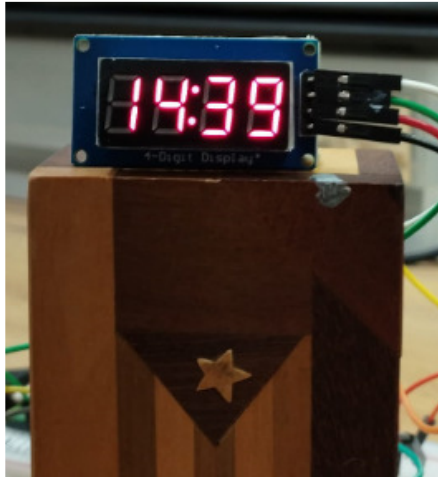


Turning the 7 Segment Display into a digital clock



Python has a library called time

We have used the sleep module from time

Remember this:

from time import sleep

sleep(5) - gives us a 5 seconds delay

time has another module/function called **localtime**

from time import localtime

```
>>> from time import localtime
>>> print(localtime())
```

```
(2023, 7, 15, 14, 1, 42, 5, 196)
```

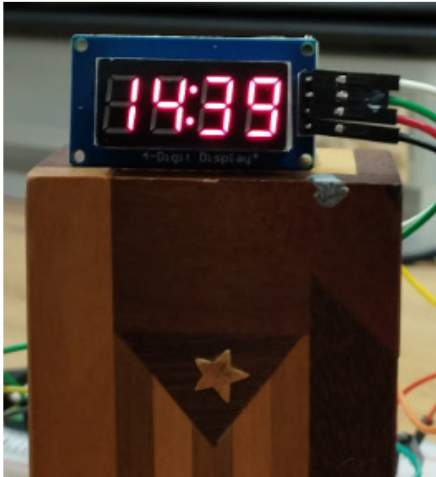
localtime() gives us the current date time information

It is organized as a tuple.

A tuple is a collection of data, separated by comma inside 2 round brackets

(Y, M, D, H, M, S, Day of Week, No of days from Jan 1)

Turning the 7 Segment Display into a digital clock



(2023, 7, 15, 14, 1, 42, 5, 196)

← localtime()

0 1 2 3 4 5 6 7

We can assign it to a variable called `timenow`
`timenow=localtime()`

Each data in the tuple has an index number
by which it can be addressed

`year = timenow[0]`

`print(year)`

Result: 2023

`hr=timenow[3]`

`print(hr)`

Result : 14

Can you get the minute?

Once you know how to get the hr and min from localtime()
you can send the hr and min data to the 7 segment display

To show the hr and min on the 7 segment display:
tm.number(hr,min)

This is Ex 2.

Complete the following, to turn the display into a digital clock
You only need to refresh the display only after 1 minute as this
digital clock do not show time in seconds. You need sleep(??)

```
import tm1637
from machine import Pin
from time import sleep, localtime
tm = tm1637.TM1637(clk=Pin(5), dio=Pin(4))
tm.show("  ") #to blank out the display
while True:
    .....
    .....
    .....
```

Please give Ex2 your best shot.
Send me your surrender emoji and
I will dispatch the answer to you.