

Raspberry PI GPIO communication via sysfs

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Chapter 1

Raspberry PI GPIO communication via sysfs

SysGPIO is a class which encapsulate the reading / writing and interrupt handling to/from GPIO pins of the raspberry pi.

github

<https://github.com/berndporr/gpio-sysfs>

Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

SysGPIO	5
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Chapter 3

Class Documentation

3.1 SysGPIO Class Reference

Public Member Functions

- **SysGPIO** (unsigned int gpioNumber)
- int [gpio_export](#) ()
Starts accesss to the GPIO port.
- int [gpio_unexport](#) ()
Stops access to the GPIO port.
- int [gpio_set_dir](#) (bool out_flag)
Sets direction.
- int [gpio_set_value](#) (unsigned int value)
Sets the value of a port.
- int [gpio_get_value](#) (unsigned int &value)
Gets the value of a port.
- int [gpio_set_edge](#) (const char *edge)
Sets the change detection on the port.
- int [gpio_fd_open](#) ()
Gets a file descriptor on the "value" of the port.
- int [gpio_poll](#) (int gpio_fd, int timeout)
Puts the current thread to sleep until a change is detected on the file descriptor.

3.1.1 Member Function Documentation

3.1.1.1 [gpio_export\(\)](#)

```
int SysGPIO::gpio_export ( )
```

Starts accesss to the GPIO port.

Returns

error code or zero on success

3.1.1.2 gpio_fd_open()

```
int SysGPIO::gpio_fd_open ( )
```

Gets a file descriptor on the "value" of the port.

Returns

The file descriptor

3.1.1.3 gpio_get_value()

```
int SysGPIO::gpio_get_value (
    unsigned int & value )
```

Gets the value of a port.

Will be one or Zero.

Parameters

<i>value</i>	is modified by the call to one or zero.
--------------	---

Returns

error code or zero on success

3.1.1.4 gpio_poll()

```
int SysGPIO::gpio_poll (
    int gpio_fd,
    int timeout )
```

Puts the current thread to sleep until a change is detected on the file descriptor.

Get the file descriptor by calling gpio_fd_open.

Parameters

<i>gpio↔ _fd</i>	file descriptor of value
<i>timeout</i>	Timeout in ms.

Returns

error code or one on success

3.1.1.5 gpio_set_dir()

```
int SysGPIO::gpio_set_dir (
    bool out_flag )
```

Sets direction.

Parameters

<i>out_flag</i>	is true for output
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Returns

error code or zero on success

3.1.1.6 gpio_set_edge()

```
int SysGPIO::gpio_set_edge (
    const char * edge )
```

Sets the change detection on the port.

Parameters

<i>edge</i>	can be "rising" or "falling".
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Returns

error code or zero on success

3.1.1.7 gpio_set_value()

```
int SysGPIO::gpio_set_value (
    unsigned int value )
```

Sets the value of a port.

Can be one or Zero.

Returns

error code or zero on success

3.1.1.8 gpio_unexport()

```
int SysGPIO::gpio_unexport ( )
```

Stops access to the GPIO port.

Returns

error code or zero on success

The documentation for this class was generated from the following file:

- gpio-sysfs.h

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