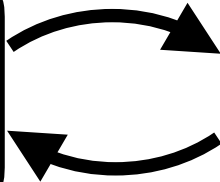


Higher Logical Layer

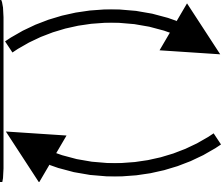
logical control loop

**logical
context**

**logical
controller**



physical control loop

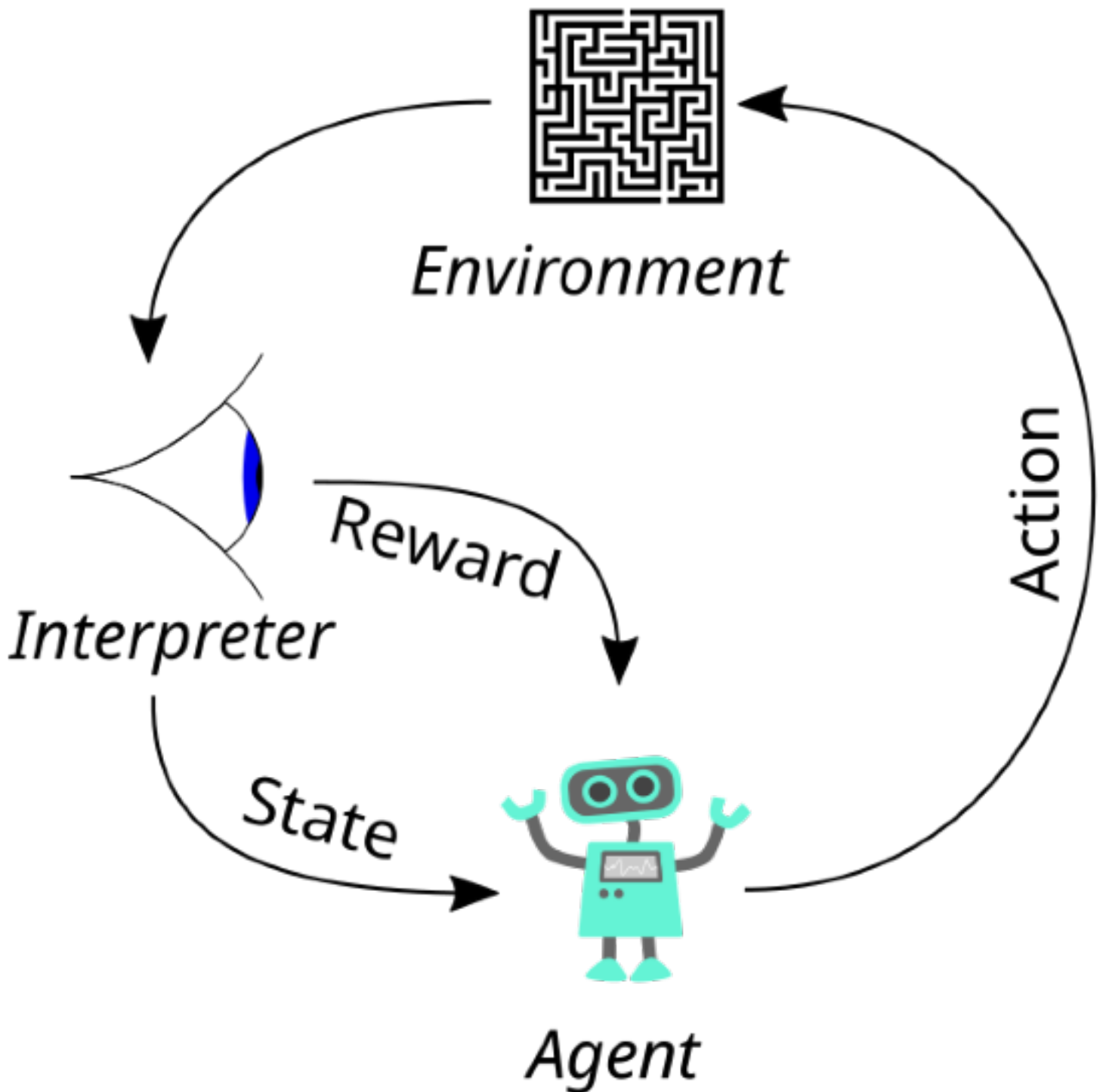


Lower Physical Layer



Artificial Intelligence: Data-Driven Approaches

Reinforcement Learning



The feedback is in form of rewards!

