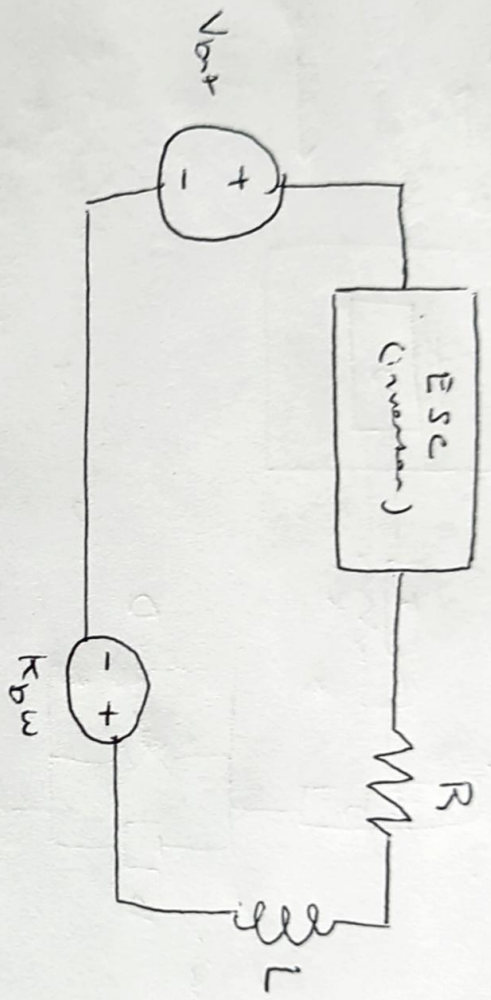
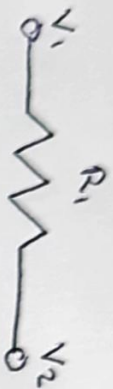


Additional Control Systems

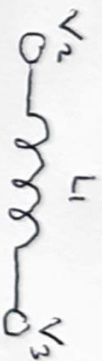
- HVR (+ Gas) - ~~1~~ 3
- ESC - 2b



2.  
Motor



$$V_2 - V_1 = I_1 R_1$$



$$V_3 - V_2 = L_1 \frac{di(t)}{dt}$$



$$V_5 - V_3 = -V_4$$

$$V_1 = V_{bat}$$

$$V_2 = V_1 + I_1 R_1$$

$$V_4 = K_{bw}$$

$$V_3 = V_2 + L_1 \frac{di(t)}{dt} = +V_4$$

$$V_5 = 0$$

$$E_1 = K_{bw} + I_1 R_1 + s L_1 I_1 = 0$$

$$I_1 = \frac{I_1}{E_1}$$

$$I_1 (s L_1 + R_1) = (K_{bw} - E_1)$$

$$I_1 = \frac{K_{bw} - E_1}{s L_1 + R_1}$$