Inverters DC $\longrightarrow$ AC
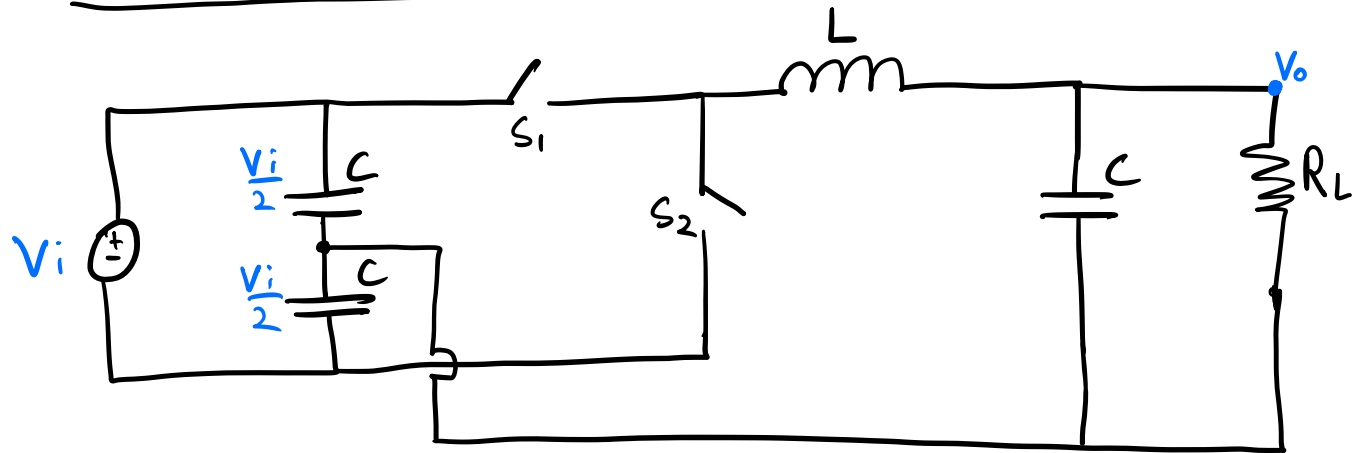
Half Bridge (Buck) Inverter

$$\frac{V_o}{V_i} = D - \frac{1}{2}$$

Case 1:

S_1 is ON $V_o = V_{DC}/2$
S_2 is OFF

Case 2:

S_1 is OFF $V_o = -V_{DC}/2$
S_2 is ON