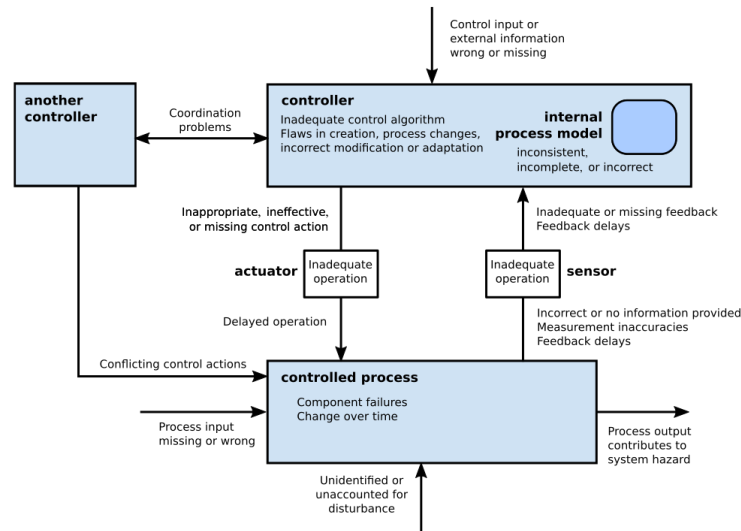


Control Loop With Causal Factors

This diagram shows common flaws in a control loop, or **causal factors**, that might contribute to the controller misapplying an action or failing to take an action it should have, which we identify as an **unsafe control action** if it results in a **hazard**. We use this diagram to guide our brainstorming about why each **unsafe control action** might occur, identifying **causal scenarios** we can design features to prevent.



[Based on a diagram from *Engineering A Safer World* p.223]