

## ESP32 Bluetooth Flowcode

You need to type two commands in the ESP32-IDF Prompt, to start the config tool.

With the tool change or control few properties. This is for each program to do

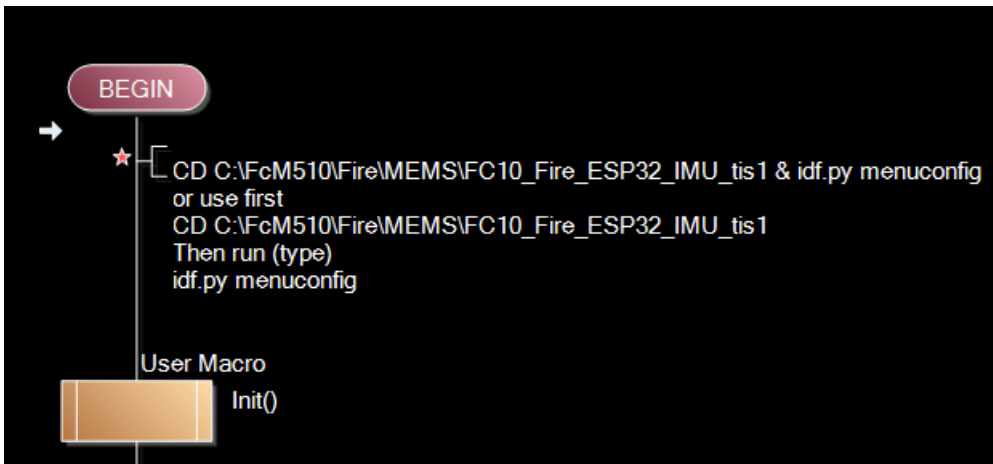
1. Change Directory "CD" and the "Path" from your program (to the file sdkconfig)
2. Run the config Program and open the config- file Type: idf.py menuconfig

You can do both command in one line separate with &

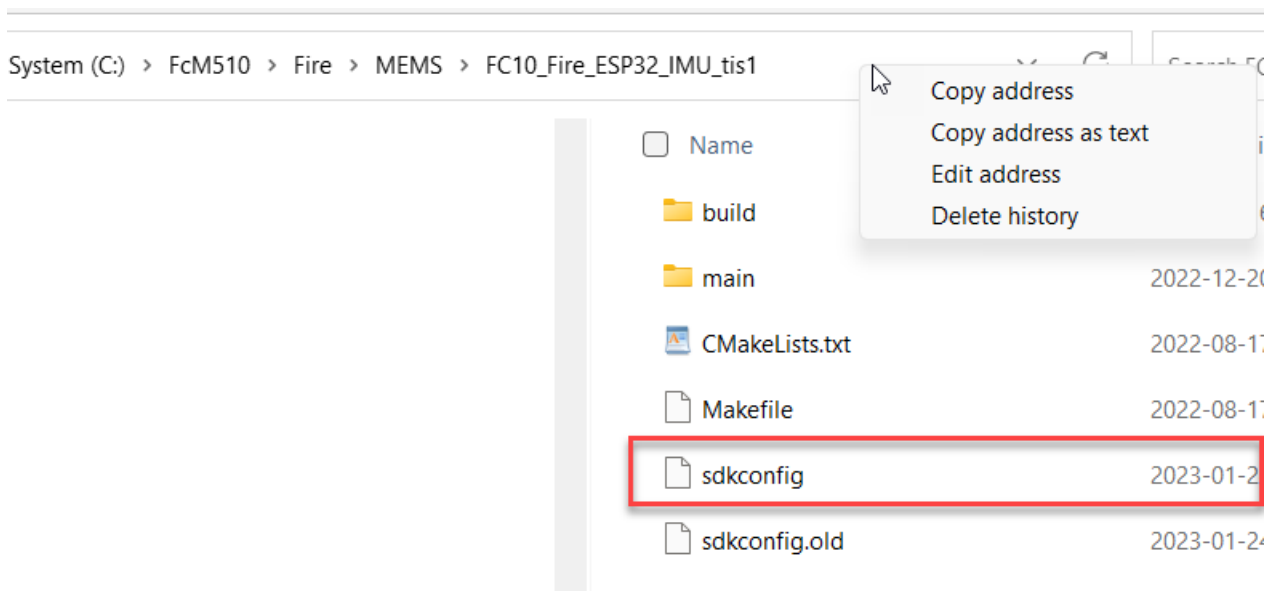
CD C:\FcM510\Fire\MEMS\FC10\_Fire\_ESP32\_IMU\_tis1 & idf.py menuconfig

