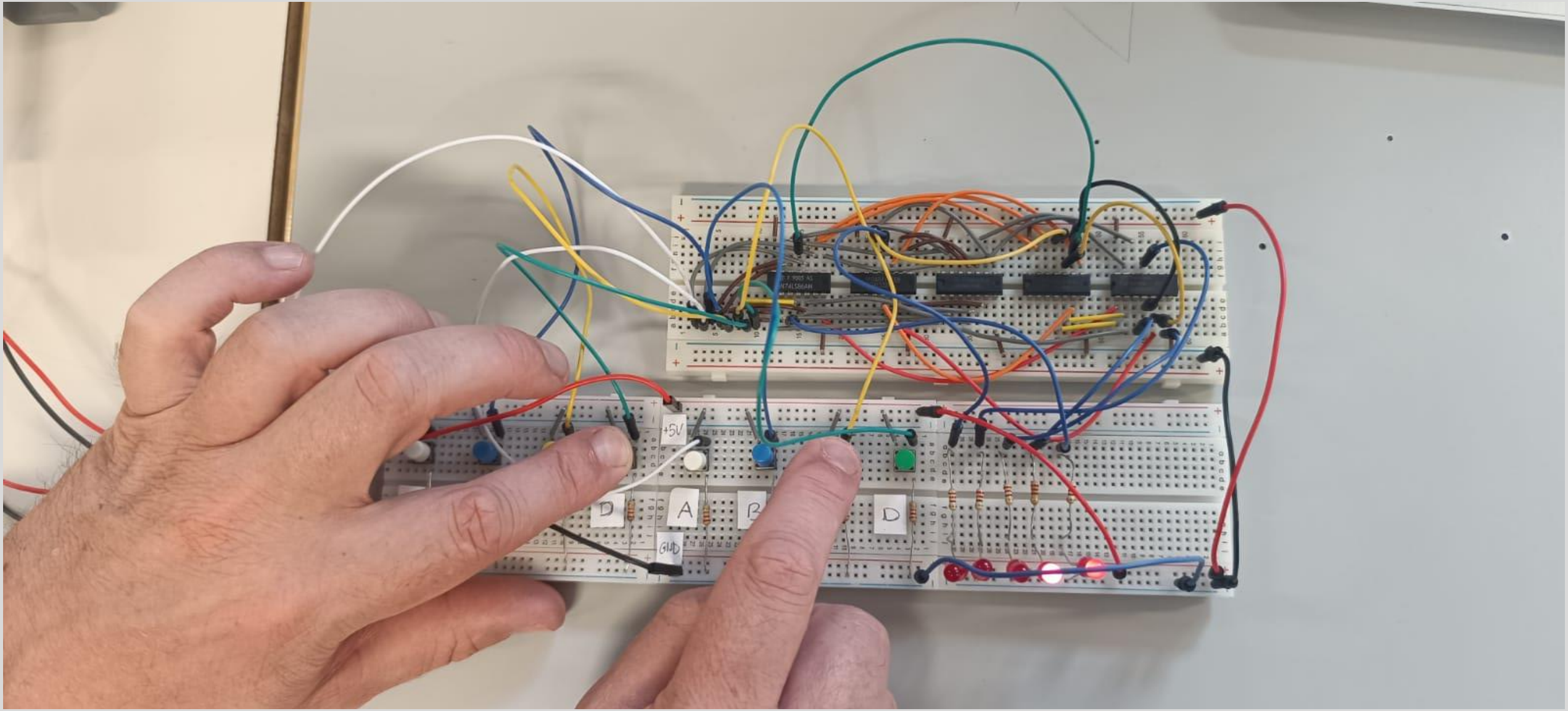
output	equazione
do	$d_1'd_2+d_1d_2'$
co	$r_d(c_1'c_2'+c_1c_2)+r_d'(c_1'c_2+c_1c_2')$
bo	$r_c(b_1'b_2'+b_1b_2)+r_c'(b_1'b_2+b_1b_2')$
ao	$r_b(a_1'a_2'+a_1a_2)+r_b'(a_1'a_2+a_1a_2')$
r	$a_1a_2+a_2r_b+a_1r_b$

