Docs » MicroPython libraries » machine — functions related to the hardware » class RTC – real time clock

# class RTC - real time clock

The RTC is and independent clock that keeps track of the date and time.

Example usage:

```
rtc = machine.RTC()
rtc.init((2014, 5, 1, 4, 13, 0, 0, 0))
print(rtc.now())
```

## **Constructors**

```
class machine.RTC(id=0, ...)
```

Create an RTC object. See init for parameters of initialization.

# **Methods**

### RTC.init(datetime)

Initialise the RTC. Datetime is a tuple of the form:

```
(year, month, day[, hour[, minute[, second[, microsecond[, tzinfo]]]]])
```

### RTC.now()

Get get the current datetime tuple.

#### RTC.deinit()

Resets the RTC to the time of January 1, 2015 and starts running it again.

```
RTC.alarm(id, time, *, repeat=False)
```

Set the RTC alarm. Time might be either a millisecond value to program the alarm to current time + time\_in\_ms in the future, or a datetimetuple. If the time passed is in milliseconds, repeat can be set to True to make the alarm periodic.

```
RTC.alarm_left(alarm_id=0)
```

Get the number of milliseconds left before the alarm expires.

## RTC.cancel(alarm\_id=0)

Cancel a running alarm.

## RTC.irq(\*, trigger, handler=None, wake=machine.IDLE)

Create an irq object triggered by a real time clock alarm.

- trigger must be RTC.ALARMO
- handler is the function to be called when the callback is triggered.
- wake specifies the sleep mode from where this interrupt can wake up the system.

# **Constants**

### RTC.ALARM0

irq trigger source