


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

After check your usb serial node, Open serial port.

```
ls /dev/ttyUSB*  
sudo minicom -b 115200 -D /dev/ttyUSB0
```

2. Target board(**ODROID-C2**) setup.
Set a serial node on your **ODROID-C2**

```
stty -F /dev/ttyS1 115200
```

3. **ODROID-C2** → HOST PC test.
ODROID-C2

```
echo 1 > /dev/ttyS1
```

4. HOST PC → **ODROID-C2** test.
ODROID-C2

```
cat /dev/ttyS1
```

HOST PC
Send characters via minicom.

Pin Map : UART pin on the 4-pin CON5 connector

```
____ UART ____  
|              |  
| Pin 4 - GND |  
| Pin 3 - RXD |  
| Pin 2 - TXD |  
| Pin 1 - VCC |  
|_            |  
|_____      |
```

3.3V LVTTTL

Another UART port on 40pin header

If you don't use an I2C interface(i2c-1) on pin#3 & pin#5, you can use them to activate the UART2.
Just follow **campbell**'s development note to have a new UART2 port via /dev/ttyS2.

Note that Pin#3(SDA1) is mapped to Tx and Pin#5(SCL1) is Rx.

[How to enable a third UART ttyS2 by "campbell"](#)

Automatically configure the UART settings.

This is an example of default setting for a GPS module which has a 9600bpsN81 UART interface. Add the following to the end of `/etc/rc.local` (before the exit 0)

```
/bin/stty -F /dev/ttyS2 raw 9600 cs8 clocal -cstopb > /dev/null 2>&1
```

This way the tty port is setup for use with the gps on system boot, without user interaction.

Tips for UART port

[How to enable the RTS/CTS](#)

How to enable UART_B and UART_C ports

Up to 4 ports can be used for UART in ODROID-C2—UART_A0(Serial console), UART_A, UART_B and UART_C.

There are UART_A, UART_B and UART_C in [expansion connectors of ODROID-C2](#).

UART pin	Pin number
UART_A TX	8
UART_A RX	10
UART_B TX	3
UART_B RX	5
UART_C TX	32
UART_C RX	26

In order to enable UART_B and UART_C ports, it is necessary to modify the `meson64_odroidc2.dts` file.

1. Kernel source download

```
sudo apt-get update
sudo apt-get install git
git clone --depth 1 https://github.com/hardkernel/linux.git -b
odroidc2-3.14.y
```

2. Delete I2C_A definition

I2C_A uses same pins as UART_B by pinmux. So, `i2c_a` definition needs to be removed.

- `($LINUX)/arch/arm64/boot/dts/meson64_odroidc2.dts`

```
iff --git a/arch/arm64/boot/dts/meson64_odroidc2.dts
b/arch/arm64/boot/dts/meson64_odroidc2.dts
index e6a25b0..db09b04 100755
--- a/arch/arm64/boot/dts/meson64_odroidc2.dts
+++ b/arch/arm64/boot/dts/meson64_odroidc2.dts
```

```
@@ -813,18 +813,6 @@

};

-&i2c_a {
-     status = "okay";
-
-     /* Hardkernel I2C RTC */
-     pcf8563: pcf8563@51     {
-         status = "disabled";
-         compatible = "nxp,pcf8563";
-         reg = <0x51>;
-         #clock-cells = <0>;
-     };
-};
-
&i2c_b {
     status = "okay";
```

3. Add UART_B and UART_C definitions

- *(\$LINUX)/arch/arm64/boot/dts/meson64_odroidc2.dts*

```
diff --git a/arch/arm64/boot/dts/meson64_odroidc2.dts
b/arch/arm64/boot/dts/meson64_odroidc2.dts
index e6a25b0..fd41552 100755
--- a/arch/arm64/boot/dts/meson64_odroidc2.dts
+++ b/arch/arm64/boot/dts/meson64_odroidc2.dts
@@ -31,6 +31,8 @@
     aliases {
         serial0 = &uart_A0;
         serial1 = &uart_A;
+        serial2 = &uart_B;
+        serial3 = &uart_C;
     };

     gpu_dvfs_tbl: gpu_dvfs_tbl {
@@ -459,6 +461,32 @@
         pinctrl-0 = <&a_uart_pins>;
     };

+    uart_B: serial@c11084dc {
+        compatible = "amlogic, meson-uart";
+        reg = <0x0 0xc11084dc 0x0 0x18>;
+        interrupts = <0 75 1>;
+        status = "okay";
+        clocks = <&clock CLK_XTAL>;
+        clock-names = "clk_uart";
+        fifo-size = < 64 >;
+        pinctrl-names = "default";
+        pinctrl-0 = <&b_uart_pins>;
```

```
+         resets = <&clock GCLK_IDX_UART1>;
+     };
+
+     uart_C: serial@c1108700 {
+         compatible = "amlogic, meson-uart";
+         reg = <0x0 0xc1108700 0x0 0x14>;
+         interrupts = <0 93 1>;
+         status = "okay";
+         clocks = <&clock CLK_XTAL>;
+         clock-names = "clk_uart";
+         fifo-size = < 64 >;
+         pinctrl-names = "default";
+         pinctrl-0 = <&c_uart_pins>;
+         resets = <&clock GCLK_IDX_UART2>;
+     };
+
+     canvas {
+         compatible = "amlogic, meson, canvas";
+         dev_name = "amlogic-canvas";
```

- [meson64_odroidc2.dts](#)

4. Install modified dtb file

```
make odroidc2_defconfig
make dtbs
sudo cp -f arch/arm64/boot/dts/meson64_odroidc2.dtb /media/boot/
sudo reboot
```

5. Done

From:
<https://wiki.odroid.com/> - **ODROID Wiki**

Permanent link:
https://wiki.odroid.com/odroid-c2/application_note/gpio/uart?rev=1498553540

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