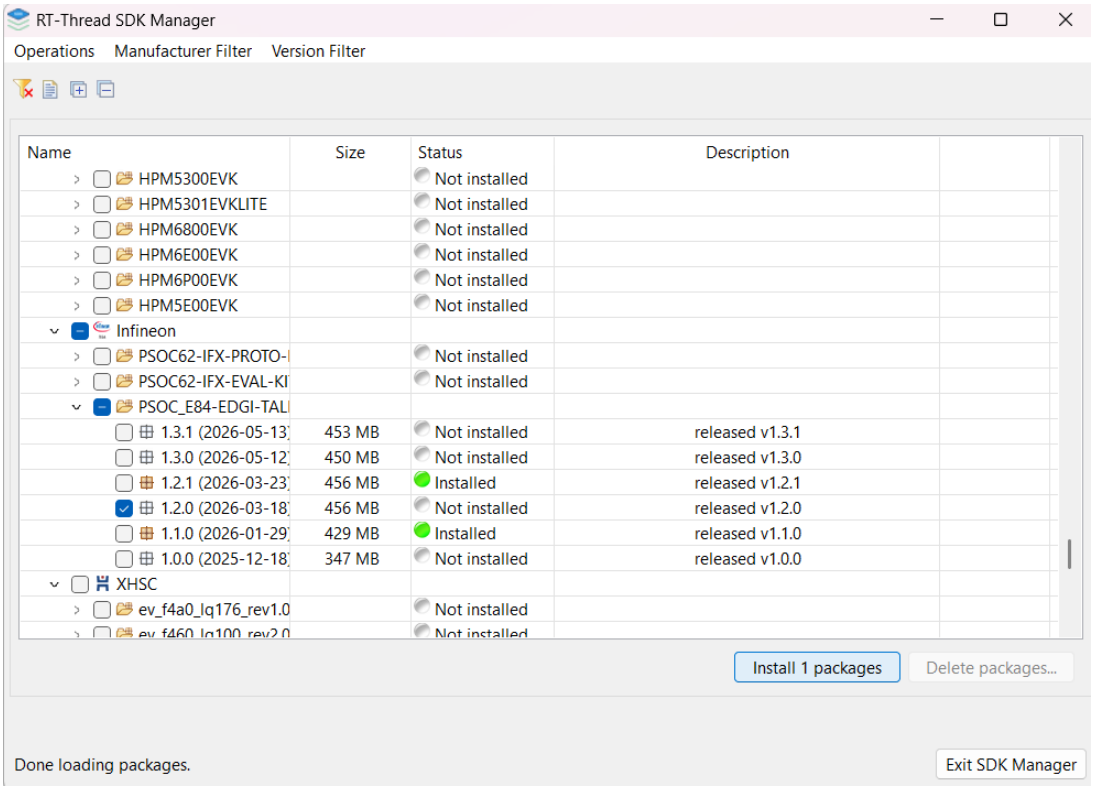
Module 6: XiaoZhi AI Voice Assistant

Learning Objectives

- Build XiaoZhi project
- Configure WiFi via AP mode
- Register XiaoZhi account
- Test voice interaction
- Understand MCP peripheral control

