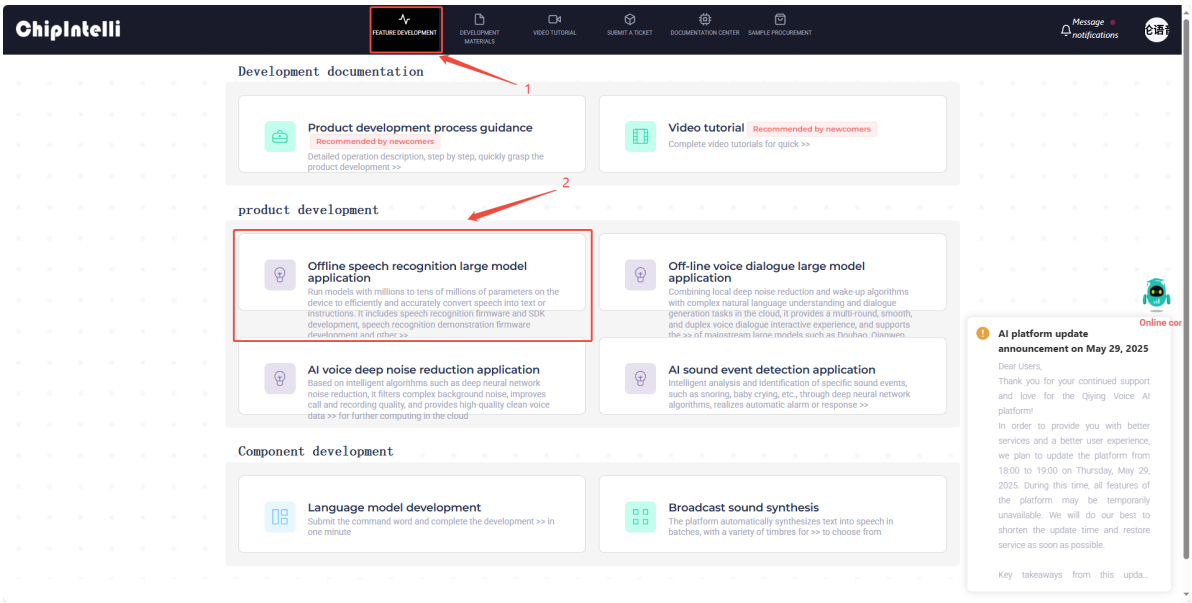
Modify the wake-up word and command word

- First, you need to open the link "ChipInelli Voice AI Platform" and enter the official firmware production website.
- Translate this page into English.

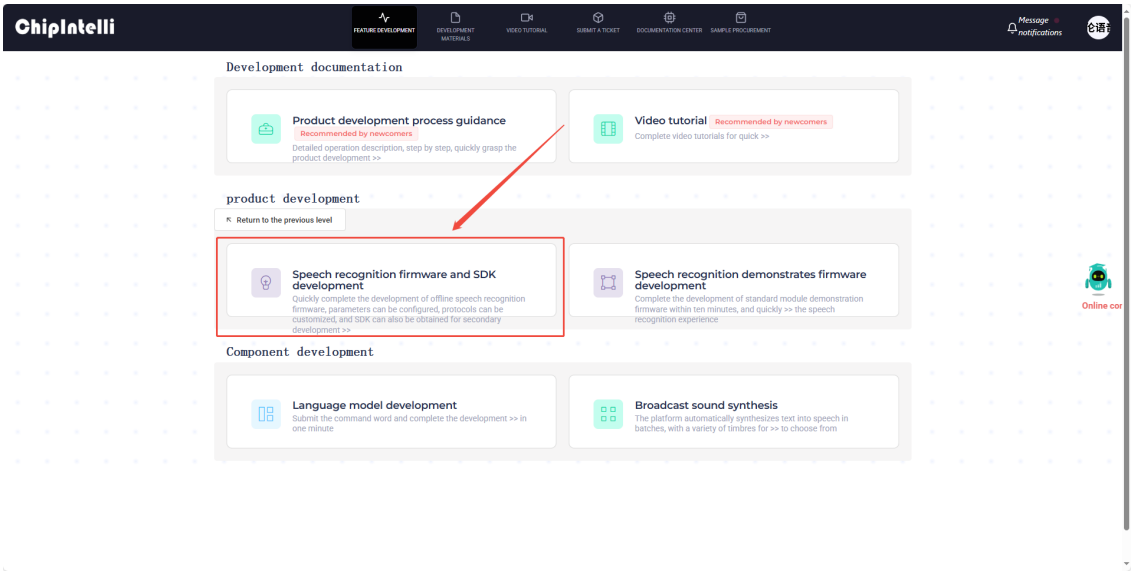
- Click **"Function development"** in the menu bar, and then click **"Offline speech recognition large model application"** under the Product Development column.



