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## esp-homekit

Apple HomeKit accessory server library for ESP-OPEN-RTOS.

See esp-homekit-demo for examples.

### Building for ESP-IDF 4.x

In ESP-IDF  $\geq 4.0$  there is a SPI flash write protection that checks if area written to is inside writable partition. Haven't figured out yet how esp-homekit can modify partition table automatically, so for the time being you need to disable that check in menuconfig: go to Component config -> SPI Flash driver -> Write to dangerous flash regions and set it to "Allowed".

### Building for ESP-IDF $\geq 5.0$

You need to add a custom partition of type data and subtype "homekit" and at least 4KB (0x1000) in size for HomeKit data storage. Put this into partitions.csv file in your project:

```
1 # ESP-IDF Partition Table
2 # Name, Type, SubType, Offset, Size, Flags
3 nvs, data, nvs, 0x9000, 0x5000,
4 phy_init, data, phy, 0xe000, 0x1000,
5 homekit, data, homekit, 0xf000, 0x1000,
6 factory, app, factory, 0x10000, 1M,
```

Enable custom partitions in project configuration (sdkconfig):

```
1 CONFIG_PARTITION_TABLE_CUSTOM=y
2 CONFIG_PARTITION_TABLE_CUSTOM_FILENAME="partitions.csv"
```

### QR code pairing

You can use a QR code to pair with accessories. To enable that feature, you need to configure accessory to use static password and set some setup ID:

```
1 homekit_server_config_t config = {
2     .accessories = accessories,
3     .password = "123-45-678",
4     .setupId="1QJ8",
5 };
```

The last piece of information you need is accessory category code. You can find it in mDNS announcement in accessory logs

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```
1 mDNS announcement: Name=Sample LED-1692md=MyLEDpv=1.0id=16:92:CE:D4:EE
:7Ac#=1s#=1ff=0sf=1ci=5 Port=5556 TTL=4500
```

(notice “**ci=5**” <- this is accessory category code)

Or just find value of category enum you set in main accessory:

```
1 HOMEKIT_ACCESSORY(.id=1, .category=
homekit_accessory_category_lightbulb, .services=(homekit_service_t
*[]){
```

(notice “**homekit\_accessory\_category\_lightbulb**” <- this is accessory category code)

Then you need to generate QR code using supplied script:

```
1 tools/gen_qrcode 5 123-45-678 1QJ8 qrcode.png
```

