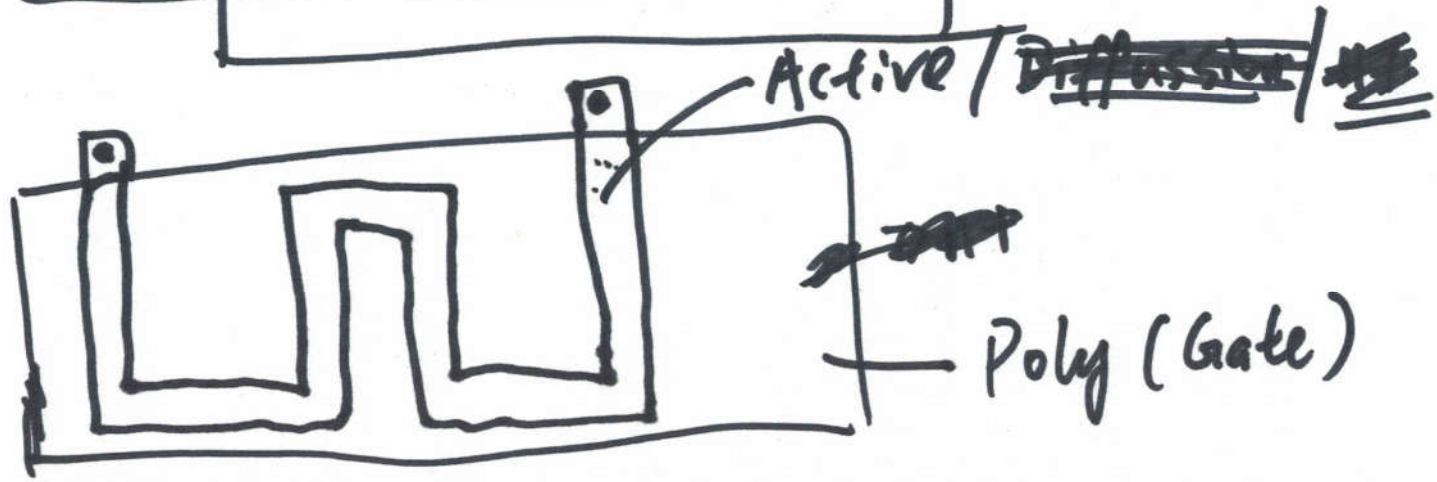
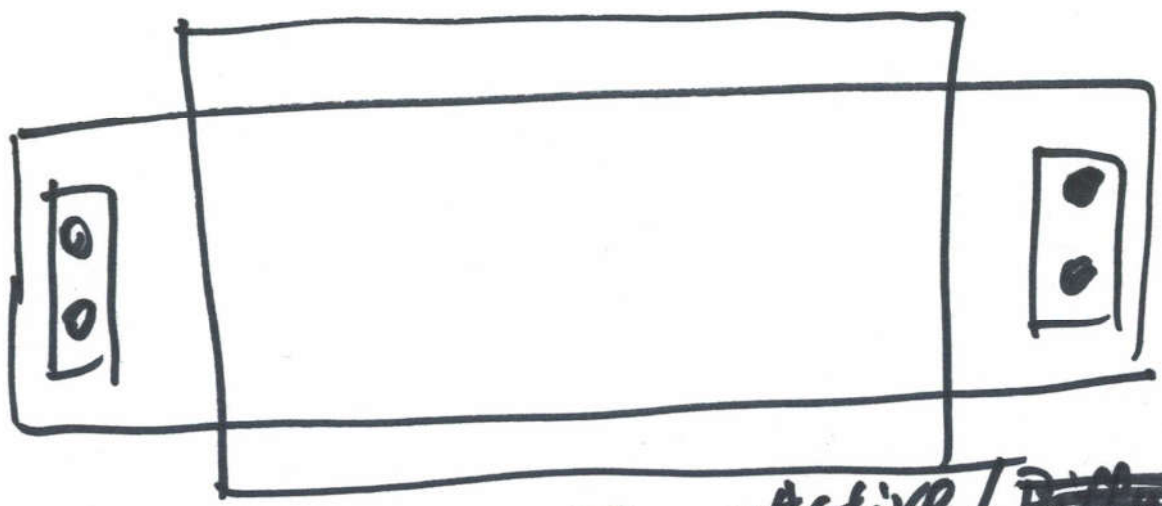
