Install OLIMEXINO-328

by LadyMM

The olimexino-328 is an arduino-like borad, which runs programs called "sketches". The programs themselves are written in C/C++ and compiled in the Arduino environment and then uploaded to the board's memory via miniUSB.

Special drivers and settings are needed, however, for your computer to correctly recognise the board. Installation instructions are below.

1.Installation of the arduino-based board

(Instrusctions and screenshots from Limor Fried http://www.ladyada.net/learn/arduino)

Visit <u>http://www.ftdichip.com/Drivers/VCP.htm</u> for the latest drivers for your Olimexino-328 board (Instructions for other arduino boards can be found at <u>http://arduino.cc/en/Guide/HomePage</u>)

Windows:

(The screenshots show a Windows XP machine, but the installation is the same for XP/Vista/Windows7)

When you plug in the Arduino, you may hear a sound from the computer and a little popup bubble in the bottom right corner of the screen that says Found New Hardware FT232R USB UART



After a few seconds, the new hardware wizard will start. Select "No not this time" and click Next>



At the next screen, select Install from a list or specific location

Found New Hardware Wizard				
Image: Second				
< <u>B</u> ack <u>N</u> ext > Cancel				

At the next screen make sure Include this location is selected and browse to the folder that contains the driver you downloaded. Select the folder and click OK

Found New Hardware Wiz	Browse For Folder
 Search for the best of Use the check boxe paths and removable Search remov Include this lo C:\Document Don't search. I will c Choose this option to the driver you choos 	Select the folder that contains drivers for your hardware.
	< Back Next > Cancel

It should copy some files and then come up with this window. Click Finish



Almost immediately, another window will pop up, this time it will say USB Serial Port. As before, click Install from a list or specific location



Browse to the same folder again...

 Select the folder that contains drivers for your hardware. Search for the best of Use the check boxe paths and removable Search remov Include this lo C:\Document C:\Document Choose this option to the driver you choose 	Please choose vour sea	Browse For Folder 🛛 💽 🔀
OK Cancel	 Search for the best of Use the check boxe paths and removable Search remov Include this lo C:\Document Don't search. I will c Choose this option to the driver you choos 	Select the folder that contains drivers for your hardware.

And it should complete successfully!



You may need to reboot the computer.

	Found New Hardware Your new hardware is installed but might not work properly until you reboot.
System	Settings Change
Ŷ	Computer before the new settings will take effect. Do you want to restart your computer now?

When the computer is done rebooting, make sure the Arduino is plugged in (and the green light is lit). Go to the Device Manager (From the Start Menu, select Settings->Control Panel. Double click on System and select the Hardware tab. Then click on the Device Manager button)



Look for an entry under Ports (COM & LPT) that says USB Serial Port (COM) the COM number may vary but it should be something like COM3 or COM4. The COM stands for "communication", and each one has a unique number,

known as the COM Port number. In this case the COM Port number is COM3.

If you don't see the COM port verify the Arduino is plugged in, and check that you installed the VCP FTDI driver.

MAC OS

Open up the driver dmg file



And double click on the driver package, go through all the steps necessary to install the driver





You will need administrative priviledges to install the software

	Authenticate
Installer re	quires that you type your password.
Name:	ladyada
Password:	
▶ Details	•*
(?)	Cancel OK

When it's done, restart the computer







Once its rebooted, start up Terminal, located in the Utilities folder



Plug in the Arduino, make sure the green light is on. In the Terminal window, type in ls /dev/cu.* and/or ls /dev/tty.* which should give the following responses

000	Terminal -	bash — 80x16	
Last login: Sat Sep 15 18: Welcome to Darwin! adafruit:~ ada\$ ls /dev/cu /dev/cu.Babbit2_Phone-Seri /dev/cu.Bluetooth-Modem /dev/cu.Bluetooth-PDA-Sync adafruit:~ ada\$	45:14 on ttyp: .* alPo-1	1 g /dev/cu.modem /dev/cu.usbserial-A4001nCf	TWN I
adafruit:~ ada\$ 📕)
000	Terminal —	bash — 80x16	
adafruit:~ ada\$ ls /dev/tt /dev/tty.Babbit2_Phone-Ser /dev/tty.Bluetooth-Modem /dev/tty.Bluetooth-PDA-Syn adafruit:~ ada\$ D	y.* ialPo-1 c	/dev/tty.modem /dev/tty.usbserial_A4001nCf	N
uuurure." uuup []			٦
			l

Make sure you see a line with the text /dev/cu.usbserial-xxxxx where the xxx's can be anything. Same for /dev/tty.usbserial-xxxxx. This indicates that the driver installed properly and that the Arduino was found.

If you can't find the text, verify that your Arduino is plugged in, try a different USB port.

You can also try running the Console application, which will possibly give you some information about why its failing.

LINUX

Linux doesn't have any drivers to install, assuming you're running a v2.6 kernel. These instructions assume you're running Ubuntu. Each linux distribution is different, but the instructions should be basic enough to follow for other distros.