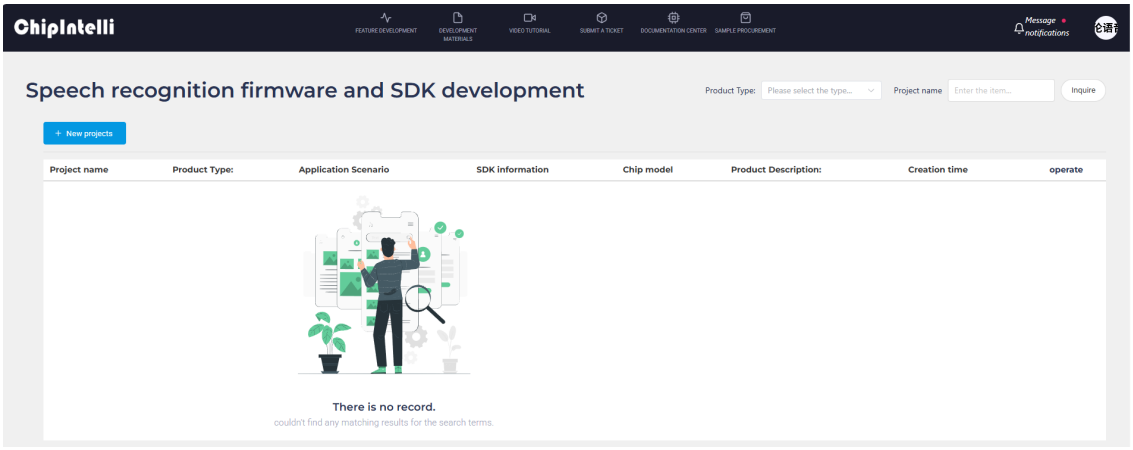
- At this time, you will be prompted to log in. Here you need to use your own information to register a platform account. The tutorial here has already been registered in advance.

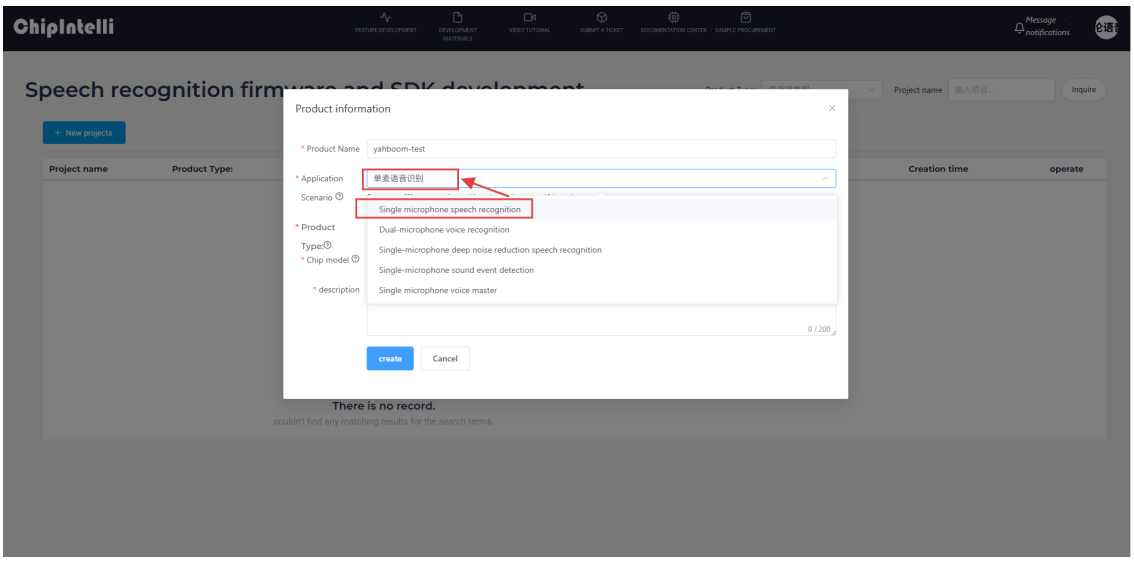
```
If you don't have a Chinese mobile phone number, you can use the following
account:
Account number: 15338857526
Password: Yahboom123

Note: Since multiple people may share one account, please be careful not to
modify other people's firmware when using it.
```

