Arduino Interface Library

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3.1	Ar	duinoRe	emotelO Class Reference					
#i	nclı	ude <	ArduinoInterface.h>					

2 CONTENTS

Private Types

```
• enum Mode { INPUT = 0, OUTPUT = 1 }
```

- enum AnalogReference {
 DEFAULT, INTERNAL, INTERNAL1V1, INTERNAL2V56,
 EXTERNAL }
- enum BitOrder { MSBFIRST, LSBFIRST }

Private Member Functions

- void pinMode (unsigned char pin, Mode mode)
- void digitalWrite (unsigned char pin, bool value)
- bool digitalRead (unsigned char pin)
- · void analogReference (AnalogReference reference)
- int analogRead (unsigned char pin)
- void analogWrite (unsigned char pin, unsigned char value)
- void tone (unsigned char pin, unsigned int frequency)
- · void tone (unsigned char pin, unsigned int frequency, unsigned long duration)
- void noTone (unsigned char pin)
- · void shiftOut (unsigned char dataPin, unsigned char clockPin, BitOrder order, unsigned char b)
- unsigned char shiftln (unsigned char dataPin, unsigned char clockPin, BitOrder order)
- unsigned long pulseln (unsigned char pin, unsigned char value)
- unsigned long pulseIn (unsigned char pin, unsigned char value, unsigned long timeout)

3.1.1 Detailed Description

Definition at line 8 of file ArduinoInterface.h.

3.1.2 Member Enumeration Documentation

3.1.2.1 enum ArduinoRemotelO::AnalogReference [private]

Enumerator

DEFAULT

INTERNAL

INTERNAL1V1

INTERNAL2V56

EXTERNAL

Definition at line 15 of file ArduinoInterface.h.

3.1.2.2 enum ArduinoRemotelO::BitOrder [private]

Enumerator

MSBFIRST

LSBFIRST

Definition at line 23 of file ArduinoInterface.h.

3.1.2.3 enum ArduinoRemotelO::Mode [private]

Enumerator

INPUT

OUTPUT

Definition at line 10 of file ArduinoInterface.h.

- 3.1.3 Member Function Documentation
- 3.1.3.1 int ArduinoRemotelO::analogRead (unsigned char pin) [private]
- **3.1.3.2** void ArduinoRemotelO::analogReference (AnalogReference reference) [private]
- 3.1.3.3 void ArduinoRemotelO::analogWrite (unsigned char pin, unsigned char value) [private]
- **3.1.3.4** bool ArduinoRemotelO::digitalRead (unsigned char *pin*) [private]
- 3.1.3.5 void ArduinoRemotelO::digitalWrite (unsigned char pin, bool value) [private]

Write a HIGH or a LOW value to a digital pin.

If the pin has been configured as an OUTPUT with pinMode(), its voltage will be set to the corresponding value: 5V (or 3.3V on 3.3V boards) for HIGH, 0V (ground) for LOW.

If the pin is configured as an INPUT, writing a HIGH value with digitalWrite() will enable an internal 20K pullup resistor (see the tutorial on digital pins). Writing LOW will disable the pullup. The pullup resistor is enough to light an LED dimly, so if LEDs appear to work, but very dimly, this is a likely cause. The remedy is to set the pin to an output with the pinMode() function.

NOTE: Digital pin 13 is harder to use as a digital input than the other digital pins because it has an LED and resistor attached to it that's soldered to the board on most boards. If you enable its internal 20k pull-up resistor, it will hang at around 1.7 V instead of the expected 5V because the onboard LED and series resistor pull the voltage level down, meaning it always returns LOW. If you must use pin 13 as a digital input, use an external pull down resistor.

Parameters

pin	The pin number.
value	LOW or HIGH.

- **3.1.3.6** void ArduinoRemotelO::noTone (unsigned char pin) [private]
- 3.1.3.7 void ArduinoRemotelO::pinMode (unsigned char pin, Mode mode) [private]

Configures the specified pin to behave either as an input or an output.

