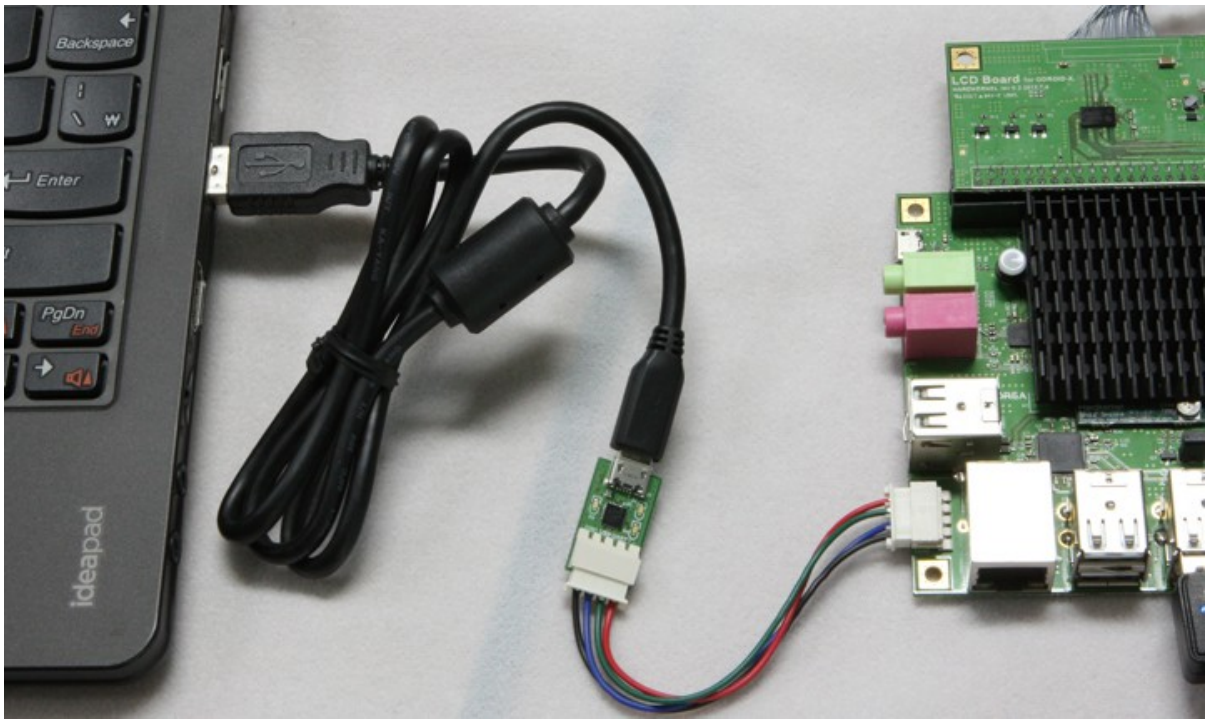
USB-UART Kit

USB-UART Kit is a system console interface board for platform development and debugging.
This module kit is the best solution to check and control your ODROID board systems by connecting via a serial console port.

Assemble the USB-UART module and cables as shown in this picture.



Installation Guide

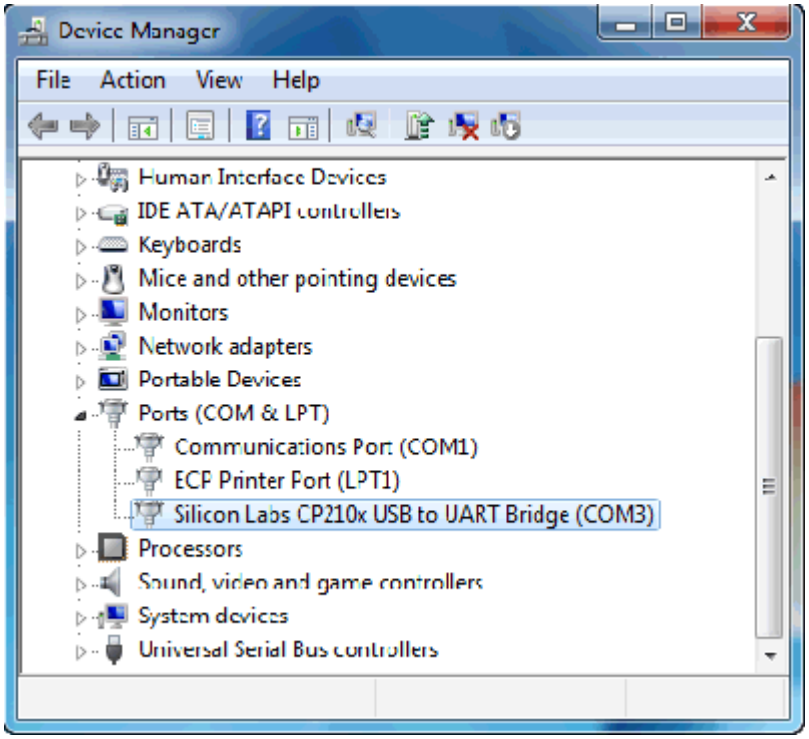
Windows 10 / 7

- Install CP210x VCP driver

Connect your USB UART module with HOST PC then, download and install USB to UART Bridge Driver.

