

Adding Third Party Boards to the Arduino v1.6.4+ IDE

Created by Todd Treece

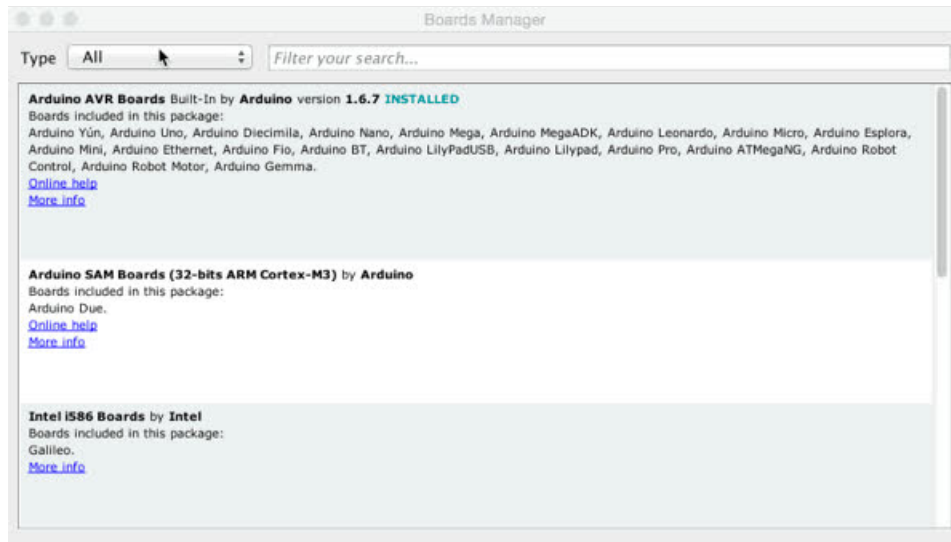


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Overview



Version 1.6.4 of the Arduino IDE (<https://adafruit.it/f1P>) introduced official support for adding third party boards (like the Adafruit Flora and Trinket) to the new Board Manager. This addition is great news, because it allows users to quickly add new boards with the click of a button. Previously the addition of new boards required a cumbersome manual installation process, or in certain cases, the download of a completely separate version of the IDE with the new boards added.

The new Board Manager solves those issues. We had figured out a way [to add custom boards in v1.6.3](https://adafruit.it/jcv) (<https://adafruit.it/jcv>) of the Arduino IDE, but it was not officially supported by Arduino. Thanks to the hard work of [Federico Fissore](https://adafruit.it/f7T) (<https://adafruit.it/f7T>) and the Arduino developer community, we can now add new boards just as easily using officially supported methods. Let's get started.

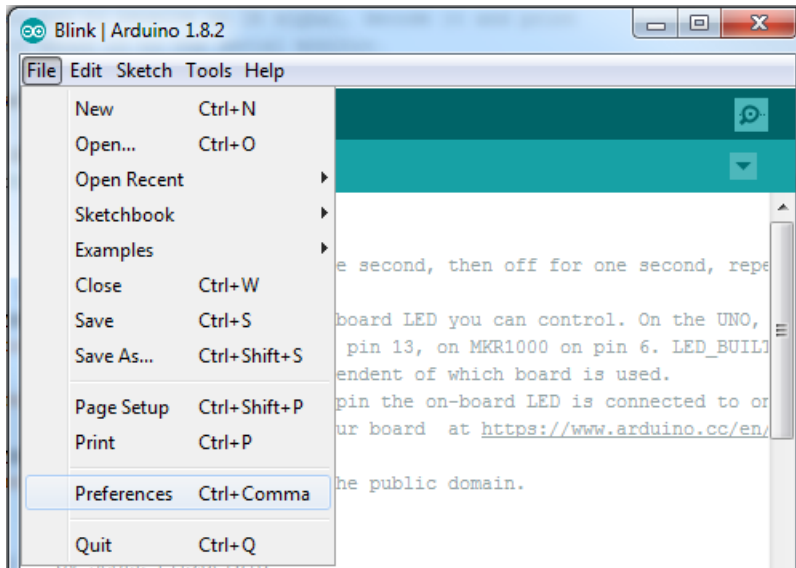
Arduino IDE Setup

The first thing you will need to do is to download the latest release of the Arduino IDE. You will need to be using **version 1.8** or higher for this guide

