

Digital clock used components :

1 – 6 * 7448 ic

2 – 8 * 7490 ic

3 – 200 male to male wire

4 – 555 timer

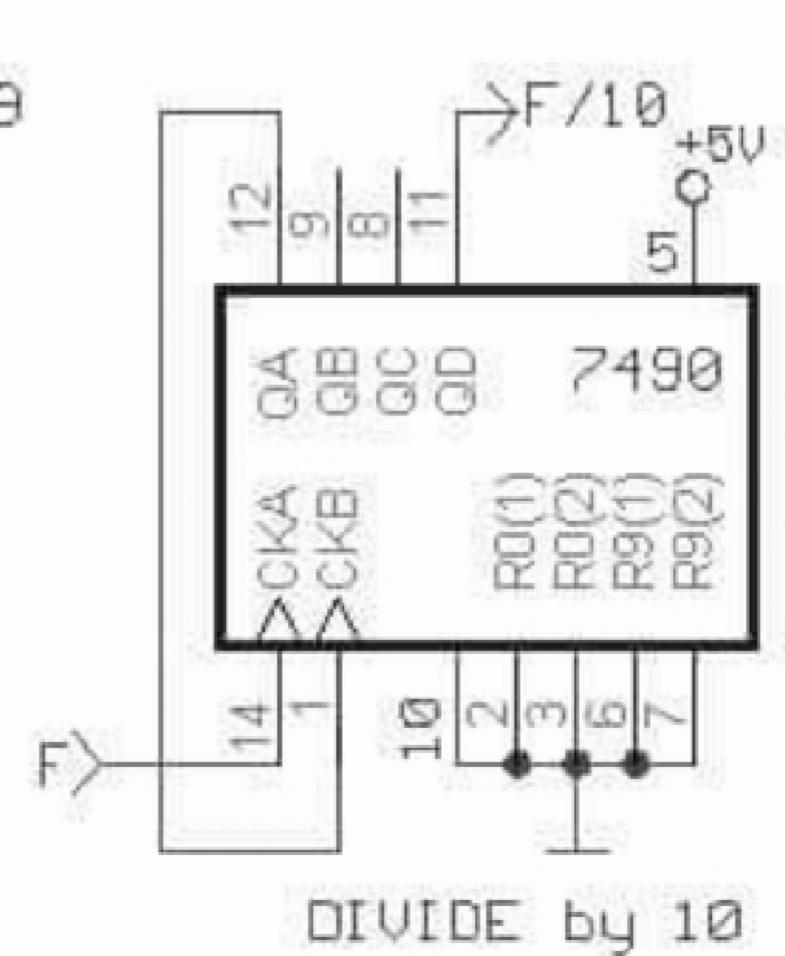