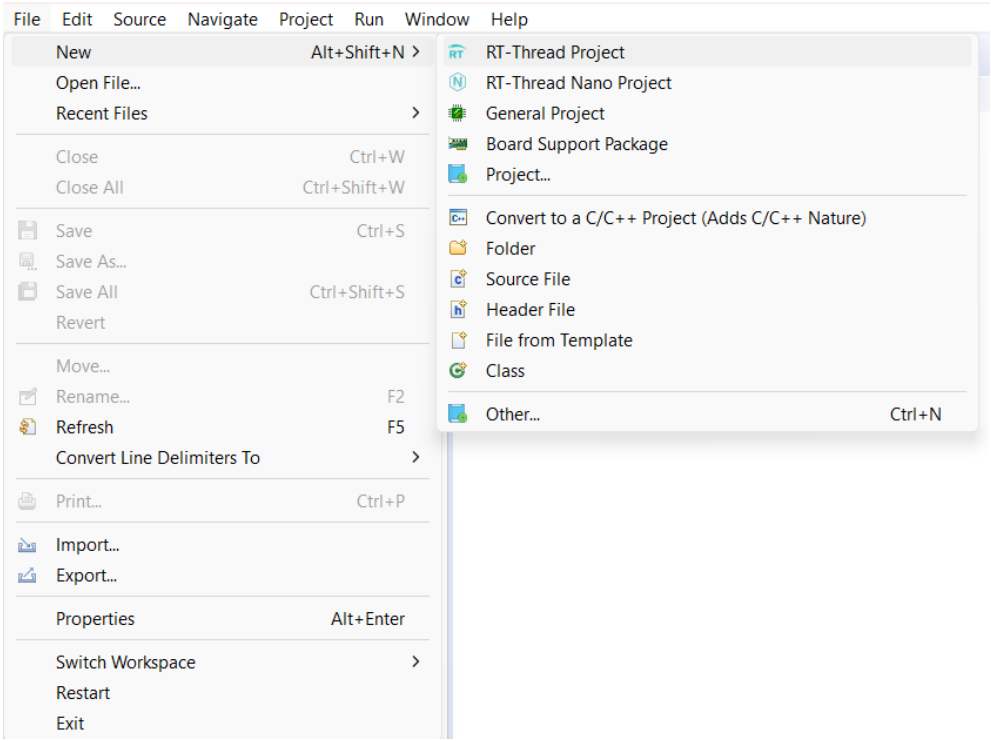
6.1 Project Creation

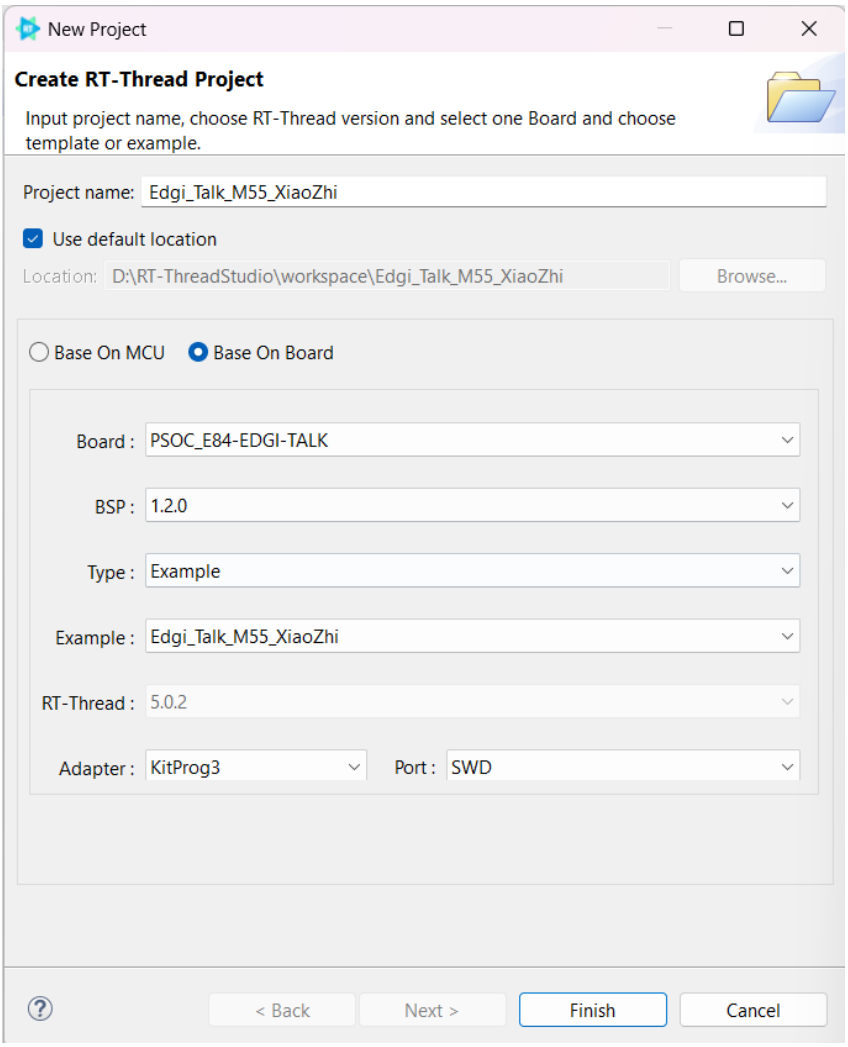
- Open SDK Manager, In the dropdown, search for **PSOC_E84-EDGI-TALK**, install **Edgi-Talk 1.2.0**



