

ESP32-IDF configuration tool

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1、 Introduction to ESP32-IDF configuration tool

In the root directory of the ESP32-IDF project, there is an sdkconfig file, which is used to store the configuration content of ESP32-IDF.

2、 Activate the ESP-IDF development environment

Run the following command in the esp-idf tool directory

```
source ~/esp/esp-idf/export.sh
```

Note: Every time you open a new terminal, you need to activate the ESP-IDF development environment before you can compile the ESP-IDF project.

3、 New Construction

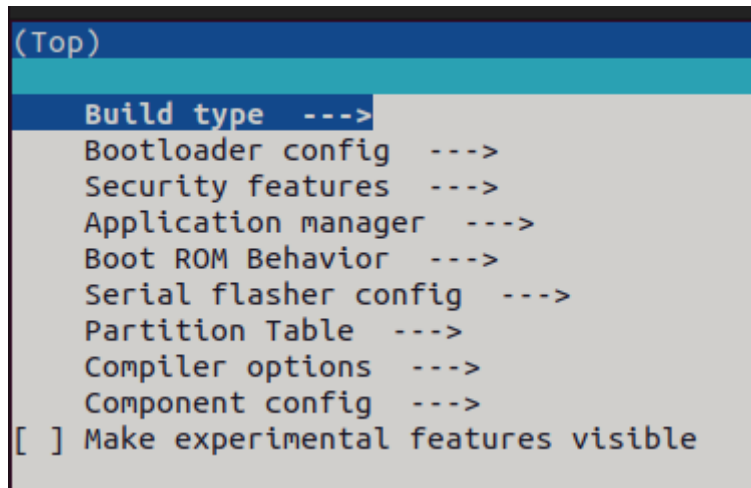
Create a new blank project to use as a basic project.

```
mkdir ~/esp/Samples/esp32_samples  
cd ~/esp/Samples/esp32_samples  
idf.py create-project main  
cd main
```

4、 Configuration project

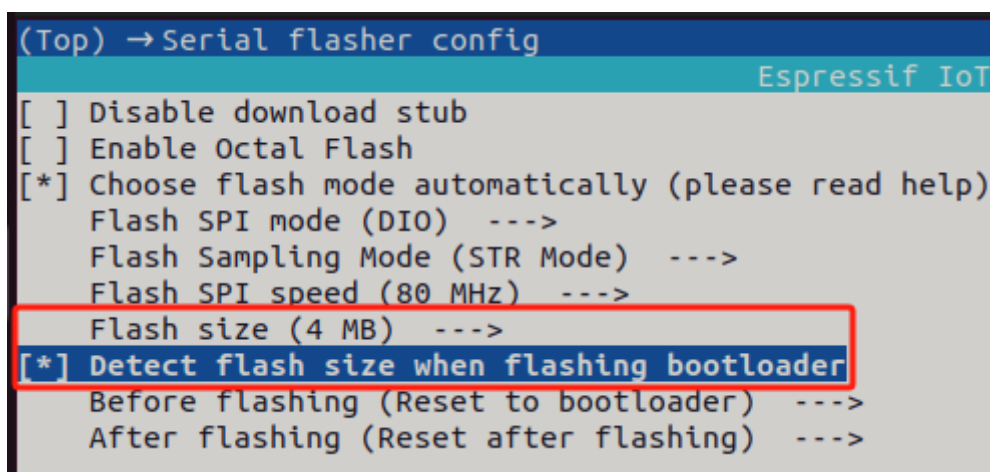
Set the target chip to esp32s3 chip and open the configuration interface.

```
idf.py set-target esp32s3  
idf.py menuconfig
```



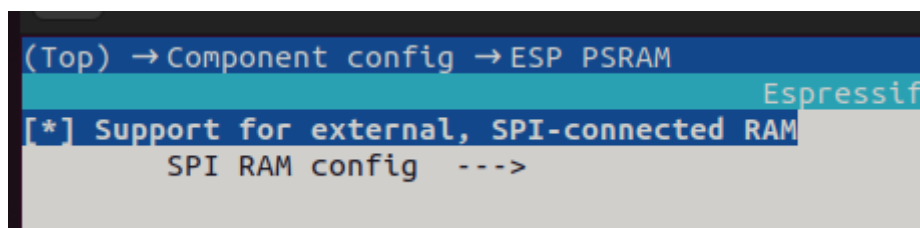
1. Configure to automatically detect the flash size during burning.

