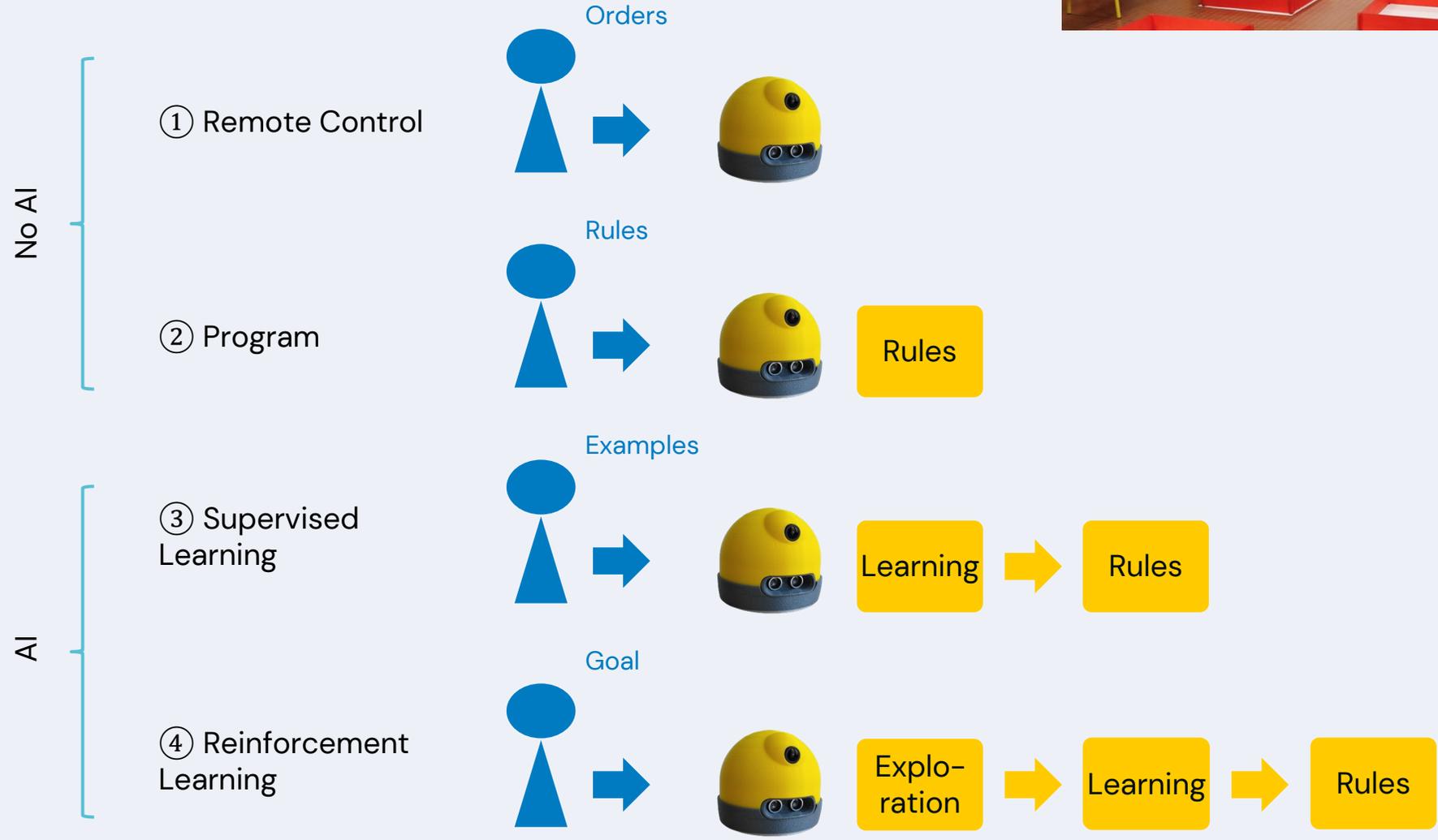
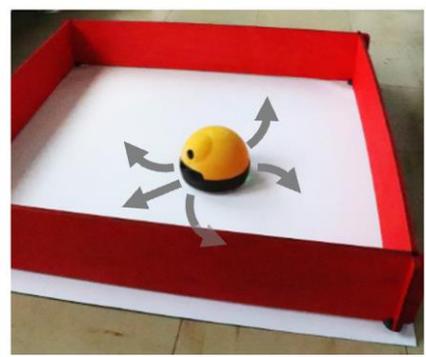


4 levels of **autonomy**
of a machine

Sequence: "4 levels of robot autonomy".