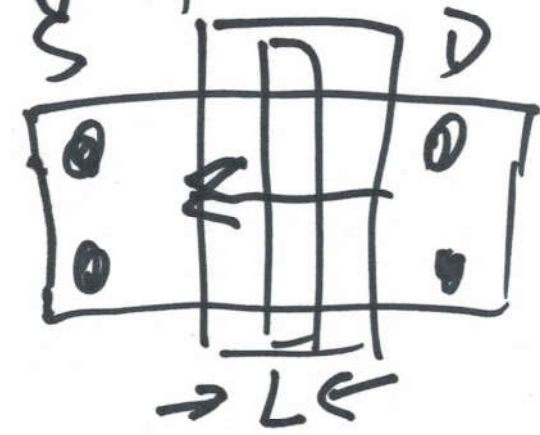
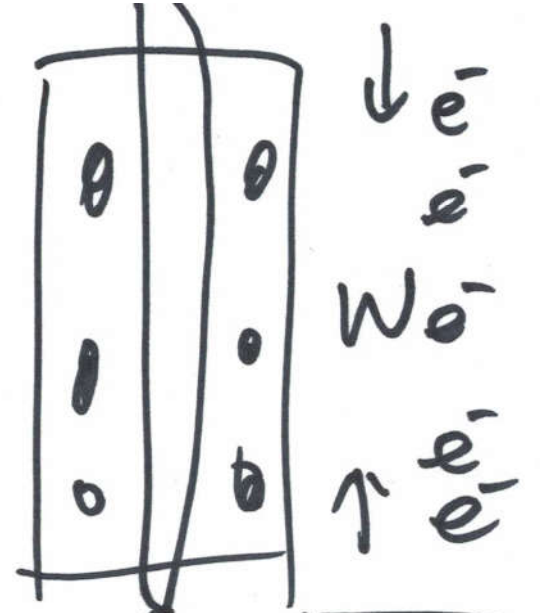


