

A short study on

Bio-Inspired Assistive Robotics

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Developing Assistive Technologies

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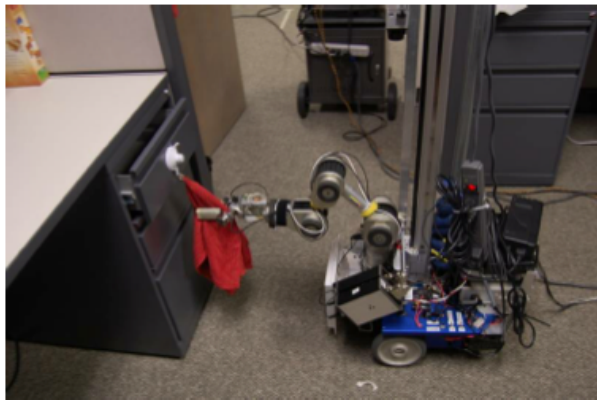


Considerations

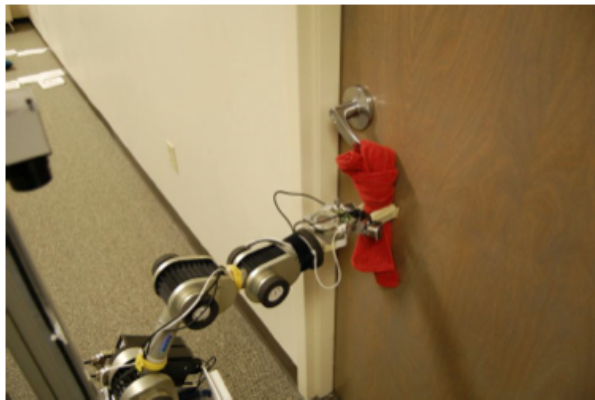
- **Target Population**- Motor Impaired
- **Inspiration** - Service Dogs
- **Type** - High Tech (Robotics, Mobile Manipulation)
- **Category** - Control of the Environment
- **Environment Augmentation** - Red Towel attached to doors / drawers
- **Interaction** - Verbal + Point and Click w/ green laser
 - Eg: helper monkeys fetching drink (w/ mouth-held laser pointer)

Categories of verbal commands

- Manipulation (Changing the environment)
 - Tug
 - Tug down
 - Push
- Administration
- Movement
- Following
- Communication
- Reinforcement



(a) Tug it



(b) Tug It Down



(c) Push



(d) Tug it

Opportunities/Learnings

- Having a list of assistive behaviors and how people can direct these behaviors can augment the user interviews in developing assistive technology for motor impaired people. (Esp. In the context of UCP)
- Mouth-held laser pointers can be efficient in pointing objects to robots / humans

Related information

Project

- http://www.hsi.gatech.edu/hrl/project_canine.shtml

Organizations

- Healthcare Robotics @ Georgia Institute of Technology
- Georgia Canines for Independence
- Interaction Laboratory @ University of South California

Conferences

- International Conference on Rehabilitation Robotics