FF-BY-ONE 2024

Conference Badge

Getting Started

Turn on the badge using the switch.

There are several menu items available.

For example, you may switch between different Octo Eyes

Where are the flags?

The badge is running MicroPython. You may access the REPL by plugging in the USB. It will appear as a serial port on your PC.


```
MPY: soft reboot
Starting web server
MicroPython v1.20.0-329-g70c564324-dirty on 2024-06-06;
ESP32S3 module with ESP32S3

Type "help()" for more information.
>>> print("Hello World")
Hello World
```

Where are the flags?

There are a total of 6 flags!

Some are MicroPython-based and some may require you to interface with the Arduino

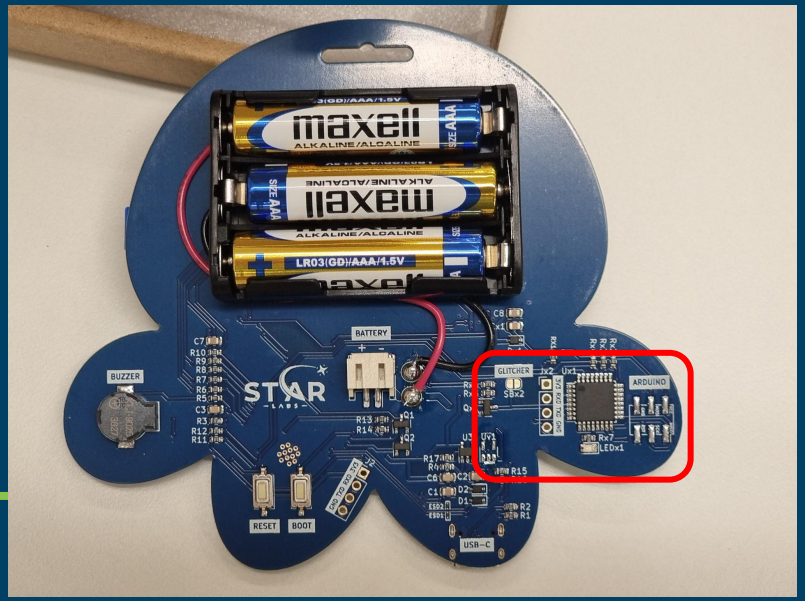
For each flag you find, please *demonstrate* your solution script at the hardware booth!

At the end of the conference, the first person with the most flags will win a prize!

Hint:

```
>>> arduino
<MyArduino object at 3fcaac10>

>>> dir(arduino)
['__class__', '__init__', '__module__',
'__qualname__', '__dict__', 'off', 'on',
'i2c']
```



Hacking further

You may modify the MicroPython code in the badge.

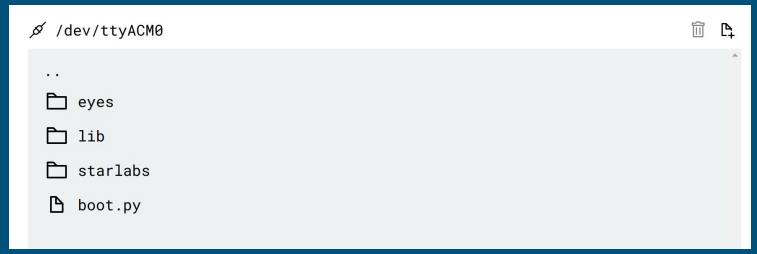
Perhaps you can add your own images, names or music! The chipset is also supports Wifi and BLE.

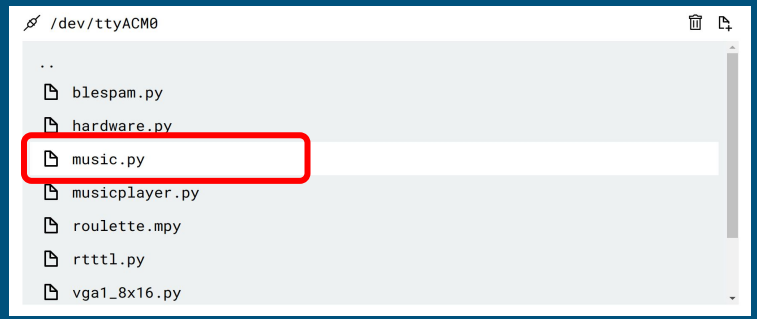
In the next slide, there is an example using Arduino Lab for MicroPython to edit the code.
(N.B. Do make a backup before modifying the code too.)

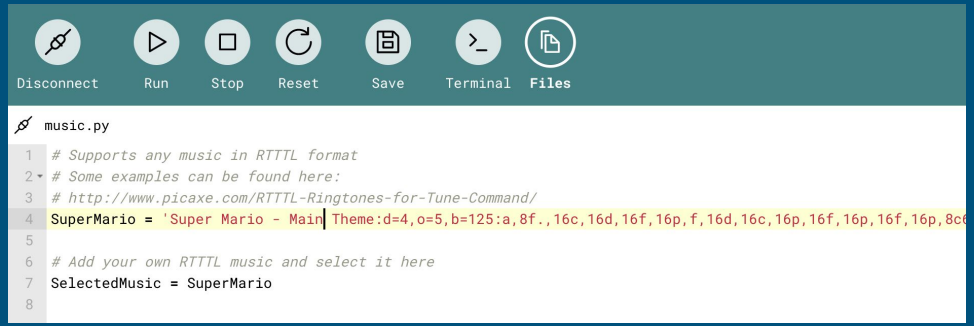
Hacking further

RTTTL Music Player:

The music player is compatible with the RTTTL standard.
Insert your own into ‘music.py’.







Happy Hacking!