Kung Fu Nao

Human-Robot Interaction (MKI50)

Bas Bootsma (0719080)   Roland Meertens (3009653)

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1 Introduction

Introducing the reader to the topic of learning from robots.

2 Hardware and Software

2.1 Hardware

In order to build this system the following components were used:

- Laptop
- Nao robot
- Microsoft Kinect

2.2 Software

In order to program this system the following software has been used:

- Microsoft visual studio 2012
- Microsoft Kinect SDK
- Choregraph

3 System

Discuss the system from an AI point of view.

3.1 Perception

A way to detect the user and the body model. Do not mention the Kinect.

3.2 Communication

Gestures + speech...

3.3 World Model

4 Individual Components

4.1 Perception

Skeleton tracking + dynamic time warping

4.2 Communication

4.3 World Model

4.4 Graphical User Interface

5 Interaction Patterns

State diagram etc....

6 Conclusion

Figure 1: A picture!