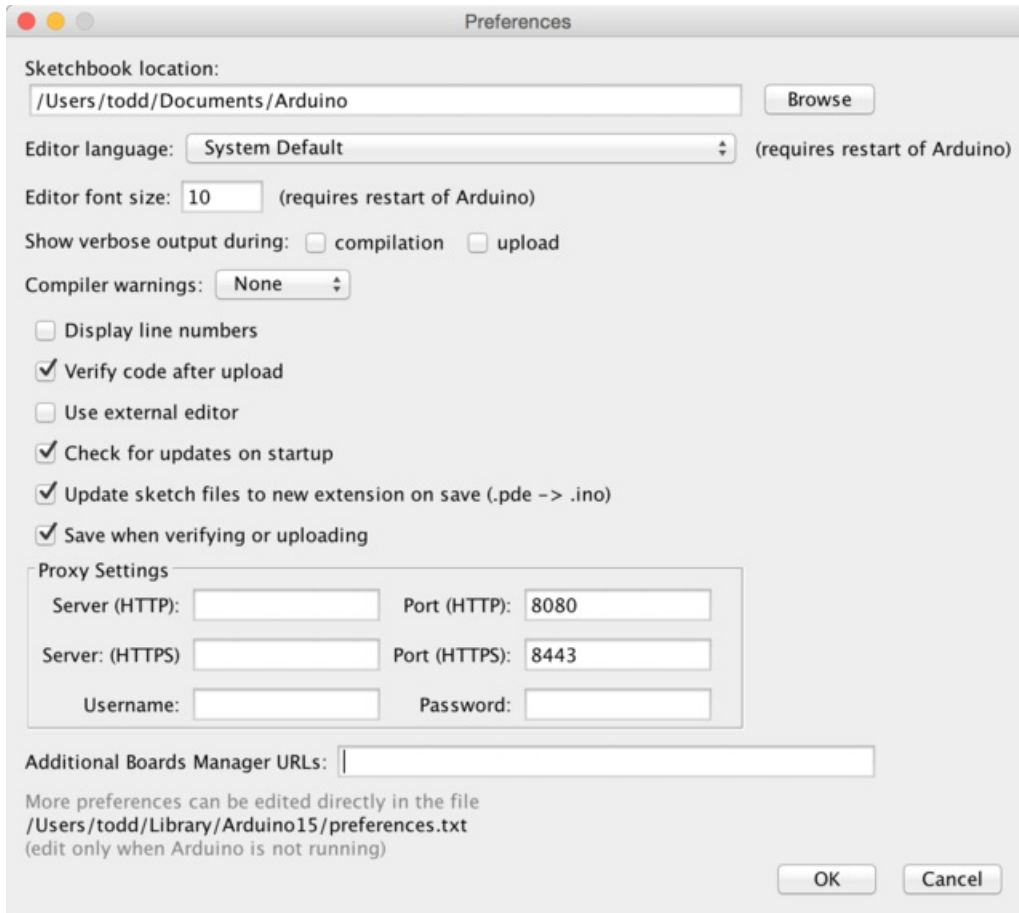
<https://adafru.it/f1P>

<https://adafru.it/f1P>

After you have downloaded and installed the **latest version of Arduino IDE**, you will need to start the IDE and navigate to the **Preferences** menu. You can access it from the **File** menu in *Windows* or *Linux*, or the **Arduino** menu on *OS X*.



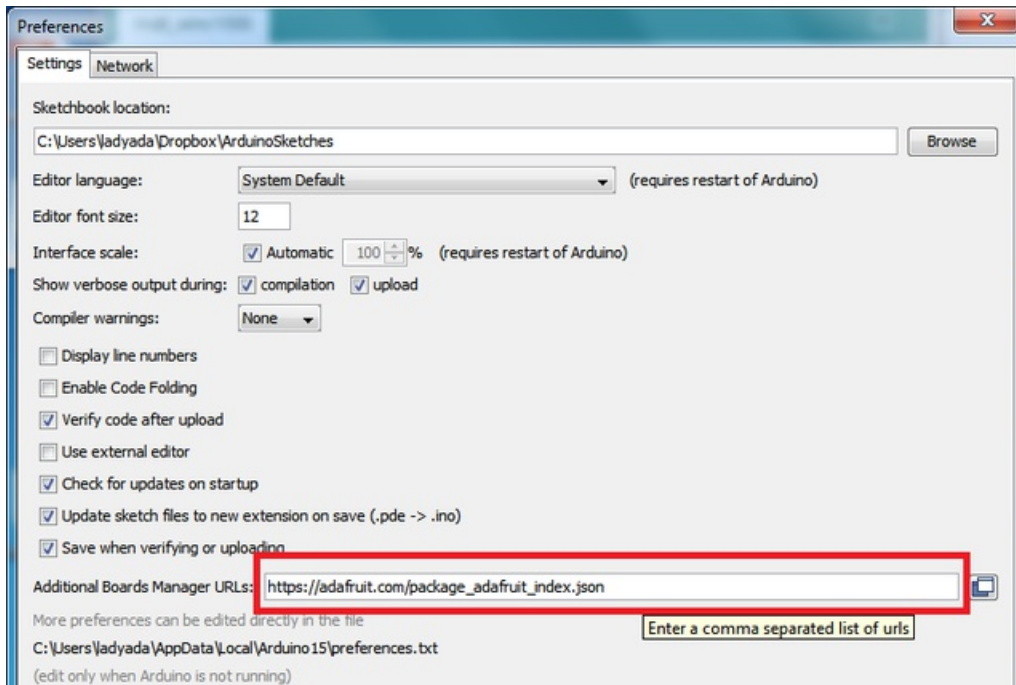
A dialog will pop up just like the one shown below.