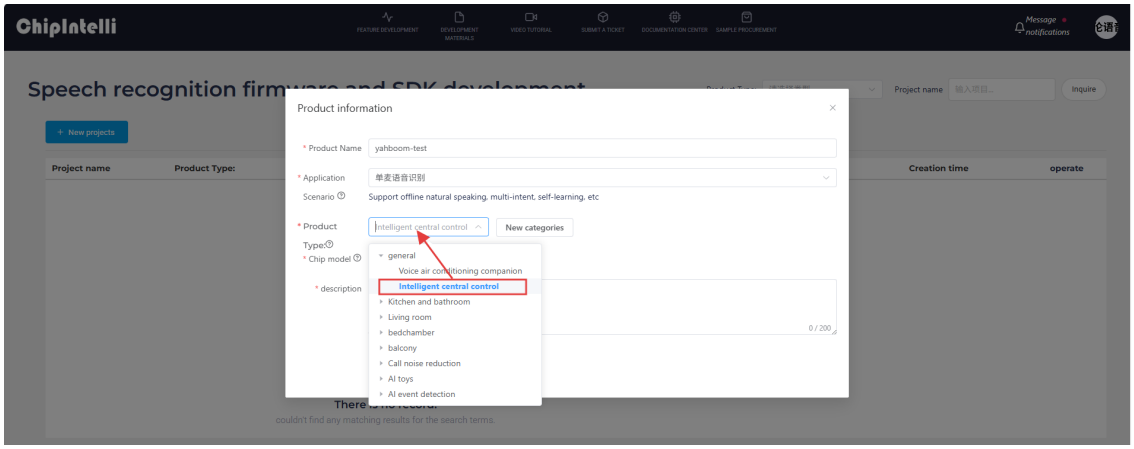
After logging in, click **“Speech recognition firmware and SDK development”** again.

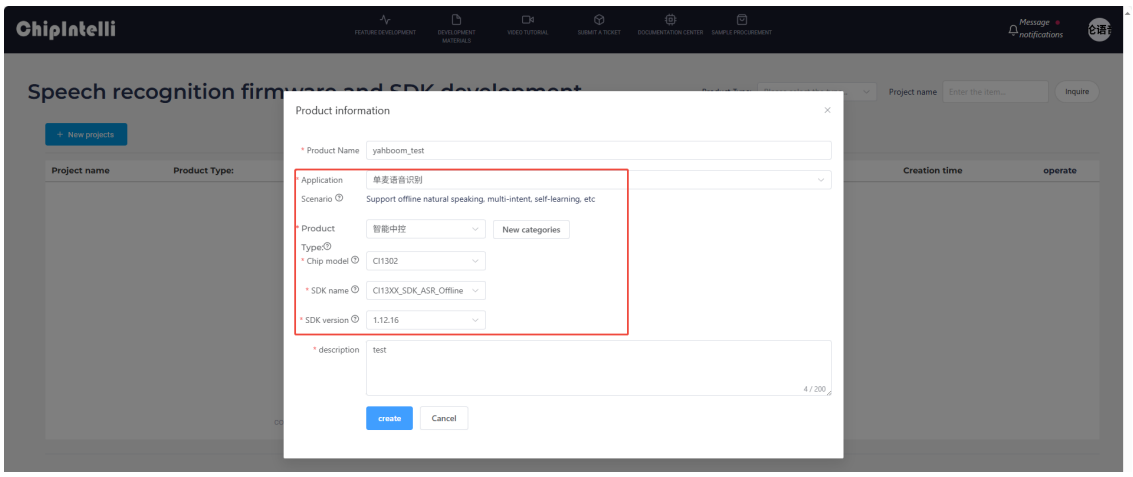


- After the page jumps, click New Project on the left and create a new product as shown below. The product name and description can be customized. The rest of the information needs to be selected according to the content in the red box. The product model needs to be selected as **"General->Intelligent central control"**. After completion, click Create

