

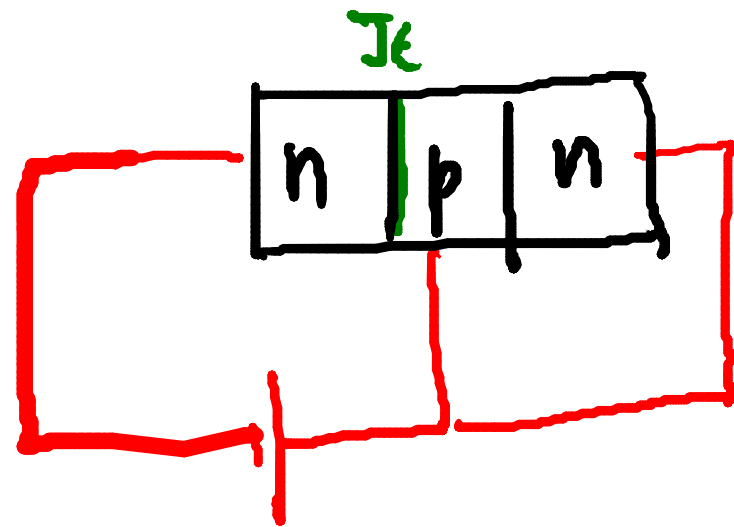
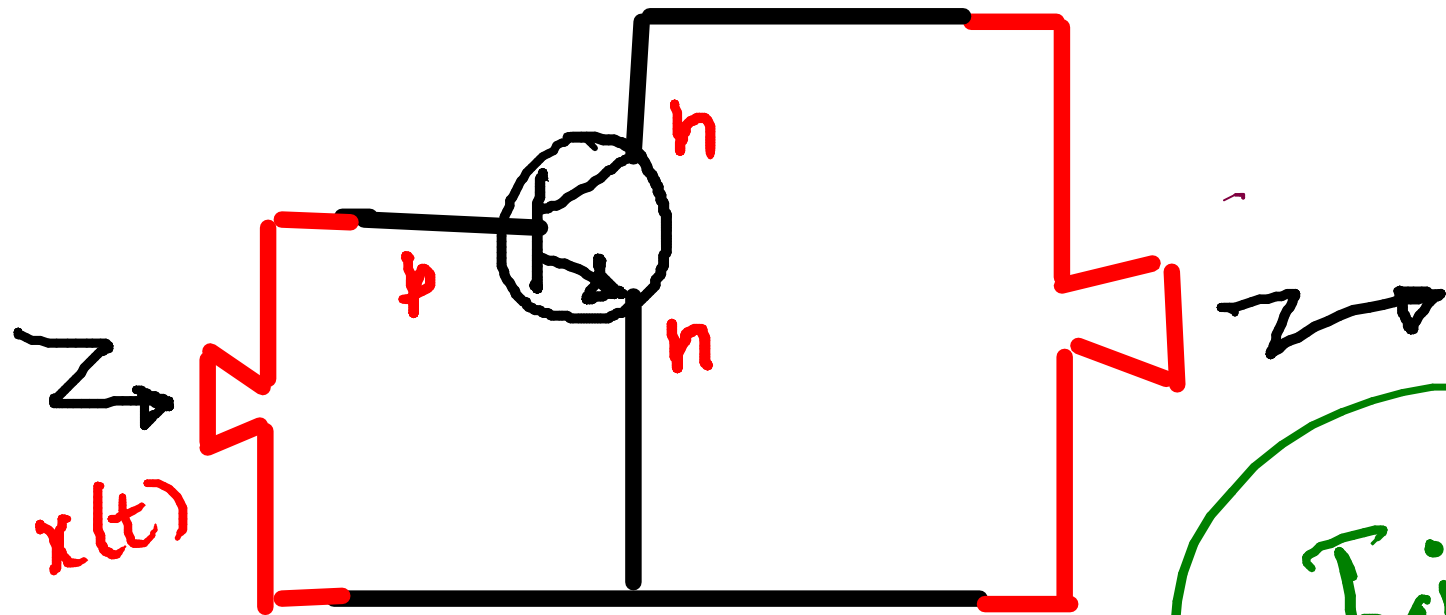
- ① CB : I
- ② CE
- ③ CC

Configuration	I/P	O/P
CB	E	C
✓ CE	B	C
CC	B	E

} Most widely used configuration.

