



'ODROID-N2' on this page refers to the ODROID-N2 series (**N2, N2+, N2L**).

ADC

There are 2 ADC input ports on the 40-pin header.

| | Pin #37 | Pin #40 |
|------------------|----------|----------|
| ODROID-C2 | ADC.AIN1 | ADC.AIN0 |
| ODROID-C4 | ADC.AIN2 | ADC.AIN0 |
| ODROID-N2 | ADC.AIN3 | ADC.AIN2 |
| ODROID-M1 | ADC.AIN1 | ADC.AIN0 |

You can access the ADC inputs via sysfs nodes.

| | Pin #37 | Pin #40 |
|------------------|--|--|
| ODROID-C2 | /sys/class/saradc/ch1 | /sys/class/saradc/ch0 |
| ODROID-C4 | /sys/bus/platform/drivers/meson-saradc/ff809000.saradc/iio:device0/in_voltage2_raw | /sys/bus/platform/drivers/meson-saradc/ff809000.saradc/iio:device0/in_voltage0_raw |
| ODROID-N2 | /sys/bus/platform/drivers/meson-saradc/ff809000.saradc/iio:device0/in_voltage3_raw | /sys/bus/platform/drivers/meson-saradc/ff809000.saradc/iio:device0/in_voltage2_raw |
| ODROID-M1 | /sys/bus/platform/drivers/rockchip-saradc/fe720000.saradc/iio:device0/in_voltage7 | /sys/bus/platform/drivers/rockchip-saradc/fe720000.saradc/iio:device0/in_voltage6 |

ADC's maximum sample rate is 50kSPS. ODROID-C2/M1 has 10bit resolution (0~1023). ODROID-C4/N2 has 12bit resolution (0~4095).

But the actual sample rate is 8kSPS if you access it via sysfs due to the limited file IO speed.

The ADC inputs are limited to **1.8Volt**. If the input voltage is higher than 1.8Volt, you will fry your ODROID board.

This [WiringPi](#) example code shows how to access the ADC for C/C++ programming.
[Introduction C Tinkering Kit on Ubuntu](#)

Library Source code [WiringPi port for ODROID-C0/C1/C2/XU3/XU4](#)

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