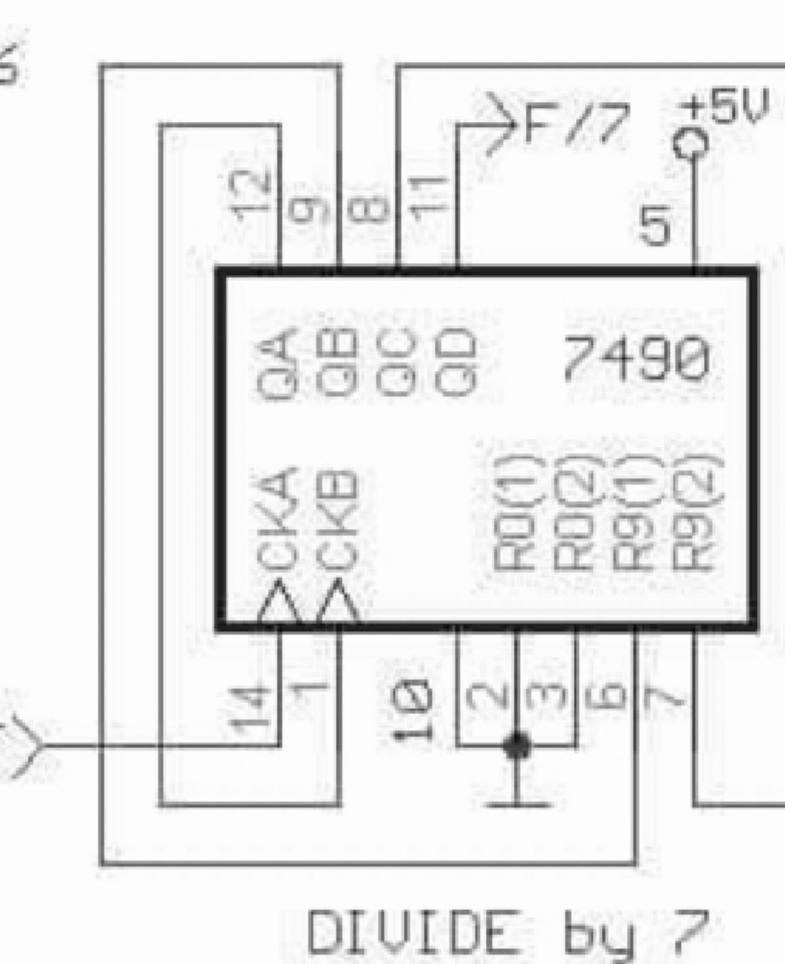
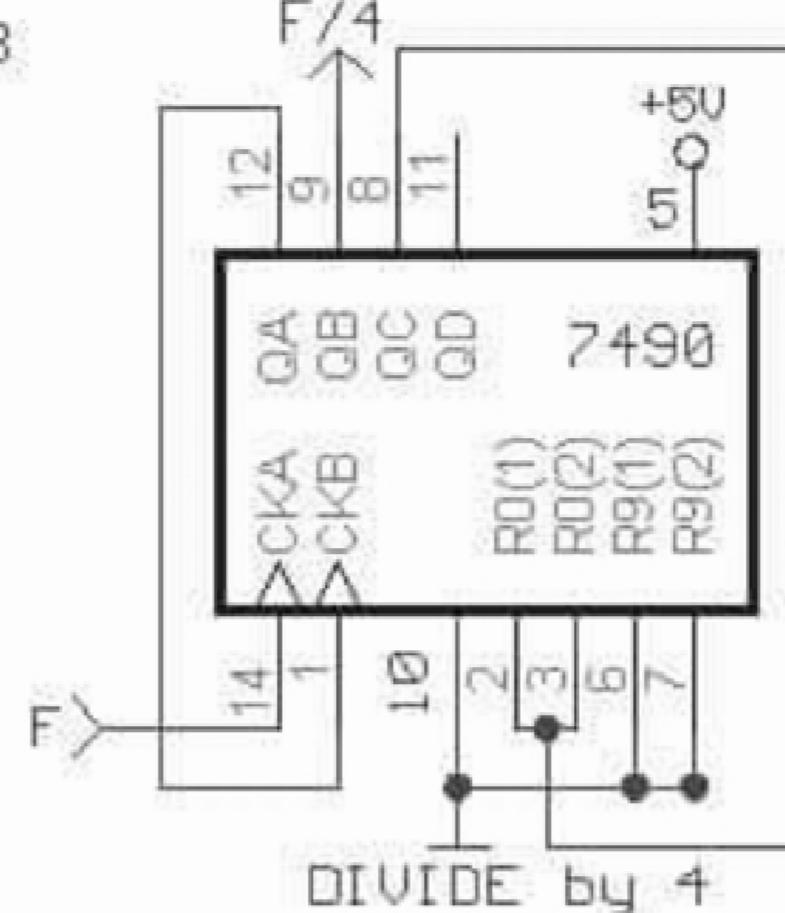
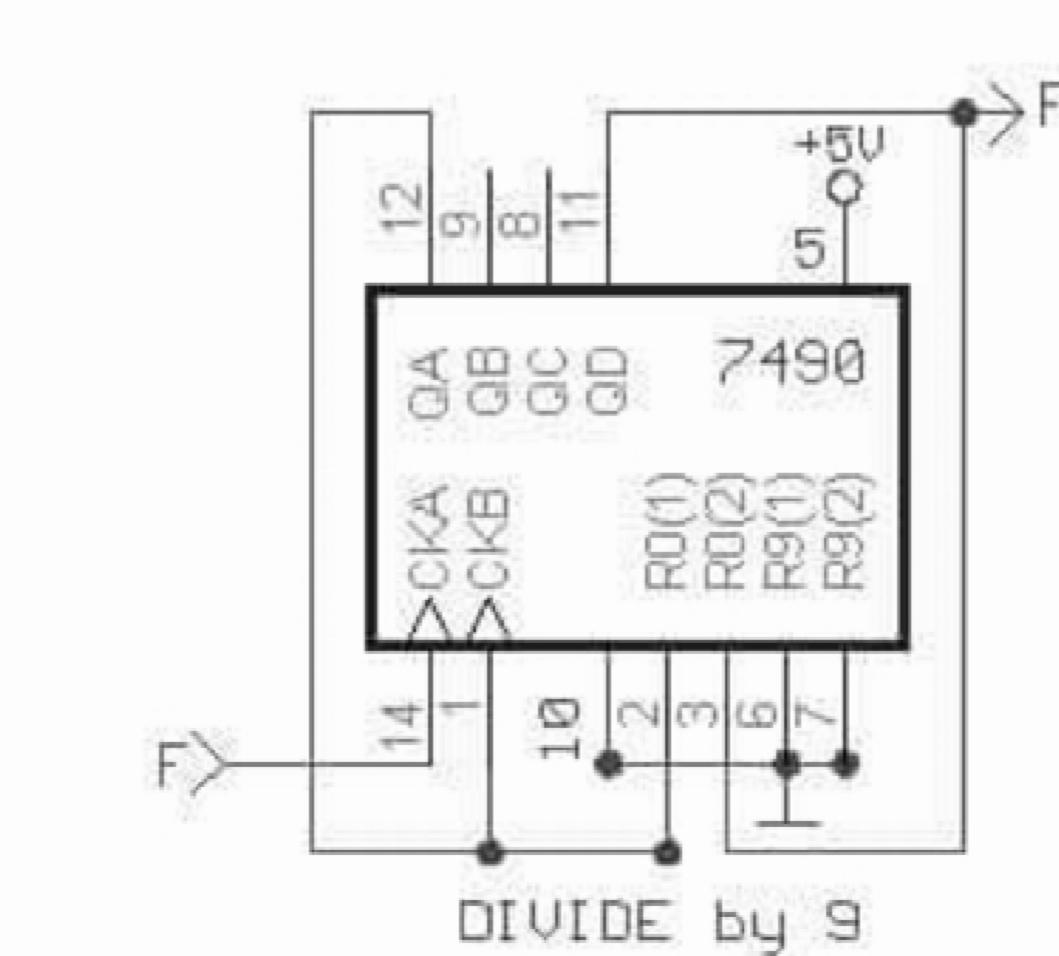
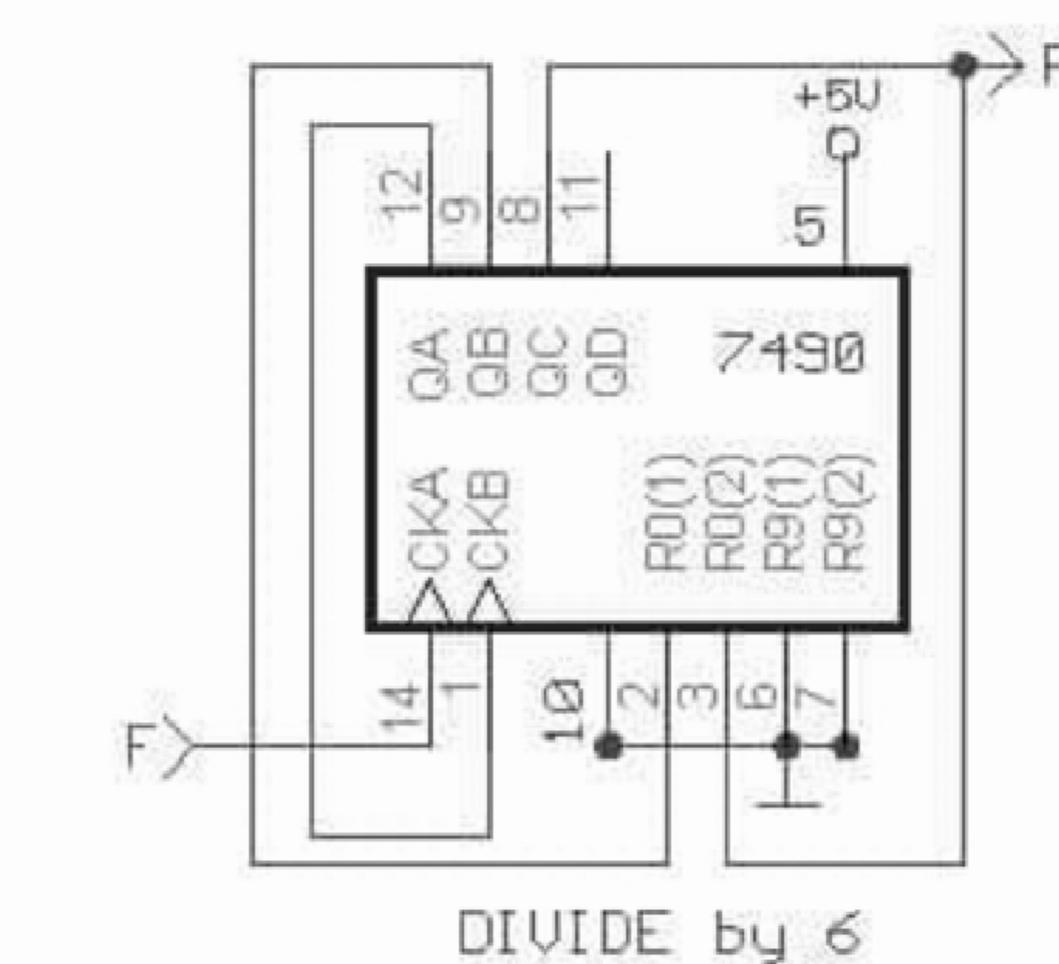
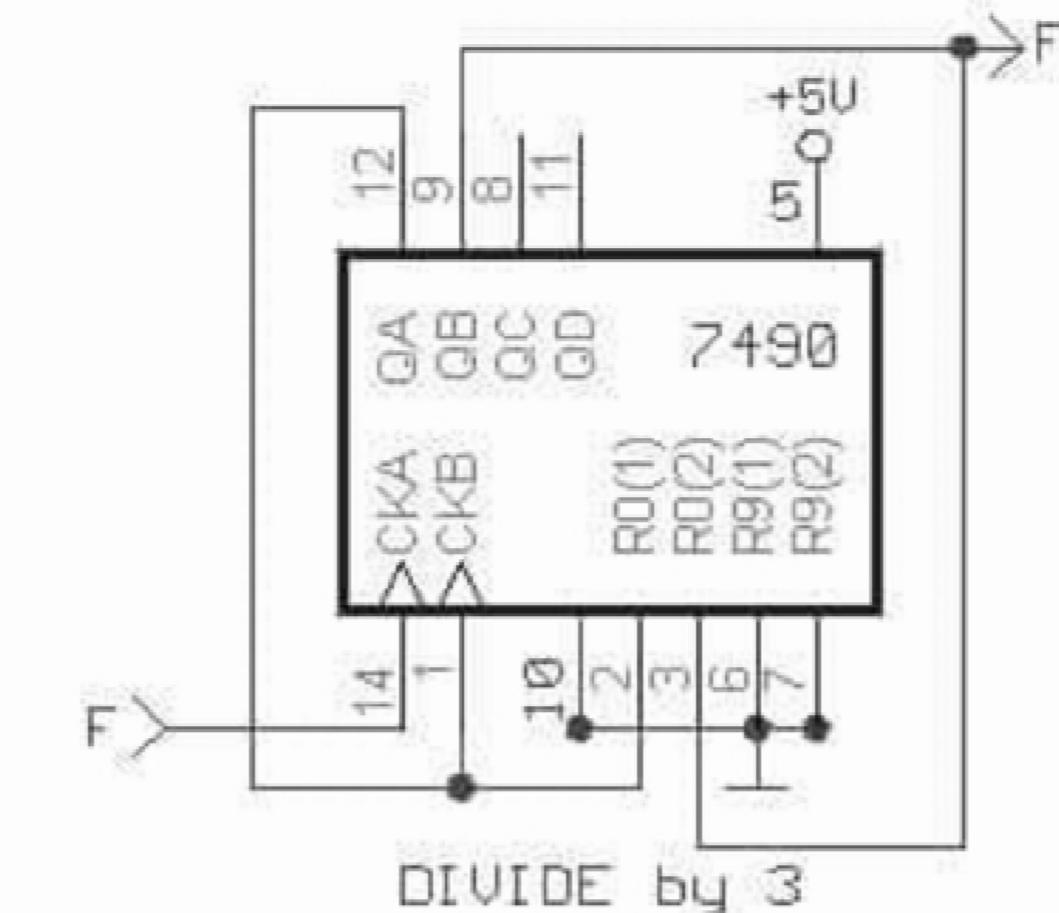
