Modular Tester user guide: Clock / Timer

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A simple clock with timer and countdown functions (60 minutes maximum).

A Real Time Clock (RTC) is used without a battery, it is synchronized with the NTP (Network Time Protocol) at startup and every hour (unless timer modes are active) and again when exiting timer modes.

After power on the module shows the splash screen and goes to sleep.

The module uses the NTP and needs access to the internet over WiFi.

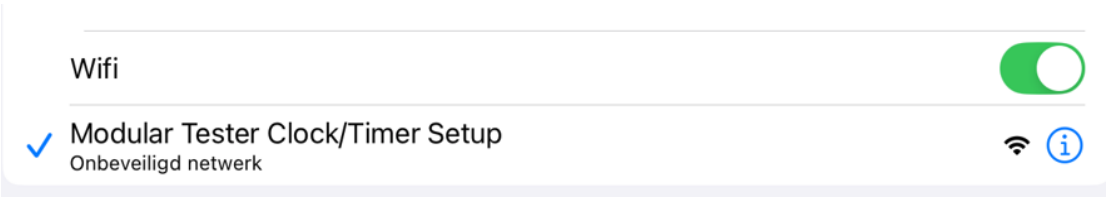
In order to setup the WiFi parameters (module must be in sleep mode), press the button and rotary encoder at the same time and hold until the setup screen appears.

The module is now in access point (AP) mode, parameters can be set via the captive portal.

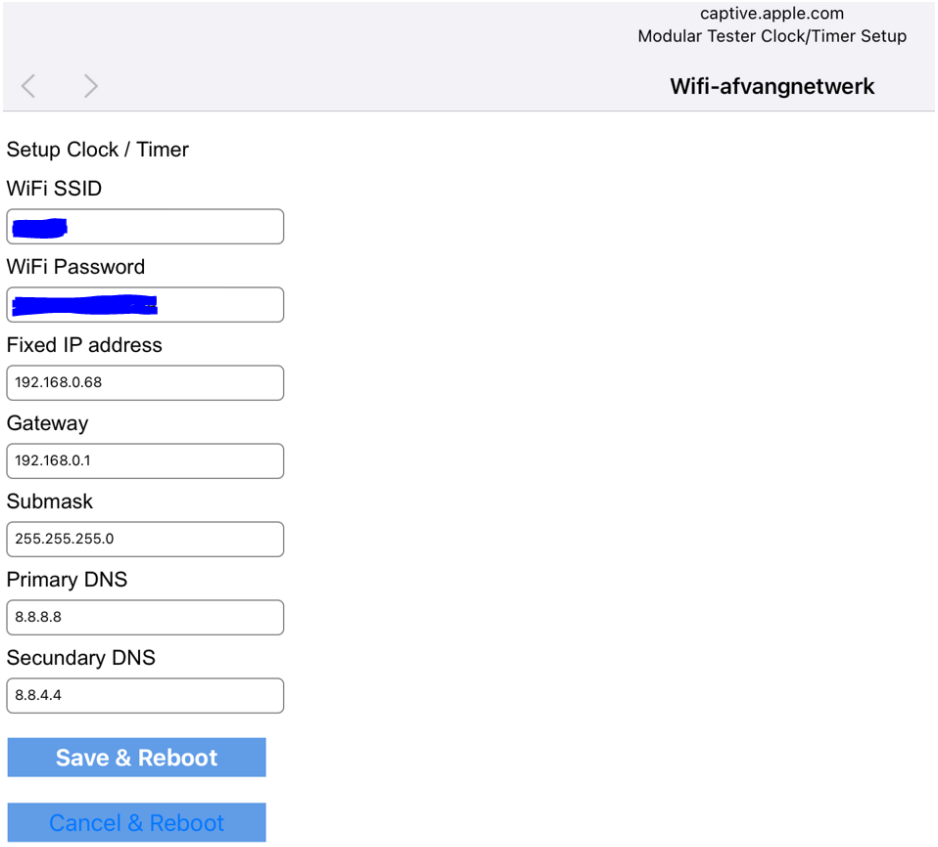
In case you accidently got into this mode or do not want to change the setup press the rotary encoder to go to sleep.