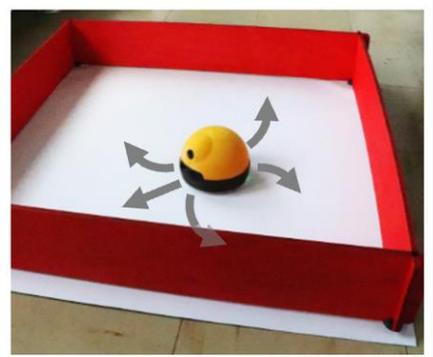


1 – Remote Control

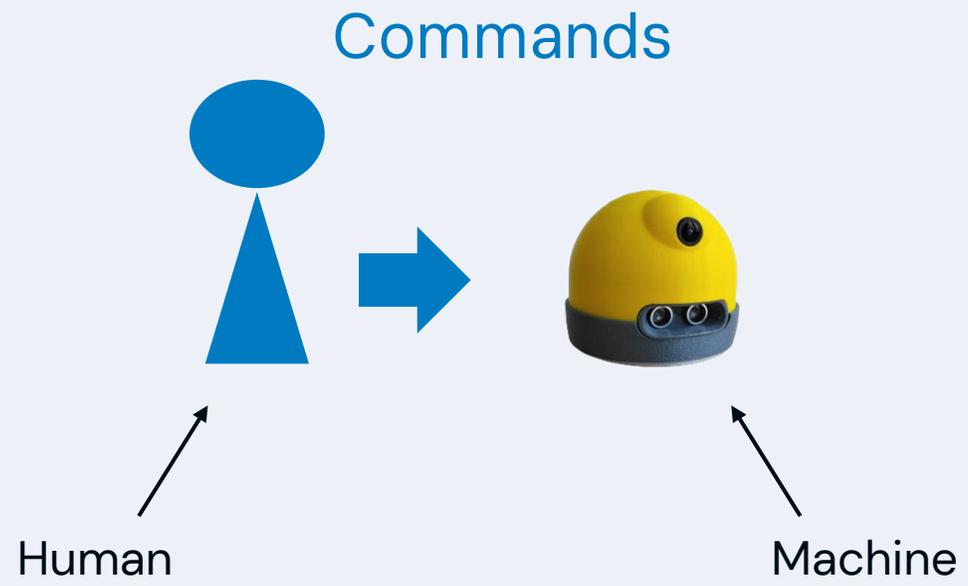


<https://youtu.be/DSp22ybbwvQ>

1 – Remote Control



The human decides!