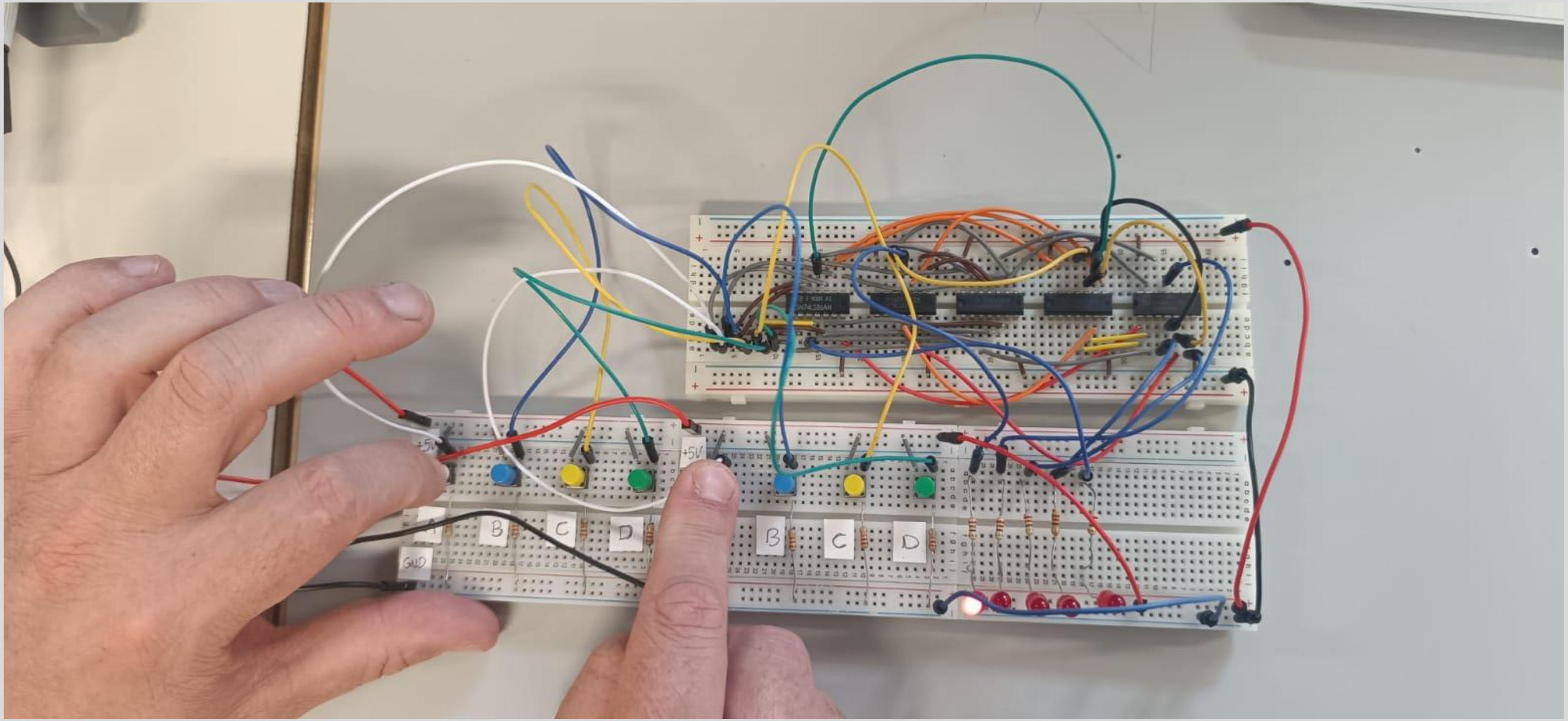


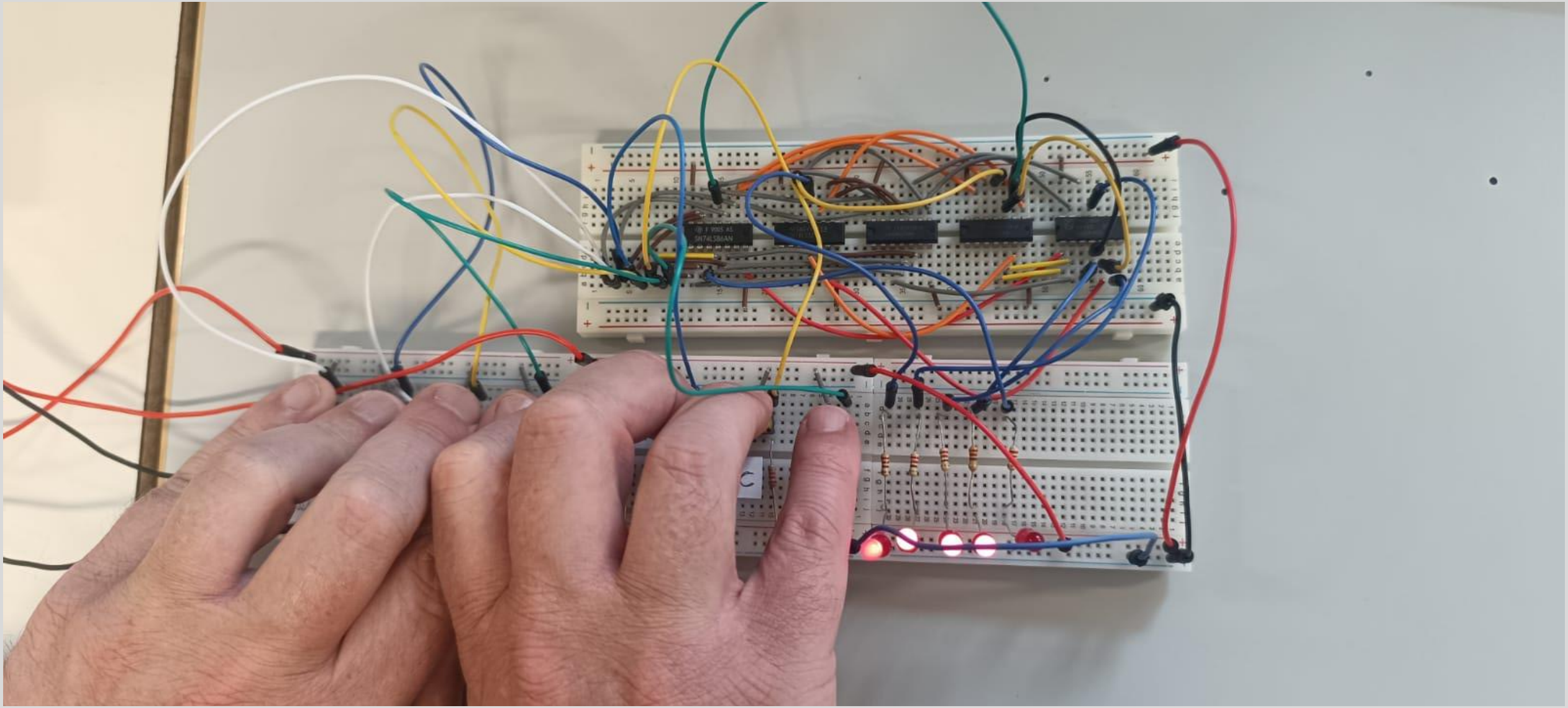
Bps->0 0 0 0 0<-Bms


+5V
+5V
B
C
D
A
C
D
GND


+5V
D
A
C
D


+5V
GND
D
A
B
D


B
C
D
B
C
D
GND
+5V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