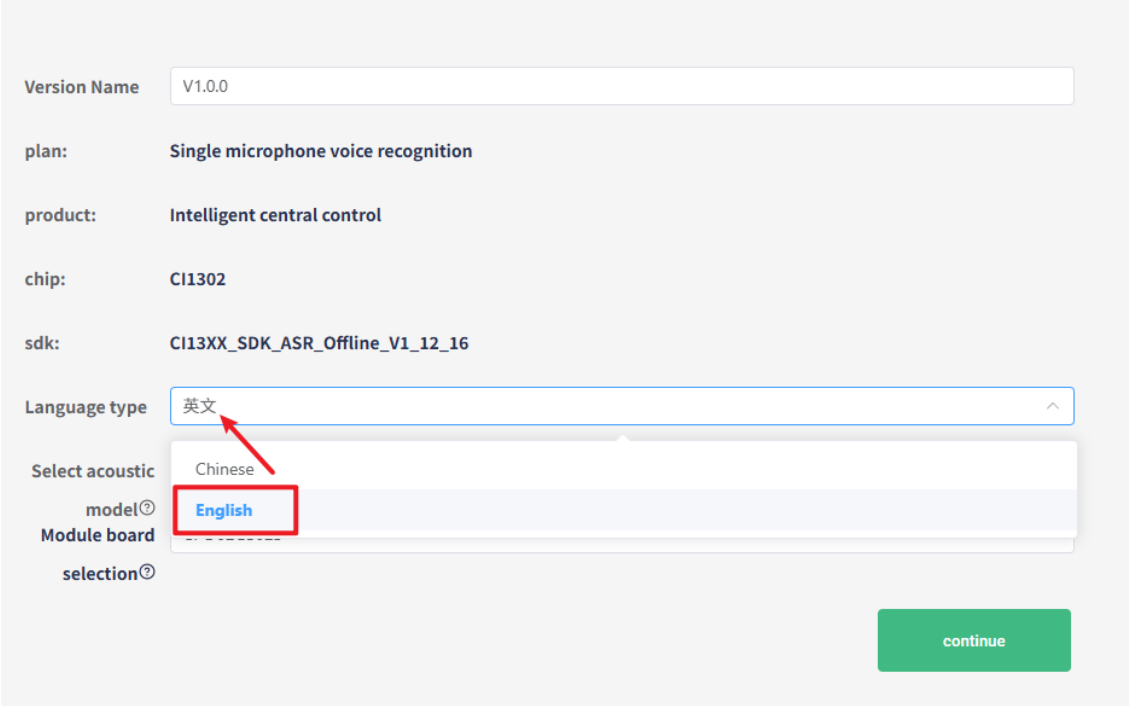


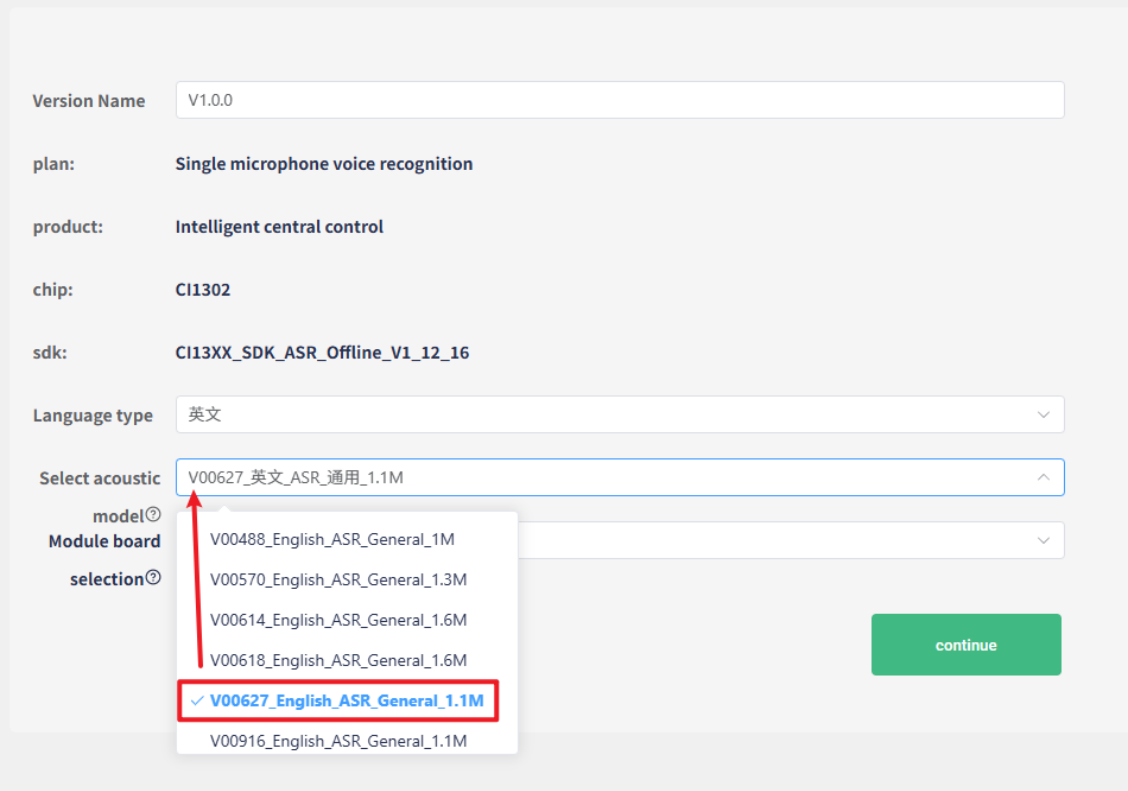


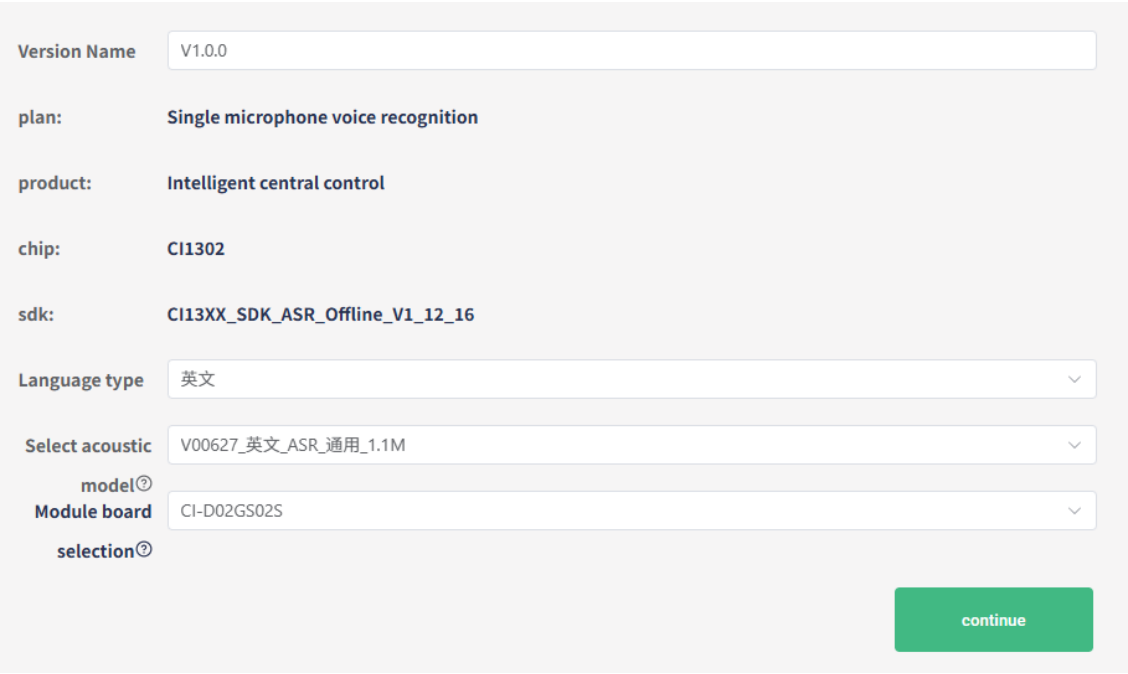




- Next, you need to fill in the basic information of the project. We need to recognize English, so select "English" as the language type. If you need to recognize Chinese, you can also