How to transfer a Dymola model to the NXT

1. In Linux, open a terminal and start VirtualBox: `VirtualBox`
   Start the virtual Windows XP.
2. Start Dymola. Make sure that all appropriate flags are set and the appropriate libraries are loaded. It is convenient to write a script that does this, see the slides from Ulf's tutorial.
3. Make sure that Dymola's working directory is `C:\cygwin\nxtOSEK\samples_c\dymola`. This can be done in the script as well.
4. Translate your model.
5. Start CYGWIN.
6. In cygwin, change directory to Dymola's working directory.
7. Compile your model by typing `make all`
8. Connect the LEGO-NXT to the computer via the USB-cable.
9. Turn on the NXT. The NXT should make a clicking sound.
10. Transfer the code by typing `.\ramboot.sh`
    If cygwin returns `bash: ./ramboot.sh Permission denied`, change user execution permission by typing `chmod 700 ramboot.sh` and try again.
11. If cygwin complains about the NXT not being connected, check the USB-cable again. If it is indeed connected, go to the VirtualBox menu Devices->USB Devices and make sure that all Unknown devices are checked.

How to pair the NXTs Bluetooth with Windows.

1. Upload any program to the NXT but don't press RUN, see the section above.
2. Go to the Start menu, Connect to, Bluetooth Network Connection.
3. Open Bluetooth devices.
4. Connect the NXT via the USB cable and turn it on by clicking the orange button.
5. Choose Add..., check the “My device is set up and...” and click Next.
6. Choose the found device and click Next.
7. Check the “Use the passkey found in the documentation” and enter the same Bluetooth passkey as specified in the `dymola_wrapper.c`, the default is 1234. Press Next and you should get a window saying which Incoming and Outgoing COM ports that are assigned to the NXT.
8. In your model, double click on the Configuration block and make sure that the Bluetooth port matches the assigned Outgoing port.
9. Translate and compile your model again.
10. Upload the program once more. The display on the NXT should read Start host!
11. Start the simulation in Dymola and the display should read Run NXT.
12. Press RUN and the program should start executing. Stop the program by clicking Stop simulation button in Dymola. Press the rectangular button on the robot to stop the robot.