- Create File, Project Name: Edgi_Talk_M55_XiaoZhi
- Board: PSOC_E84-EDGI-TALK | BSP: 1.2.0

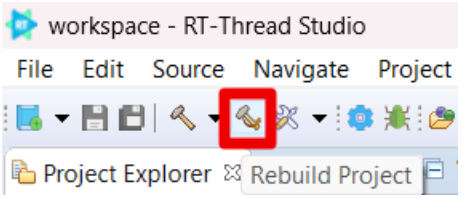
- Example: Edgi_Talk_M55_XiaoZhi



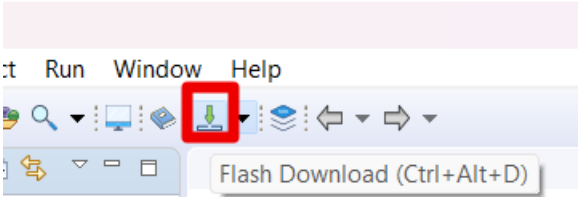


6.2 Build & Flash

- Compile with Hammer

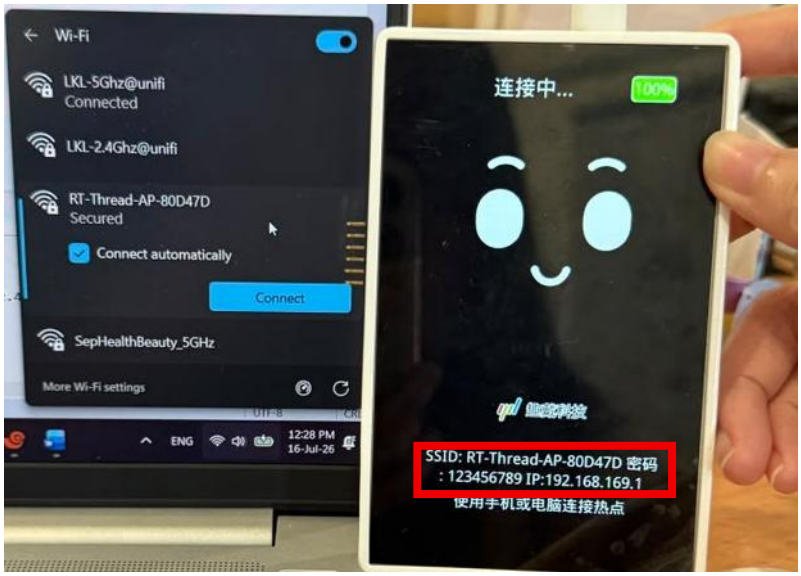


- Flash with Download

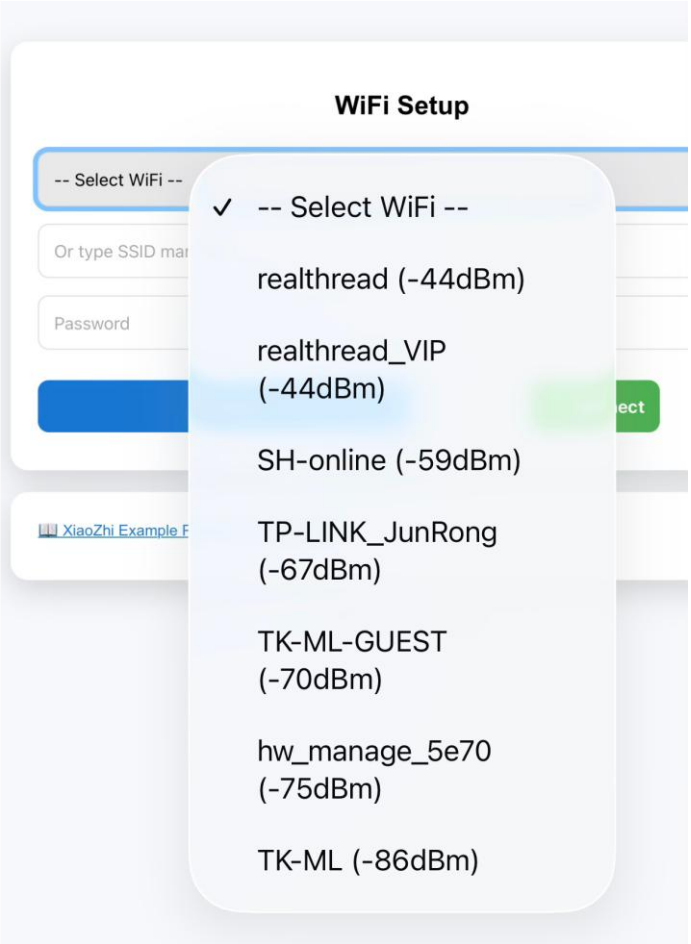


6.3 WiFi Provisioning (AP Mode)

