digitalWrite()

Description

Write a HIGH (//www.arduino.cc/en/Reference/Constants) or a LOW (//www.arduino.cc/en/Reference/Constants) value to a digital pin.

If the pin has been configured as an OUTPUT with pinMode (//www.arduino.cc/en/Reference/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 (//www.arduino.cc/en/Reference/PinMode)() to INPUT_PULLUP (//www.arduino.cc/en/Reference/Constants) to enable the internal pull-up resistor. See the digital pins tutorial (//www.arduino.cc/en/Tutorial/DigitalPins) for more information.

NOTE: 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 pin number

value: HIGH (//www.arduino.cc/en/Reference/Constants) or LOW (//www.arduino.cc/en/Reference/Constants)

Returns

none

Example

```
int ledPin = 13;                  // LED connected to digital pin 13

void setup()
{                    STORE (//STORE.ARDUINO.CC)  SOFTWARE  EDUCATION (//WWW
  pinMode(ledPin, OUTPUT);      // sets the digital pin as output
}

void loop()
{
  digitalWrite(ledPin, HIGH);   // sets the LED on
  delay(1000);                  // waits for a second
  digitalWrite(ledPin, LOW);    // sets the LED off
  delay(1000);                  // waits for a second
}
```

Sets pin 13 to HIGH, makes a one-second-long delay, and sets the pin back to LOW.

Note

The analog input pins can be used as digital pins, referred to as A0, A1, etc.

See also

- pinMode (//www.arduino.cc/en/Reference/PinMode)()
- digitalRead (//www.arduino.cc/en/Reference/DigitalRead)()
- Tutorial: Digital Pins (//www.arduino.cc/en/Tutorial/DigitalPins)

Reference Home (//www.arduino.cc/en/Reference/HomePage)

Corrections, suggestions, and new documentation should be posted to the Forum (http://arduino.cc/forum/index.php/board,23.0.html).

(https://www.arduino.cc)

NEWSLETTER

Enter your email to sign up

STORE (//STORE.ARDUINO.CC) SOFTWARE EDUCATION (//WWW

SUBSCRIBE

Terms Of Service (//www.arduino.cc/en/Main/TermsOfService)

Privacy Policy (//www.arduino.cc/en/Main/PrivacyPolicy)

Contact Us (//www.arduino.cc/en/Main/ContactUs)

About Us (//www.arduino.cc/en/Main/AboutUs)

Distributors (//store.arduino.cc/distributors)

Careers (//careers.arduino.cc)

Security (//www.arduino.cc/en/Main/Security)

(https://www.arduino.cc/en/Main/ourteam)