# ARM Maple Model:DEV-10664



### Maple IDE Installation:

If you still can't get the IDE installed after reading this page, check the *troubleshooting page* for help with some common problems.

## <u>Download:</u>

Choose the correct version for your operating system:

Platform	Status
<u>Windows XP</u>	Tested on 32-bit Windows XP
<u>Linux 32-bit</u>	Tested on Ubuntu 10.04 (32-bit)
<u>Linux 64-bit</u>	Tested on Debian Wheezy (64-bit) and Mint 14.1 (64-bit)
<u>Mac OS X</u>	Tested on Snow Leopard (10.6)

The package bundles together a compiler, an upload utility, a software library, and a simple GUI text editor. All this software is <u>free and open</u>; we are grateful to the <u>Arduino,CodeSourcery</u>, <u>GNU</u>, and <u>OpenMoko</u> developers, as well as many others, who allow us to reuse their software.



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Looking for something older? <u>Source archives and binaries</u> are available for previously-released versions.

## Installation:

- Windows
- Linux
- OS X

## <u>Windows:</u>

First, extract all the files in the ZIP file to a suitable location on your system (like your Desktop folder). Next, you have to install some drivers. Sorry!

#### <u>Note:</u>

Note that while these instructions work on Windows XP, changes in Windows 7 mean that you won't be able to install the IDE without disabling driver signing on your computer. We're working on resolving this situation.

First, install DFU drivers (for uploading code to your Maple) using the following steps.

- 1. Plug your Maple into the USB port.
- 2. Hit the reset button on your Maple (it's the small button at the bottom left, labeled RESET). Notice that it blinks quickly 6 times, then blinks slowly a few more times.
- 3. Hit reset again, and this time push and hold the other button during the 6 fast blinks (the button is on the top right; it is labeled BUT). You can release it once the slow blinks start.
- 4. Your Maple is now in *perpetual bootloader mode*. This should give you a chance to install the DFU drivers.
- 5. Windows should now prompt you for some drivers. In the top level directory of the Maple IDE, point Windows to drivers/mapleDrv/dfu/.

Next, install serial drivers (for communicating with your Maple using serial over USB).

- Reset your Maple and allow it to exit the bootloader (wait for the slow blinking to stop). The Maple will next start running whatever program was uploaded to it last. (New Maples will start running the test program we upload to them before shipping them to you).
- 2. Once Maple is running some user code, Windows should prompt you for more drivers. Point windows to driver/mapleDrv/serial.

You can now run the Maple IDE by double-clicking on the **maple-ide** program from within the extracted IDE directory.



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## <u>Linux:</u>

#### <u>Note:</u>

The IDE is written in Java and requires a compatible runtime (JRE).

If you don't have one, they're usually pretty easy to install. Sun Java 1.6 and OpenJDK 1.6 are known to work, and runtimes mostly compatible with Sun Java 1.5+ should probably get the job done.

To install Java, try using your distribution's software packaging tool and search for "JRE" or "java". On Debian-based systems (including Ubuntu) you can try to install the OpenJDK 1.6 JRE with:

\$ sudo aptitude install openjdk-6-jre

Extract the tarball to an appropriate location (like your home directory or desktop).

Make sure you have a Java runtime (JRE) installed; if you can run **java** from the shell, you should be fine.

On *64-bit distros only*, you will also need to install some 32-bit libraries needed by the LeafLabs-supported *ARM GCC toolchain* with

# 64-bit systems only!
\$ sudo apt-get install ia32-libs

You may also need to remove <u>brltty</u> (if it is installed) with

# Optional
\$ sudo apt-get remove brltty

Brltty provides braille access to the console. It has been reported to cause conflicts with Maple.

For some non-Debian distributions, you may additionally need to install *libusb*. Specifically, for 64-bit ArchLinux you need *lib32-libusb* and *lib32-libusb-compat*.

Next, run the script install-udev-rules.sh in the extracted IDE directory. It will ask for root permissions (you will be prompted with something along the lines of [sudo]password for <username>:). You now need to restart udev:

# For upstart distros like Ubuntu\$ sudo restart udev

# For SysV init distros like Debian
\$ sudo /etc/init.d/udev restart



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This will grant members of the group plugdev read/write access to Maple devices over USB. For Debian (and perhaps some versions of Ubuntu and Mint), you want to be in the dialout group. It's easy to find out: just Is -I /dev/ttyACMO with the Maple plugged in and see which group owns the device. Make sure that you are in the appropriate group by running, eg, \$ sudo adduser <your\_username> plugdev (which will ensure access to the

Maple, but may report that you are already a member of that group). (For more information on why this is part of the install process, see the *Unix toolchain quickstart*).

To run the Maple IDE, run **./maple-ide** from the shell, or double-click on it if your window system supports it.

Feel free to put the IDE directory wherever you want. As long as you leave its internal structure unchanged, things should be fine.

### <u>OS X:</u>

Double-click on the .dmg file you downloaded to mount the disk image. From the mounted image, drag and drop the Maple IDE icon into your computer's Applications folder. To run the Maple IDE, double-click the **Maple IDE** application you dragged into your computer's Applications folder.



