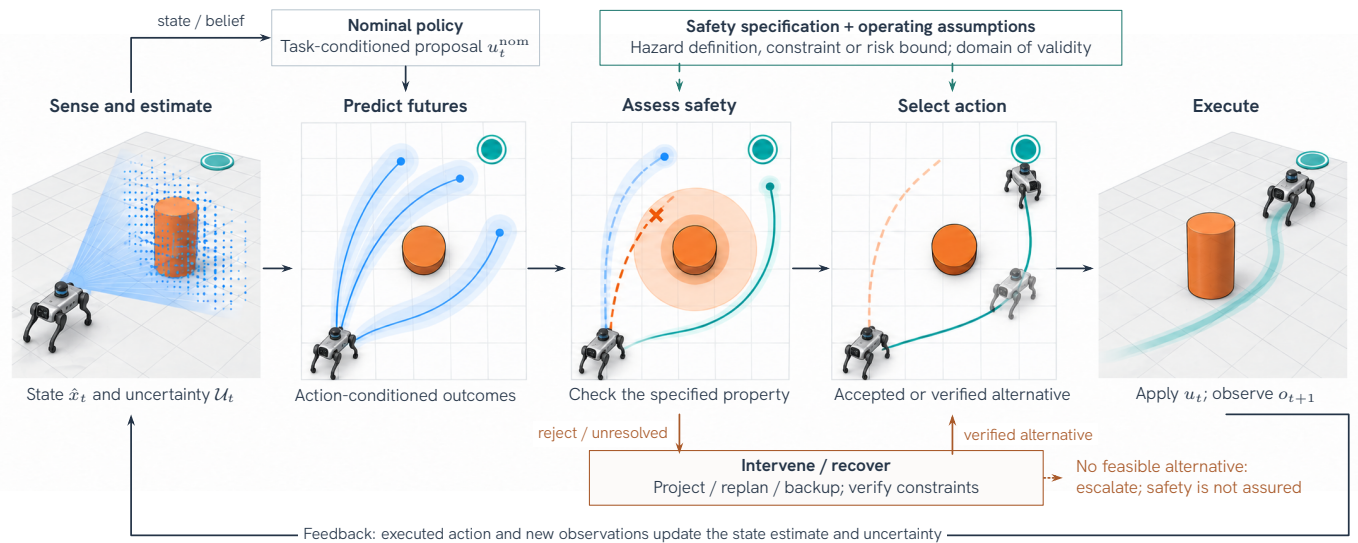


Predictive safety: from observation to physical action



Three conditions for an enforceable safety claim



**Hazard-relevant state**  
Retain variables that determine harm.  
Represent missing information.



**Valid prediction**  
Check model error and calibration.  
Reassess assumptions under shift.



**Feasible, timely intervention**  
Maintain an executable alternative.  
Meet actuation and timing limits.