So I always write this commandline in a comment on the begin of Flowcode ESP32 program.

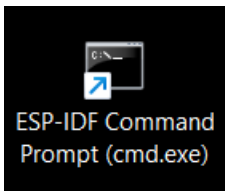
CD C:\FcM510\Fire\MEMS\FC10\_Fire\_ESP32\_IMU\_tis1 & idf.py menuconfig



The path to the file sdkconfig you can copy from the File explorer and copy paste (CTRL-C and CTRL-V)



On the Desktop (or on the place you have choosed) start ESP32-IDF Prompt



Looks like this:

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espessif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Local...
Using Git in C:\Program Files\Git\cmd\
git version 2.21.0.windows.1
Setting IDF_PATH: C:\Users\Kfs-Forschung\Desktop\esp-idf

Adding ESP-IDF tools to PATH...
C:\Users\Kfs-Forschung\espessif\tools\xtensa-esp32-elf\esp-2021r1-8.4.0\xtensa-esp32-elf\bin
C:\Users\Kfs-Forschung\espessif\tools\xtensa-esp32s2-elf\esp-2021r1-8.4.0\xtensa-esp32s2-elf\bin
C:\Users\Kfs-Forschung\espessif\tools\xtensa-esp32s3-elf\esp-2021r1-8.4.0\xtensa-esp32s3-elf\bin
C:\Users\Kfs-Forschung\espessif\tools\riscv32-esp-elf\esp-2021r1-8.4.0\riscv32-esp-elf\bin
C:\Users\Kfs-Forschung\espessif\tools\esp32ulp-elf\2.28.51-esp-20191205\esp32ulp-elf-binutils\bin
C:\Users\Kfs-Forschung\espessif\tools\esp32s2ulp-elf\2.28.51-esp-20191205\esp32s2ulp-elf-binutils\bin
C:\Users\Kfs-Forschung\espessif\tools\cmake\3.16.4\bin
C:\Users\Kfs-Forschung\espessif\tools\openocd-esp32\v0.10.0-esp32-20210401\openocd-esp32\bin
C:\Users\Kfs-Forschung\espessif\tools\ninja\1.10.2\
C:\Users\Kfs-Forschung\espessif\tools\idf-exe\1.0.1\
C:\Users\Kfs-Forschung\espessif\tools\ccache\3.7\
C:\Users\Kfs-Forschung\espessif\tools\dfu-util\0.9\dfu-util-0.9-win64
C:\Users\Kfs-Forschung\espessif\python_env\idf4.3_py3.7_env\Scripts
C:\Users\Kfs-Forschung\Desktop\esp-idf\tools

Checking if Python packages are up to date...
Python requirements from C:\Users\Kfs-Forschung\Desktop\esp-idf\requirements.txt are satisfied.

