

$$\frac{n_s}{T_{\text{step}}} < T \Leftrightarrow n_s < T \cdot T_{\text{step}} \quad (1)$$

$$\frac{1}{60} \text{ hr} \cdot \text{RPM} = T_{\text{step}} \quad (2)$$

(1) and (2)

$$n_s < \frac{T \cdot \text{hr} \cdot \text{RPM}}{60}$$

n_s - number of steps

T - sample time

T_{step} - steps per second