

Robot Control with Cognitive Architecture ACT-R

BACKGROUND

Robot control requires an integration of multiple sensor modalities and includes a variety of cognitive processes. Since classical programming languages are executed sequentially, here bio-inspired cognitive architectures consisting of multiple modules inspired by brain regions can enhance robot control.

YOUR TASK

You will implement a basic robot control framework with the Cognitive Architecture ACT-R. The framework will include data processing in multiple modules, procedural and declarative knowledge and basic reasoning. Afterwards the controller will be connected to a robotic simulation in the Neurorobotics Platform.

REQUIREMENTS

- Python Programming
- Interest in robot control and cognitive reasoning
- Experience with Robot Control is a plus

RESOURCES

- act-r.psy.cmu.edu
- www.neurorobotics.net

CONTACT

Benedikt Feldotto
✉ feldotto@in.tum.de

Technical University of Munich
Faculty of Informatics
Chair of Robotics, AI and Real-Time Systems
www6.in.tum.de

