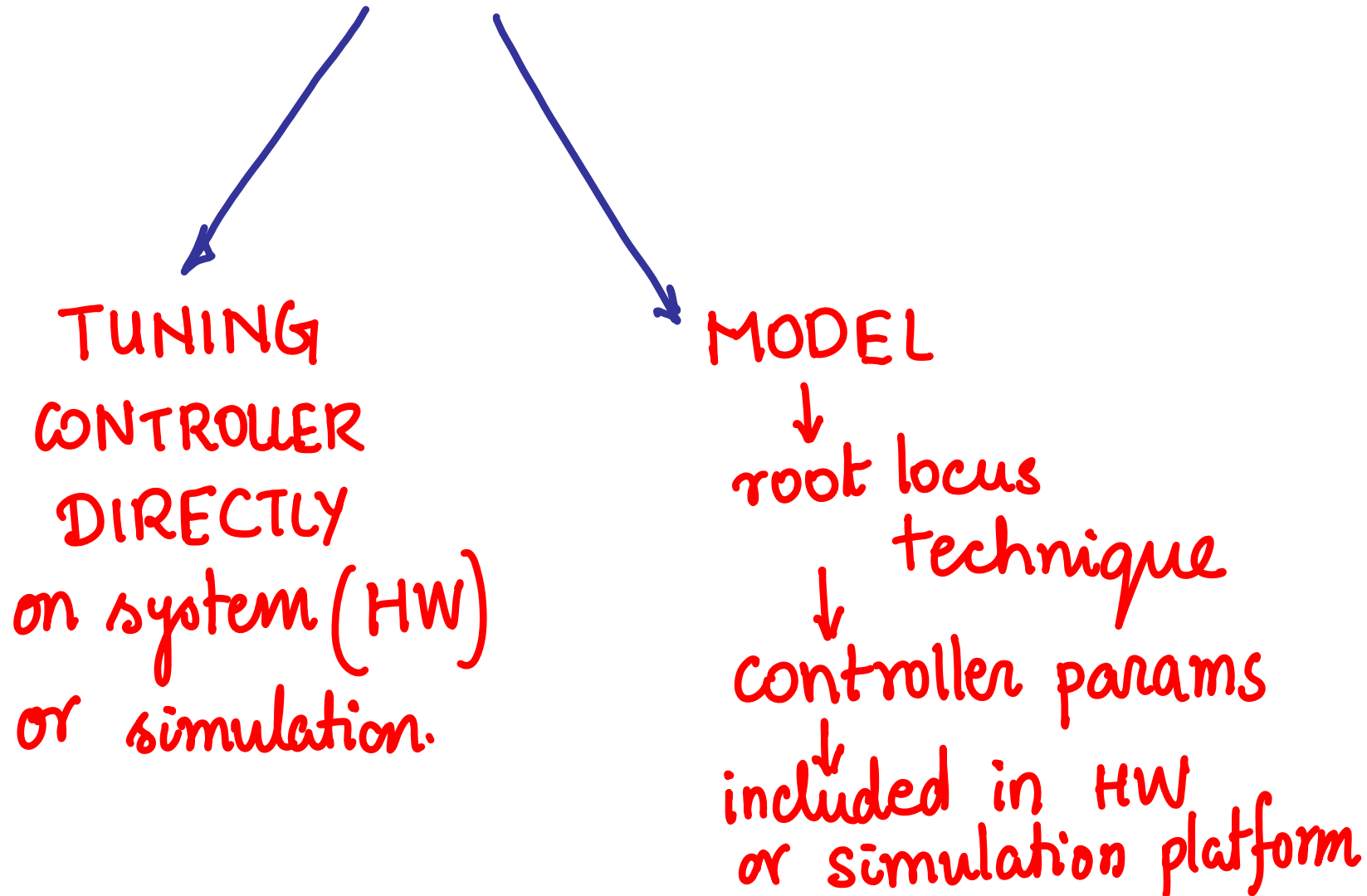
