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

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.

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

gpio_fd	file descriptor of value
timeout	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

out_flag	is true for output

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

edge	can be "rising" or "falling".

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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