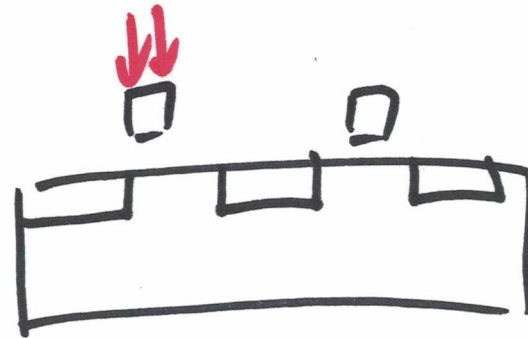
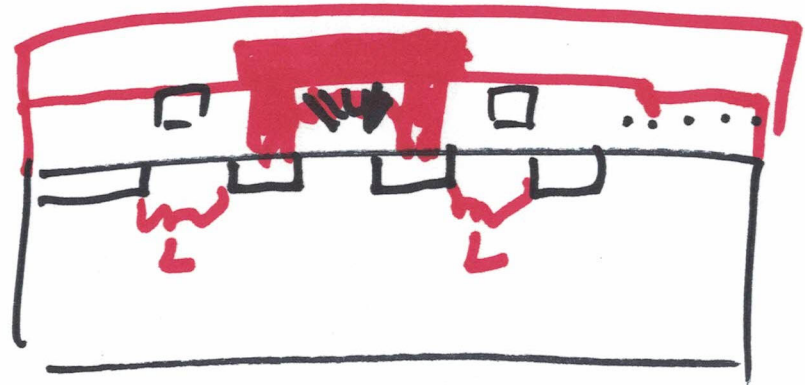
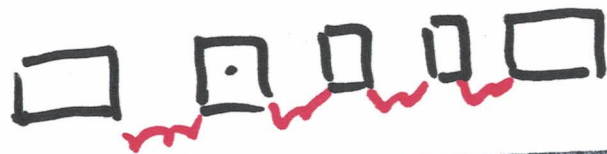
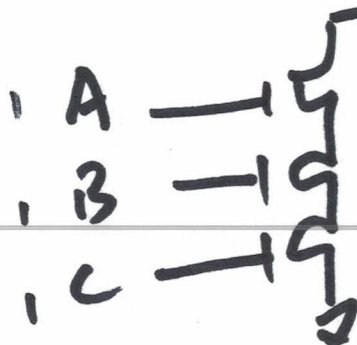
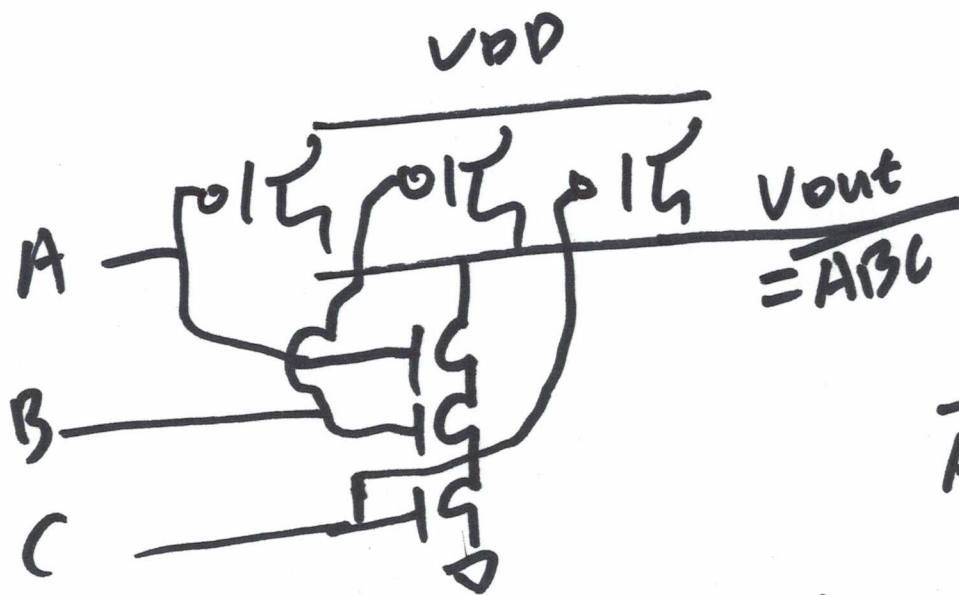




AOI $\Rightarrow$ AND OR Inverse

$$V_{out} = \overline{A \cdot B \cdot C} \quad A^0 \quad \overline{B^1} \quad \overline{C^1} \quad V_{out}$$





demorgan's law:
 { split the bar
 change the sign

$$\overline{AB} = \overline{A} + \overline{B}$$

A	B	C	V_{out}
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

A \ BC	00	01	11	10
0	1	1	1	1
1	1	1	1	1

$$\overline{A} + \overline{B} + \overline{C}$$

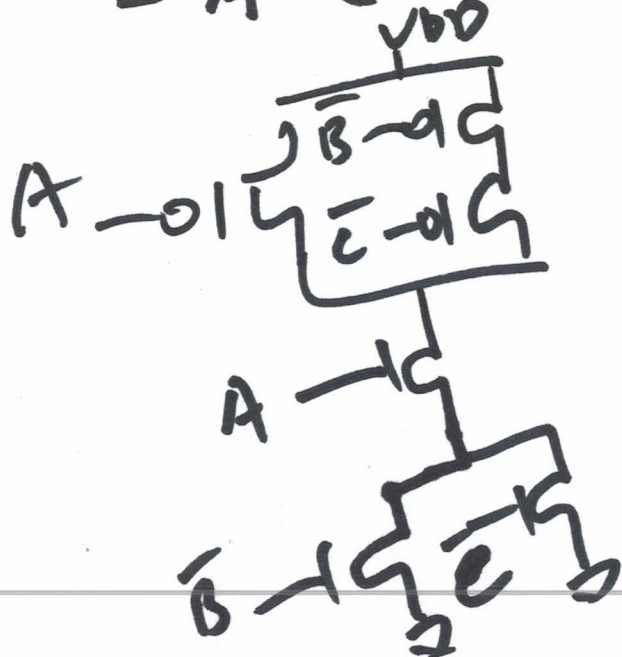
$$\overline{ABC} = \overline{AB} + \overline{C} = \overline{A} + \overline{B} + \overline{C}$$

$$Y = \bar{A} + BC$$

$$= \bar{A} + BC$$

$$= \bar{A} \cdot \overline{BC}$$

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



(4)