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Internet of Things

1. **Tabel**

Input				No.	Tampilan	a	b	c	d	e	f	g
A	B	C	D									
0	0	0	0	0	c	0	0	0	1	1	0	1
0	0	0	1	1	1	0	1	1	0	0	0	0
0	0	1	0	2	1	0	1	1	0	0	0	0
0	0	1	1	3	2	1	1	0	1	1	0	1
0	1	0	0	4	2	1	1	0	1	1	0	1
0	1	0	1	5	0	1	1	1	1	1	1	0
0	1	1	0	6	0	1	1	1	1	1	1	0
0	1	1	1	7	0	1	1	1	1	1	1	0
1	0	0	0	8	7	1	1	1	0	0	0	0
1	0	0	1	9	-	0	0	0	0	0	0	1
1	0	1	0	10	c	0	0	0	1	1	0	1
1	0	1	1	11	j	0	1	1	1	0	0	0
1	1	0	0	12	c	0	0	0	1	1	0	1

2. **Counter**
   2^4 => maksimal 16
   16 - 13 = 3 don’t care
3. **K-Map**
   - Segmen a

CD / AB	00	01	11	10
00	0	0	1	0
01	1	1	1	1
11	0	X	X	X
10	1	0	0	0

f(a) = A'CD + A'B + AB'C'D'

- Segmen b

CD / AB	00	01	11	10
00	0	1	1	1
01	1	1	1	1
11	0	X	X	X
10	1	0	1	0

f(b) = AB'C'D' + CD + A'B + A'D + A'C

- Segmen c

CD / AB	00	01	11	10
00	0	1	0	1
01	0	1	1	1
11	0	X	X	X
10	1	0	1	0

f(c) = AB'C'D' + A'C'D + A'CD' + ACD + BC

- Segmen d

CD / AB	00	01	11	10
00	1	0	1	0
01	1	1	1	1
11	1	X	X	X
10	0	0	1	1

f(d) = A'C'D' + B + CD + AC

- Segmen e

CD / AB	00	01	11	10
00	1	0	1	0
01	1	1	1	1
11	1	X	X	X
10	0	0	0	1

f(e) = A'C'D' + A'CD + ACD' + B

- Segmen f

CD / AB	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	0	X	X	X
10	0	0	0	0

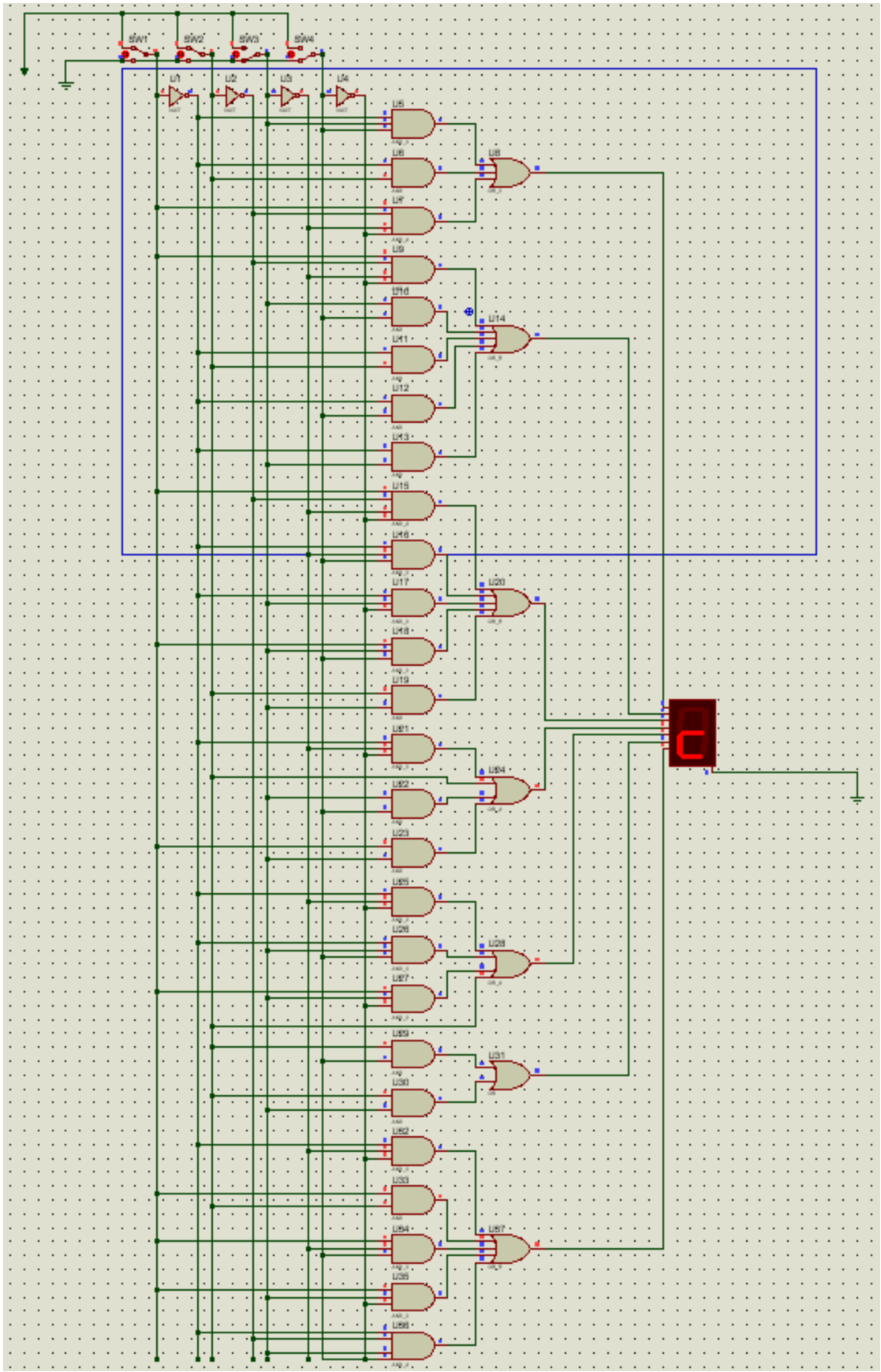
f(f) = BD + BC

- Segmen g

CD / AB	00	01	11	10
00	1	0	1	0
01	1	0	0	0
11	1	X	X	X
10	0	1	0	1

f(g) = A’C’D’ + AB + AC’D + ACD’ + A’B’CD

4. Gambar desain rangkaian


SW1
SW2
SW3
SW4
U1
U2
U3
U4
U5
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U8
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