**Deep sleep with Timer wake up**

How to use the the deep sleep mode without libary

1. Config deep sleep modes

*esp\_sleep\_enable\_timer\_wakeup(TIME\_TO\_SLEEP)*

1. Command to set esp32 to deep sleep mode

*esp\_deep\_sleep\_start();*

How to use library in Arduino ide

1. Add f\_deep\_sleep folder into the folder *Arduino/library*
2. restart Arduino ide and have a look in File->Examples->f\_deep\_sleep->deep\_sleep\_timer\_wake\_up

How to use library in PlatformIO

1. Create a new Project
2. Add f\_deep\_sleep folder into the folder *lib*
3. Use the provided code example in the folder f\_deep\_sleep/example and

copy the code from it into the src/main.cpp to try the library

Use the function provided by the library

* + *void print\_wake\_up\_reason()* 
    - prints out the weak up reason (timer wake up, touch wake up, and external wake updeep) sleep on the Serial monitor
  + *void deep\_sleep(int time\_in\_secounds)*
    - set the esp the defined number of seconds into sleep(uses timer weak up mode)

Some useful Information

* after setting esp into deep sleep mode it will always start again in the **void setup()**
* all variable which are **not save in the RTC memory will be erased after weak up**
  + How to save variable into RTC Example

*RTC\_DATA\_ATTR int x\_savedInRTC= 0;*

* a **hard Reset -> RTC variables get erased**

More Information about the Low Power system you find in the attached datasheet ESP32\_LOW\_POWER Management