long channel NMOS



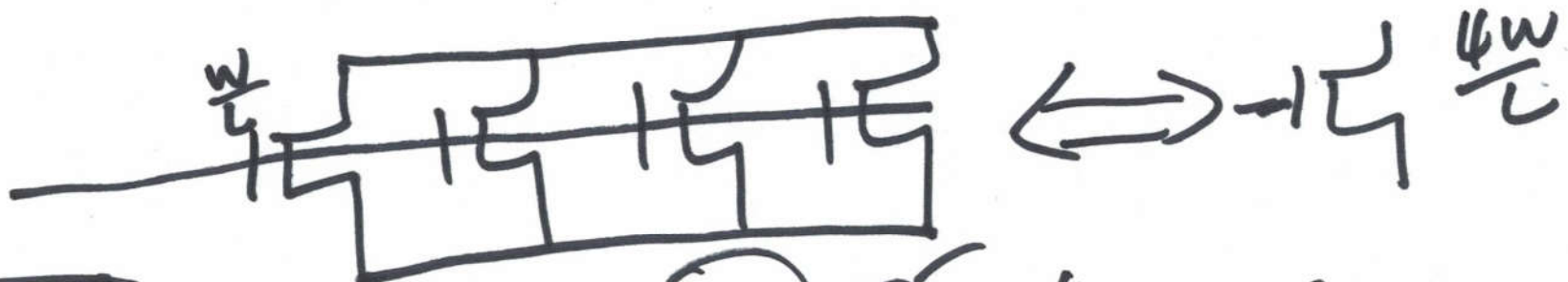
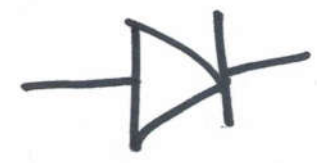
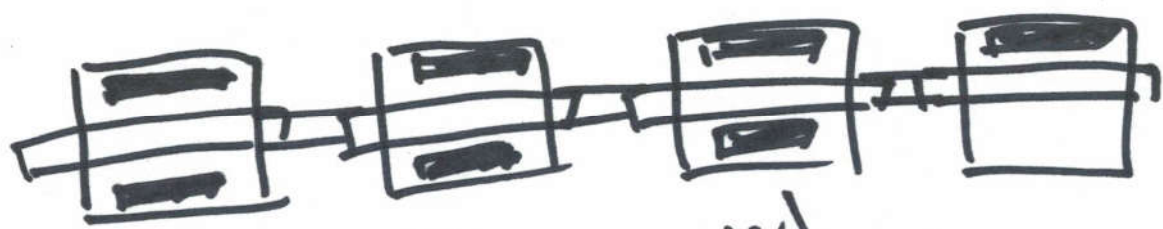
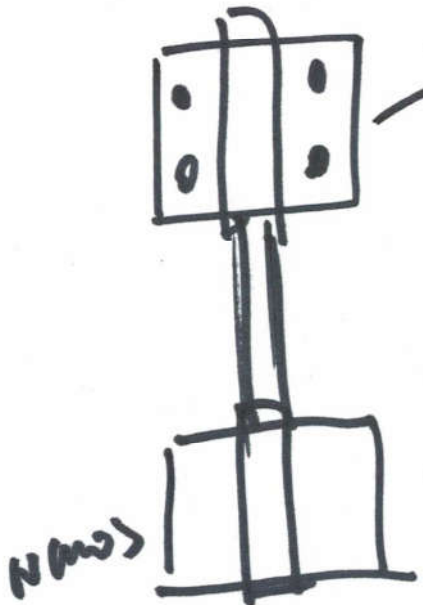


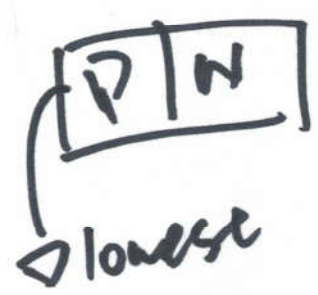
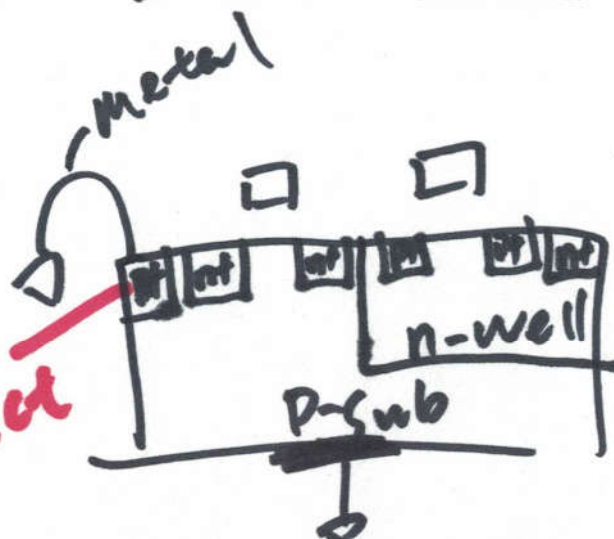
Diagram illustrating the current equation for a PMOS transistor:

$$I_{DS} = \frac{K_p}{2} \frac{W}{L} (V_{GS} - V_{th})^2$$

Labels include K_p , W , L , V_{GS} , V_{th} , and 2λ . A small schematic of a PMOS transistor is shown to the right.

