**ESP32 Digital Inputs and Digital Outputs (Arduino IDE)**

In this getting started guide you will learn how to read digital inputs like a button switch and control digital outputs like an LED using the ESP32 with Arduino IDE.

**ESP32 Control Digital Outputs.**

First, you need set the GPIO you want to control as an OUTPUT. Use the pinMode() function as follows.

pinMode (GPIO, OUTPUT);

To control a digital output you just need to use the digitalWrite() function, that accepts as arguments, the GPIO (int number) you are referring to, and the state, either HIGH or LOW.

digitalWrite(GPIO, STATE);

All GPIOs can be used as outputs except GPIOs 6 to 11 (connected to the integrated SPI flash) and GPIOs 34, 35, 36 and 39 (inputs only GPIOs);

**ESP32 Read Digital Inputs.**

First, set the GPIO you want to read as INPUT, using the pinMode () function as follows:

pinMode (GPIO, INPUT);

To read a digital input, like a button, you use the digitalRead() function, that accepts as argument, the GPIO (int number) you are referring to.

digitalRead(GPIO);

All ESP32 GPIOs can be used as inputs, except GPIOs 6 to 11 (connected to the integrated SPI flash).

**Project Example.**

To show you how to use digital inputs and digital outputs, we’ll build a simple project example with a pushbutton and an LED. We’ll read the state of the pushbutton and light up the LED accordingly as illustrated.