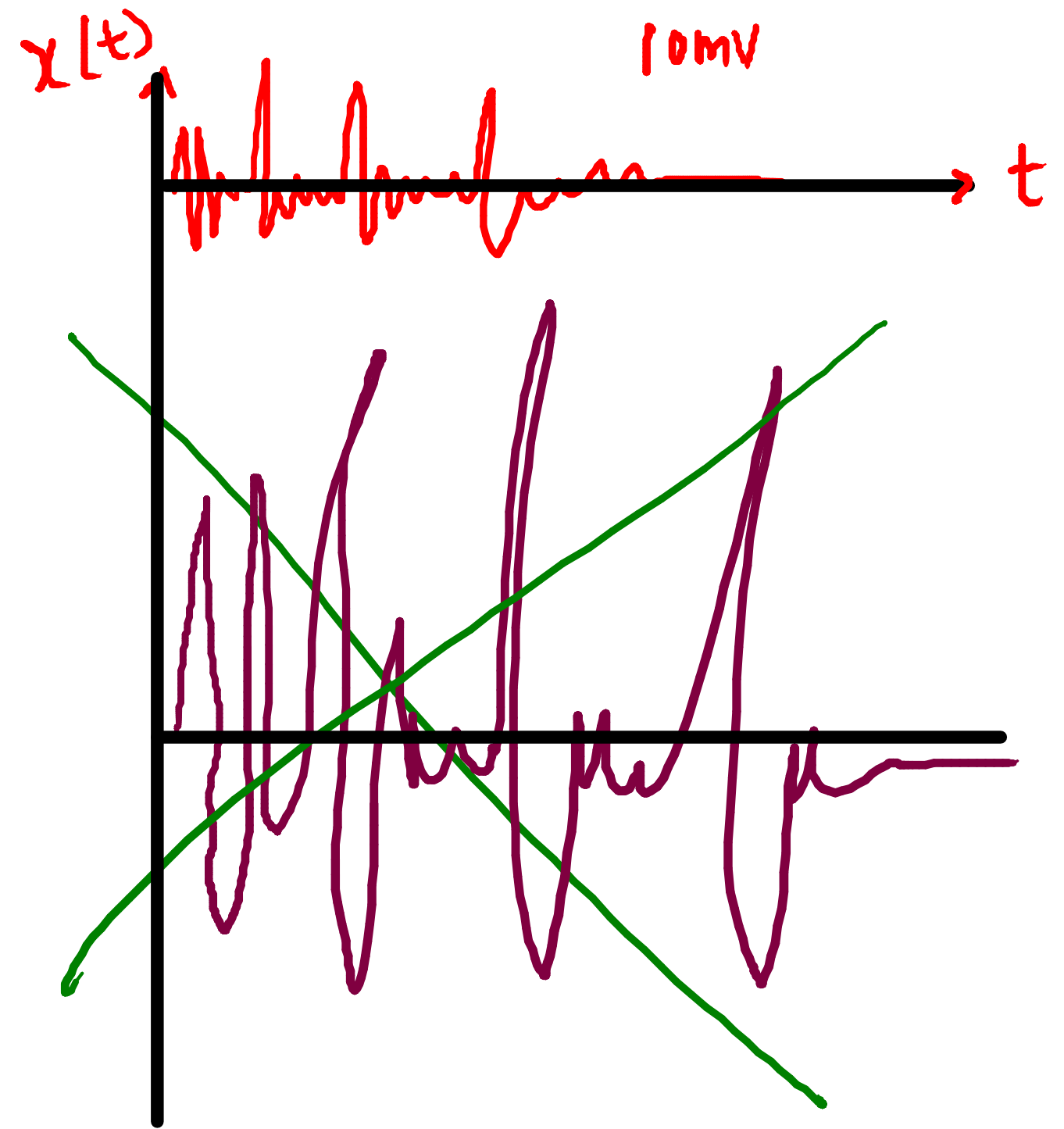
Because both current & voltage amplification is possible.