1. Device enters AP mode on first boot
2. Connect to AP (password shown on screen)



3. Visit 192.168.169.1 in browser, Click **Scan** → select WiFi → enter password



WiFi Setup

LKL-2.4Ghz@unifi (-54dBm)

LKL-2.4Ghz@unifi

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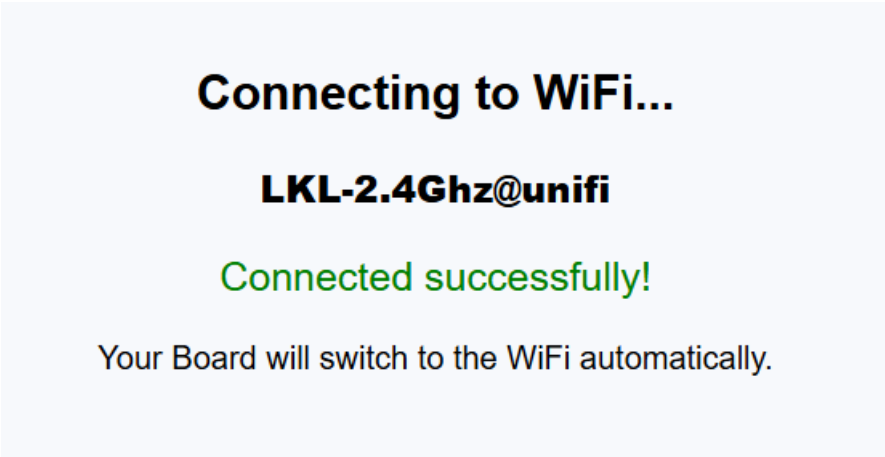
Scan

Connect

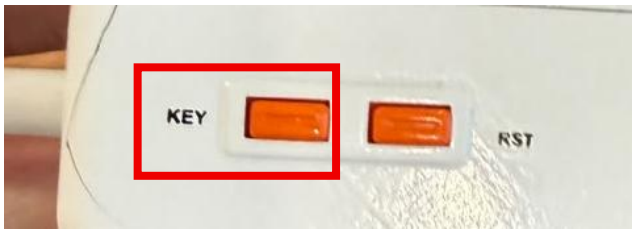
XiaoZhi Example Project (Click to toggle)

