# CS354

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# PID Control

$$e(t) = target(t) - state(t)$$

$$control(t) = K_p e(t) + K_i \int_0^t e(\tau)d\tau + K_d \frac{d}{dt}e(t)$$

- Proportional $K_p e(t)$
- Integral $K_i \int_0^t e(\tau)d\tau$
- Derivative $K_d \frac{d}{dt}e(t)$