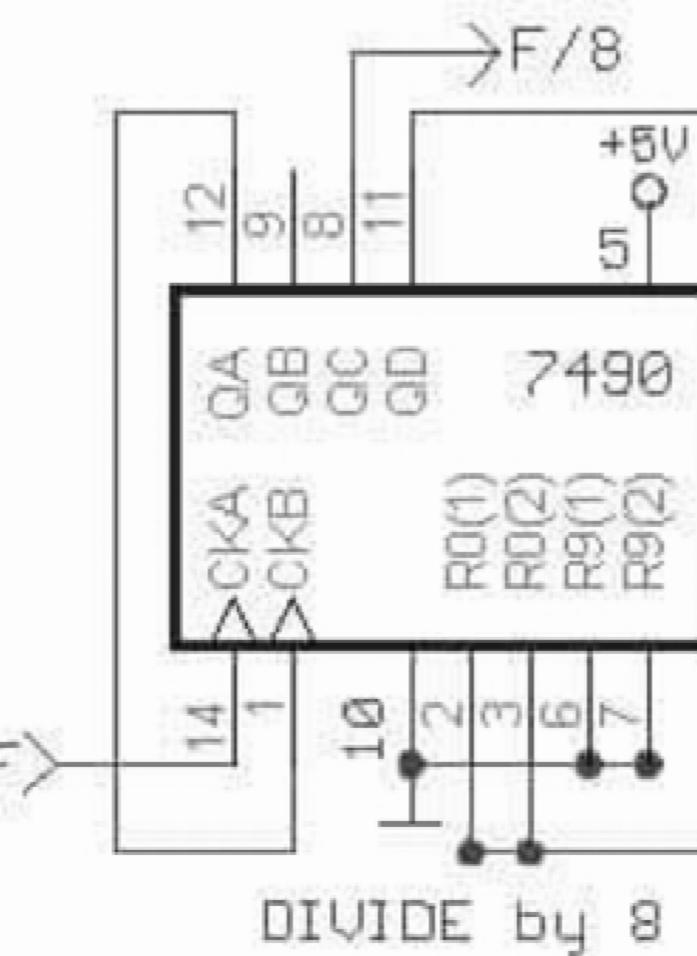
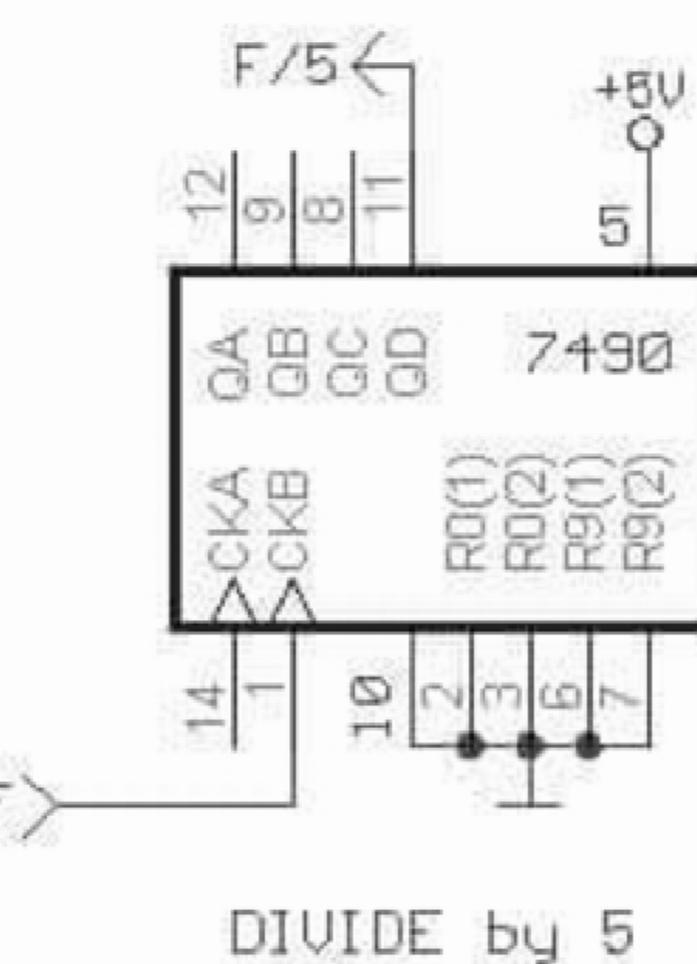
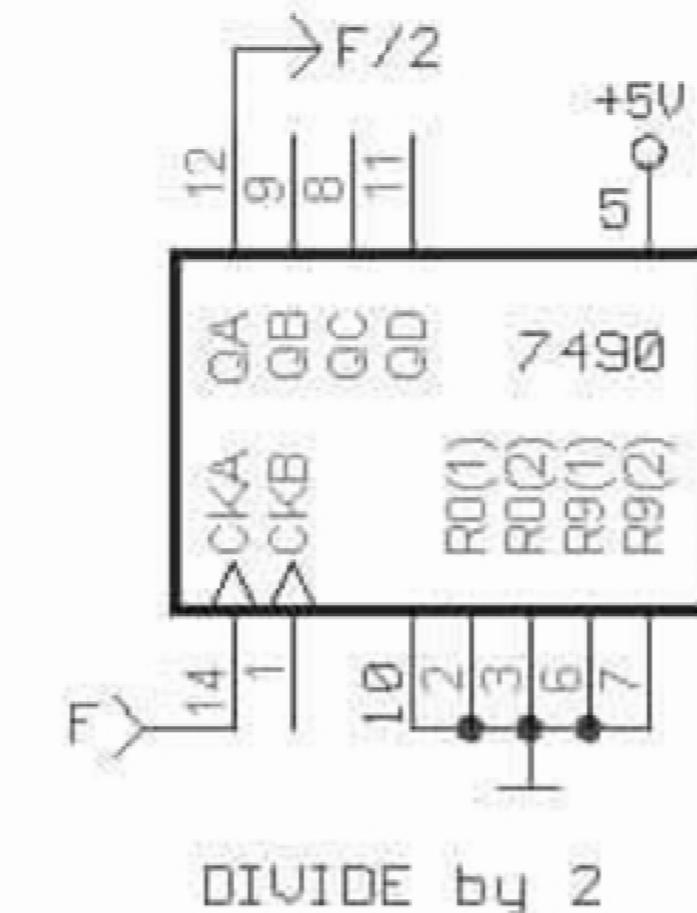
5- 2 * 10 micro farad capacitor

