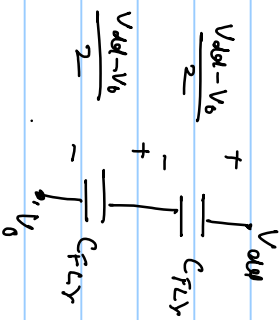


$$V_o = V_{dd} / 3$$

during  $\phi$



$$R = \frac{V_{dd} - V_o}{2} \times C_{FLY}$$

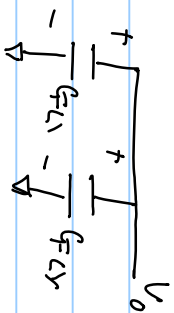
$$R_{Total} = 2 \times \frac{V_{dd} - V_o}{2} C_{FLY} = (V_{dd} - V_o) C_{FLY}$$

$R_{Total}$  during  $\phi = R_{Total}$  during  $\bar{\phi}$

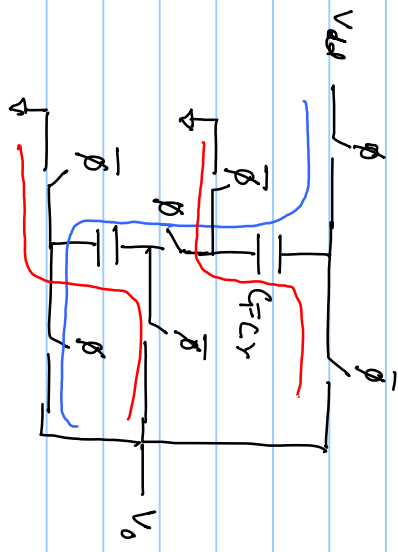
$$V_{dd} - V_o = 2 V_o \Rightarrow$$

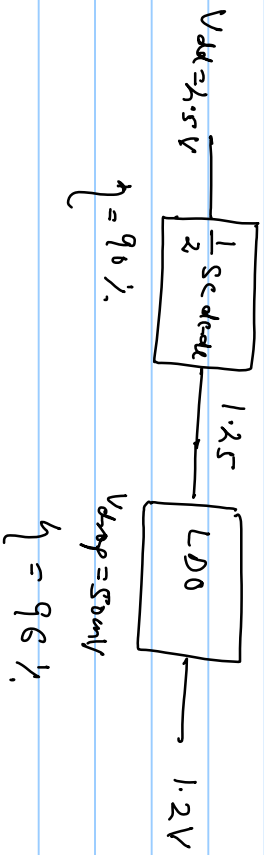
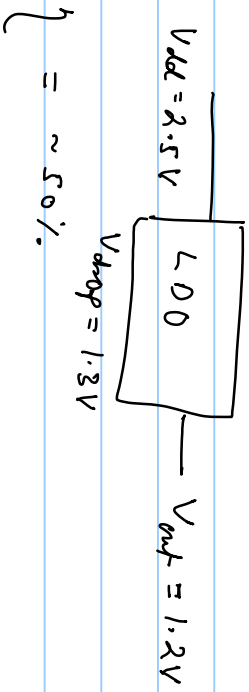
$$V_o = \frac{V_{dd}}{3}$$

during  $\bar{\phi}$



$$R_{Total} = 2 C_{FLY} V_o$$





$\eta_{Total} = 0.9 \times 0.96 \approx 86\%$