

Arduino playground : Code / Debounce

Debounce library for Arduino
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Current version

1.2 2008/09/25: Added a write function as suggested by Jim Schimpf

History

1.1 2008/09/25: Modified header file so Debounce compiles with Arduino 12 1.0 2008/09/21: Initial Release

Description

Debounce is a library for Arduino (arduino.cc).

It [debounces](#) digital inputs.

Download, install and import

Download here: [Attach:Debounce.zip](#)

Put the Debounce folder in "hardware\libraries\".

In the Arduino IDE, create a new sketch (or open one) and

select from the menubar "Sketch->Import Library->Debounce".

Once the library is imported, an "#include Debounce.h" line will appear

at the top of your Sketch.

CREATION

Debounce(unsigned long debounceTime, byte pin)

Instantiates a Debounce object with a debounce time and a digital pin number.

Because Debounce does not use interrupts, you have to "update" the Debounce before reading its value.

Methods

int update()

Updates Debounce. Returns true if the pin state changed (HIGH to LOW or LOW to HIGH). False if not.

void interval(unsigned long interval)

Changes the debounce time in milliseconds.

int read()

Reads the update pin state correct for debouncing.

void write(int state)

Writes the state to the pin (in Debounce's memory and with digitalWrite).

Example

// This code turns a led on/off through a debounced switch

```
#include <Debounce.h>
#define SWITCH 5
#define LED 13
```

```
// Instantiate a Debounce object with a 20 millisecond debounce time
Debounce debouncer = Debounce( 20 , SWITCH );
```

```
void setup() {
  pinMode(SWITCH,INPUT);
  pinMode(LED,OUTPUT);
```

```
}

void loop() {
  // Update the debouncer
  debouncer.update ( );

  // Get the update value
  digitalWrite(LED, debouncer.read() );
}
```

FAQ

I found your debounce library on the Arduino Website. It's just what I was looking for. But...Can you use it for more than one digitalInput ;

Debounce is a class. Therefore to debounce multiple digital pins, you must create an instance for each of them. In the example above, a Debounce instance (called *debouncer*) for pin 5 (defined as SWITCH) is created with the following line:

```
Debounce debouncer = Debounce( 20 , SWITCH );
```

To debounce an additional pin (pin 4 for example), you could create the following instance called *debounce2*:

```
Debounce debounce2 = Debounce( 20 , 4 );
```

During the loop() you would have to update *debouncer* (for pin 5) and *debounce2* (for pin 4):

```
// Update the debouncers
debouncer.update();
debounce2.update();
```

(Printable View of <http://www.arduino.cc/playground/Code/Debounce>)