digitalWrite()

[Digital I/O]

Description

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, digitalWrite() will enable (HIGH) or disable (LOW) the internal pullup on the input pin. It is recommended to set the pinMode() to INPUT\_PULLUP to enable the internal pull-up resistor. See the [Digital Pins](http://arduino.cc/en/Tutorial/DigitalPins) tutorial for more information.

If you do not set the pinMode() to OUTPUT, and connect an LED to a pin, when calling digitalWrite(HIGH), the LED may appear dim. Without explicitly setting pinMode(), digitalWrite() will have enabled the internal pull-up resistor, which acts like a large current-limiting resistor.

Syntax

digitalWrite(pin, value)

Parameters

pin: the Arduino pin number.  
value: HIGH or LOW.

Returns

Nothing

Example Code

The code makes the digital pin 13 an OUTPUT and toggles it by alternating between HIGH and LOW at one second pace.

void setup() {

pinMode(13, OUTPUT); // sets the digital pin 13 as output

}

void loop() {

digitalWrite(13, HIGH); // sets the digital pin 13 on

delay(1000); // waits for a second

digitalWrite(13, LOW); // sets the digital pin 13 off

delay(1000); // waits for a second

}

Notes and Warnings

The analog input pins can be used as digital pins, referred to as A0, A1, etc. The exception is the Arduino Nano, Pro Mini, and Mini’s A6 and A7 pins, which can only be used as analog inputs.