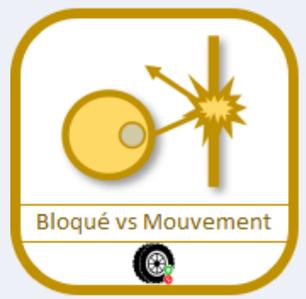
2 – Programming



https://youtu.be/_yZ2rLFBgQo

2 – Programming

The human dictates the decisions



Input

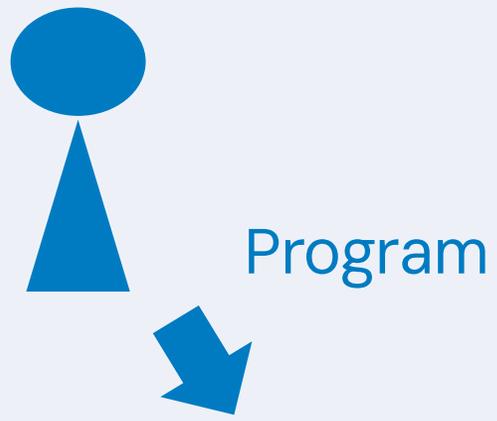


Rules



Output

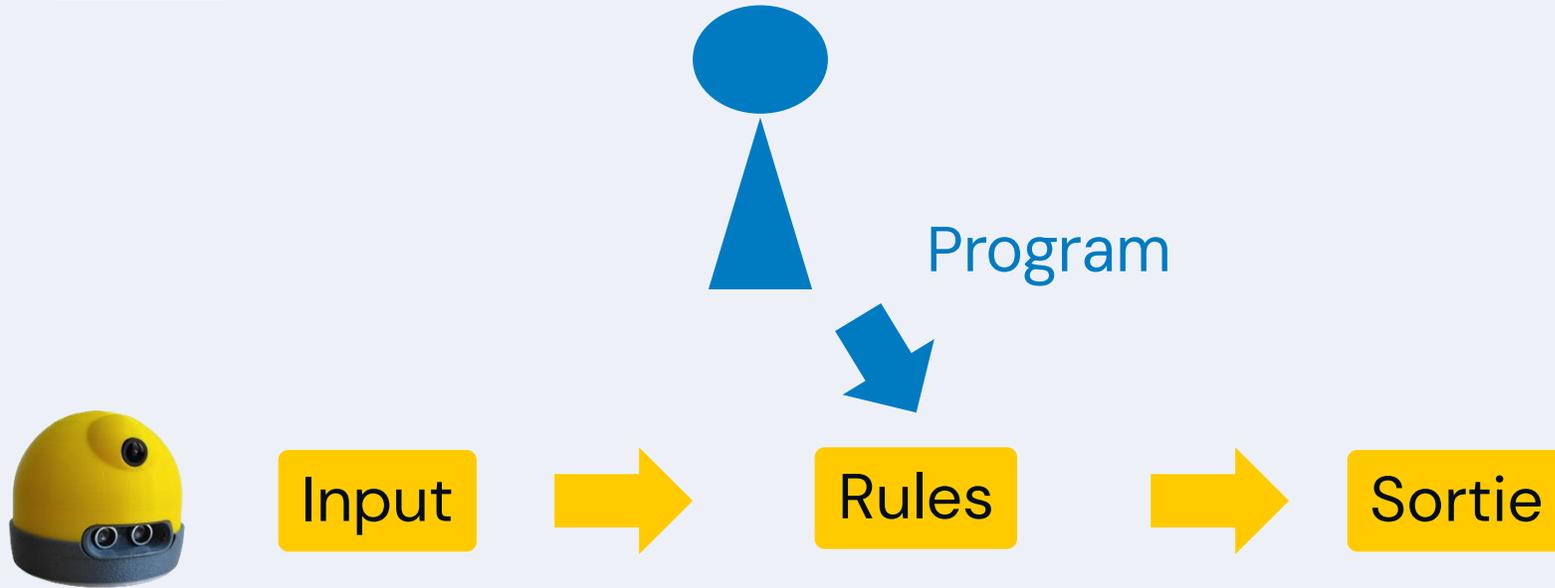
Autonomy



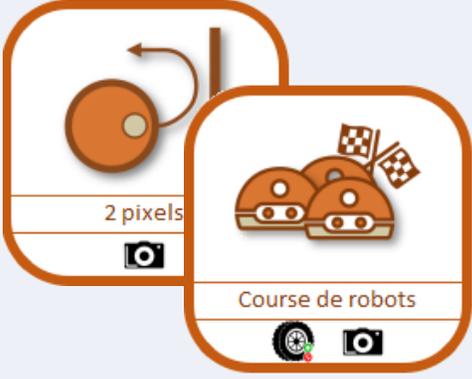
2 – Programming



The more complex the input,
the more complex the rules...