You can verify your kernel version by running uname -a in a terminal window, note that this kernel is version 2.6.20

	ladya	ada@ladyada-lap	top: ~			JX
<u>F</u> ile <u>E</u> dit <u>∨</u> iew	<u>T</u> erminal Ta <u>b</u> s	<u>H</u> elp				
ladyada@ladyad Linux ladyada- 86 GNU/Linux ladyada@ladyad	a-laptop:~\$ ur laptop 2.6.20 a-laptop:~\$	name -a -16-generic #2 S	MP Thu Jun	7 20:19:32 U	TC 2007	16

Sometimes the Linux distribution installs brltty (braille device) which will conflict with the Arduino. You must uninstall brltty! Do so by running

sudo apt-get remove brltty

In a terminal window. If it says it's not installed then thats OK. If you're not running a Debian-derived installation use whatever tool is necessary to verify that you don't have brltty running

Plug in the Arduino, verify that the green LED is lit, and type ls /dev/ttyUSB* into a terminal window, you should see a device file called something like ttyUSB0



Depending on your Linux distro, it may be /dev/tty/USB0 or /dev/tty.USB etc.

If you can't seem to find it, use dmesg | tail right after plugging in the Arduino and look for hints on where it may put the device file. For example here is says Serial Device converter now attached to ttyUSB0

ladyada@ladyada-laptop: ~	3
<u>F</u> ile <u>E</u> dit <u>V</u> iew <u>T</u> erminal Ta <u>b</u> s <u>H</u> elp	
<pre>ladyada@ladyada-laptop:~\$ dmesg tail [455.092000] drivers/usb/serial/usb-serial.c: USB Serial support registere d for generic [455.096000] usbcore: registered new interface driver usbserial_generic [455.096000] drivers/usb/serial/usb-serial.c: USB Serial Driver core [455.120000] drivers/usb/serial/usb-serial.c: USB Serial support registere d for FTDI USB Serial Device [455.120000] ftdi_sio 1-2:1.0: FTDI USB Serial Device converter detected [455.120000] drivers/usb/serial/ftdi_sio.c: Detected FT232BM [455.124000] usb 1-2: FTDI USB Serial Device converter now attached to tty USB0 [455.124000] usbcore: registered new interface driver ftdi_sio</pre>	•
<pre>[455.124000] drivers/usb/serial/ftdi_sio.c: v1.4.3:USB FTDI Serial Convert ers Driver [502.812000] ADDRCONF(NETDEV_UP): wlan0: link is not ready ladyada@ladyada-laptop:~\$</pre>	

If you see something like this [1900.712000] ftdi_sio 2-10:1.0: FTDI USB Serial Device converter detected [1900.712000] drivers/usb/serial/ftdi_sio.c: Detected FT232BM [1900.712000] usb 2-10: FTDI USB Serial Device converter now attached to ttyUSB0 [1901.868000] usb 2-10: usbfs: interface 0 claimed by ftdi_sio while 'brltty' sets config #1 [1901.872000] ftdi_sio ttyUSB0: FTDI USB Serial Device converter now disconnected from ttyUSB0 [1901.872000] ftdi_sio 2-10:1.0: device disconnected

That means you have not uninstalled brltty and you should try again.

2.Configuring The Arduino Environment

<u>1. Getting the arduino environment:</u>

Download the latest arduino for your OS from: http://arduino.cc/en/Main/Software

The arduino environment is portable and only needs to be extracted from the archive.

2.Configuring the arduino environment

- Remember the COM port that your board received during installation then choose the same number from Tools/Serial Port/COMX where X is the number of the correct port.
- Since you are using the Olimexino-328, go to Tools/Board and choose the option shown below on the screenshot.

🥯 sketch_sep27a	Arduino 0022		
File Edit Sketch 1	Tools Help		
Image: Sketch_sep27a	Auto Format Archive Sketch Fix Encoding & Reload Serial Monitor	Ctrl+T Ctrl+Shift+M	
	Board Coviel Devit	•	Arduino Ono Arduino Duemilenove or Neno w/ 0Tmege328
	Serial Port Burn Bootloader	•	 Arduino Duemilanove or Nano w/ ATmega328 Arduino Diecimila, Duemilanove, or Nano w/ ATmega168 Arduino Mega 2560 Arduino Mega (ATmega1280) Arduino Mini Arduino Fio Arduino BT w/ ATmega328 Arduino BT w/ ATmega168 LilyPad Arduino w/ ATmega168 LilyPad Arduino w/ ATmega168 Arduino Pro or Pro Mini (5V, 16 MHz) w/ ATmega328 Arduino Pro or Pro Mini (3.3V, 8 MHz) w/ ATmega168 Arduino Pro or Pro Mini (3.3V, 8 MHz) w/ ATmega168 Arduino NG or older w/ ATmega168 Arduino NG or older w/ ATmega8

Now your board should be configured and you can try running some of the example sketches, or start making your own.

Some useful links for those, who are new to the C/C++ language and/or the Arduino environment:

http://arduino.cc/en/Tutorial/HomePage http://arduino.cc/en/Reference/HomePage http://www.acm.uiuc.edu/webmonkeys/book/c_guide/ http://en.wikipedia.org/wiki/C_(programming_language) http://arduino.cc/en/Guide

http://www.olimex.com/