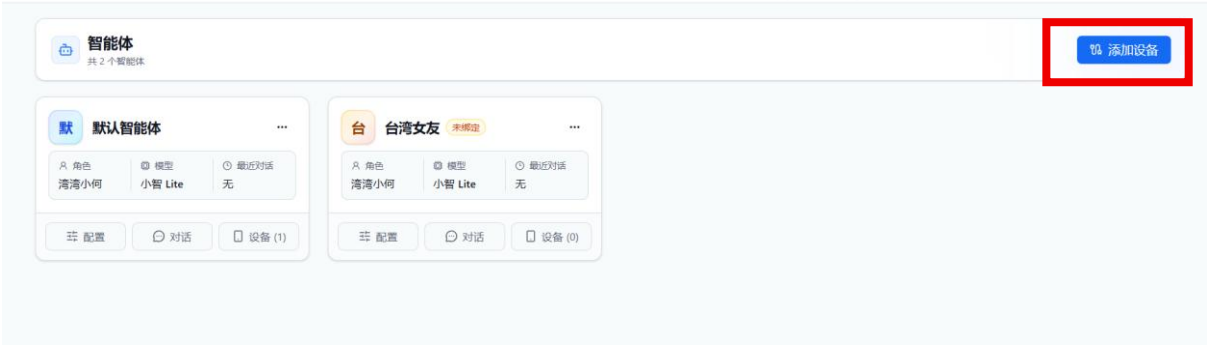


When the screen displays **"Standby"** (or **"On standby"**), it means it is ready for normal conversation.

For first-time use, you need to register a Xiaozhi account, then pair it using the verification code according to the prompts on the screen: https://xiaozhi.me/ https://xiaozhi.me/

Note: Press the **first user button** on the development board to start a conversation, then wait 1–2 seconds for Xiaozhi to automatically reply.





Meaning of XiaoZhi's Expressions

1. Connecting to the network, please wait...

2. Listening for conversation. Press the user button or say the wake word "Xiao Rui, Xiao Rui" to start speaking.

3. XiaoZhi enters the listening state to process speech content. It evaluates the query after you pause speaking.

4. Speaking state: XiaoZhi is replying to your voice request.

5. Sleep state: XiaoZhi enters low-power sleep mode. Press the button manually to wake it up and enter standby mode again before speaking.

Implement MCP Control of Board Peripherals

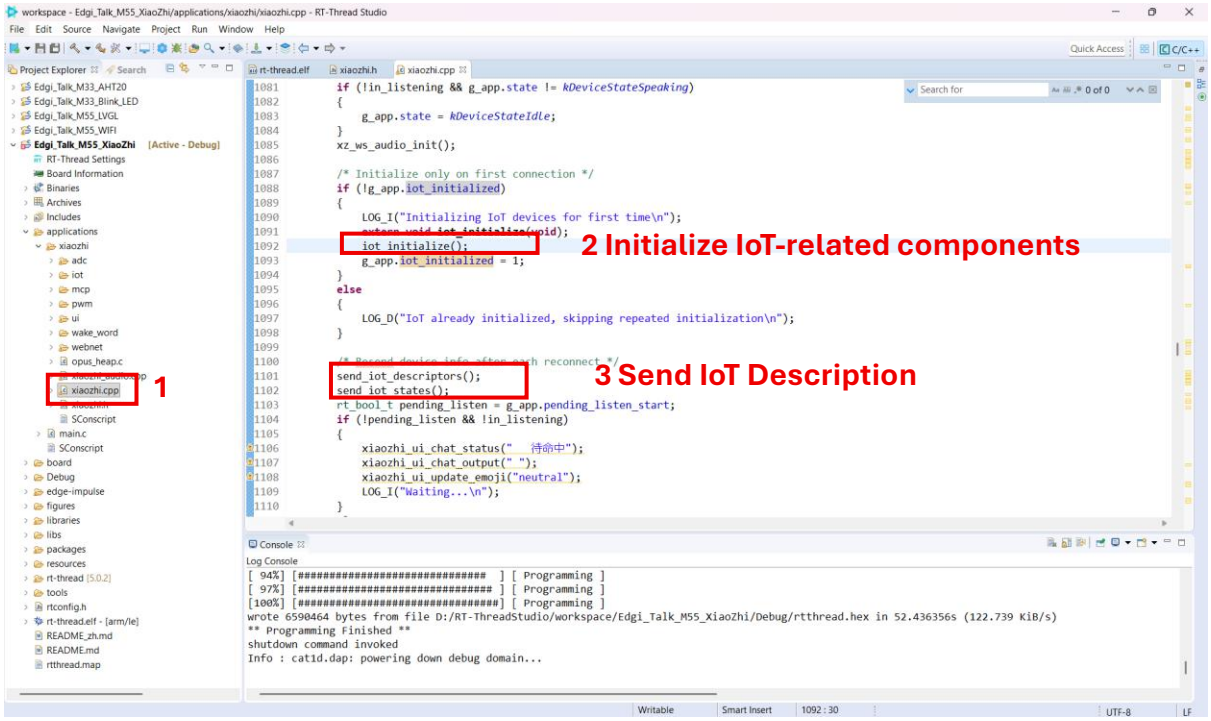
Currently supported peripheral controls: **LED Status, Screen Brightness, Volume Level**.

