Ubi – Personal Robot Platform

# Subsystems

## Voice control interface

### Command structure

Voice control is used for selecting which app is controlled, giving a command and optionally parameters to it. Commands may be nested in each other in any depth.

The format of a voice command:  
[appname] command [command, …] [parameter, …]

Appname is mandatory if more than one app is active at a time, otherwise optional.

Command is mandatory. Multiple levels of commands may be embedded into each other, describing an action in a menu system.

Use only 1 or 2 levels, since the user has to know what commands are available on each level.

Parameters are optional for the command. There should be no specific order for parameters.

### Commands

A command is the smallest communication unit between the user and an app. It consists giving a command and getting interactive feedback on it. It is one-way communication only, i.e. only to cover giving commands.

A command session is stream based. The user says words after each other, the app process them and gives immediate feedback if a word and the entire command are accepted (e.g. a short beep).

A command can be interrupted by alarms, but not by results.

### Results

Results are communication sessions that is generated by an app based on a previous command, or any other way. Commands can interrupt result sessions.

### Alarms

Alarms are meant for alarming the user. They can interrupt any ongoing sessions, except other alarms.