Installing Olimex library package in Arduino IDE

The purpose of this guide is to give instructions of an owner of certain OLIMEXINO boards and modules on how to install the Olimex library using Arduino Library Manager. The Olimex library contains Arduino IDE examples and settings for Olimex OLIMEXINO boards and certain modules. Using the Arduino Library Manager usually saves the hassle of a manual install of libraries and examples.

1. Downloading Arduino IDE.

Go to https://www.arduino.cc/en/Main/Software

and download Arduino IDE installer. On the picture below inside the red rectangle there are the links with the last stable release of Arduino and on the blue rectangle there are the latest build and beta versions.

Note that Arduino library manager is available in Arduino IDE versions newer than 1.6.3 (1.6.4 is the first version of Arduino. Make sure that you have a recent version of Arudino IDE installed. We recommend you to download the last stable version for your operating system (Windows/Linux/MAC). In case of Windows we recommend to download Windows Installer (not Windows ZIP file for non admin install). For this guide we will download and install Arduino on Windows 7.



2. Installing Arduino IDE.

Go the location where you have saved the installation file (by default it is in folder "Downloads") and run the setup file. You will be prompted for agreement about the terms, installation of USB drivers and the location where you will install the IDE. Proceed with the installation and wait until it's done.



3. Start Arduino IDE and add the Olimex library package.

Start Arduino IDE and navigate to "File" \rightarrow "Preferences". A new dialog would appear, search for "Additional Boards Manager URLs" field – you need to put a link or links to the Olimex JSON file. Links to the Olimex JSON files are listed below. Olimex provides three different libraries – one for AVR boards, one for PIC boards and one for STM boards. Select the one (or the ones) suitable for your board, copy and paste the full https link in the "Additional Boards Manager URLs" field. You can have multiple links in that field separated by a semi-colon. These steps are described below and shown in the screenshots on the next page.

- J SON link for Olimex AVR boards (like OLIMEXINO-328, OLIMEXINO-32U4, OLIMEXINO-NANO, OLIMEXINO-85, among others):

<u>https://raw.githubusercontent.com/OLIMEX/Arduino_configurations/master/AVR/package_olimex</u> <u>_avr_index.json</u>

- JSON link for Olimex PIC32 boards (works with some Olimex PIC32 boards like PIC32-PINGUINO, PIC32-PINGUINO-OTG, PIC32-PINGUINO-MICRO, DUINOMITE-MEGA, DUINOMITE-eMEGA, among others; make sure to notice the note below):

<u>https://raw.githubusercontent.com/OLIMEX/Arduino_configurations/master/PIC/package_olimex_pic_index.json</u>

You also have to add the following link to the "Additional Board Manager URLs" list:

<u>https://raw.githubusercontent.com/chipKIT32/chipKIT-core/master/package_chipkit_index.json</u> (it doesn't have to be install but to be present in the list)

Important! You also need a programmer tool to prepare the PIC32 board with ChipKit bootloader since by default they come without an Arduino-compatible bootloader). Refer to this GitHub location for more info about preparing your Olimex PIC32-PINGUINO or DUINOMITE board for Arduino IDE operation:

https://github.com/OLIMEX/Arduino_configurations/tree/master/PIC

- JSON link for Olimex STM32 boards (like STM32-E407):

<u>https://raw.githubusercontent.com/OLIMEX/Arduino_configurations/master/STM/package_olimex</u> <u>_stm_index.json</u>

Refer to the first picture on the next page.



4. Install the package after the JSON link had been added in "Preferences".

Go to "Tool" \rightarrow "Board" \rightarrow "Boards Manager...". A new window would appear, find the Olimex pakcage and click "Install" in the bottom right corner. Repeat if you have added more than one JSON. Note that the download and the installation might take a long time for certain boards since they might also come with different compiler. Refer to the picture below.



6. Select a board and load sketch example.

Go to "Tools" board and Olimex boards should have appeared at the bottom. Select your board. Then load the example from "File" \rightarrow "Examples" new section of examples from the package will appear.





7. Compile the sketch.

Remember to select the COM port associated with your board. Refer to the device manger if you have trouble identifying the correct COM port. Compile and upload the sketch.

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You can find more information about Arduino IDE's Additional Arduino Libraries here:

https://www.arduino.cc/en/Guide/Libraries

You can find an unofficial list of third party libraries here:

https://github.com/arduino/Arduino/wiki/Unofficial-list-of-3rd-party-boards-support-urls