make corresponding changes. For other information, select as shown below. Click Continue when you are done.





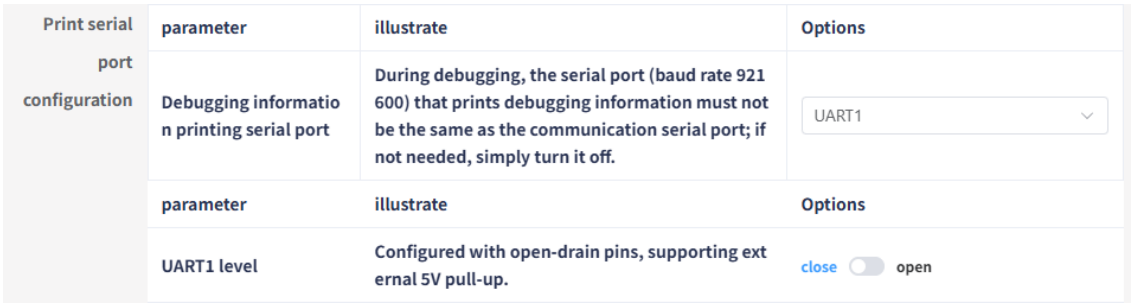


- Then you need to configure the firmware. Here we only explain the parts that need to be modified and turn on the echo cancellation algorithm parameters.