6- 4 * BreadBoard

7- 6 * 7 segment cathode display

8- power supply

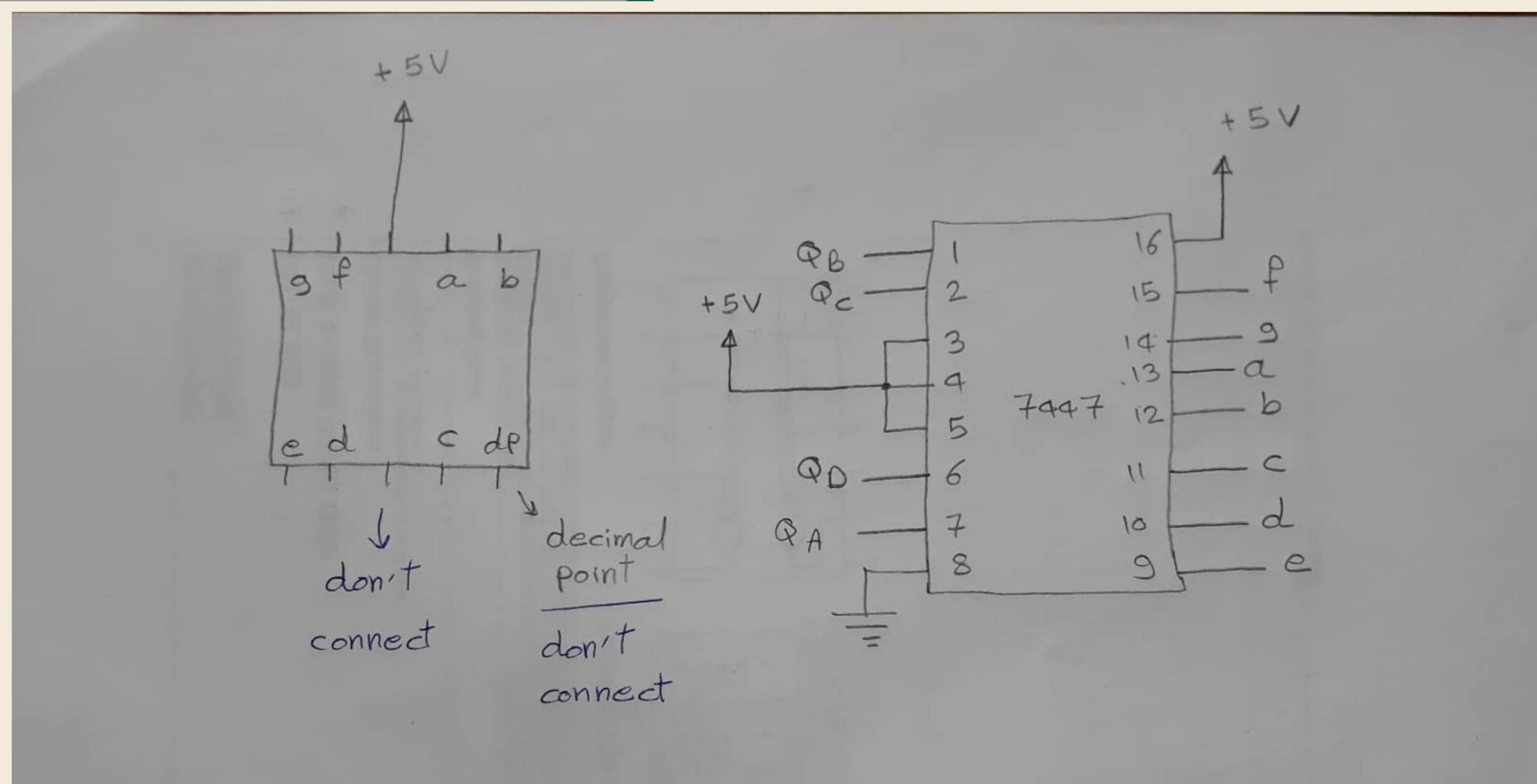
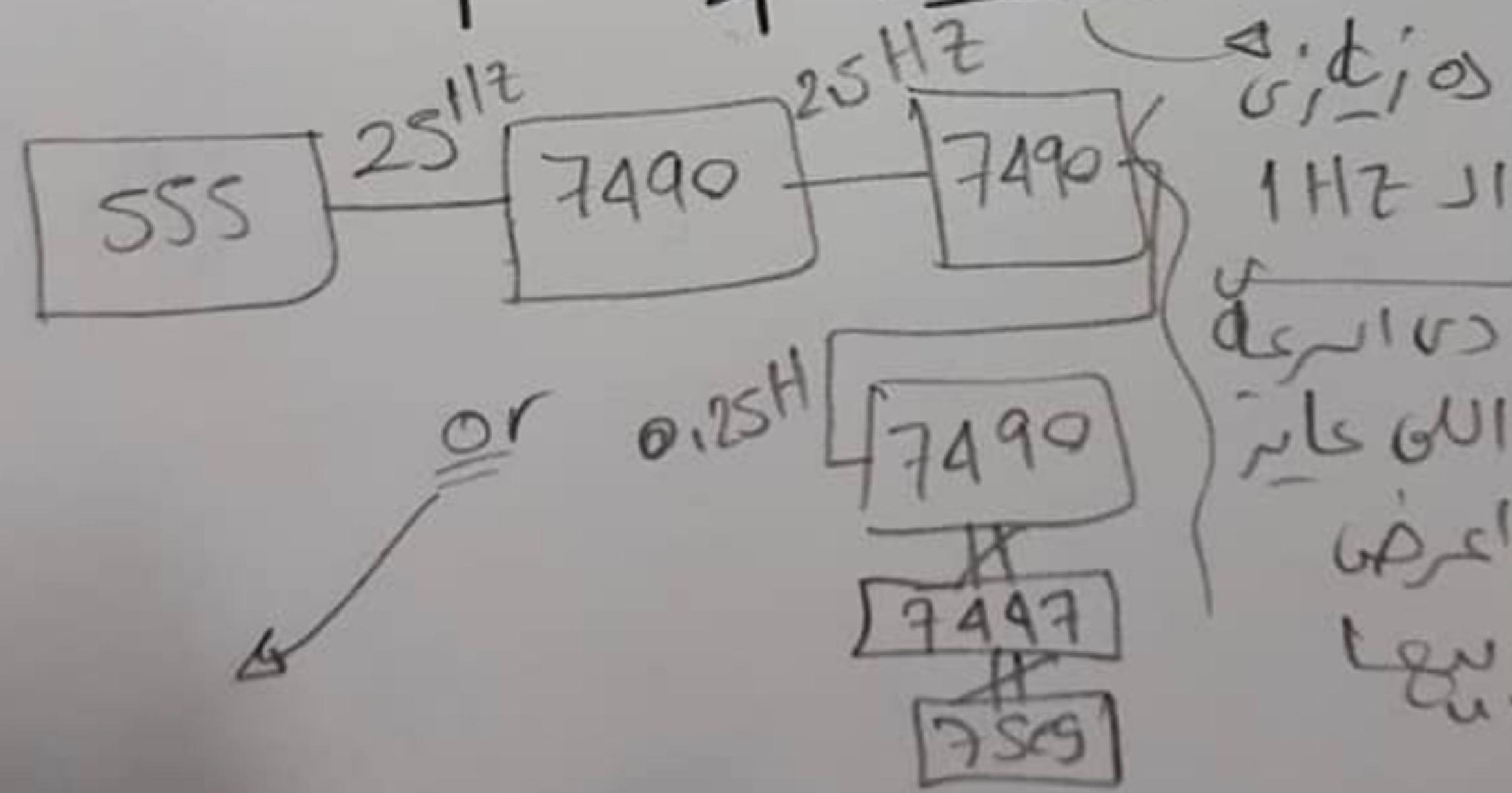
9 – 2 10k ohm resistors

