

Lab # 8

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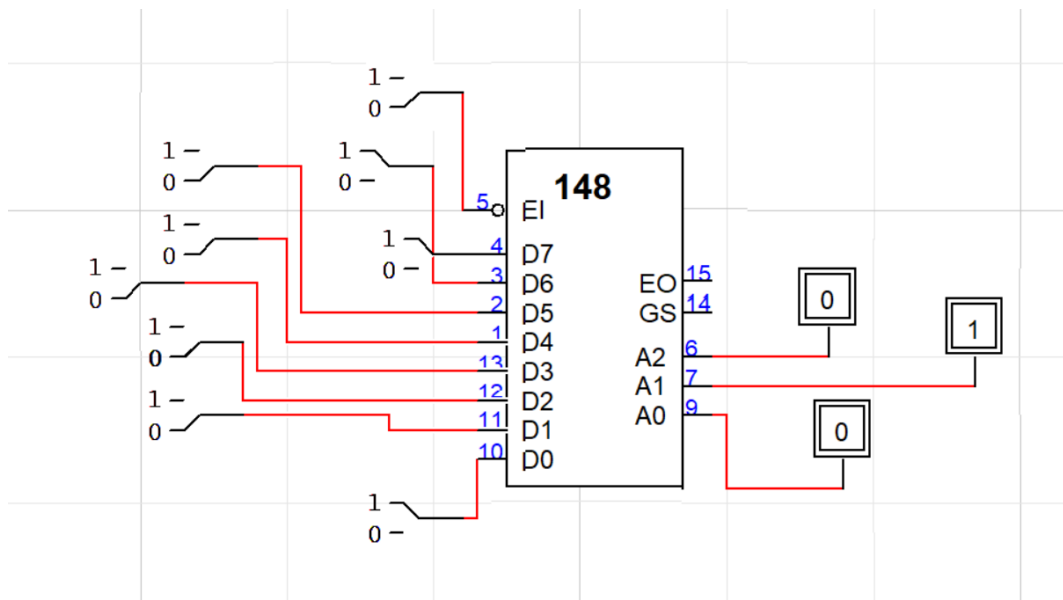
Task#1

Octal to Binary Priority Encode

Truth Table

D 7	D 6	D 5	D 4	D 3	D 2	D1	D 0	Z 2	Z 1	Z 0
0	0	0	0	0	0	0	1	0	0	0
0	0	0	0	0	0	1	X	0	0	1
0	0	0	0	0	1	X	X	0	1	0
0	0	0	0	1	1	X	X	0	1	1
0	0	0	1	X	X	X	X	1	0	0
0	0	1	X	X	X	X	X	1	0	1
0	1	X	X	X	X	X	X	1	1	0
1	X	X	X	X	X	X	X	1	1	1

Circuit Diagram



Task#2

Decimal to BCD Priority Encoder

Truth Table

E~	1~	2~	3~	4~	5~	6~	7~	8~	9~	Q3~	Q2~	Q1~	Q0~
0	0	0	0	0	0	0	0	0	0	0	0	0	0
X	X	X	X	X	X	X	X	X	1	1	0	0	1
X	X	X	X	X	X	0	0	1	0	1	0	0	0
X	X	X	X	X	X	X	1	0	0	0	1	1	1
X	X	X	X	X	X	1	0	0	0	0	1	1	0
X	X	X	X	X	1	0	0	0	0	0	1	0	1
X	X	X	X	1	0	0	0	0	0	0	1	0	0
X	X	X	1	0	0	0	0	0	0	0	0	1	1
X	X	1	0	0	0	0	0	0	0	0	0	1	0
1	1	0	0	0	0	0	0	0	0	0	0	0	1

Circuit diagram

