# esp32 — functionality specific to the ESP32

The esp32 module contains functions and classes specifically aimed at controlling ESP32 modules.

## Functions

**esp32.wake_on_touch**(*wake*)

Configure whether or not a touch will wake the device from sleep. *wake* should be a boolean value.

**esp32.wake_on_ext0**(*pin*, *level*)

Configure how EXT0 wakes the device from sleep. *pin* can be None or a valid Pin object. *level* should be esp32.WAKEUP_ALL_LOW or esp32.WAKEUP_ANY_HIGH.

**esp32.wake_on_ext1**(*pins*, *level*)

Configure how EXT1 wakes the device from sleep. *pins* can be None or a tuple/list of valid Pin objects. *level* should be esp32.WAKEUP_ALL_LOW or esp32.WAKEUP_ANY_HIGH.

**esp32.raw_temperature**()

Read the raw value of the internal temperature sensor, returning an integer.

**esp32.hall_sensor**()

Read the raw value of the internal Hall sensor, returning an integer.

## The Ultra-Low-Power co-processor

*class* **esp32.ULP**

This class provides access to the Ultra-Low-Power co-processor.

**ULP.set_wakeup_period**(*period_index*, *period_us*)

Set the wake-up period.

**ULP.load_binary**(*load_addr*, *program_binary*)

Load a *program_binary* into the ULP at the given *load_addr*.

**ULP.run**(*entry_point*)

Start the ULP running at the given *entry_point*.

## Constants

**esp32.WAKEUP_ALL_LOW**

**esp32.WAKEUP_ANY_HIGH**

Selects the wake level for pins.