digitalRead()

[Digital I/O]

Description

Reads the value from a specified digital pin, either HIGH or LOW.

Syntax

digitalRead(pin)

Parameters

pin: the Arduino pin number you want to read

Returns

HIGH or LOW

Example Code

Sets pin 13 to the same value as pin 7, declared as an input.

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

int inPin = 7; // pushbutton connected to digital pin 7

int val = 0; // variable to store the read value

void setup() {

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

pinMode(inPin, INPUT); // sets the digital pin 7 as input

}

void loop() {

val = digitalRead(inPin); // read the input pin

digitalWrite(ledPin, val); // sets the LED to the button's value

}

Notes and Warnings

If the pin isn’t connected to anything, digitalRead() can return either HIGH or LOW (and this can change randomly).

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.