CP210x USB to UART Bridge VCP Drivers

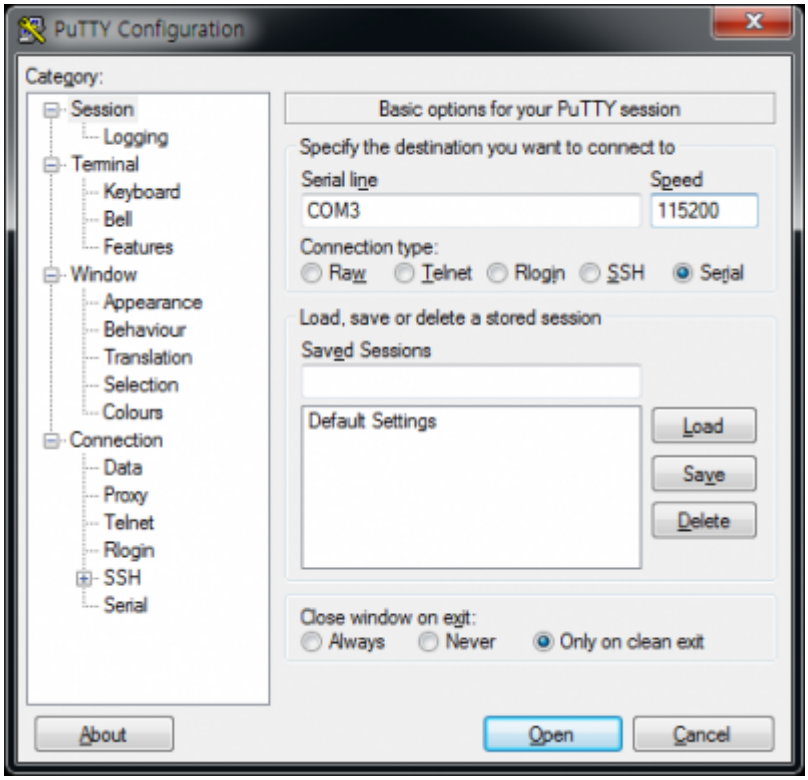
Once the driver is installed, you will find a COM PORT.



- Set up a serial console program

PuTTY is one of common serial console programs.
You can download the putty.exe file for Windows here.

