Human-Robot Interaction Module
UWE UFMFHP-15-M

Second practical session, using Choregraphe and NAO robots

Safety notes for the NAO robot

1. The robot is fragile, so only lift it by its chest.
2. Always operate the robot on the floor, never on a table, because it cannot fall off the floor.
3. Leave a 60 cm radius circle around the robot clear as a safe working area.
4. After carrying out any movement sequence with the robot, always set the robot to one of its two stable, safe positions (crouching or sitting) and then turn the motors off. The motors overheat easily and the battery quickly runs flat if they are left constantly running.
    Sit down is available in Choregraphe as a pre-programmed movement ("Movement > Posture > Sit down"). Crouch can be chosen in "Movement > Posture > Goto Posture". The motors can then be turned off by clicking on the Rest Button ( ) in the upper right corner of Choregraphe or by using "Movement > Motors > Motor On/Off".
5. In an emergency, support the robot by its chest and shut off the power by pressing and holding the NAO button on the chest for 9 seconds. The robot will become floppy when it powers off, so you must support it. Then place the robot in one of its safe, stable positions (crouching or sitting). Alternatively, whilst supporting it by its chest, pressing the NAO button twice will remove the stiffness from the joints.
6. Otherwise keep your hands clear of the robot's body and limbs when it is moving, as you can get your fingers crushed in the joints.
7. Power the robot off normally by pressing and holding the button on its chest for five seconds, until the robot says "Gnuk, Gnuk". It will run through a power down sequence and power off.
8. Never leave the robot unattended when the battery is being charged, because the lithium polymer batteries can pose a fire risk.

Tutorials and links

Description of the menus, panels and toolbar in Choregraphe:
http://doc.aldebaran.com/2-8/software/choregraphe/interface.html

There is a full list of the tutorials at:
http://doc.aldebaran.com/2-8/software/choregraphe/tutos/index.html

Tutorial showing how to connect Choregraphe to a simulated robot:
http://doc.aldebaran.com/2-8/software/choregraphe/connection_widget.html#choregraphe-howto-connect-to-simulated-nao

First steps tutorial:
http://doc.aldebaran.com/2-8/software/choregraphe/choregraphe_first_steps.html

Dialogue box tutorial:
http://doc.aldebaran.com/2-8/software/choregraphe/tutos/dialog_topic.html