physical
observations



neuro-

mainly applied for safety like objectives

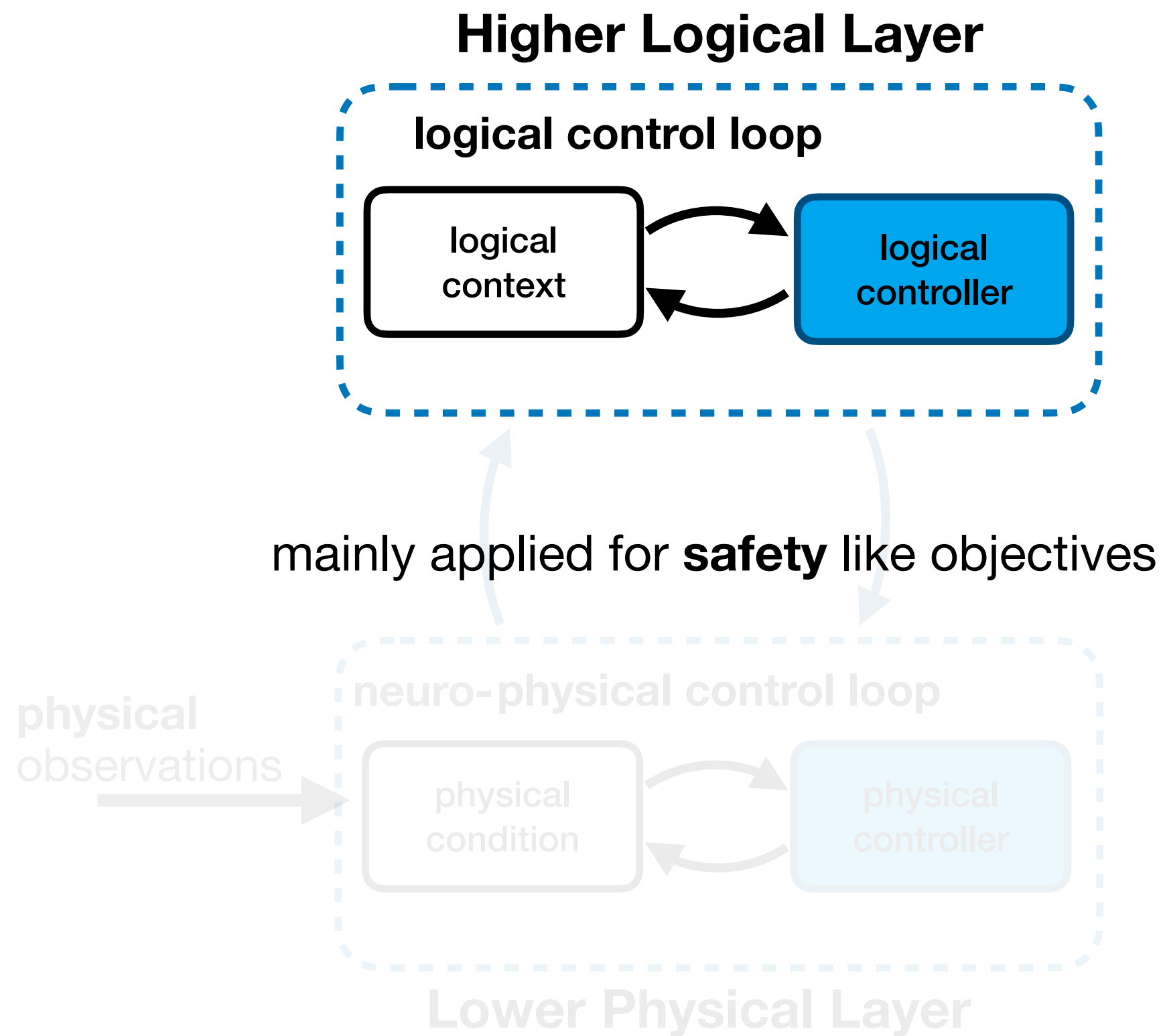
3

6

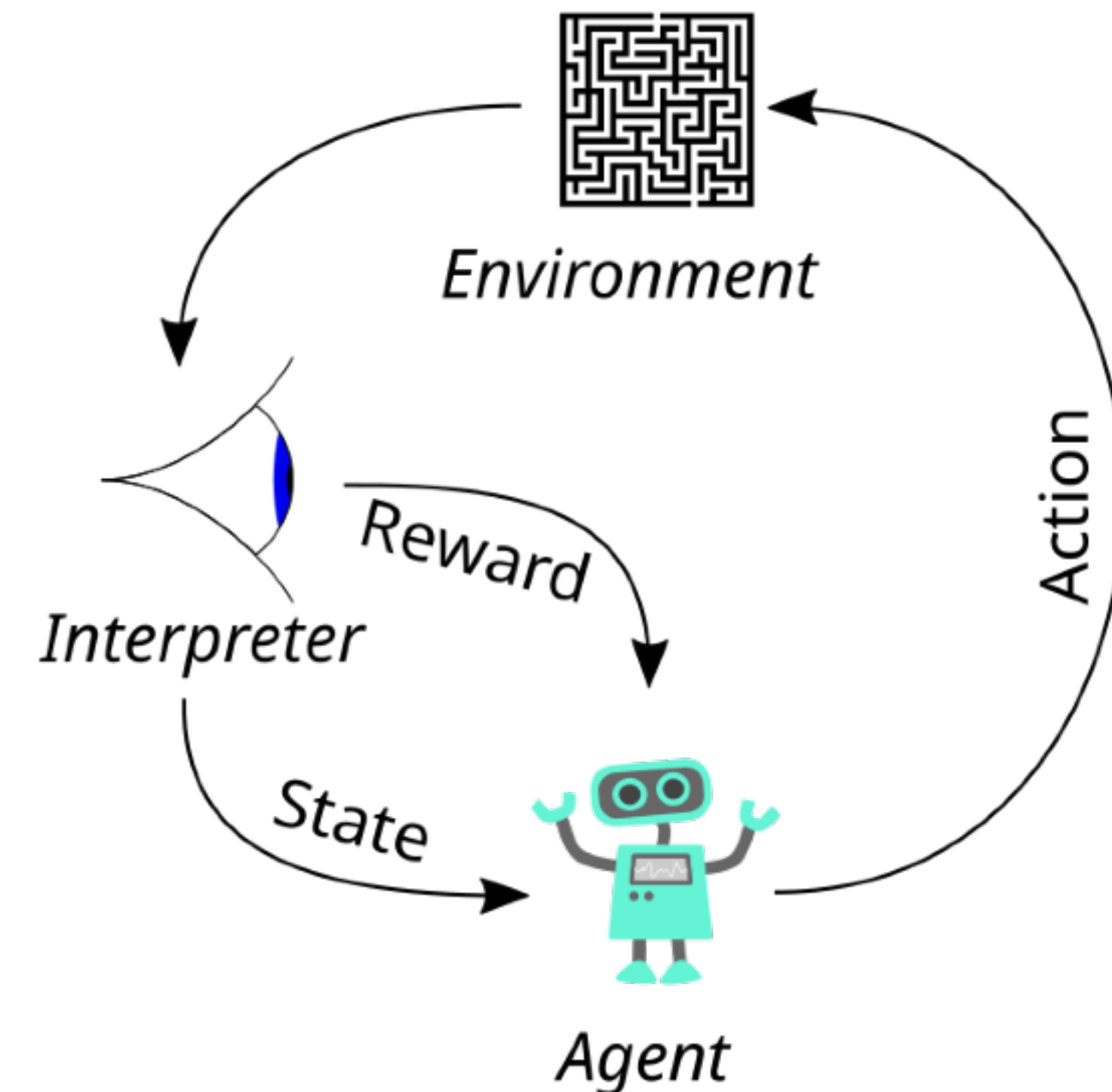


Towards sequential or long-horizon complex tasks!

Artificial Intelligence: Data-driven Approaches



Reinforcement Learning



The feedback is in form of rewards!

Towards sequential or long-horizon complex tasks!

Trustworthy AI

Towards trustworthy decision making leveraging Formal Methods and RL

Specification Inference

Verification

‘Ensure controller satisfies the goal’

Adaptive Reactive
Synthesis