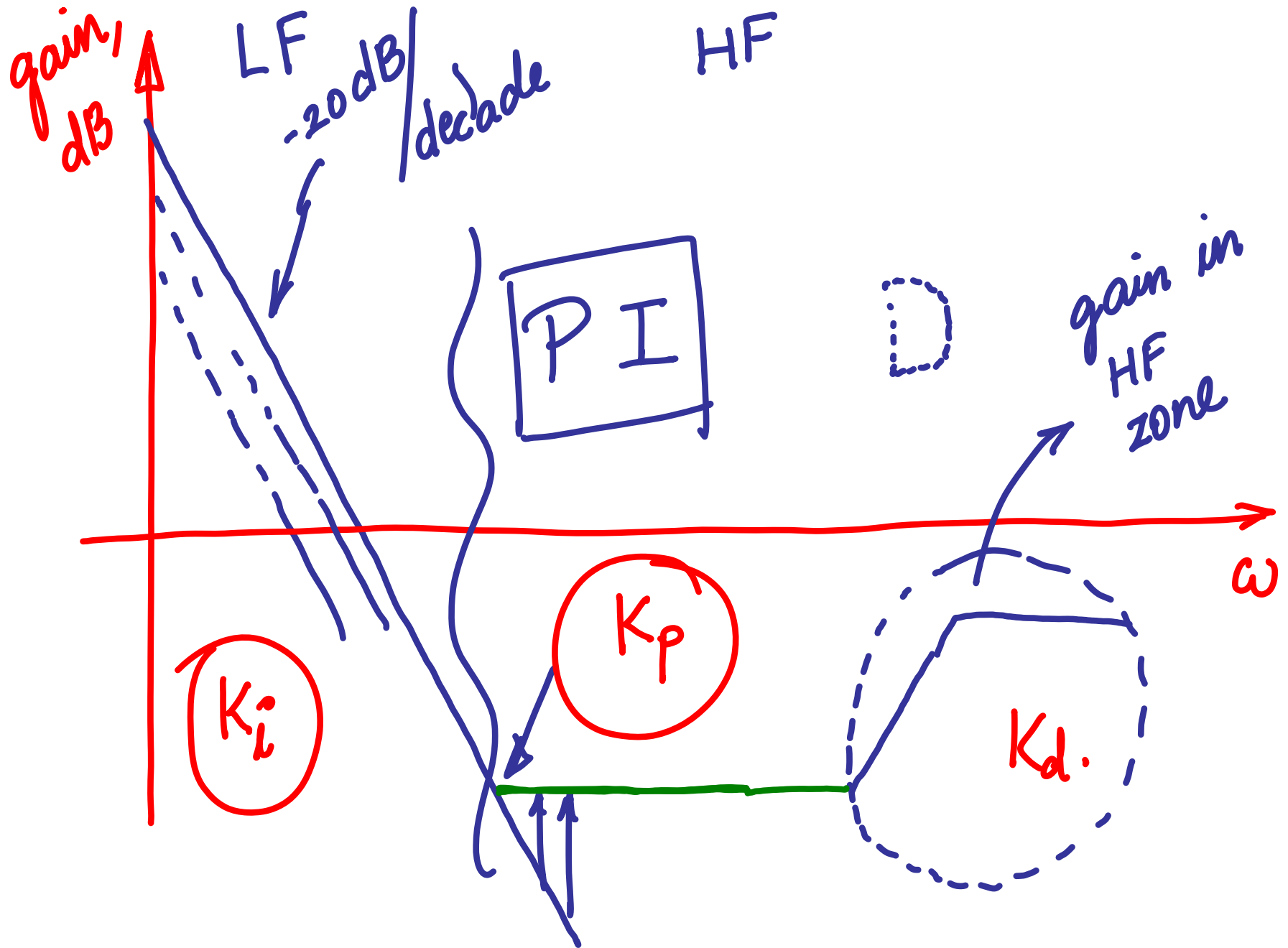
