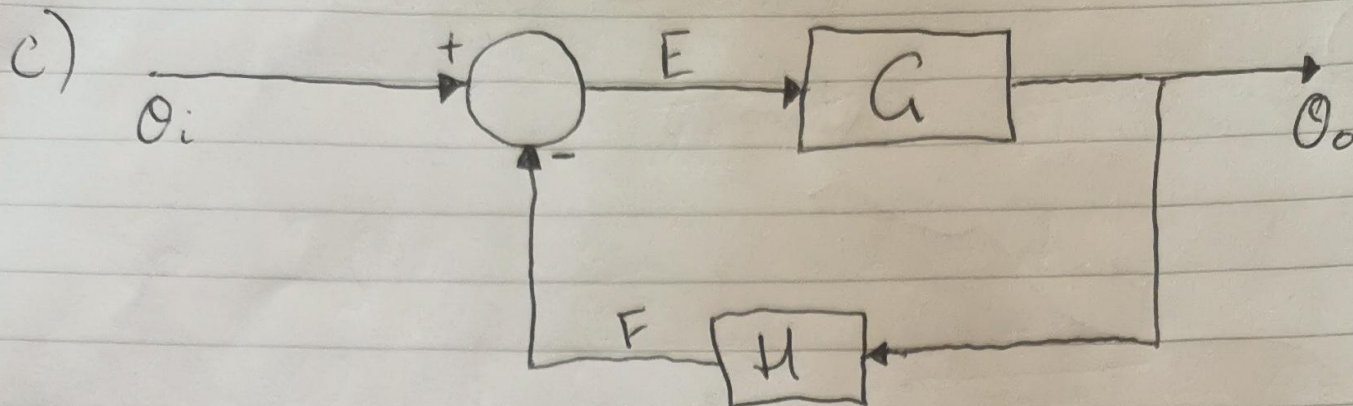


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$$G = \frac{\theta_o}{E} \Rightarrow E = \frac{\theta_o}{G}$$

$$H = \frac{F}{\theta_o} \Rightarrow F = H \cdot \theta_o$$

$$E = \theta_i - F$$

$$\therefore \frac{\theta_o}{G} = \theta_i - H\theta_o \Rightarrow \frac{\theta_o}{G} + H \cdot \theta_o = \theta_i$$

$$\text{So, } \theta_o (1 + GH) = \theta_i \quad \text{hence } \theta_o = \frac{\theta_i}{1 + GH}$$