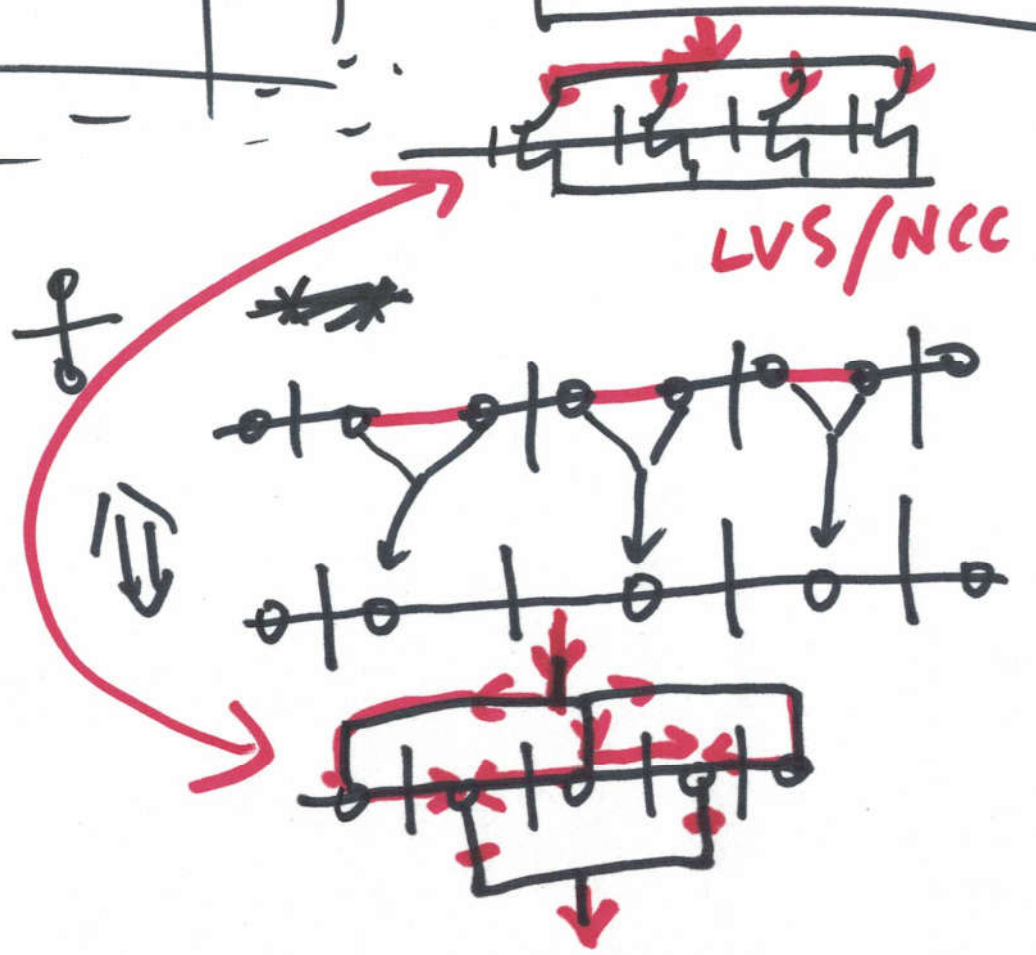
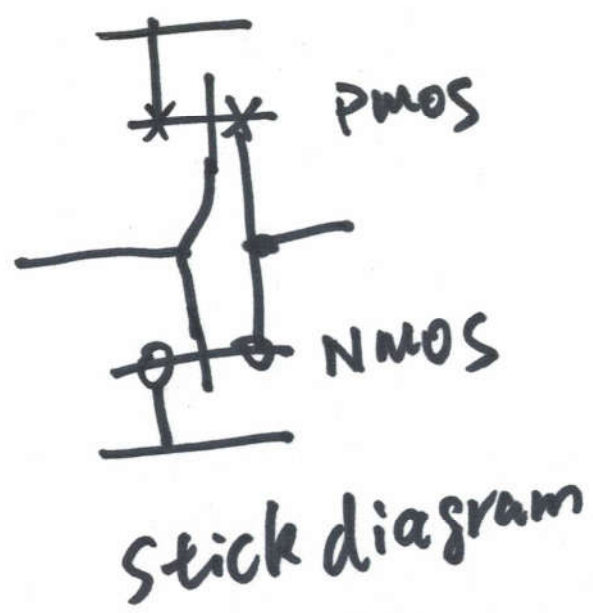