Instructions for Use:

1. Press the first User Button on the board to speak.
2. Give instructions like "打开灯（Turn on the light）", "关闭灯(Turn off the light)", "调亮屏幕(Brighten the screen)", or "调大声音(Turn up the volume)" to activate MCP control over the peripherals.

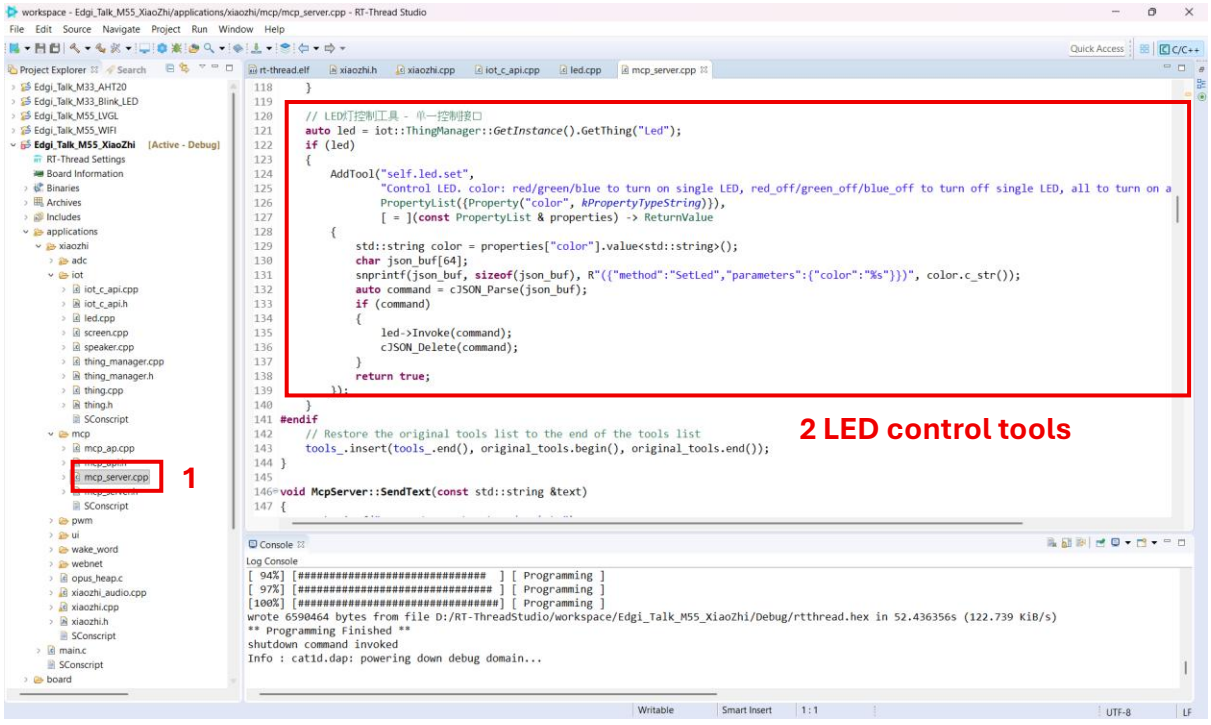
XiaoZhi MCP LED Control Principle

MCP initialization sends IoT descriptor



Register IoT device

LED light control tool



Driver corresponding to the control method