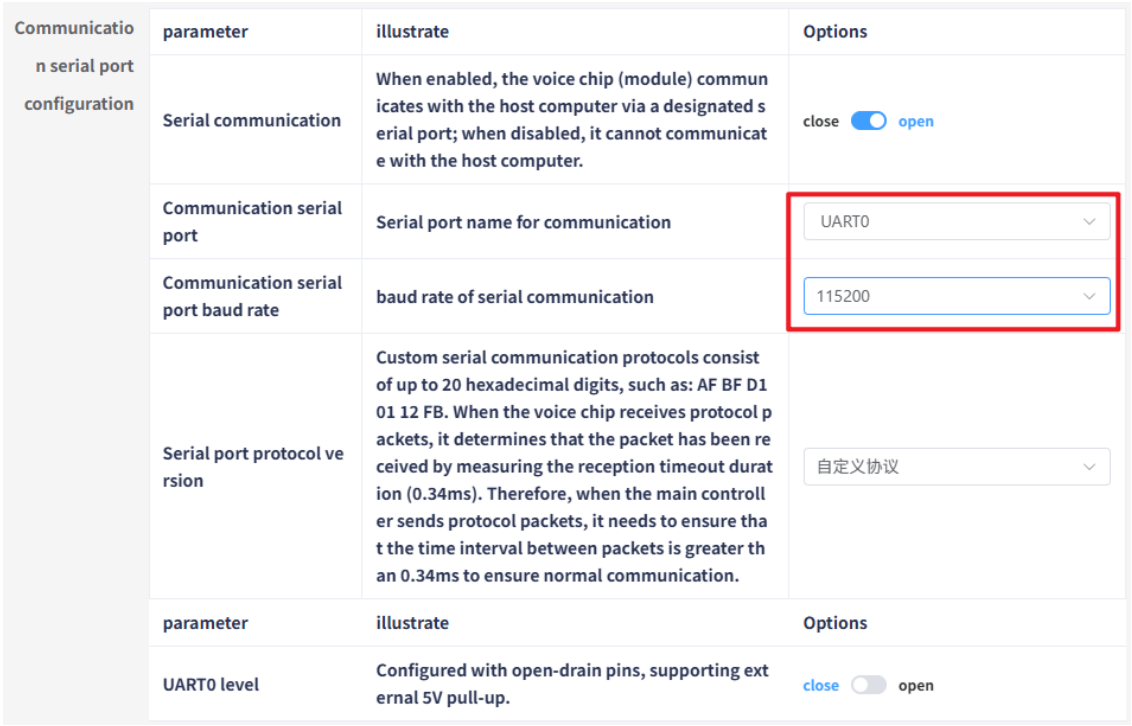
Algorithm parameters	parameter	illustrate	Options
	Echo cancellation	This is suitable for scenarios that require voice interruption (such as music playback), and you need to confirm that the module hardware supports this function before you can enable it.	close open

- In the hardware parameters, you need to select the crystal source as "**internal RC**".

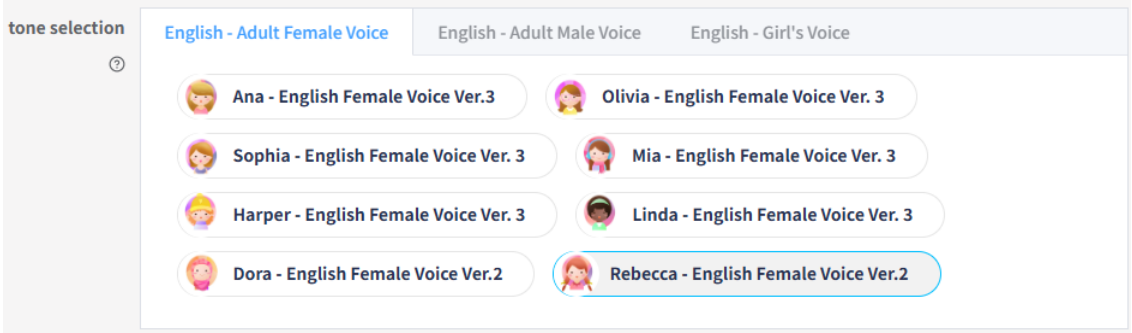
- In the print serial port configuration, configure the UART1 level as open drain function, supporting external pull-up 5V.