3 – Supervised Learning



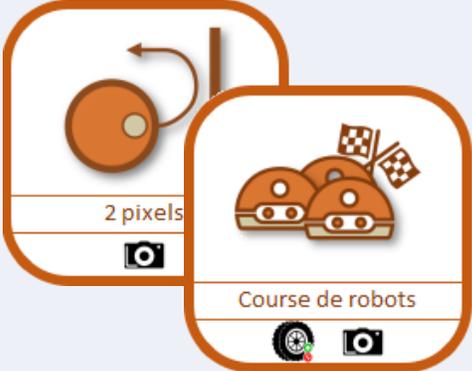
2 pixels

Course de robots

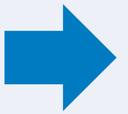


3 – Supervised Learning

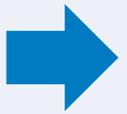
The human provides only examples, and the AI guesses the rules!



Examples



Data



Learning

(Memory)
Learning



Input



Rules



Sortie

Autonomy

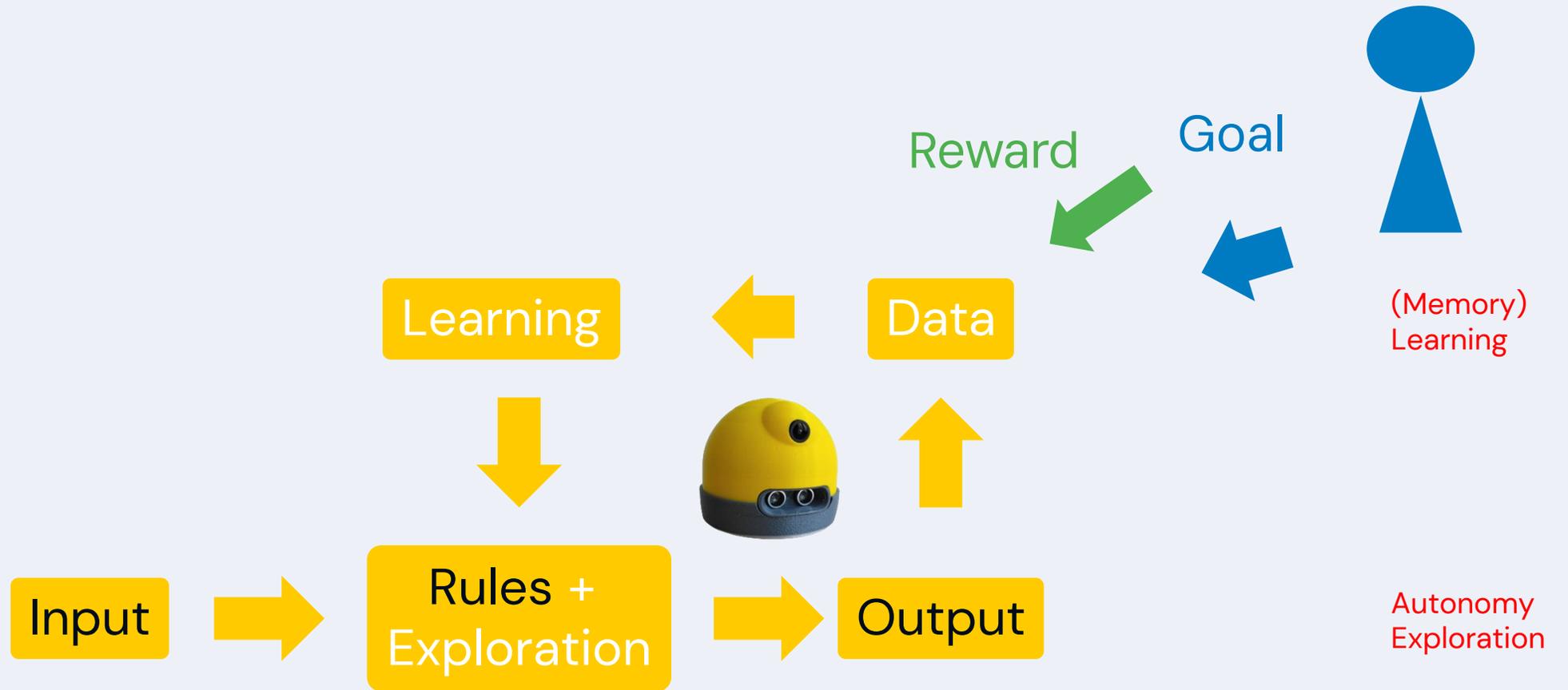
4 – Reinforcement Learning