Done! You can now compile ESP-IDF projects.
Go to the project directory and run:

idf.py build

C:\Users\Kfs-Forschung\Desktop\esp-idf>
```

you can copy from comment (ctrl-C and CTRL-V) command 1 and .....later command 2

```
idf.py build

C:\Users\Kfs-Forschung\Desktop\esp-idf>CD C:\FcM510\Fire\MEMS\FC10_Fire_ESP32_IMU_tis1
C:\FcM510\Fire\MEMS\FC10_Fire_ESP32_IMU_tis1>idf.py menuconfig
```

or you copy all in one

```
Done! You can now compile ESP-IDF projects.
Go to the project directory and run:

idf.py build

C:\Users\Kfs-Forschung\Desktop\esp-idf>CD C:\FcM510\Fire\MEMS\FC10_Fire_ESP32_IMU_tis1 & idf.py menuconfig
```

This Program open and you do all this config !!! Yes it's with arrow up, down, left right !!!!

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top)
Espressif IoT Development Framework Configuration
SDK tool configuration --->
Build type --->
Application manager --->
Bootloader config --->
Security features --->
Serial flasher config --->
Partition Table --->
Compiler options --->
Component config --->
Compatibility options --->

[Space/Enter] Toggle/enter  [ESC] Leave menu          [S] Save
[O] Load                    [?] Symbol info           [/] Jump to symbol
[F] Toggle show-help mode   [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top)
Espressif IoT Development Framework Configuration
SDK tool configuration --->
Build type --->
Application manager --->
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Partition Table --->
Compiler options --->
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[Space/Enter] Toggle/enter  [ESC] Leave menu          [S] Save
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[F] Toggle show-help mode   [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config
Espressif IoT Development Framework Configuration
Application Level Tracing --->
ESP-ASIO --->
Bluetooth --->
[ ] ESP BLE Mesh Support ----
CoAP Configuration --->
Driver configurations --->
eFuse Bit Manager --->
ESP-TLS --->
ESP32-specific --->
ADC-Calibration --->
Common ESP-related --->
Ethernet --->
Event Loop Library --->
GDB Stub ----
ESP HTTP client --->
HTTP Server --->
ESP HTTPS OTA --->
ESP HTTPS server --->
ESP NETIF Adapter --->
Power Management --->
ESP System Settings --->
High resolution timer (esp_timer) --->
Wi-Fi --->
↓↓↓↓↓↓↓↓↓↓↓↓↓↓
[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config → Bluetooth
Espressif IoT Development Framework Configuration
[*] Bluetooth
Bluetooth controller(ESP32 Dual Mode Bluetooth) --->
Bluetooth Host (Bluedroid - Dual-mode) --->
Bluedroid Options --->
1
[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config → Bluetooth → Bluetooth controller(ESP32 Dual Mode Bluetooth)
Espressif IoT Development Framework Configuration
Bluetooth controller mode (BR/EDR/BLE/DUALMODE) (BR/EDR Only) --->
(2) BR/EDR ACL Max Connections
(0) BR/EDR Sync(SCO/eSCO) Max Connections
BR/EDR Sync(SCO/eSCO) default data path (PCM) --->
[*] PCM Signal Config (Role and Polar) --->
[*] Legacy Authentication Vendor Specific Event Enable
The cpu core which bluetooth controller run (Core 0 (PRO CPU)) --->
HCI mode (VHCI) --->
MODEM SLEEP Options --->

[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

2

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
t config → Bluetooth → Bluetooth controller(ESP32 Dual Mode Bluetooth) → Bluetooth controller mode (BR/EDR/BLE/DUALMODE)
Espressif IoT Development Framework Configuration
( ) BLE Only
(X) BR/EDR Only
( ) Bluetooth Dual Mode

[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

3

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config → Bluetooth
Espressif IoT Development Framework Configuration
[*] Bluetooth
Bluetooth controller(ESP32 Dual Mode Bluetooth) --->
Bluetooth Host (Bluedroid - Dual-mode) --->
Bluedroid Options --->

[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

4

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config → Bluetooth → Bluetooth Host
Espressif IoT Development Framework Configuration
(X) Bluedroid - Dual-mode
( ) NimBLE - BLE only
( ) Controller Only

[Space/Enter] Toggle/enter [ESC] Leave menu [S] Save
[O] Load [?] Symbol info [/] Jump to symbol
[F] Toggle show-help mode [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

5

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config → Bluetooth
Espressif IoT Development Framework Configuration

[*] Bluetooth
  Bluetooth controller(ESP32 Dual Mode Bluetooth) --->
  Bluetooth Host (Bluedroid - Dual-mode) --->
  Bluedroid Options --->

[Space/Enter] Toggle/enter  [ESC] Leave menu          [S] Save
[O] Load                    [?] Symbol info            [/] Jump to symbol
[F] Toggle show-help mode   [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

6

