

Research Report: Just a Couple of Things...

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StarBED



❑ **NiCT Hokuriku Research Center**

❑ **StarBED (*-bed)**

- Testbed for multiple purposes
- Experimentation cluster:
 - 1000+ physical nodes
 - reconfigurable network topology

❑ **Contacts:**

- Prof. Yoichi Shinoda
- Prof. Yasuo Tan



CEFIR

❑ **Center for Intelligent Robotics**

- Multidisciplinary think tank
- Still gestational stage

❑ **Goal**

- Developing principles for intelligent robotics
- Emphasis on interactions (Mx-Mx, Hu-Mx)

Research Areas

- ❑ **RA1: Information Theory**
- ❑ **RA2: Dynamics & Control**
- ❑ **RA3: Distributed Planning**
- ❑ **RA4: Vision & Sensors**
- ❑ **RA5: System Integration**



Research Areas

Project leader

Nak-Young Chong

System integration

RA5

Nak-Young Chong, Kevin Lynch, Dennis Hong

Dynamics and control

Fumihiko Asano

Ambarish Goswami

Sunil Agrawal

RA2

Distributed Planning

Xavier Defago

Il Hong Suh

...

RA3

Vision and Sensors

Kazunori Kotani

Henrik Christensen

Gaurav Sukhatme

RA4

Information theory

RA1

Tadashi Matsumoto

RA3: Distributed Planning

❑ **Software development**

- Robot protocol composition framework
- Protocol verification

❑ **Protocols**

- Mobility-aware consensus / time synch.
- Cooperative motion planning
- Scheduling & load balancing
- ...