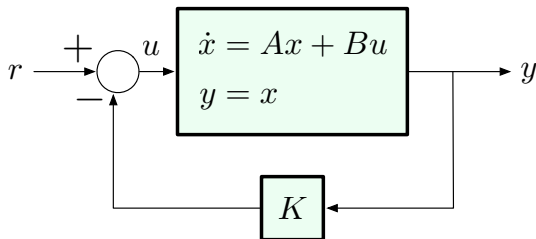## Review: Pole Placement via State Feedback

Assume that the plant is controllable:

$$\dot{x} = Ax + B(-Kx + r) = (A - BK)x + Br, \qquad y = x$$

Transfer function from R to Y:

$$Y(s) = (Is - A + BK)^{-1}BR(s)$$

Closed-loop poles are the eigenvalues of $A - BK$!!