Installation Instructions:

Installing the Lego USB Tower driver for Windows:

Download an unzip the following archive.

http://www.lego.com/education/mindstorms/images/eng/downloads/tower164.zip

Then install the driver within the archive to activate your USB tower, then plug it in.

Installing BrickOS on RCX:

There is an online guide on how to install BrickOS on top of Windows. We recommend this procedure since communication between RCX and PC only works on Windows.

http://brickos.sourceforge.net/docs/INSTALL-cygwin.html

After successfully installing Cygwin and BrickOS you need to compile the BrickOS kernel as explained by the tutorial. Finally, upload the program code for the embedded controller: the drive.lx file.

Installing JMF (Java Media Framework):

Install the USB camera on your PC with the appropriate drivers. For compatibility, your drivers have to support vfw (video for windows). Then download JMF and install it with your camera plugged in, so that it gets registered correctly.

http://java.sun.com/products/java-media/jmf/2.1.1/download.html

Then start JMFStudio to test your camera and find out, which device number is assigned to it. The device number is formatted in an URL of the kind *vfw://1*. If it is other than *vfw://1,* please edit the URL in ImageAquisition java file of the SoccerBot framework.

Installing Giotto:

Download and install Giotto from the given link and just use the provided default paths for installation.

http://embedded.eecs.berkeley.edu/giotto/build1.2.1/Windows/NoVM/giotto_1_0_1_NoVM_install.zip

Installing leJOS:

Get leJOS and install it, since we need the irtower.dll right in place.

http://prdownloads.sourceforge.net/lejos/lejos_win32_2_1_0.zip?download

You don't need to configure or use it, since we only need the irtower.dll at the correct position. If you have a better way of installing this dynamic link library, so that JNI (Java Native Interface) can find it, please mail us.

Setting up the SoccerBot framework:

- Extract the archive SoccerBot.zip anywhere you want. You may have done this already since you are reading this.
- Make sure the classpath in bin\pc\start.bat is correct, it has to contain gdk.jar and SoccerBot.jar.

Starting SoccerBot:

- Start bin\pc\start.bat
- Load the E code from file SoccerBot.ecode using the menu: [E code – Load E code]
- Run E code by choosing from the menu: [E code – Run E code]
- Make sure the tower and the camera a connected to the PC.
- Then press >>Simulate<< in popped up frame

Have fun,

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