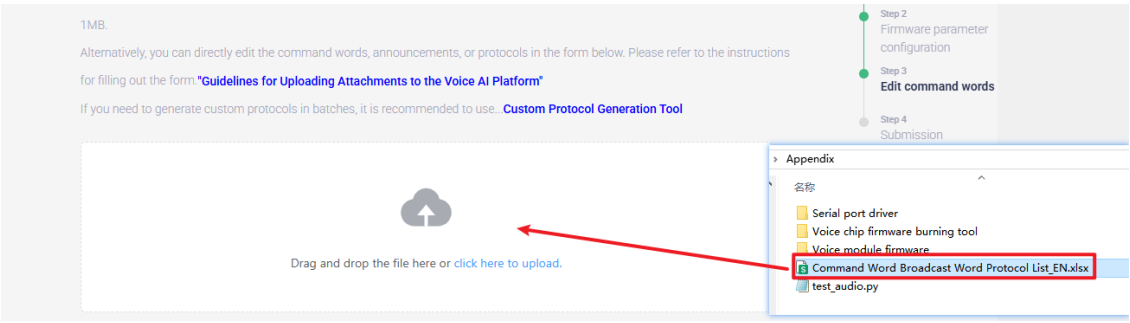
- Modify the communication serial port configuration, set the baud rate to 115200, and configure the UART0 level to open drain function, support external pull-up 5V, and click "**Continue**" to enter the next step after the configuration is completed.



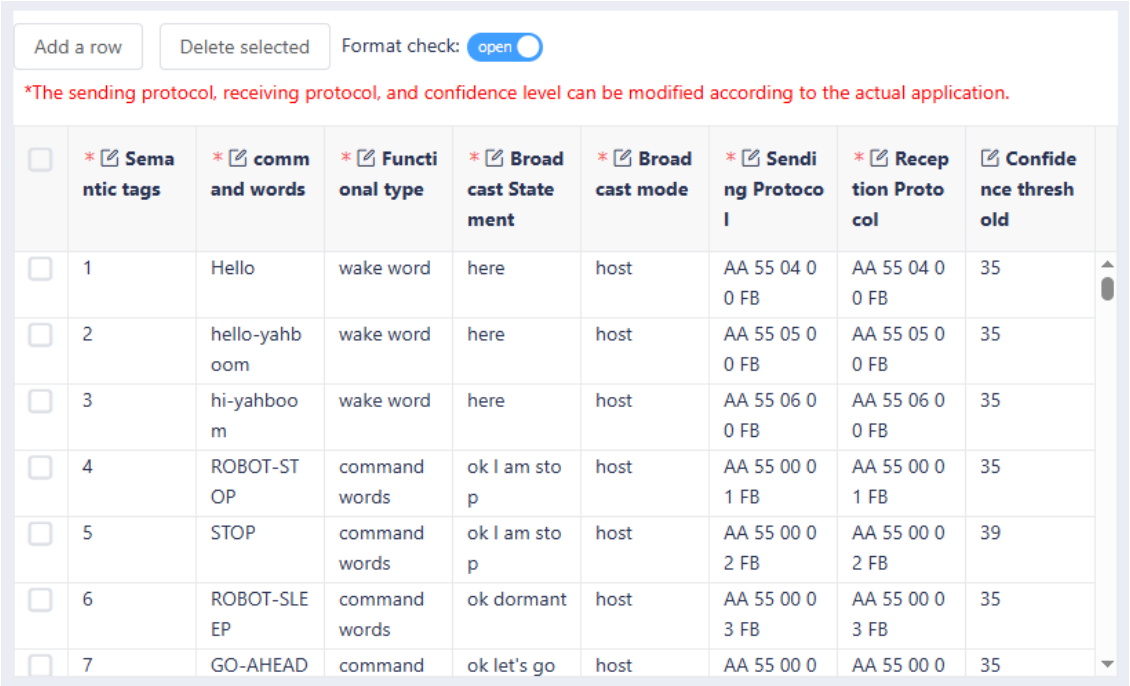
- Next, enter the edit command word function. First, you need to select the sound to be played.



- Next, we will upload the command word attachment. Locate the protocol table file "Command Word Broadcast Word Protocol List_EN.xlsx" in the download section and drag and drop it directly into the webpage to upload it.

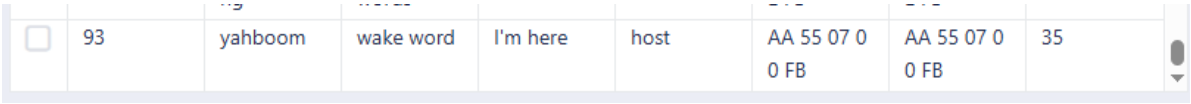


- After uploading the file, you can see our command word data in the table below.