In the Serial flasher config, change the Flash size to 4MB and check Detect flash size when flashing bootloader.

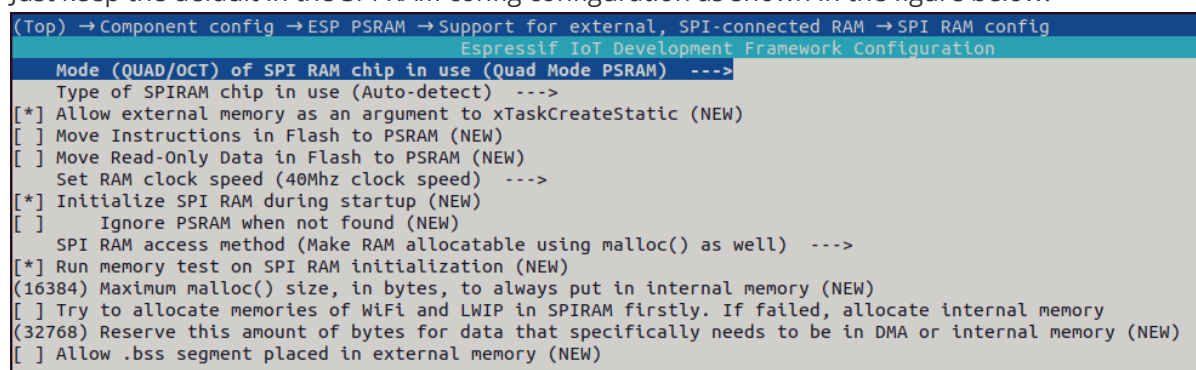


2. Configure external PSRAM

Open Component config->ESP PSRAM and enable Support for external, SPI-connected RAM.

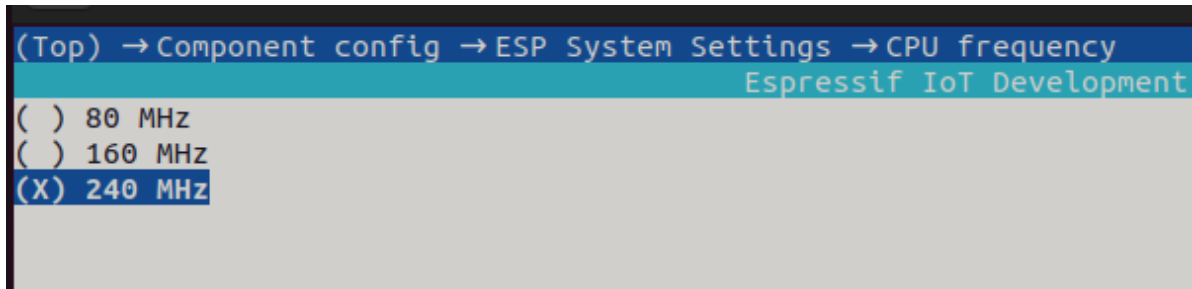


Just keep the default in the SPI RAM config configuration as shown in the figure below.



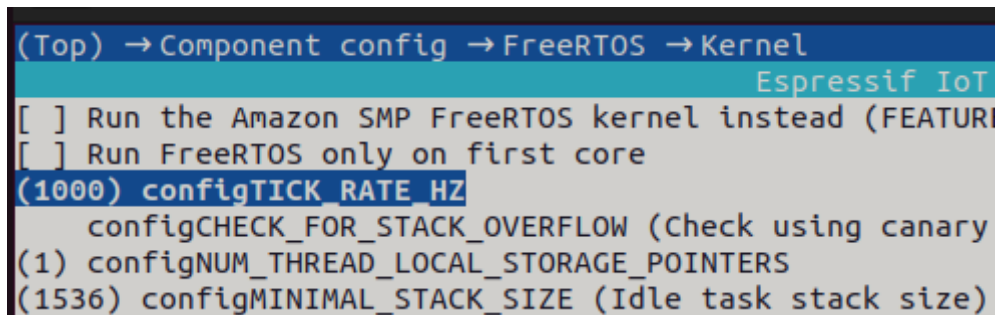
3. Configure the CPU frequency to 240MHz

Open Component config->ESP System Settings->CPU frequency and change the CPU frequency to 240MHz.



4. Configure the frequency of freertos to 1000hz

Open Component config->FreeRTOS->Kernel, find configTICK_RATE_HZ, and change the value to 1000.



5. Configure partition table to increase program space

Open Partition Table->Partition Table, select Single factory app (large), no OTA.

