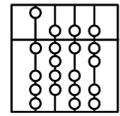


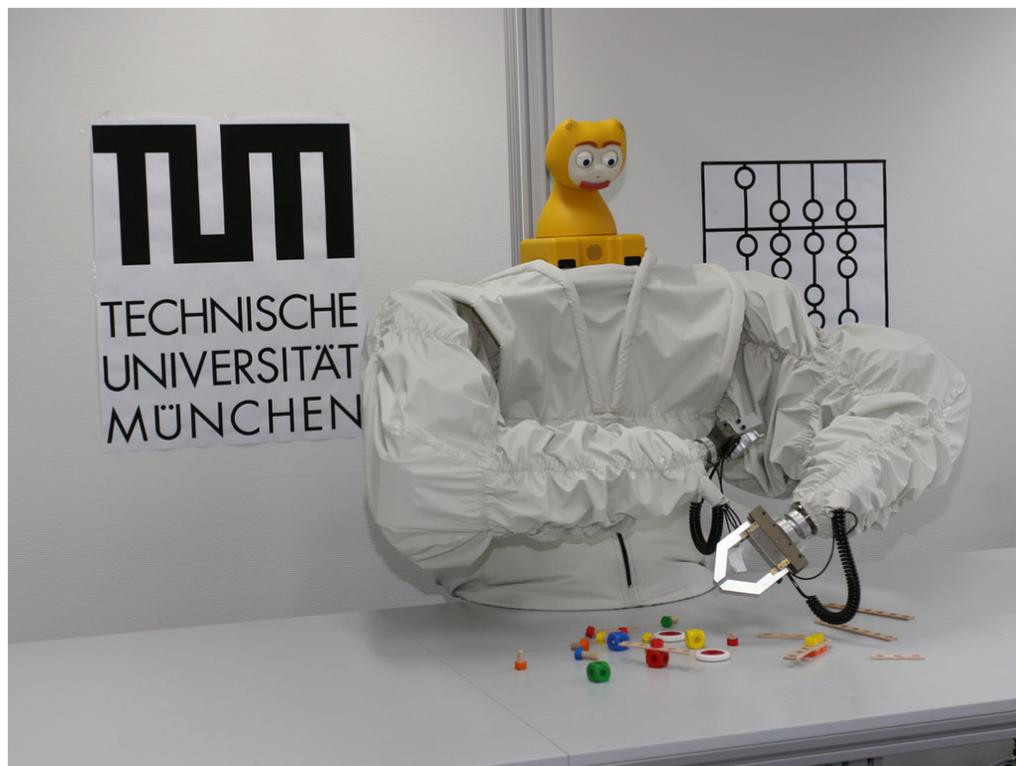
The JAST Collaborative Human-Robot Dialogue System

Mary Ellen Foster, Markus Rickert, Michael Braun

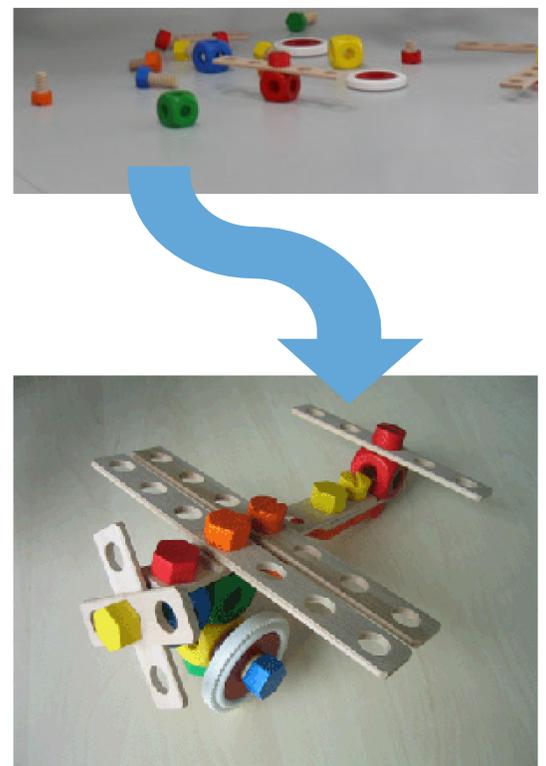
Robotics and Embedded Systems Group, Department of Informatics, Technical University of Munich
<http://www6.informatik.tu-muenchen.de/>



