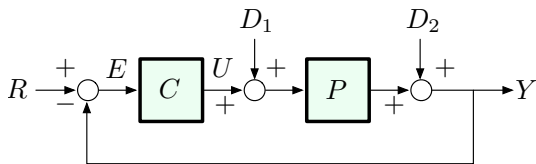


Feedback Control in Five Minutes



$$Y = D_2 + P(U + D_1) \quad U = CE \quad E = R - Y$$

Let's express Y in terms of R, D_1, D_2 :

$$\begin{aligned} Y &= D_2 + P(CE + D_1) \\ &= D_2 + P\left(C(R - Y) + D_1\right) \quad \text{negative feedback!!} \\ &= D_2 + PCR - PCY + PD_1 \end{aligned}$$

$$Y = \frac{PC}{1 + PC}R + \frac{P}{1 + PC}D_1 + \frac{1}{1 + PC}D_2$$