

# Arduino Handmade Peripherals functions

0.1

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# Chapter 1

## Class Index

### 1.1 Class List

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

<a href="#">port</a>	This contains the attributs and methods for the port driver . . . . .	??
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## Chapter 2

# File Index

### 2.1 File List

Here is a list of all files with brief descriptions:

<a href="#">main.cpp</a>	.....	??
headers/ <a href="#">ports.h</a>		
Class prototype for the ports driver	.....	??
sources/ <a href="#">ports.cpp</a>	.....	??





## Chapter 3

# Class Documentation

### 3.1 port Class Reference

this contains the attributs and methods for the port driver

```
#include <ports.h>
```

#### Public Member Functions

- `port` (volatile uint8\_t &nom)  
*Constructor creates a new port instance.*
- void `set_output` (int pin, bool state)  
*sets the pin in DIGITAL OUTPUT MODE*
- void `set_input` (int pin)  
*sets the pin as INPUT MODE with pull-up disable*
- void `set_input_PUE` (int pin)  
*sets the pin as INPUT MODE PULL UP ENABLE*
- bool `get_state` (int pin)  
*gives the digital state(HIGH or LOW) of the pin*
- void `invert` (const int &time)  
*inverts the state of the specified PORT (DEFAULT STATE: 10101010)*

#### Protected Attributes

- volatile uint8\_t \* `port_name`  
*pointer to the io register PORTx (x{B,C,D})*
- bool `broche`  
*ensure the creation of a port instance*

#### 3.1.1 Detailed Description

this contains the attributs and methods for the port driver

Definition at line 20 of file ports.h.

### 3.1.2 Constructor & Destructor Documentation

#### 3.1.2.1 `port::port ( volatile uint8_t & nom )`

Constructor creates a new port instance.

## Parameters

<i>&amp;nom</i>	the name of the port (PORTB,PORTC,PORTD)
-----------------	--

## Returns

nothing

Definition at line 19 of file ports.cpp.

### 3.1.3 Member Function Documentation

#### 3.1.3.1 bool port::get\_state ( int *pin* )

gives the digital state(HIGH or LOW) of the pin

## Parameters

<i>pin</i>	the pin number of the port
------------	----------------------------

## Returns

Digital state of the pin (bool)

Definition at line 147 of file ports.cpp.

#### 3.1.3.2 void port::invert ( const int & *time* )

inverts the state of the specified PORT (DEFAULT STATE: 10101010)

## Parameters

<i>time</i>	gives the time between each state (in miliseconds)
-------------	--

## Returns

nothing

Definition at line 187 of file ports.cpp.

#### 3.1.3.3 void port::set\_input ( int *pin* )

sets the pin as INPUT MODE with pull-up disable

## Parameters

<i>pin</i>	the pin number of the port (PIN0..PIN7)
------------	---

## Returns

nothing

Definition at line 74 of file ports.cpp.

#### 3.1.3.4 void port::set\_input\_PUE ( int *pin* )

sets the pin as INPUT MODE PULL UP ENABLE

**Parameters**

<i>pin</i>	the pin number of the port
------------	----------------------------

**Returns**

nothing

Definition at line 111 of file ports.cpp.

**3.1.3.5 void port::set\_output ( int *pin*, bool *state* )**

sets the pin in DIGITAL OUTPUT MODE

**Parameters**

<i>pin</i>	the pin number of the port (PIN0..PIN7)
<i>state</i>	the pin state (HIGH or LOW)

**Returns**

nothing

Definition at line 23 of file ports.cpp.

**3.1.4 Member Data Documentation****3.1.4.1 bool port::broche [protected]**

ensure the creation of a port instance

Definition at line 83 of file ports.h.

**3.1.4.2 volatile uint8\_t\* port::port\_name [protected]**

pointer to the io register PORTx (x{B,C,D})

Definition at line 82 of file ports.h.

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

- headers/[ports.h](#)
- sources/[ports.cpp](#)

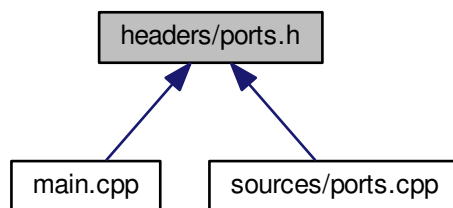
## Chapter 4

# File Documentation

### 4.1 headers/ports.h File Reference

Class prototype for the ports driver.

This graph shows which files directly or indirectly include this file:



#### Classes

- class [port](#)

*this contains the attributs and methods for the port driver*

#### 4.1.1 Detailed Description

Class prototype for the ports driver. This contains the class for the ports driver and also the attributs and methods you will need

#### Author

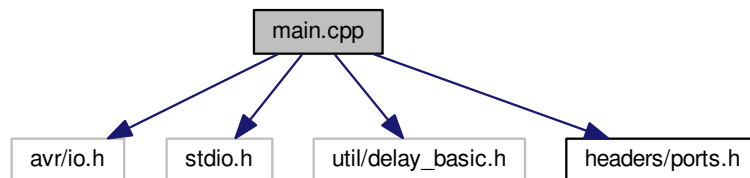
Alex velásquez Meling No known bugs

Definition in file [ports.h](#).

## 4.2 main.cpp File Reference

```
#include <avr/io.h>
#include <stdio.h>
#include <util/delay_basic.h>
#include "headers/ports.h"
```

Include dependency graph for main.cpp:



### Macros

- #define HIGH true
- #define LOW false
- #define low LOW
- #define high HIGH

### Functions

- int main (void)

#### 4.2.1 Macro Definition Documentation

##### 4.2.1.1 #define HIGH true

Definition at line 6 of file main.cpp.

##### 4.2.1.2 #define high HIGH

Definition at line 9 of file main.cpp.

##### 4.2.1.3 #define LOW false

Definition at line 7 of file main.cpp.

##### 4.2.1.4 #define low LOW

Definition at line 8 of file main.cpp.

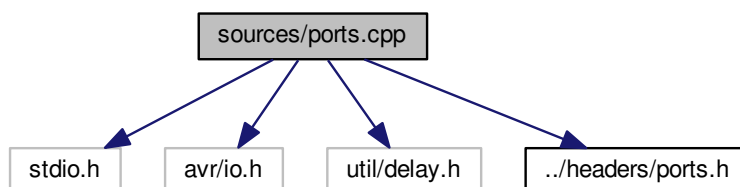
## 4.2.2 Function Documentation

### 4.2.2.1 int main ( void )

Definition at line 12 of file main.cpp.

## 4.3 sources/ports.cpp File Reference

```
#include <stdio.h>
#include <avr/io.h>
#include <util/delay.h>
#include "../headers/ports.h"
Include dependency graph for ports.cpp:
```



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