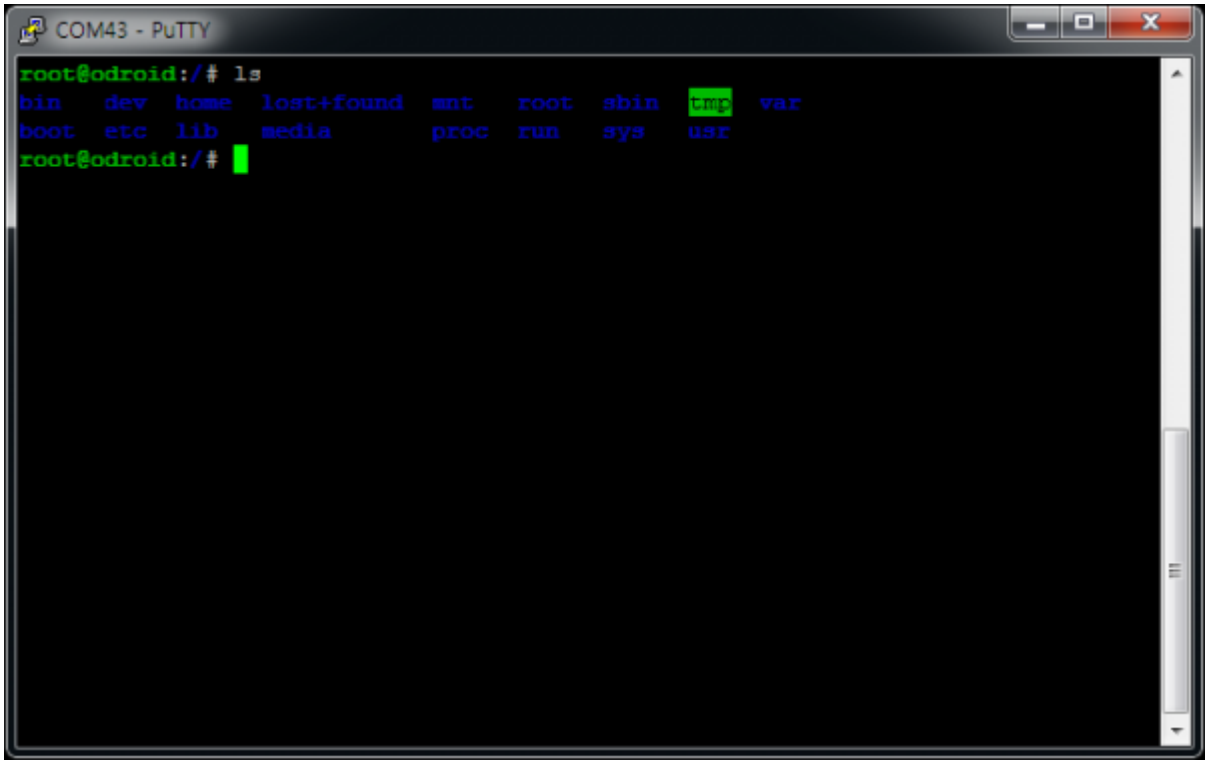
putty



Then, you need to set some basic options.

- Connection Type
Select the radio box, **Serial** of Connection type.
- Serial Line
Input the Serial line to COM Port number. You can get the COM port number from Device Manager menu.
- Speed (Baudrate)
Change the Serial speed to **115200 baudrate**.

Every setting is now complete to run putty.
Open your serial port!



Linux (Ubuntu 13.10 or higher)

- Install CP210x VCP driver

After your USB-UART kit is connected to HOST PC, check your usb serial node first.

```
$ lsusb
$ ls /dev/ttyUSB* -l
```

If CP210x VCP driver is not installed by default in your Linux Host PC,
the device node doesn't exist.
Then, install CP210x USB to UART bridge driver for Linux.

CP210x USB to UART Bridge VCP Drivers for Linux

- Set up a serial console program

Install serial communication program, **minicom** on your HOST PC.

```
$ sudo apt-get install minicom
```

Then, Set up minicom options.

```
$ sudo minicom -s
```

Select serial port setup from the menu.
Type '**A**' to change the serial device, then edit the **/dev/ttyUSB[number]**.
You will also set baud rate to **115200 8N1** and disable the Hardware Flow Control.

```
+-----------------------------------------------------------------------+
```

```
| A -    Serial Device      : /dev/ttyUSB0                          |
| B - Lockfile Location     : /var/lock                             |
| C -   Callin Program      :                                       |
| D -  Callout Program      :                                       |
| E -    Bps/Par/Bits       : 115200 8N1                            |
| F - Hardware Flow Control : No                                    |
| G - Software Flow Control : No                                    |
|                                                                   |
|    Change which setting?                                          |
+-------------------------------------------------------------------+
```

If you want to set to defualt , select Save setup as dfl from the menu.

Mac OSX

For Mac OS Users

ODROID Port description of UART Connector

It is described 4pin UART debug connector of all ODROID-board.
NOT UART-board

```
_____UART____
|Pin 4 - GND|
|Pin 3 - RXD|
|Pin 2 - TXD|
|Pin 1 - VCC|
\___________|

1.8V LVTTL for ODROID-U3/XU3/XU4/X2/X
3.3V LVTTL for ODROID-C1/C1+/C0/C2/W/N2

RxD pin is input and TxD pin is output.

The VCC pin is not a power source but a reference voltage input.
It is used for detecting the IO voltage like a VIO or a VDDIO.
Support for I/O interface voltages down to 1.8 V is provided via a VIO pin.
```

Molex 5268-04a(2.5mm pitch) is mounted on the PCB.
Its mate is Molex 50-37-5043 Wire-to-Board Crimp Housing.
45 degreed corner edge is a mark for pin number 1.

Schematic

To make a straight cable for easy production, pin assign is in reverse order between ODROID and UART-board.

USB UART Board for CP2102N

USB UART Board for CP2104

Tips

* This tip was contributed by @jelly from our community forum.

In particular for setting screen size, for **minicom** so the lines don't get truncated at 80 characters. To solve this for GNU/Linux Debian host with **bash**, you can use either:

```
$ TERM=linux minicom odroid
```

TIP: A bash alias like this helps:

```
alias minicom='TERM=linux minicom'
```

OR run, and then paste as follows:

```
$ minicom odroid            # Then paste this in:
stty rows 50 cols 132
```

Where /etc/minicom/minirc.odroid is something like this:

```
# Machine-generated file - use "minicom -s" to change parameters.
pu pname9           YUNYNascii
pu pprog9           /usr/bin/ascii-xfr -dsv
pu port             /dev/ttyUSB0
pu downdir          /home/<your-username>/Downloads
pu rtscts           No
pu xonxoff          Yes
```

Reference

However this doesn't work:

```
$ minicom --term=linux odroid
```