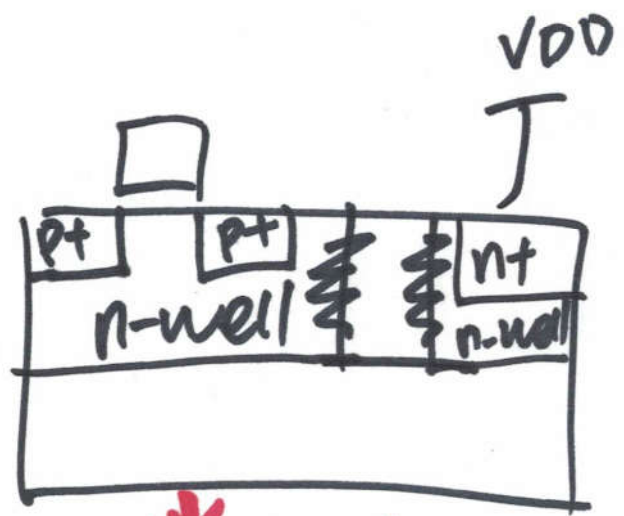
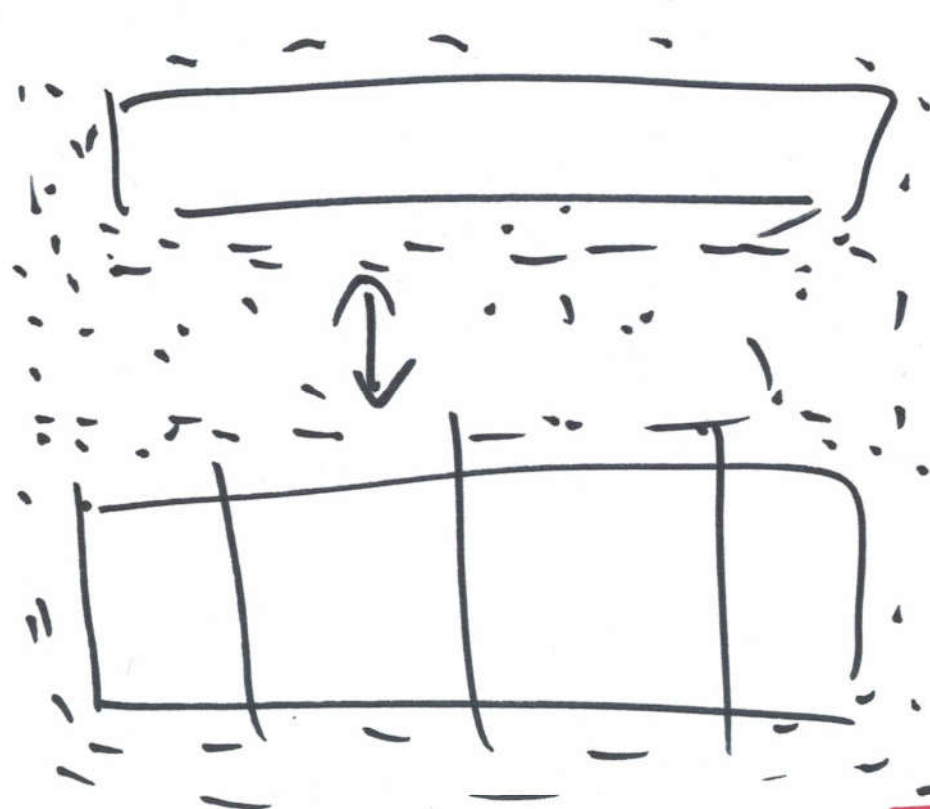


