



## Product category

[miriac® MPX-LS1046A](#)  
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[miriac® MPX-LS1088A](#)



## Question

I have a question regarding the 1.8V GPIOs.

We currently use the following GPIOs GPIO4, GPIO5, GPIO6, GPIO7, GPIO8. What mechanism can I use to access them in Linux?



## Answer

On the Command line you can do it like this::

```
# cd /sys/class/gpio
# ll
--w----- 1 root root 4096 1970 -01-01 00:00 export
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip384 → ../devices/platform/soc/2330000.gpio/gpio/
gpiochip384/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip416 → ../devices/platform/soc/2320000.gpio/gpio/
gpiochip416/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip448 → ../devices/platform/soc/2310000.gpio/gpio/
gpiochip448/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip480 → ../devices/platform/soc/2300000.gpio/gpio/
gpiochip480/
--w----- 1 root root 4096 1970-01-01 00:00 unexport
```

Now you still need the correct number.

Example: GPIO1\_4 is at offset 2300000 bit 4, i.e. here 480+4.

Then:

```
# echo „484“ > export
# ll
--w----- 1 root root 4096 2020-02-04 11:13 export
lrwxrwxrwx 1 root root  0 2020-02-04 11:13 gpio484 → ../devices/platform/soc/2300000.gpio/gpiochip0/
gpio/gpio484/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip384 → ../devices/platform/soc/2330000.gpio/gpio/
gpiochip384/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip416 → ../devices/platform/soc/2320000.gpio/gpio/
gpiochip416/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip448 → ../devices/platform/soc/2310000.gpio/gpio/
gpiochip448/
lrwxrwxrwx 1 root root  0 1970-01-01 00:00 gpiochip480 → ../devices/platform/soc/2300000.gpio/gpio/
gpiochip480/
--w----- 1 root root 4096 2020-02-04 11:11 unexport
```



## Answer

The link gpio484 has been created

```
# cd gpio484
# ll
-rw-r--r-- 1 root root 4096 2020-02-04 11:15 active_low
-r--r--r-- 1 root root 4096 2020-02-04 11:15 consumers
lrwxrwxrwx 1 root root  0 2020-02-04 11:15 device -> ../../../gpiochip0/
-rw-r--r-- 1 root root 4096 2020-02-04 11:15 direction
-rw-r--r-- 1 root root 4096 2020-02-04 11:15 edge
drwxr-xr-x 2 root root  0 2020-02-04 11:15 power/
lrwxrwxrwx 1 root root  0 2020-02-04 11:15 subsystem -> ../../../../../../class/gpio/
-r--r--r-- 1 root root 4096 2020-02-04 11:15 suppliers
-rw-r--r-- 1 root root 4096 2020-02-04 11:13 uevent
-rw-r--r-- 1 root root 4096 2020-02-04 11:15 value
```

```
# cat direction
in
# cat value
0
The pin is default on „input“ and is pulled to logical „low“
```

```
# cat „out“ > direction
# echo „1“ > value
```

Sets the pin to „output“ and the level to logic „high“.