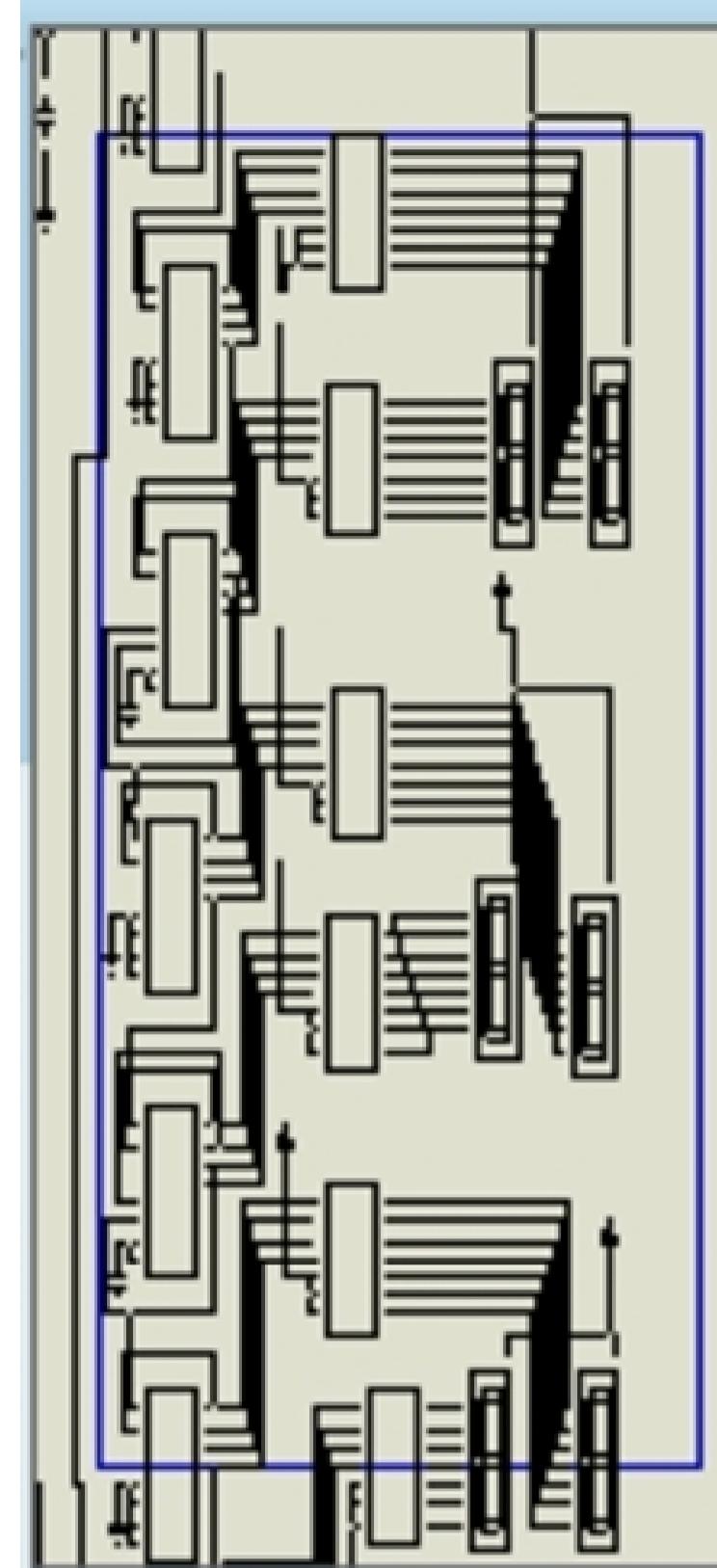


design a circuit to produce
Count from 0 → 7
for 4 sec

Sol

$$F = \frac{1}{T} = \frac{1}{4} = 0.25 \text{ Hz.}$$





P L DEVICES

7SEG-COM-ANODE

74LS47

74LS90

555

3252W-1-101LF

