

NAO Com II

Project preview

Introduction

The NAO Com II projects wants to develop an user-friendly system for access to the NAO robot system (www.aldebaran-robotics.com) for developers and consumers. It consists of a python based server running on the NAO robot and an android app for remote control.

The projects aims to simplify the access to the robot for consumers and easy handling of own programs for developers. It should be as automated as possible and should integrate basic functionalities to work with the robot without any further programming.

NAO Com II bases on the NAO Communication project (northernstars-wiki.wikidot.com/projects:naocom-use) of the NorthernStars robotics group at the University of Applied Sciences in Kiel, Germany.

Functionalities

The server should be able to access the NAOqi framework running on the NAO and also starting Choregraphe projects and python scripts. So it should be able to start programs that are not part of the NAO Com II project.

The server also should enable access to the following functions (some of them are build in functions of the NAOqi framework):

- Voice output
- Voice language configuration
- Build in trackers and animation
- Simple led animation (like blinking or random eyes)
- Simple animations like Thai-Chi
- Control of walk commands
- Automatic update of server system
- Loading Choregraphe programs and python scripts from other source folders

The Java based android app should offer access to the functions of the server using a modern graphical user interface. It also should support a guided installation of the server system by downloading it from an webserver and installing it on the NAO. The app should include a configurable interface to integrate the start of own projects running on the NAO and also to develop simple programs by using build in functions of the NAO like voice output, trackers, animations or own programs.