

## HOWTO install TinyOS2 on Windows/Cygwin

1. Install JDK 1.5 or (better !!) higher
2. Install Cygwin from <http://www.cygwin.com> choose the following packages
  - autoconf
  - automake
  - bison
  - cvs
  - ddd
  - flex
  - gcc-core, gcc, g++
  - gdb
  - gzip
  - joe
  - make
  - complete python devel library
  - rpm
  - tar
  - vim
  - which
3. Install all the tools in Step 3 (native compilers) and 4 (TinyOS toolchain) mentioned at [http://docs.tinyos.net/index.php/Installing\\_TinyOS\\_2.1](http://docs.tinyos.net/index.php/Installing_TinyOS_2.1) for Windows/Cygwin platform  
use "**rpm -ivh--ignoreos**" command !!
4. Install TinyOS-2.x from CVS in order to have a complete source tree (incomplete if you install from rpm)
  - a. Start cygwin
  - b. Go to cygwin root (probably /cygwin/)
  - c. type "**mkdir opt**"
  - d. type "**export CVSROOT=/opt**"
  - e. "**cd opt**" and then type "**cvs init**"
  - f. type "**touch /home/\$USER/.cvspass**"
  - g. type "**cvs -d:pserver:anonymous@tinyos.cvs.sourceforge.net:/cvsroot/tinyos login**"
  - h. press enter for a blank password
  - i. type "**cvs -z3 -d:pserver:anonymous@tinyos.cvs.sourceforge.net:/cvsroot/tinyos co -P tinyos-2.x**"
  - j. This will take some time to download everything.
5. Set and check installation environment
  - set the environment variables as explained in Step5 of TinyOS installation webpage
  - "**tos-check-env**"

6. Check if java path is properly installed.
  - `"tos-install-jni" java`
  - if error, change in `/usr/bin/tos-install-jni` change: `"$tinyoslibdir/*-$bits.dll"` to `"$tinyoslibdir/*.dll"`
  - type `"tos-locate-jre"`
7. Try to compile on "telosb", "mica2", "micaz" platforms, go to `/opt/tinyos-2.x/apps/Blink` and type `"make telosb"`
8. Check TOSSIM environment, in `/apps/Blink` type `"make micaz sim"`
  - if it complains about python, better check with python-devel cygwin installation. make sure that `"python --version"` is the same as defined in `opt/tinyos-2.x/support/make/sim.extra` (`PYTHON_VERSION`)
9. Compile and check Java environment
  - go to `/opt/tinyos-2.x/support/sdk/java`, type `"make"`
  - if it complains about java, check if both `"java"` and `"javac"` exist and have a correct path.
  - create symbolic links in `/usr/bin` to the java executables in `/cygdrive/c/Programm\Files\jdk**`
  - To test java, go to `/apps/tests/TestSerial`, type `"make telosb"`
  - read [http://docs.tinyos.net/index.php/Java\\_cygwin](http://docs.tinyos.net/index.php/Java_cygwin) if you have problems
10. Probably good to check c environment, go to `/opt/tinyos-2.x/support/sdk/c/sf/`
  - `"./bootstrap"`
  - if bootstrap works fine, continue `"./configure"`. If not, probably a problem with a version of g++ compile. You can fix this with a symbolic link. For example, instead of `"gcc_4.0"`, use `"ln -s gcc gcc_4.0"`.
  - finally type `"make"`