



Amazon Freertos workshop using the M5 StickC

- Lab 0 - Setup
- Lab 1 - Create your own AWS IoT Button
- Lab 2 - Interact with the Thing
- Lab 3 - Just in Time Registration with Greengrass

View the Project on GitHub
iotlabtpe/amazon-freertos-m5stickc-workshop

Build the code on your laptop

Clone the repository

Main code can be found on the repository page: github.com/onsankawai/amazon-freertos-m5stickc-workshop

```
git clone https://github.com/onsankawai/amazon-freertos-m5stickc-workshop.git
```

Note: from now on, we'll assume your bash is in the workshop folder

Setup your credentials

Create the aws_clientcredential_keys.h

Navigate to <https://yona75.github.io/credformatter/>, upload your Certificate and Private key that you downloaded in the [previous](#) step and generate an aws_clientcredential_keys.h file.

Copy aws_clientcredential_keys.h to project

Copy the file to ./amazon-freertos/demos/include/ directory by dragging it there

Edit aws_clientcredential.h

Open the aws_clientcredential.h file by double-clicking on it. And change the following values:

```
...
#define clientcredentialMQTT_BROKER_ENDPOINT "[YOUR AWS IOT ENDPOINT]"
...
#define clientcredentialIOT_THING_NAME      "[THE THING NAME YOU CREATED]"
...
#define clientcredentialWIFI_SSID           "[YOUR WIFI SSID]"
...
#define clientcredentialWIFI_PASSWORD      "[YOUR WIFI PASSOWRD]"
...
#define clientcredentialWIFI_SECURITY      eWiFiSecurityWPA2
...
```

Note: clientcredentialWIFI_SECURITY is defined without double quotes

Setup the code

As of now, we move the code to the amazon-freertos folder structure to maintain most of the dependencies.

```
mv ./m5stickc ./amazon-freertos/vendors/espressif/boards
```

Note: TODO: see how to leverage cmake in order NOT to have to do this

Connect your board to your laptop

Find the USB device

```
ls /dev/cu.*
```

Should return something like: /dev/cu.usbserial-29568143B4

Make a note of the “/dev/cu.usbserial-29568143B4” (copy)

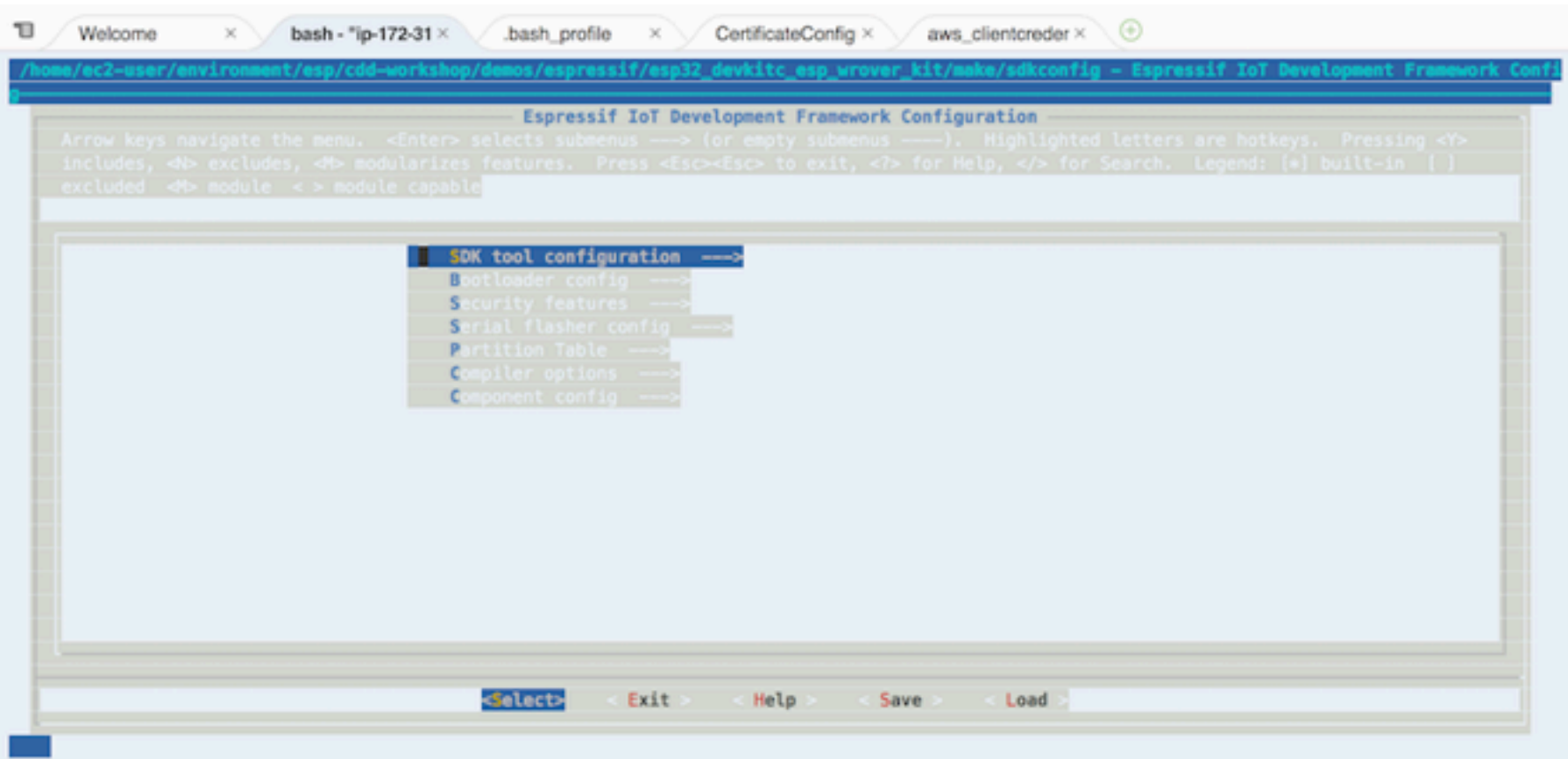
Configure the code

Run make menuconfig and configure the serial port.

```
cd ./amazon-freertos/vendors/espressif/boards/m5stickc/aws_demos

make menuconfig
```

- Select “Serial flasher config”
- Set the serial port to: [YOUR /dev/cu....]
- Save and then Exit



Compile, flash and monitor the code

```
make all -j4 && make flash && screen /dev/cu.... 115200 -L
```

Note: replace /dev/cu.... by your specific serial port