See the description of digital pins for details.

Parameters

pin	The number of the pin whose mode you wish to set	
mode	Either INPUT or OUTPUT	

- 3.1.3.8 unsigned long ArduinoRemotelO::pulseln (unsigned char pin, unsigned char value) [private]
- 3.1.3.9 unsigned long ArduinoRemotelO::pulseln (unsigned char *pin*, unsigned char *value*, unsigned long *timeout*) [private]
- 3.1.3.10 unsigned char ArduinoRemotelO::shiftln (unsigned char *dataPin*, unsigned char *clockPin*, BitOrder *order*) [private]

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3.1.3.11 void ArduinoRemotelO::shiftOut (unsigned char *dataPin*, unsigned char *clockPin*, BitOrder *order*, unsigned char *b*) [private]

- 3.1.3.12 void ArduinoRemotelO::tone (unsigned char pin, unsigned int frequency) [private]
- 3.1.3.13 void ArduinoRemotelO::tone (unsigned char pin, unsigned int frequency, unsigned long duration) [private]

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

· ArduinoInterface.h

4 File Documentation

- 4.1 ArduinoInterface.cpp File Reference
- 4.2 ArduinoInterface.cpp

00001

4.3 ArduinoInterface.h File Reference

Classes

class ArduinoRemotelO

Macros

- #define A0 14
- #define A1 15
- #define A2 16
- #define A3 17
- #define A4 18
- #define A5 19
- 4.3.1 Macro Definition Documentation
- 4.3.1.1 #define A0 14

Definition at line 1 of file ArduinoInterface.h.

4.3.1.2 #define A1 15

Definition at line 2 of file ArduinoInterface.h.

4.3.1.3 #define A2 16

Definition at line 3 of file ArduinoInterface.h.

4.3.1.4 #define A3 17

Definition at line 4 of file ArduinoInterface.h.

4.3.1.5 #define A4 18

Definition at line 5 of file ArduinoInterface.h.

4.4 ArduinoInterface.h 5

4.3.1.6 #define A5 19

Definition at line 6 of file ArduinoInterface.h.

4.4 ArduinoInterface.h

```
00001 #define A0
00002 #define A1
00003 #define A2
                           15
                          16
00004 #define A3
00005 #define A4
00006 #define A5
00007
00008 class ArduinoRemoteIO {
00009
          enum Mode {
00010
00011
              INPUT = 0,
00012
              OUTPUT = 1
00013
00014
00015
          enum AnalogReference {
            DEFAULT,
00016
00017
              INTERNAL,
00018
              INTERNALIVI,
00019
              INTERNAL2V56,
00020
              EXTERNAL
00021
          };
00022
00023
          enum BitOrder {
00024
00025
              LSBFIRST
00026
00027
00035
          void pinMode (unsigned char pin, Mode mode);
00036
00063
          void digitalWrite(unsigned char pin, bool value);
00064
00068
          bool digitalRead(unsigned char pin);
00069
00073
          void analogReference(AnalogReference reference);
00074
00078
          int analogRead(unsigned char pin);
00079
00083
          void analogWrite(unsigned char pin, unsigned char value);
00084
00088
          void tone(unsigned char pin, unsigned int frequency);
00089
00093
          void tone (unsigned char pin, unsigned int frequency, unsigned long duration);
00094
00098
          void noTone(unsigned char pin);
00099
00103
          void shiftOut (unsigned char dataPin, unsigned char clockPin,
     BitOrder order, unsigned char b);
00104
00108
          unsigned char shiftIn(unsigned char dataPin, unsigned char clockPin,
      BitOrder order);
00109
00113
          unsigned long pulseIn(unsigned char pin, unsigned char value);
00114
00118
          unsigned long pulseIn (unsigned char pin, unsigned char value, unsigned long timeout);
00119 };
```

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