We will be adding a URL to the new **Additional Boards Manager URLs** option. The list of URLs is comma separated, and *you will only have to add each URL once*. New Adafruit boards and updates to existing boards will automatically be picked up by the Board Manager each time it is opened. The URLs point to index files that the Board Manager uses to build the list of available & installed boards.

To find the most up to date list of URLs you can add, you can visit the list of [third party board URLs on the Arduino IDE wiki \(https://adafru.it/f7U\)](https://adafru.it/f7U). We will only need to add one URL to the IDE in this example, but *you can add multiple URLs by separating them with commas*. Copy and paste the link below into the **Additional Boards Manager URLs** option in the Arduino IDE preferences.

https://adafruit.github.io/arduino-board-index/package_adafruit_index.json



Here's a short description of each of the Adafruit supplied packages that will be available in the Board Manager when you add the URL:

- **Adafruit AVR Boards** - Includes support for Flora, Gemma, Feather 32u4, Trinket, & Trinket Pro.
- **Adafruit SAMD Boards** - Includes support for Feather M0, Metro M0 and M4, ItsyBitsy M0 and M4, Circuit Playground Express, Gemma M0 and Trinket M0
- **Arduino Leonardo & Micro MIDI-USB** - This adds MIDI over USB support for the Flora, Feather 32u4, Micro and Leonardo using the [arcore project \(https://adafru.it/eSI\)](https://adafru.it/eSI).

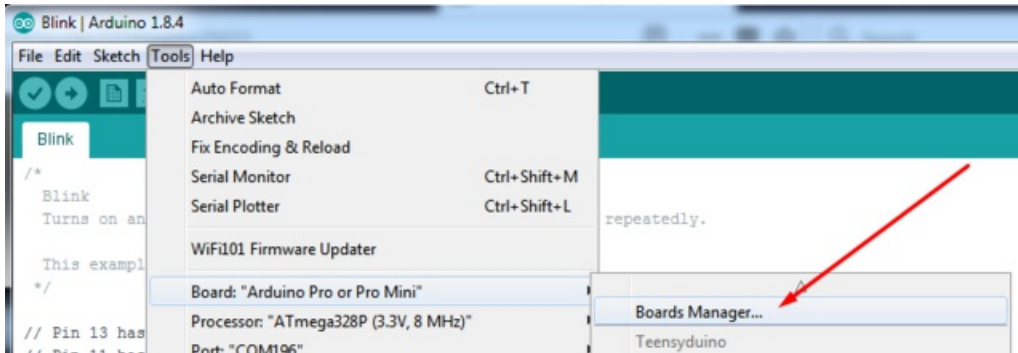
If you have multiple boards you want to support, say ESP8266 and Adafruit, have both URLs in the text box separated by a comma (,)

Once done click **OK** to save the new preference settings. Next we will look at installing boards with the Board Manager.

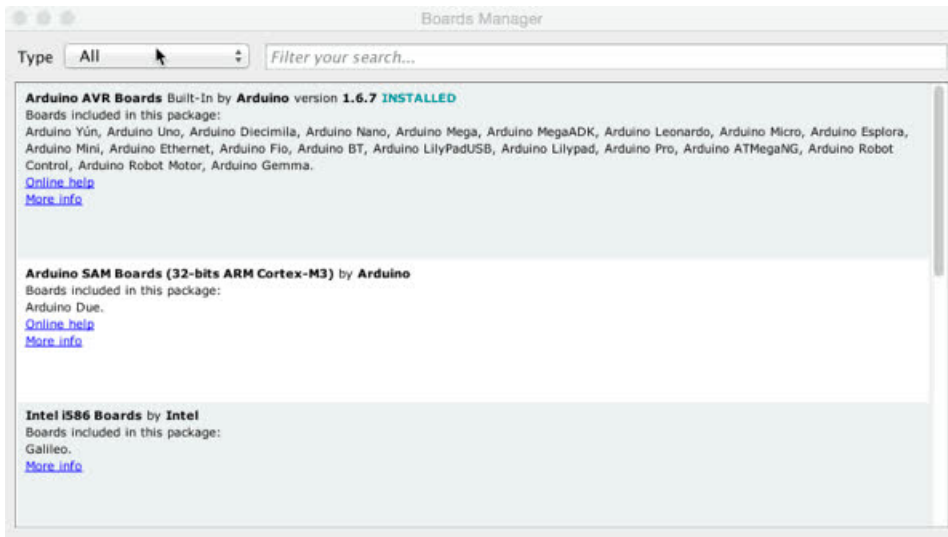
Now continue to the next step to actually install the board support package!