Example on iPad:

Go to Settings screen -> WiFi and select the clock as WiFi access point.



The captive portal opens after a few seconds.



Enter the parameters and click Save & Reboot when done.

For normal operation, press the rotary encoder and hold until the splash screen appears.

The module will connect to WiFi and synchronizes the RTC to the NTP.

Turn the encoder to switch mode:

Clock mode

Just the time and date.

Timer mode

Click the button to (re)start the timer.

Click the button to stop the timer.

Click the button longer to reset the timer.

Countdown mode

Default the countdown timer is set to 1 minute.

To set the timer press the encoder to enter minutes mode, turn the encoder to set the minutes.

Press the encoder to enter seconds mode, turn the encoder to set the seconds.

Press the encoder to exit the setting mode.

Click the button to (re)start the timer, a short beep will sound if the time set is 0 indicating an invalid action.

Click the button to stop the timer.

Click the button longer to reset the countdown timer to the pre-set time.

Default the end of time beep is activated.

If the autoset option is activated (on by default) the timer will reset to the pre-set time automatically after the countdown, otherwise it will stay at 0.

Press encoder long for the menu, turn to select, press to select or toggle setting:

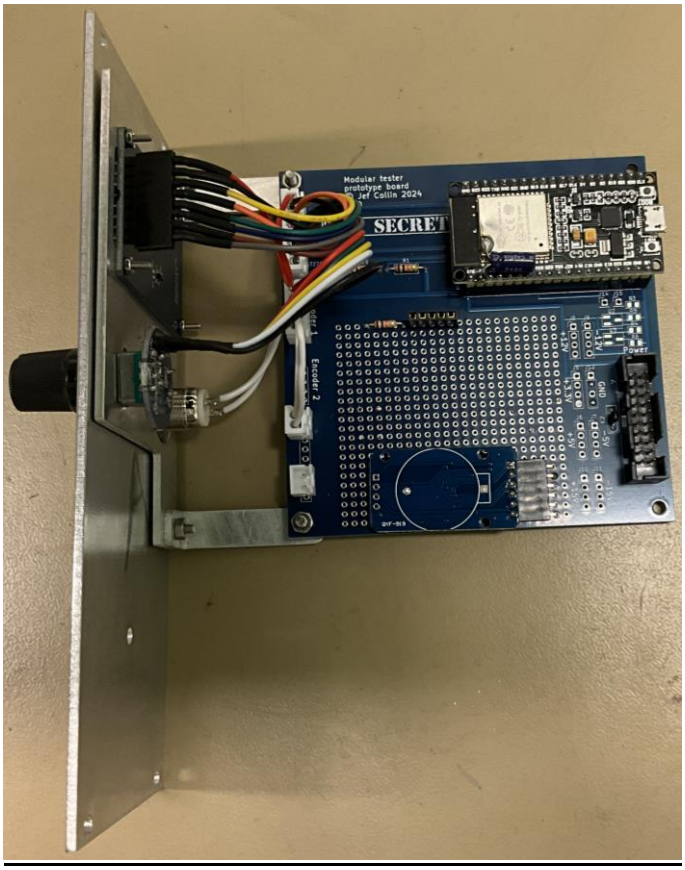
Return: return to main screen.

Beep on / Beep off: toggle the end of countdown alarm.

Autoset cdn off / Autoset cdn on: toggle the automatic reset of the countdown timer at the end of the countdown.

Go to sleep: put the module to sleep.

Clock/Timer
Start/Stop
Reset


Modular tester
prototype board
Jef Collin 2024
SECRET
Encoder 2
POWER
GND
5V