p-tap
n-tap

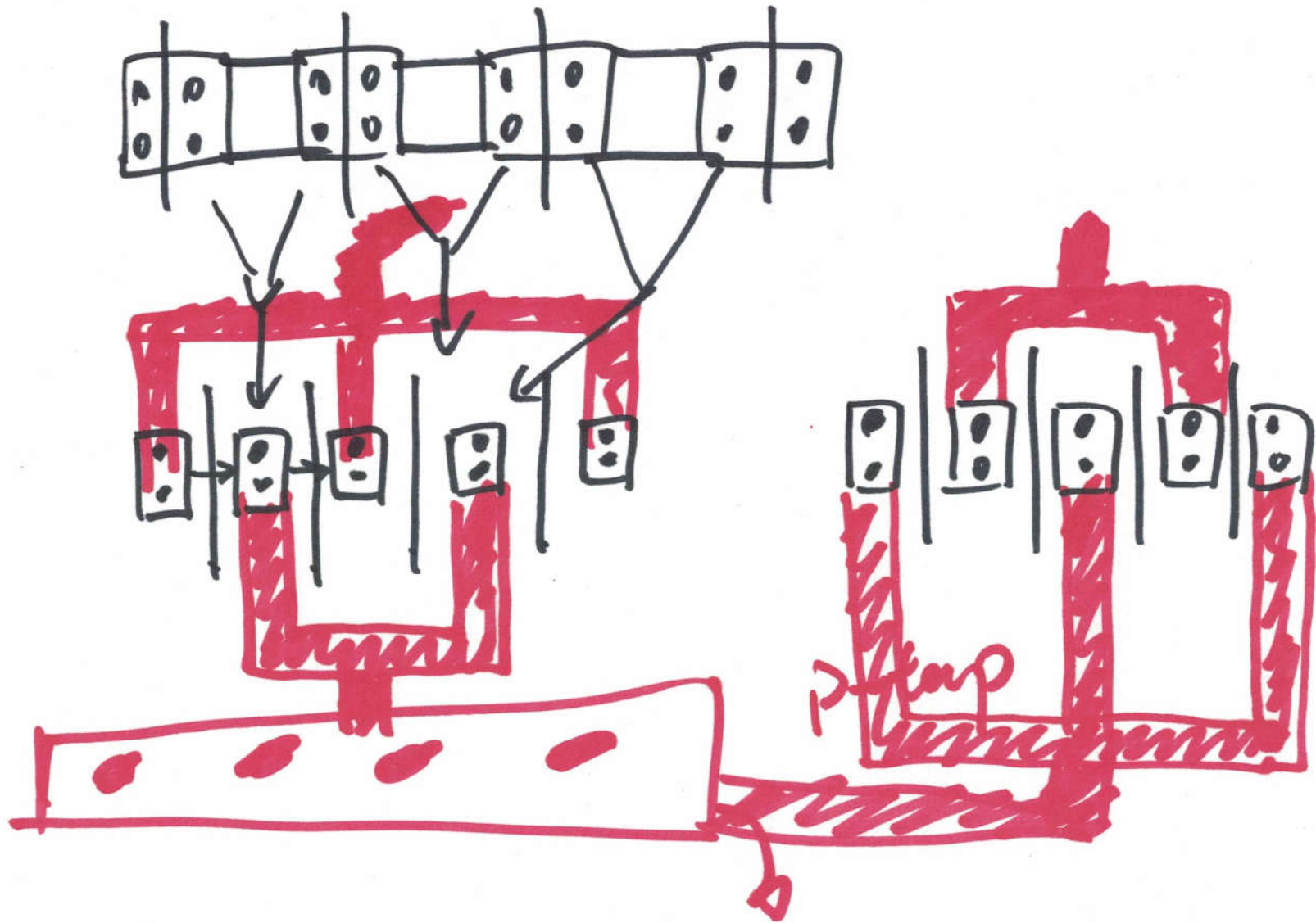


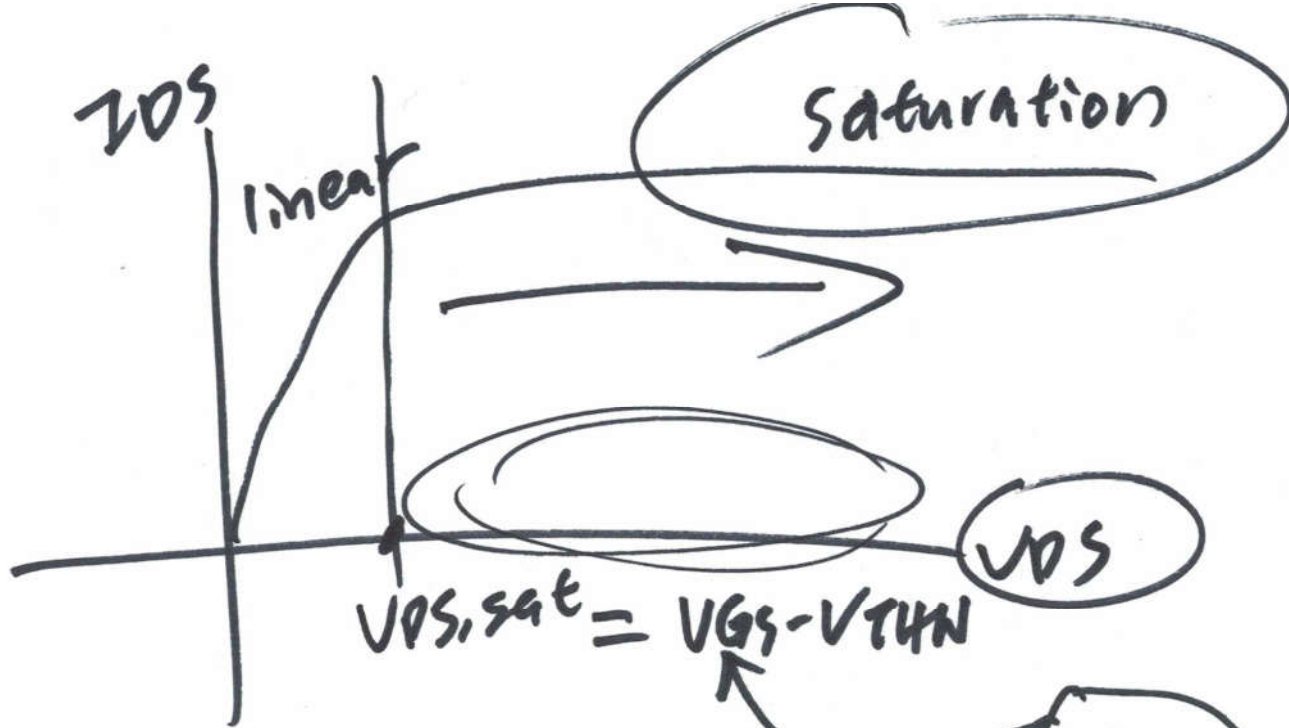
well contact

2

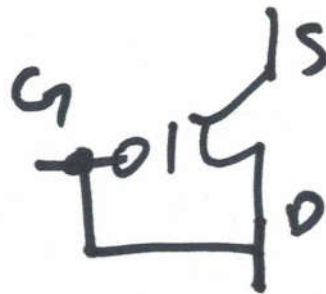
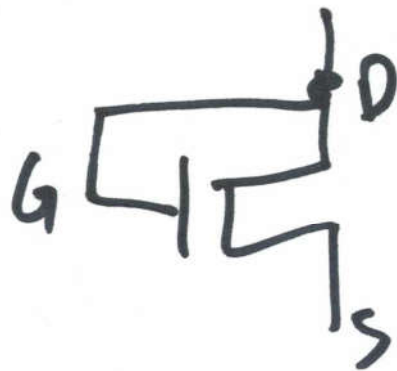


(3)





$V_{GS} = V_{DS}$



$\underline{V_{DS,sat}} = \underline{V_{DS}} - \underline{V_{THN}}$

$V_{DS} > V_{DS,sat}$ in saturation