# Let's build an amplifier:

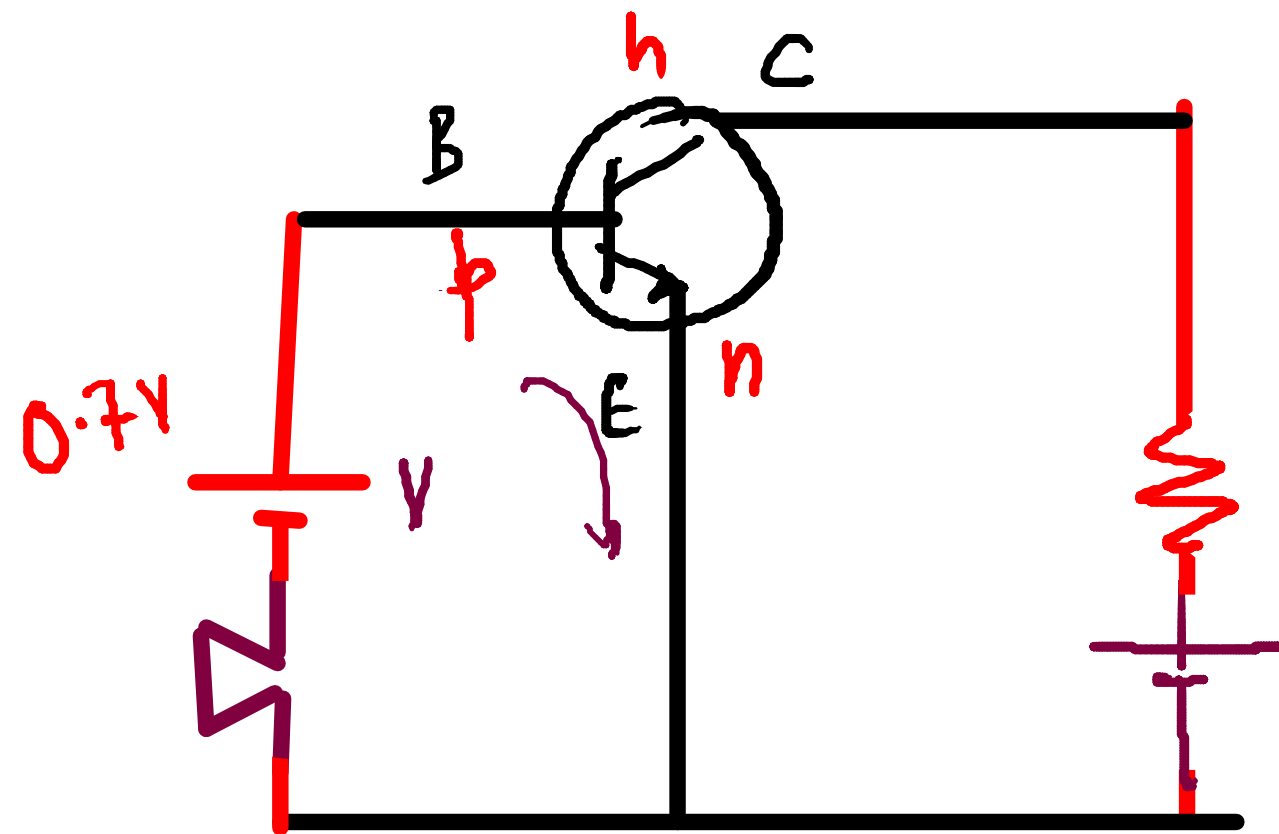


Failure!

Not enough potential for  $J_E$  to be FB



Attempt (2) & (3)



Yes! This should work

without  $V$ ;  $I_D = 5 \times 10^{-16} \left[ \exp\left(\frac{10m}{26m}\right) - 1 \right]$

with  $V$ ;  $I_D = 5 \times 10^{-16} \left[ \exp\left(\frac{0.7 + 10m}{26m}\right) - 1 \right]$

$R_L$   
 $8\Omega$

$\rightarrow 2.345 \times 10^{-16}$

$0.36 \text{ mA}$

Biasing : To provide sufficient voltage/current in order to make the transistor functional.