Installing Boards

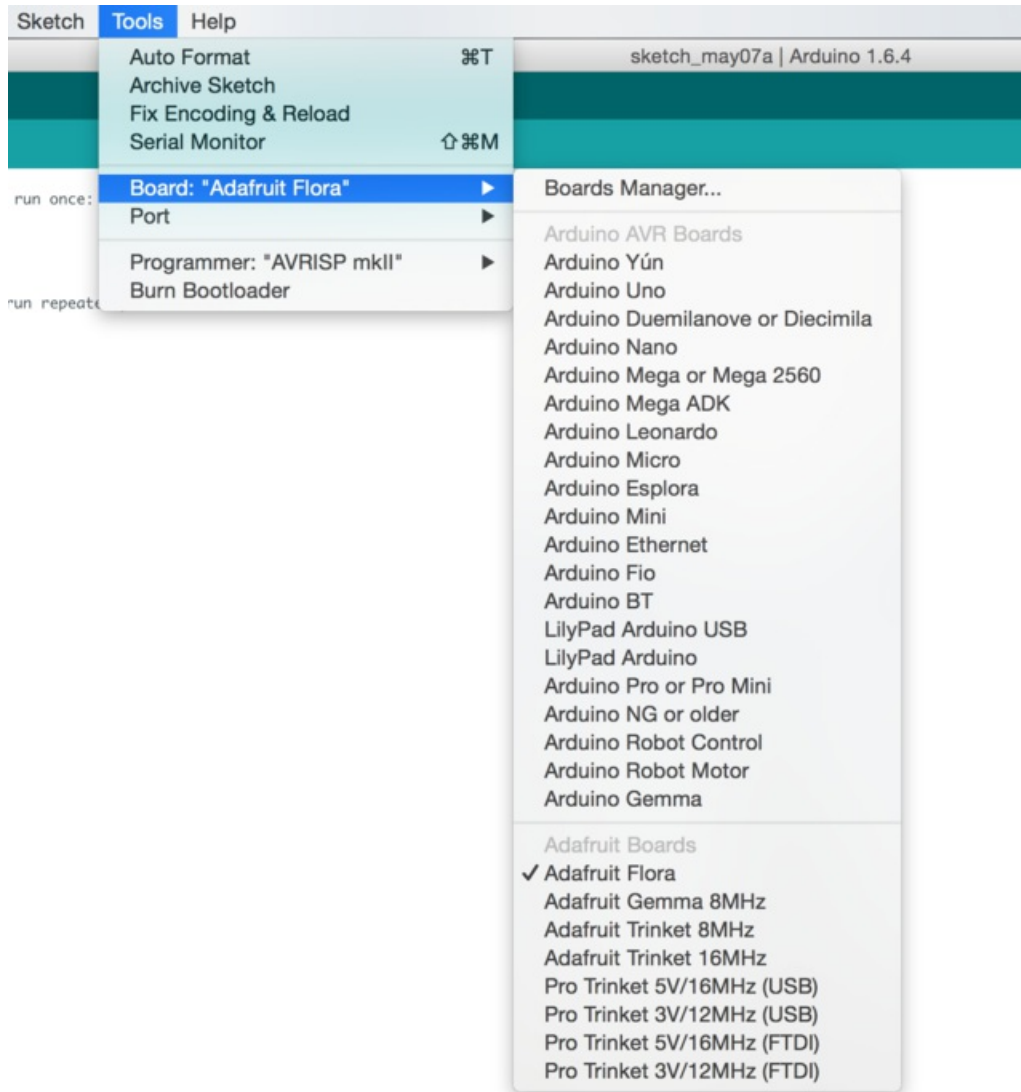
Now that you have added the appropriate URLs to the Arduino IDE preferences, you can open the **Boards Manager** by navigating to the **Tools->Board** menu.



Once the Board Manager opens, click on the category drop down menu on the top left hand side of the window and select **Contributed**. You will then be able to select and install the boards supplied by the URLs added to the preferences. In the example below, we are installing support for *Adafruit AVR Boards*, but the same applies to all boards installed with the Board Manager.



Next, **quit and reopen the Arduino IDE** to ensure that all of the boards are properly installed. You should now be able to select and upload to the new boards listed in the **Tools->Board** menu.



That's it! Please let us know if you encounter any issues in the [Adafruit customer support forums \(https://adafru.it/f7V\)](https://adafru.it/f7V).