Arduino Handmade Peripherals functions

0.1

Generated by Doxygen 1.8.6

Mon Mar 7 2016 11:19:08

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Chapter 1

Class Index

1.1 Class List

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

port
This contains the attributs and methods for the port driver . . . . . ??

Chapter 2

File Index

2.1 File List

Here is a list of all files with brief descriptions:

main.cpp . . . . . ??
headers/ports.h
Class prototype for the ports driver . . . . . ??
sources/ports.cpp . . . . . ??

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 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

&nom	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 void port::invert (const int & *time*)

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

Parameters

time	gives the time between each state (in miliseconds)

Returns

nothing

Definition at line 113 of file ports.cpp.

3.1.3.2 void port::set_input (int *pin*)

sets the pin as INPUT MODE with pull-up disable

Parameters

pin	the pin number of the port (PIN0..PIN7)

Returns

nothing

Definition at line 74 of file ports.cpp.

3.1.3.3 void port::set_output (int *pin,* bool *state*)

sets the pin in DIGITAL OUTPUT MODE

Parameters

pin	the pin number of the port (PIN0..PIN7)
state	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 67 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 66 of file ports.h.

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

- headers/ports.h
- sources/ports.cpp

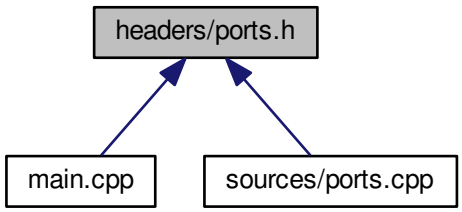
Chapter 4

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

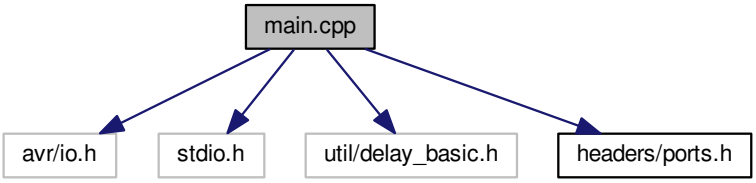
Alex velásquez Meling No known bugs

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

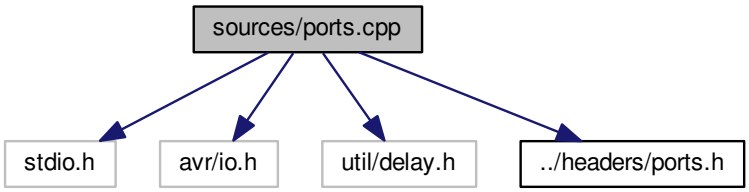
4.2.2.1 int main (void)

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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