4 – Reinforcement Learning



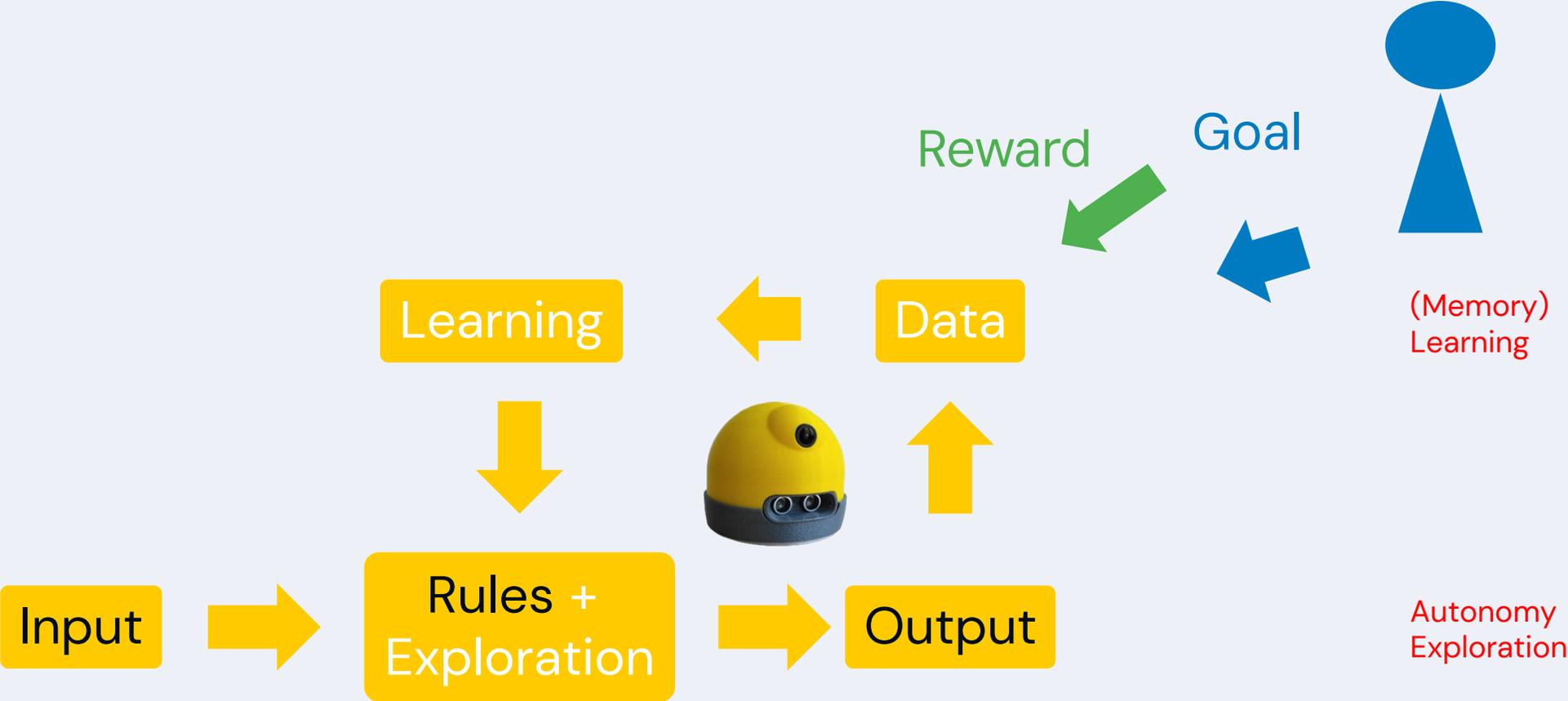
The human assigns the goal, the AI learns by trial and error



4 – Reinforcement Learning → How similar to human learning!??



The human assigns the goal, the AI learns by trial and error



Using an introduction to AI to discuss learning in general! = *metacognition*

Accepting errors
Curiosity
Perseverance

Sequence: "4 levels of robot autonomy".