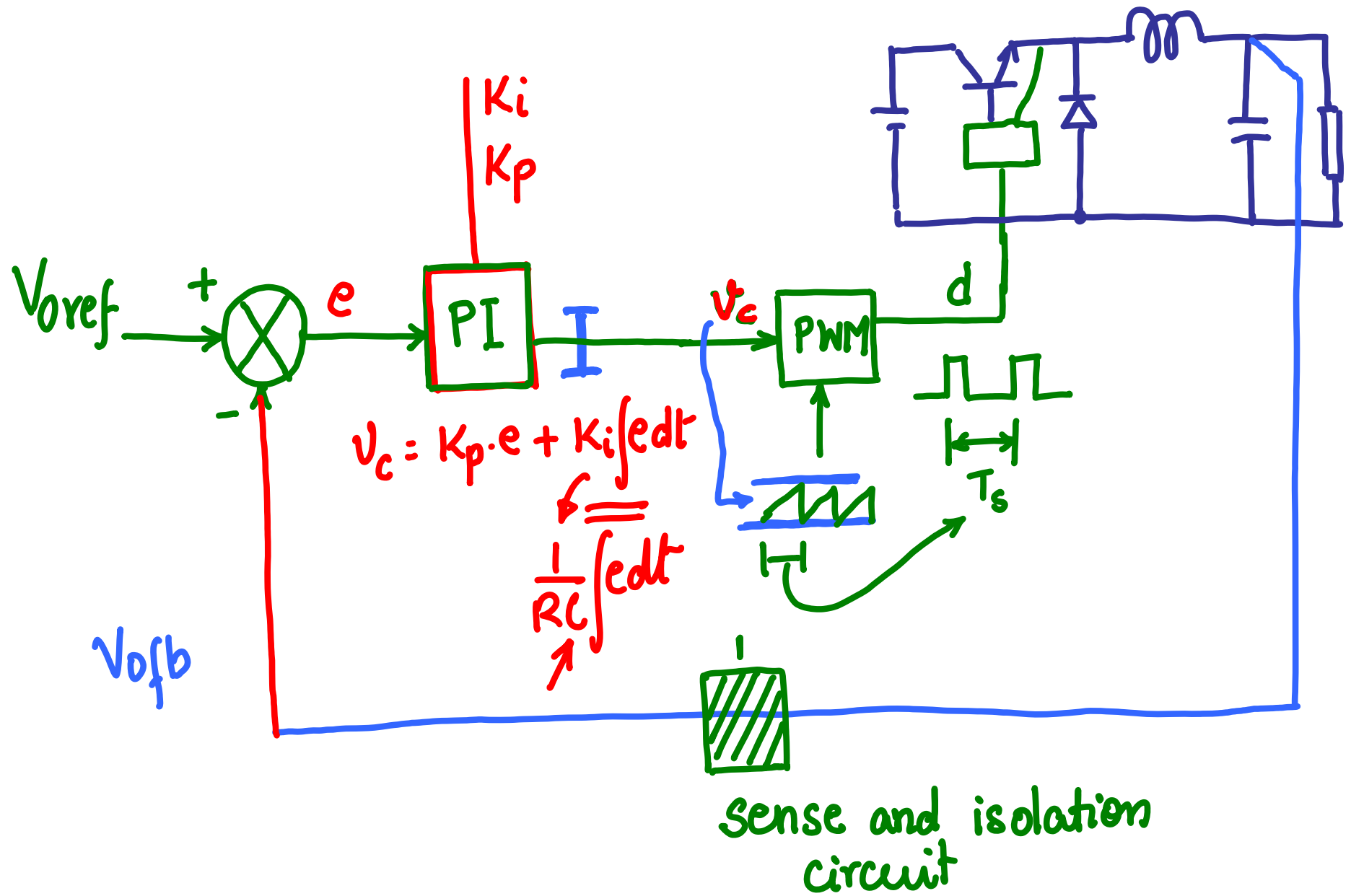