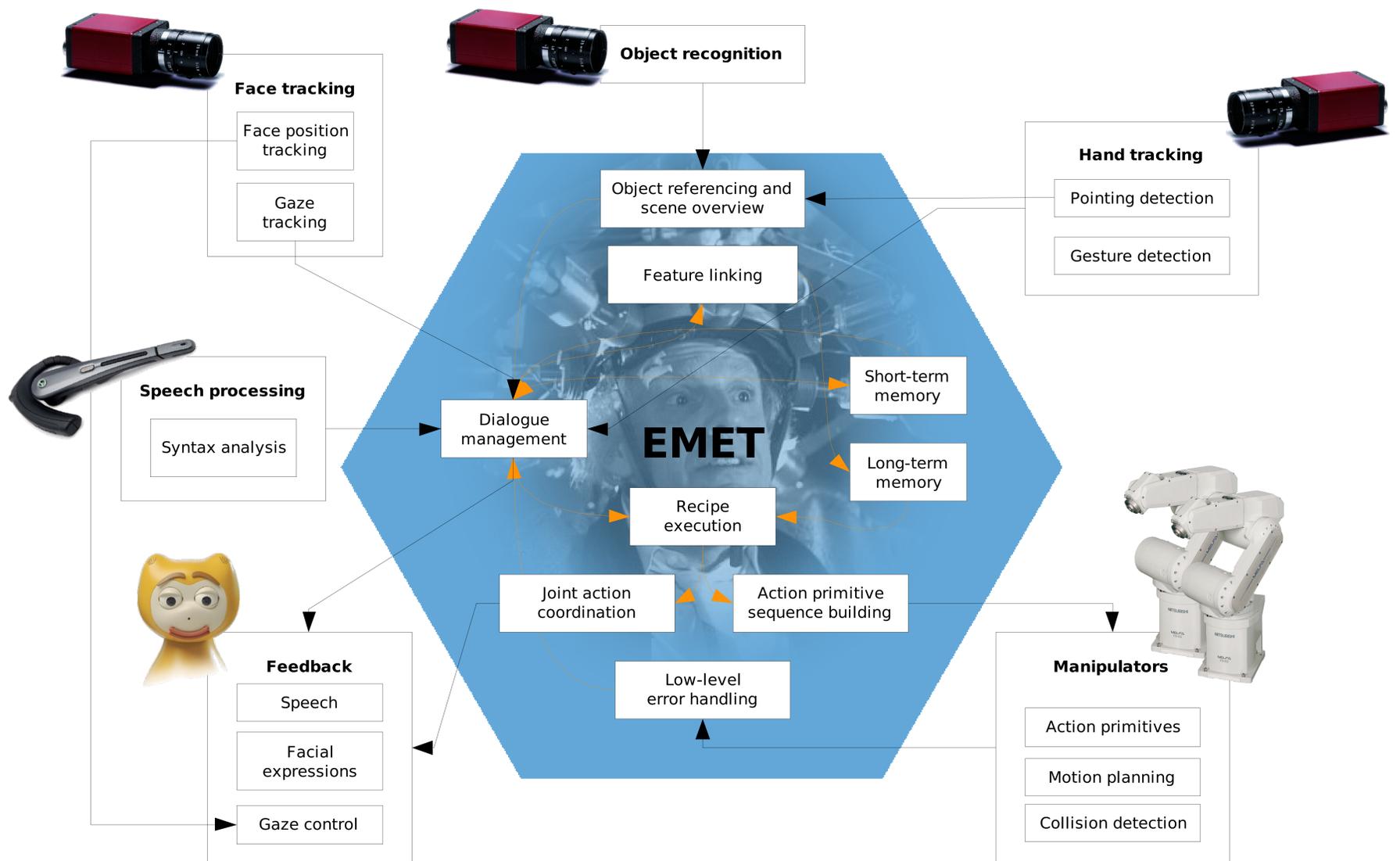
Task: User and robot jointly construct *Baufix* models



...
▪ **User** You should insert the red bolt in the central hole of this slat.
▪ **JAST** Which red bolt? There are three red bolts available.
▪ **User** Any red bolt.
▪ **JAST** [picks up nearest red bolt] Here is a red bolt. Can you insert it while I hold the slat?
▪ **U+J** [action]
▪ **JAST** We need a nut to secure this bolt.
...



System architecture



<http://www.jast-net.gr/>

Overall goal of project

- Build jointly-acting autonomous systems that collaborate and work intelligently on mutual tasks in dynamic, unstructured environments.

Research areas

- Cognitive and neural bases of joint action
- Dialogue and joint action
- Joint action in autonomous systems