ESP8266 Wiring Diagram

WEMOS D1 mini - Top View

					RTC
Reset	**RST**		**TX**	**TXD**	
Analog IN	**A0**		**RX**	**RXD**	
GPIO16	**D0**		**D1**	**GPIO05**	**SCL**
GPIO14	**D5**	**ESP8266**	**D2**	**GPIO04**	**SDA**
UPDATE_PIN **GPIO12**	**D6**		**D3**	**GPIO00**	
RESET_PIN **GPIO13**	**D7**		**D4**	**GPIO02**	
GPIO15	**D8**		**GND**		**GND**
3,3 Volt	**3V3**		**5V**		

USB
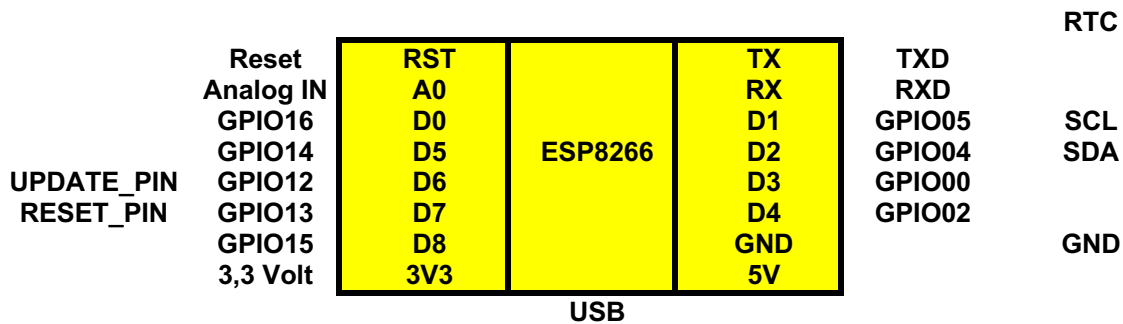
Connect GPIO12 to GND to temporarily prevent sleep and allow MQTT to send commands
Connect GPIO12 to GND to reset the ESP and the RTC IC
Connect GPIO16 to RST to wake up from deep sleep

Connect the fully assembled RTC PCB to SDA, SCL and GND of the ESP8266, insert coin cell CR2032. Connect the VDD terminal on the PCB to 3V3 of ESP8266.

To initialize the RTC Chip, connect GPIO13 (D7 on WEMOS D1 mini) to ground. Reset the ESP8266 and the RTC init routine will be called in the setup function and the program loop. Remove the connection once the init is done.

The init procedure has to be repeated after power loss of the CR2032 battery.

If you want to send MQTT commands to a sleeping ESP8266, connect GPIO12 (D6 on WEMOS D1 mini) to GND and wait for next wake up. Send the required commands, watch the execution on a MQTT Explorer and remove the connection once all commands are properly executed.