CONTROLLER DESIGN







1. SET UP the open loop system

2. Put limiters across integrator and V_c

3. Keeping system in open loop

CHECK phase relationship

$$\left. \begin{array}{l} \underline{V_{ref}} \uparrow, \quad \underline{V_{ofb}} \uparrow \\ V_{ref} \downarrow, \text{ then } V_{ofb} \downarrow \end{array} \right\} \begin{array}{l} K_i = 0 \\ K_p = \text{finite} \end{array}$$

4. Enable the Integrator
Close the loop

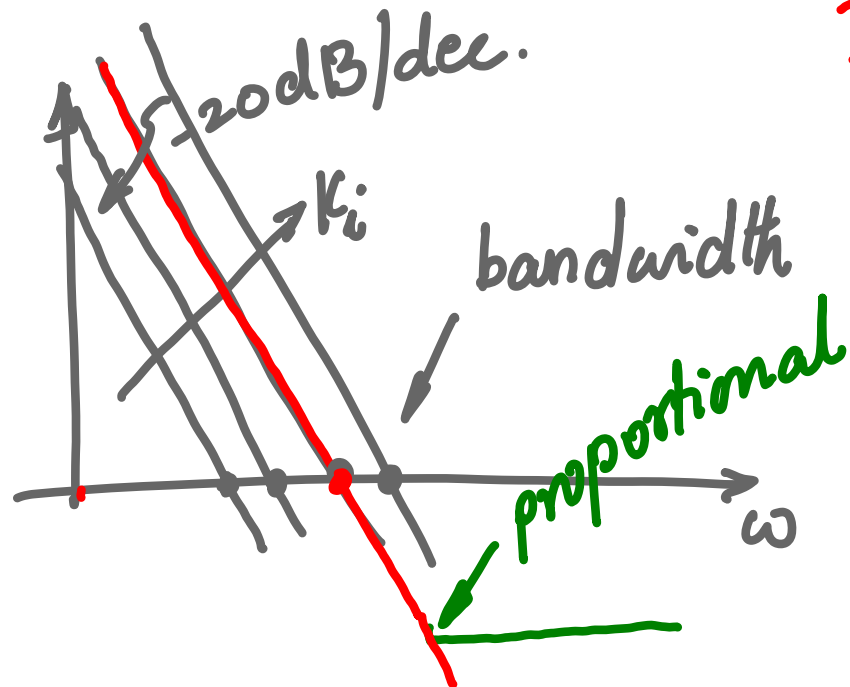
$$K_p = 0$$

K_i = very low value (0.01)

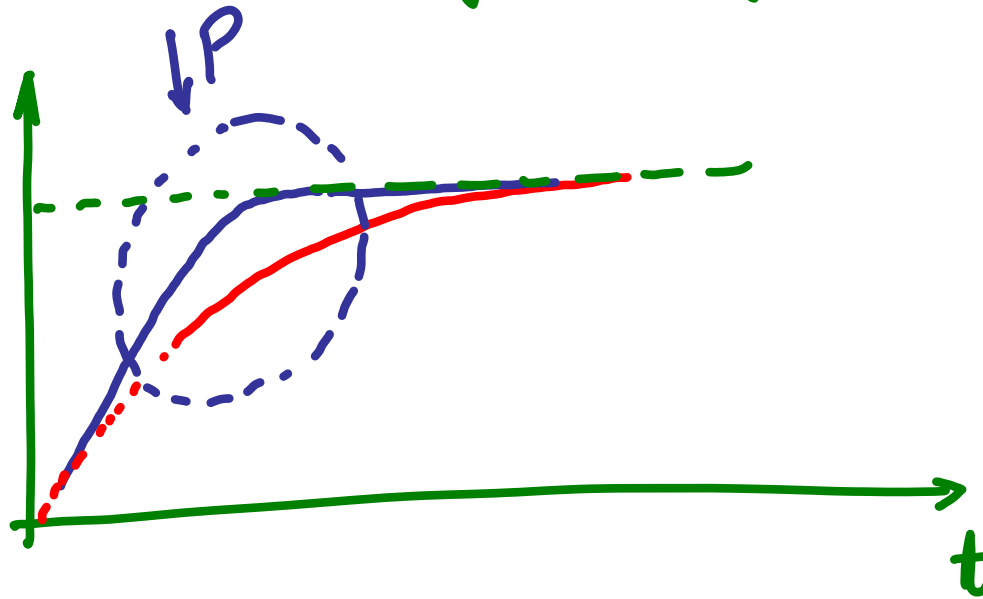
\Rightarrow large value of C (PI controller)

5. Switch on

6. K_i = fixed based on response as viewed
on the scope of simulation platform

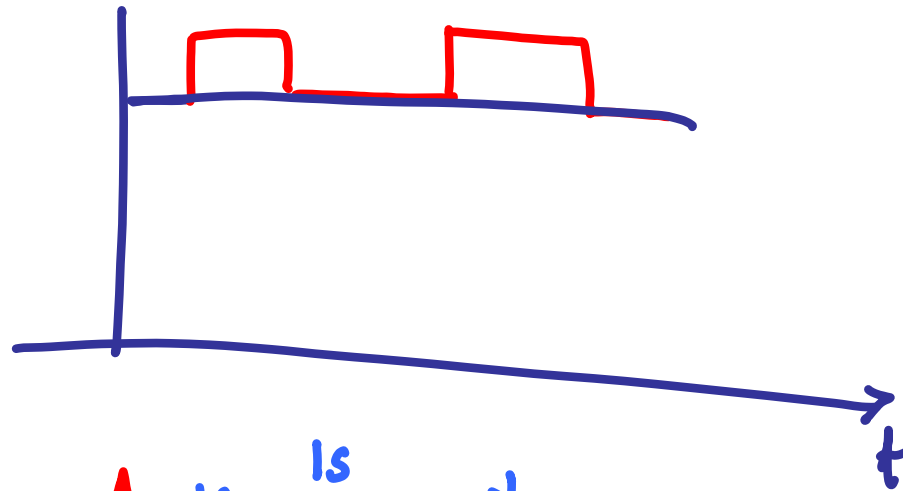


7. Start increasing K_p from 0



K_i , K_p

V_{ref}



V_{ref}