3252W-1-501LF

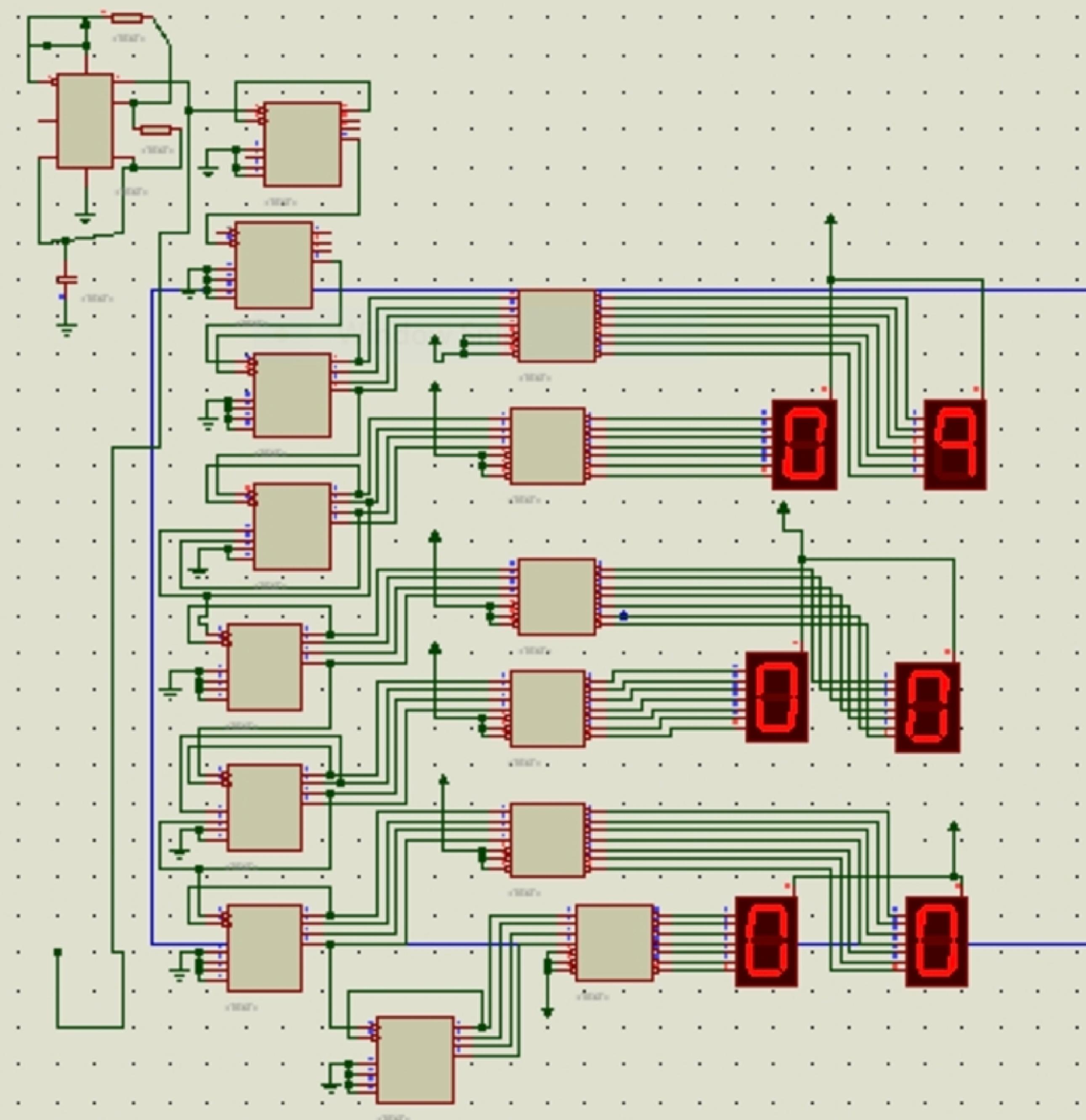
7490

CAP

MINRES120K

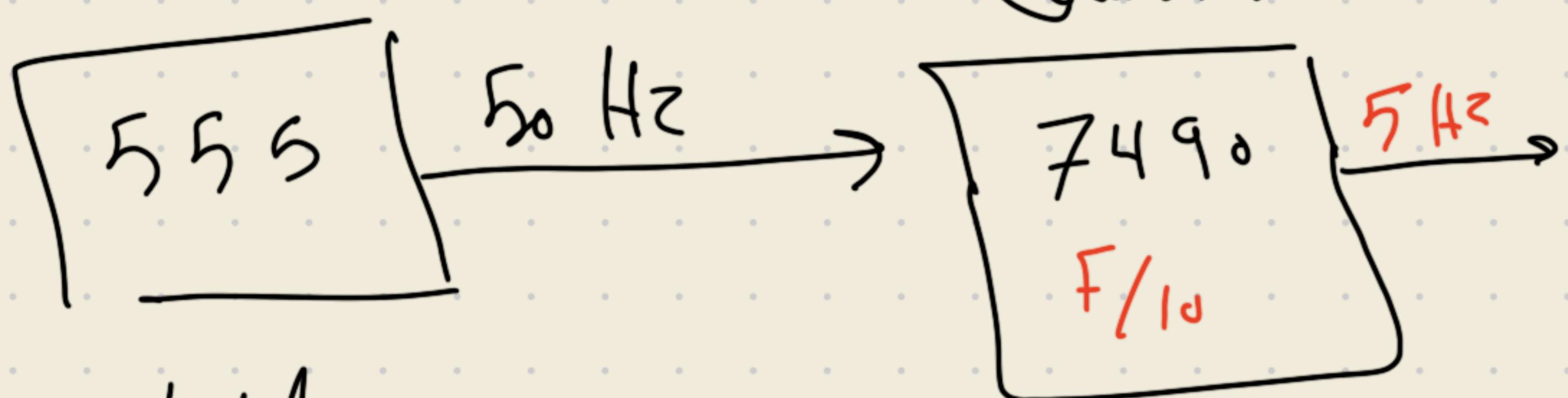
POT

RES

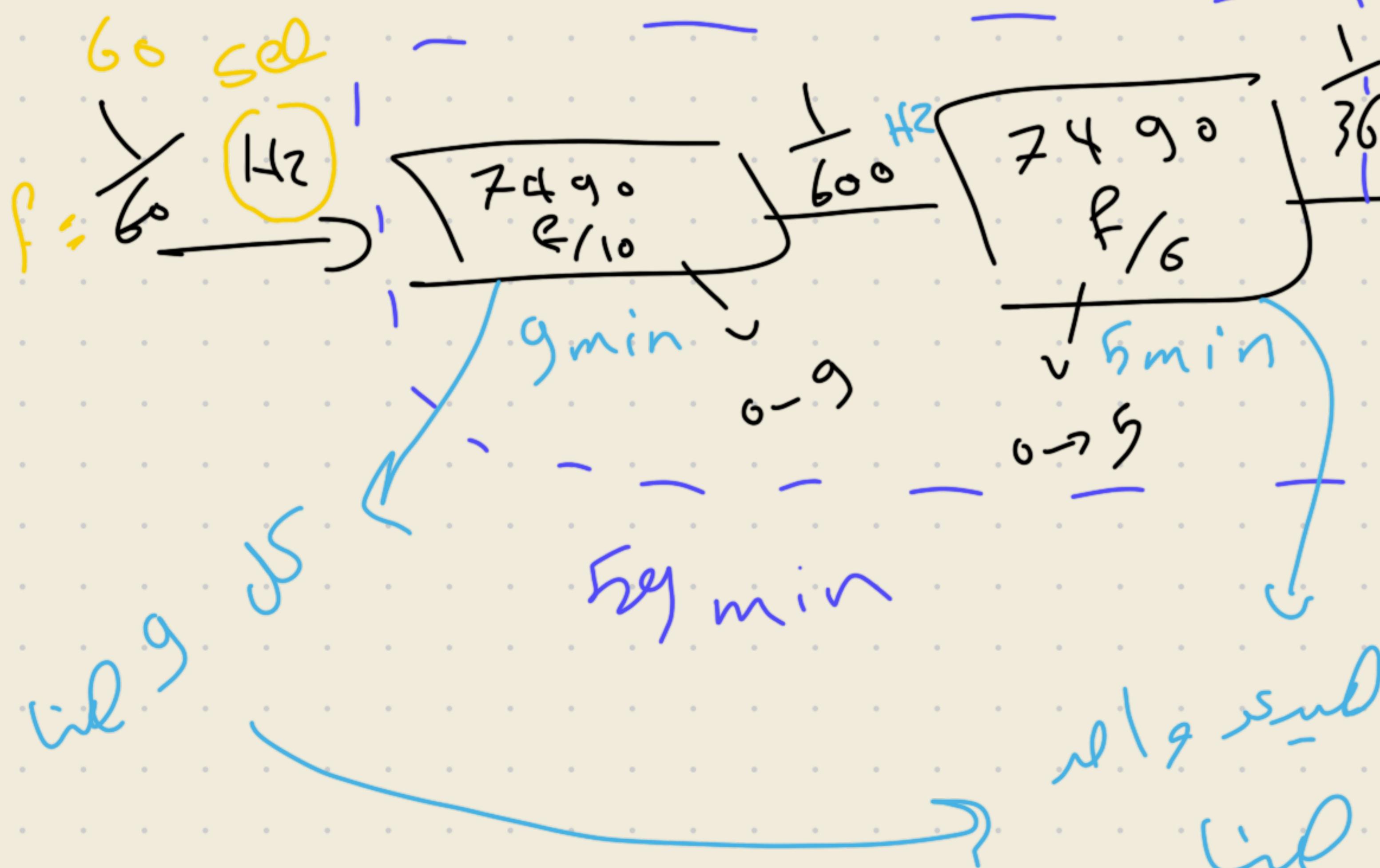
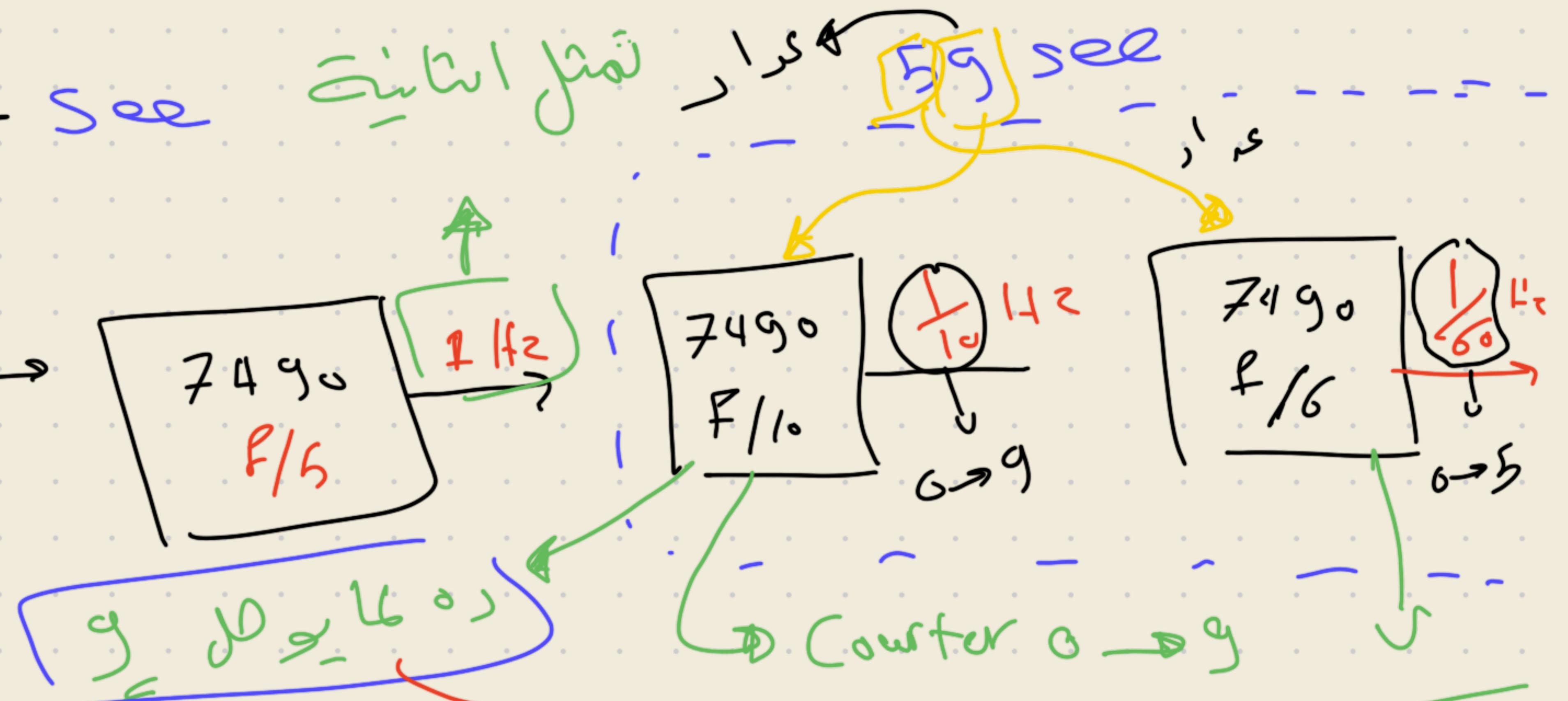


