

Arduino Libray utility

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Array Library for Arduino

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1.0 2009-06-17 - Alexander Brevig : Initial Release

1.0 2009-06-17 - Alexander Brevig : foreach

1.1 2009-06-17 - Alexander Brevig : sign

1.2 2009-06-17 - Alexander Brevig : extended templating

3.0 2019-11-20 - Marcel Jordaan : Corrected version arduino version >= 100

Description

Array is a library for the Arduino.

It is created to help simplify the handling of raw c++ arrays.

Download, install and import

Library ZIP file: [utility.zip](#)

Add the utility library, in the Arduino IDE select from the menubar "Sketch->Include Library->Add .ZIP Library". Select the library file 'utility.zip' and confirm the choice, library will now be added.

In the Arduino IDE, create a new sketch (or open one) and select from the menubar "Sketch->Import Library->utility".

Once the library is imported, an '#include <utility.h>' line will appear at the top of your Sketch.

Creation

```
Array<datatype> variablename = Array<datatype>( array , size );
```

Functions

foreach

This function takes an array of pins, the length of the array, target function and the modifier for the function as parameters.

```
foreach( array, length, function, modifier);  
foreach( ledPins, 10, digitalWrite, HIGH );
```

sign

Determines if a value is equal,below or above 0

```
int x = 2;  
  
int signum = sign(x); //1
```

Example

```
#include <Utility.h>  
  
const byte NUMBER_OF_PINS = 4;  
byte ledPin[NUMBER_OF_PINS] = {10,11,12,13};  
  
void setup() {  
  foreach(ledPin, NUMBER_OF_PINS, pinMode, OUTPUT); //set all pins as  
  OUTPUT  
}  
  
void loop() {  
  foreach(ledPin, NUMBER_OF_PINS, digitalWrite, HIGH); //set all pins HIGH  
  delay(1000);  
  
  foreach(ledPin, NUMBER_OF_PINS, digitalWrite, LOW); //set all pins LOW
```

```
delay(1000);

//manipulate pins from index 1 to index 3, inclusive
foreach(ledPin, 1, 3, digitalWrite, HIGH);//set pin 11,12 and 13 HIGH
delay(500);

//manipulate pins from index 1 to index 2, inclusive
foreach(ledPin, 1, 2, digitalWrite, LOW);//set pin 11 and 12 LOW
delay(500);
}
```