```
ESP-IDF Command Prompt (cmd.exe) - "C:\Users\Kfs-Forschung\espressif\idf_cmd_init.bat" "C:\Users\Kfs-Forschung\AppData\Lo...
(Top) → Component config → Bluetooth → Bluedroid Options
Espressif IoT Development Framework Configuration

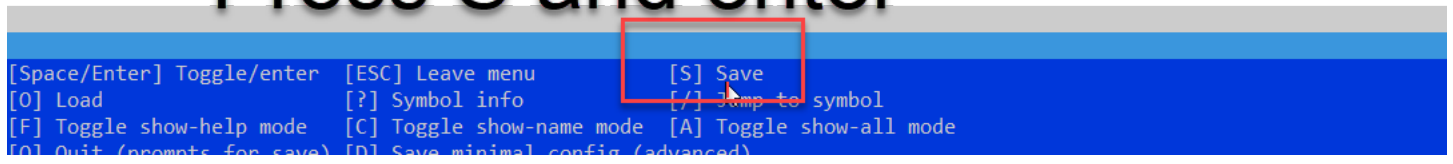
(3072) Bluetooth event (callback to application) task stack size
  The cpu core which Bluedroid run (Core 0 (PRO CPU)) --->
(4096) Bluetooth Bluedroid Host Stack task stack size
[ ] Bluedroid memory debug
[*] Classic Bluetooth
[ ]   A2DP
[*]   SPP
[ ]   Hands Free/Handset Profile
[ ] Classic BT HID Host
[*] Secure Simple Pairing
[*] Bluetooth Low Energy
[*]   Include GATT server module(GATTS)
[ ]     Enable Peripheral Preferred Connection Parameters characteristic in GAP service
[ ]     Include blufi function
(8)   Max GATT Server Profiles
      GATTS Service Change Mode (GATTS automatically send service change indication) --->
[*]   Include GATT client module(GATTC)
[ ]     Save gattc cache data to nvs flash
(3)   The number of attempts to reconnect if the connection establishment failed
[*]   Include BLE security module(SMP)
[ ]     Slave enable connection parameters update during pairing
[*] Disable BT debug logs (minimize bin size)
(4) BT/BLE MAX ACL CONNECTIONS(1~7)
[*] Enable BLE multi-connections
[ ] BT/BLE will first malloc the memory from the PSRAM
[ ] Use dynamic memory allocation in BT/BLE stack
[ ] BLE queue congestion check
(30) Timeout of BLE connection establishment
[ ] Update RPA to Controller

[Space/Enter] Toggle/enter  [ESC] Leave menu          [S] Save
[O] Load                    [?] Symbol info            [/] Jump to symbol
[F] Toggle show-help mode   [C] Toggle show-name mode [A] Toggle show-all mode
[Q] Quit (prompts for save) [D] Save minimal config (advanced)
```

7

# Press S and enter

8



A screenshot of a menu interface with a blue background and white text. The menu is organized into three columns. A red rectangular box highlights the '[S] Save' option in the top right column. A mouse cursor is positioned over the 'Save' text. The menu options are as follows:

Key	Action	Key	Action	Key	Action
[Space/Enter]	Toggle/enter	[ESC]	Leave menu	[S]	Save
[O]	Load	[?]	Symbol info	[/] <del>Jump to</del>	symbol
[F]	Toggle show-help mode	[C]	Toggle show-name mode	[A]	Toggle show-all mode
[Q]	Quit (prompts for save)	[D]	Save minimal config (advanced)		