Block Diagram

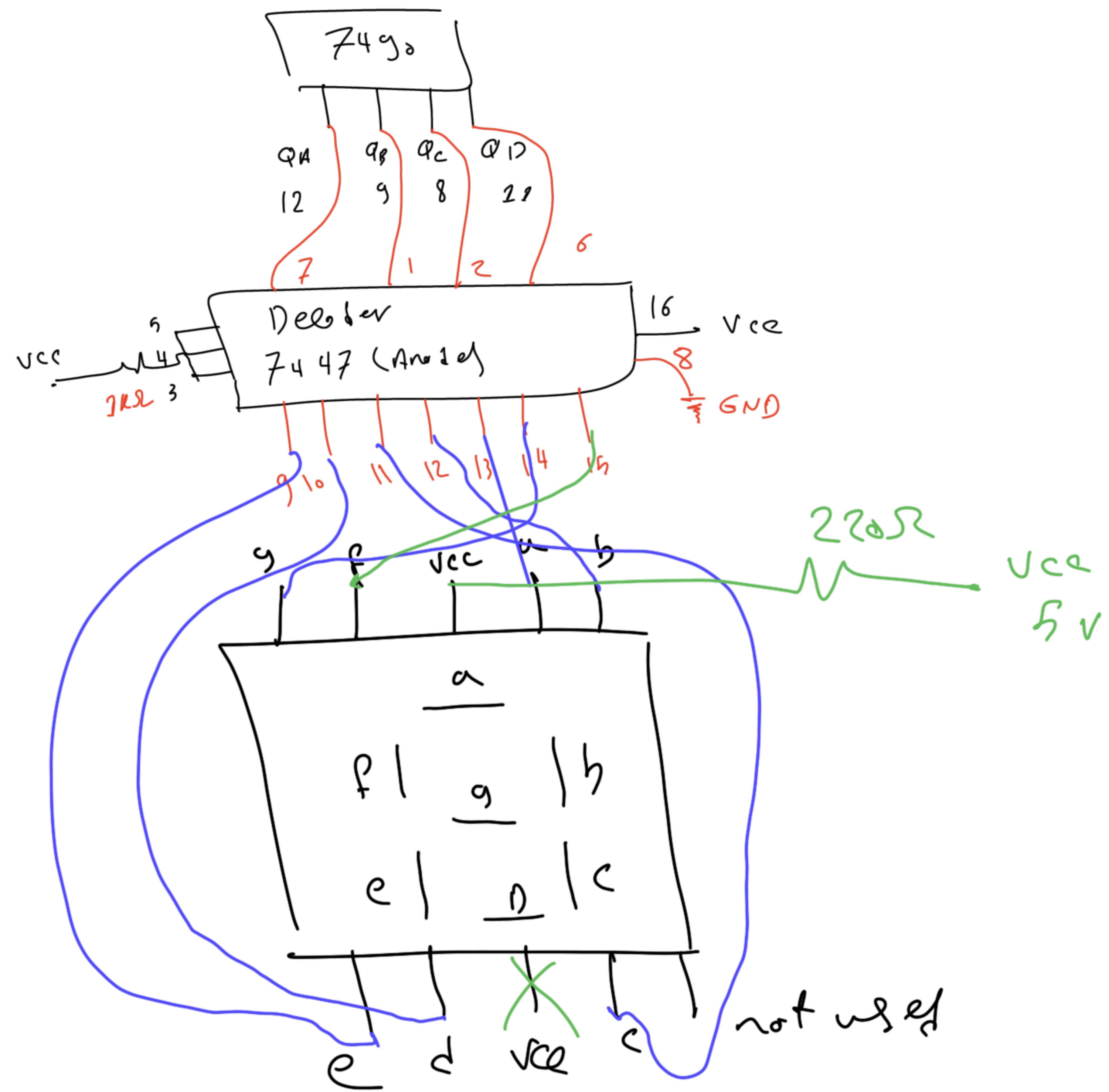
$$t = \frac{1}{f}$$



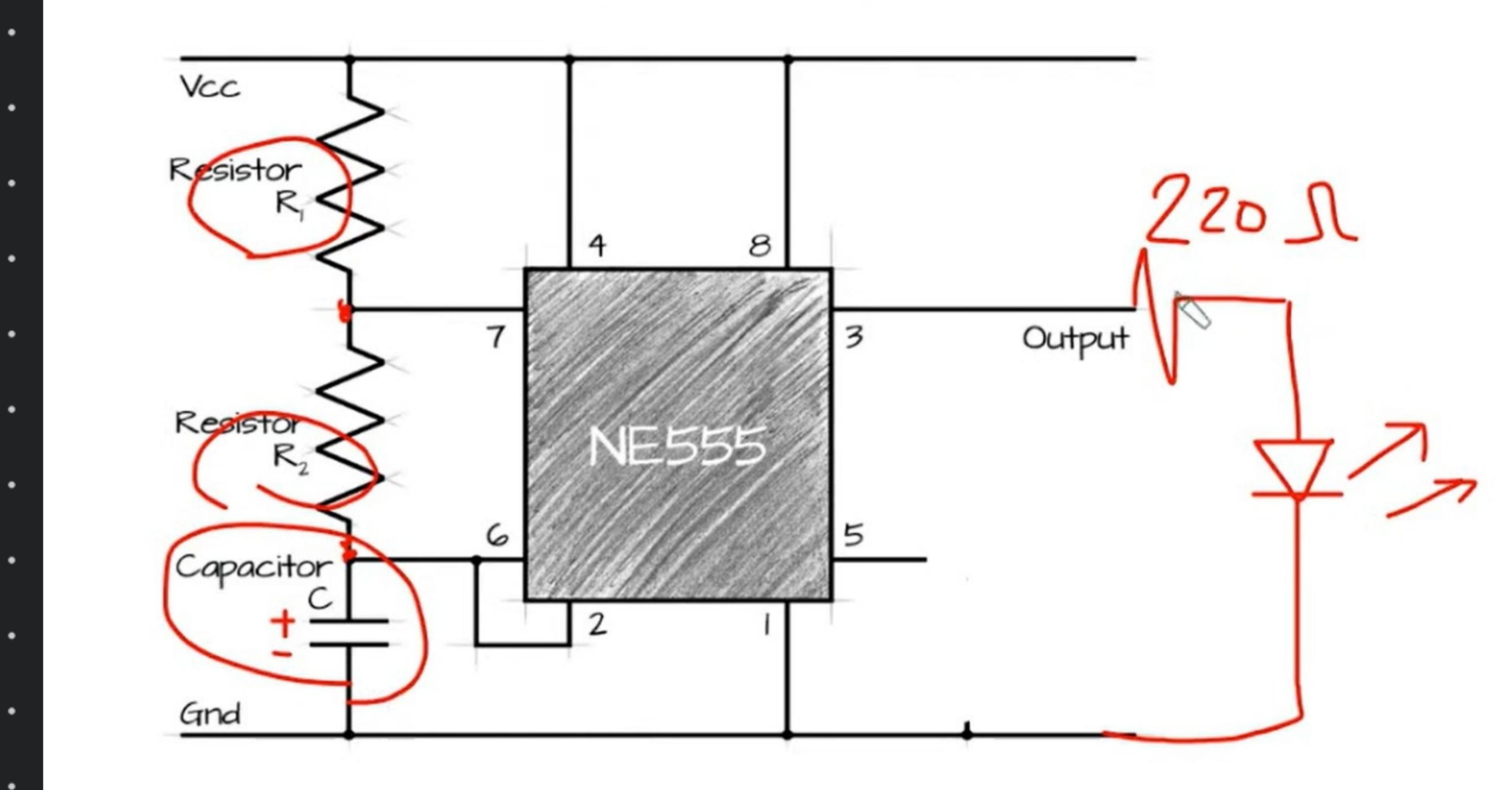
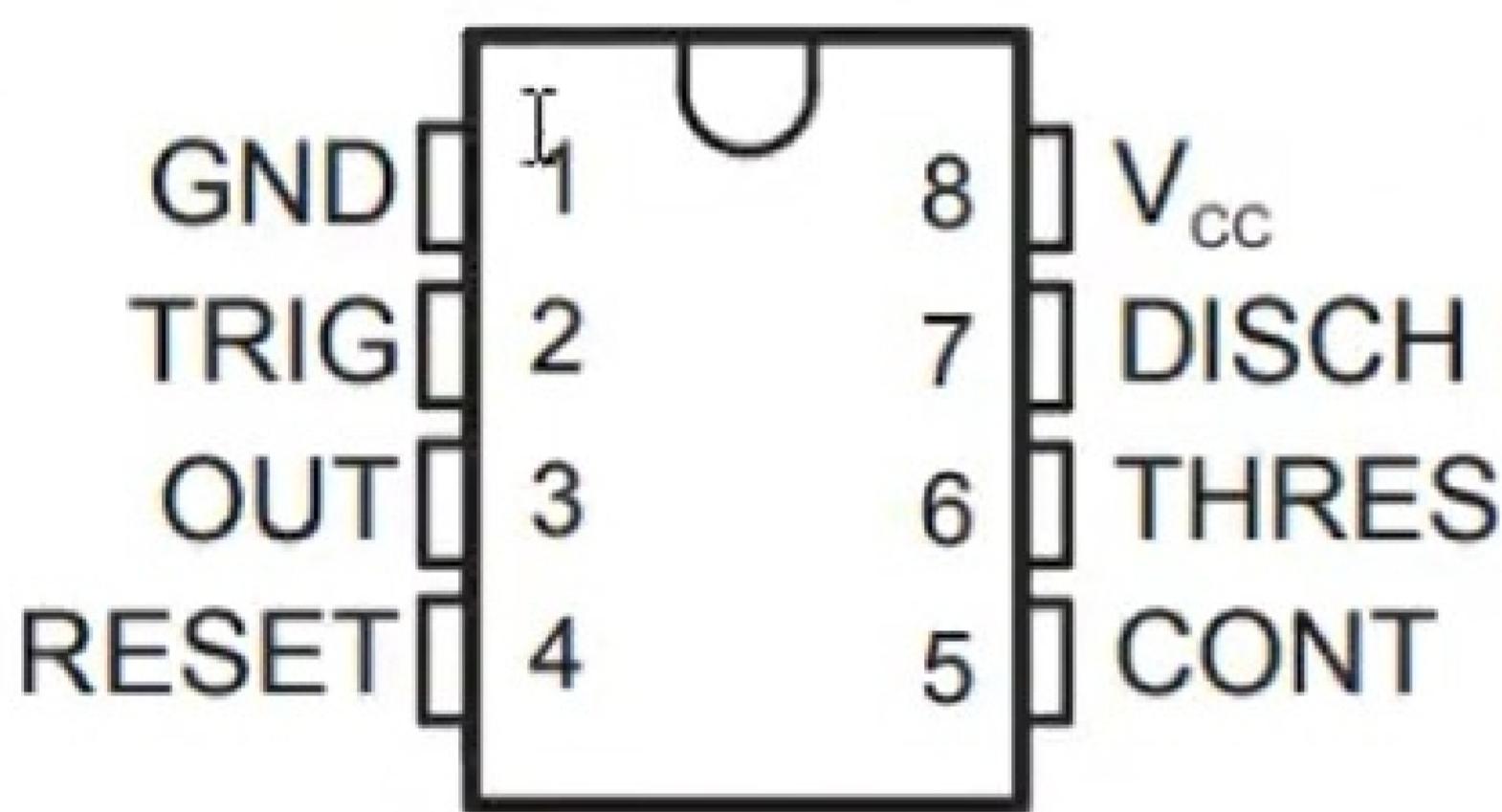
A stable
timer



اول طلب
تسلیم 24H
جهات
Reset
inail contacts



NA555...D OR P PACKAGE
NE555...D, P, PS, OR PW PACKAGE
SA555...D OR P PACKAGE
SE555...D, JG, OR P PACKAGE
(TOP VIEW)



$$f = \frac{1.44}{(R_1 + 2R_2)C} = 50 \text{ Hz}$$

Capacitor (C)

Resistance 1 (R_1)

Resistance 2 (R_2)

Frequency

Period (T)

Duty Cycle

Time High (T_h)

1	
500	
14	
50.632	H2
19.750	
50.88	
10.049	

Capacitor (C)

Resistance 1 (R_1)

Resistance 2 (R_2)

Frequency

Period (T)

Duty Cycle

Time High (T_h)

47	
10	
10	
1.023	
977.130	
66.67	
651.420	

✓
✓