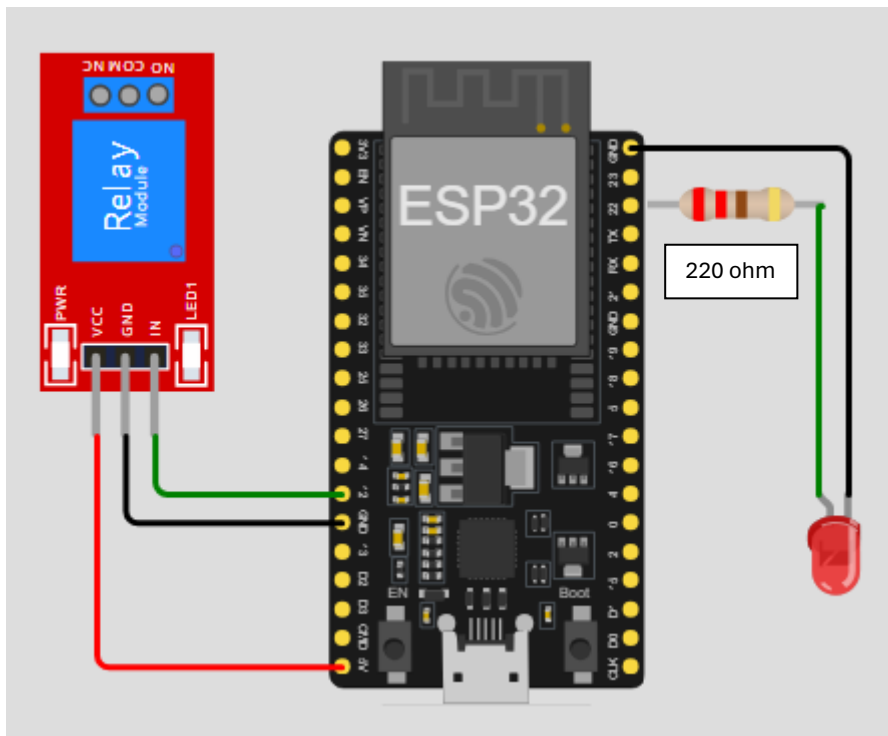


HOW TO MAKE ONE ?

Find here the instructions to make your own metronome replica and synchronise it with the ticking of the master metronome.

PLANKTIJD runs on an ESP32 board and uses WIFI to synchronise with master metronome. A 5 volt relay is used to generate a soft “tick” and can be used to control a ticker of any kind.

Optional, you can connect a LED as shown in the picture.



The LED is between PIN 22 and ground with a resistor of 220 ohm in series.

RELAY with + & - connected to the + & ground of the ESP32 board.

The IN of the relay board with PIN 12 of the ESP 32 board.

I advise to use **Thonny** (<https://thonny.org/>) to program the ESP32 controller.

Install **micropython** on the ESP32.

Follow these steps:

<https://randomnerdtutorials.com/getting-started-thonny-micropython-python-ide-esp32-esp8266/>

Load the **settings.py** and **boot.py** file from <http://planktone.be/planktijd/DIY.html>

Open the **settings.py** file and change the WIFI settings corresponding your WIFI network (SSID and password).

Add your timezone (see: <https://www.timeanddate.com/time/map/>) and also a timeslot in which the metronome can tick.

You can also give your replica to decide if it ticks the foreseen moment or not by itself in the settings.

Save it to the controller ESP32 board as “ **settings.py** “.

Open the **boot.py** file and start the project.

The relay ticks 3x times and the LED flashes each second (not blink) when the program is running as expected.

Save it to the controller ESP32 board as “ **boot.py** “.

Form now on the board can be used without computer and starts each time the board is powered.

TICKER

A relay connected to pin 12 of the ESP32 board creates a ticking sound each time the ticker ticks ... but the ticker can be what you think is makeable.

The relay can be used to control anything (a bell, a bigger electromagnet, a motor ...) if the tick of the relay to silent for you ...

It's possible to make one with a pull-electromagnet and some (drum)stick that ticks an object.

Other easy and smart solutions are always welcome at planktijd@planktone.be

PAPER MODEL

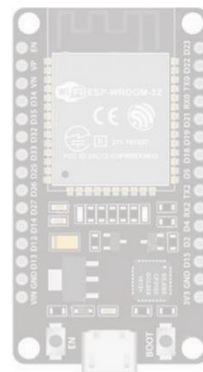
Next page is a cut-out for a paper replica model. A pair of scissors and glue stick are needed to

But, feel free to use other materials and design for your metronome replica.



PLANKTIJD

<http://planktone.be/planktijd>



cut out
for USB

PLANKTIJD

<http://planktone.be/planktijd>

Make your own metronome replica

Print, cut, fold and glue

Keep it ticking ...