	* Semantic tags	* command words	* Functional type	* Broadcast Statement	* Broadcast mode	* Sending Protocol	* Reception Protocol	Confidence threshold
	1	Hello	wake word	here	host	AA 55 04 00 FB	AA 55 04 00 FB	35
	2	hello-yahboom	wake word	here	host	AA 55 05 00 FB	AA 55 05 00 FB	35
	3	hi-yahboom	wake word	here	host	AA 55 06 00 FB	AA 55 06 00 FB	35
	4	ROBOT-STOP	command words	ok I am stop	host	AA 55 00 01 FB	AA 55 00 01 FB	35
	5	STOP	command words	ok I am stop	host	AA 55 00 02 FB	AA 55 00 02 FB	39
	6	ROBOT-SLEEP	command words	ok dormant	host	AA 55 00 03 FB	AA 55 00 03 FB	35
	7	GO-AHEAD	command	ok let's go	host	AA 55 00 0	AA 55 00 0	35

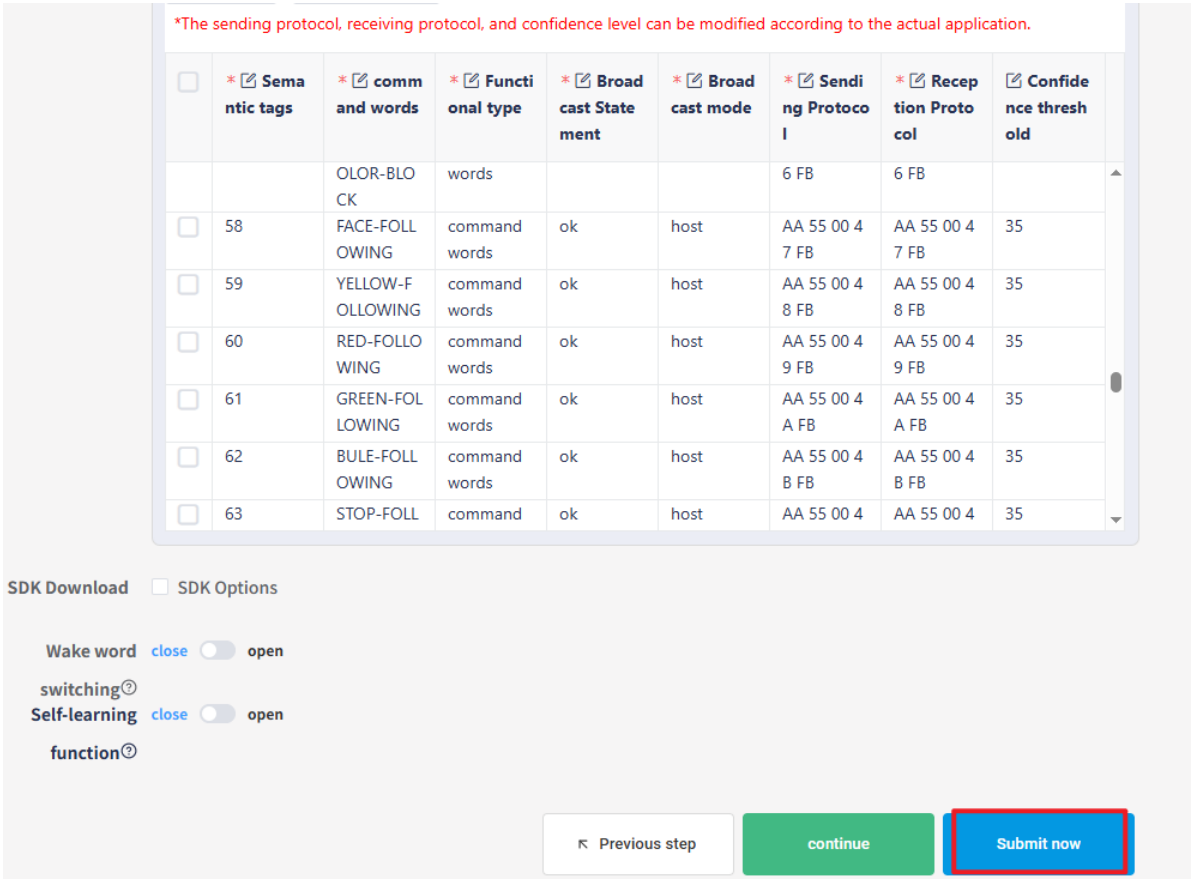
If we want to add a wake word, we click **Add a row**. If we need to add a new wake word "yahboom", then add the following content to the new line:



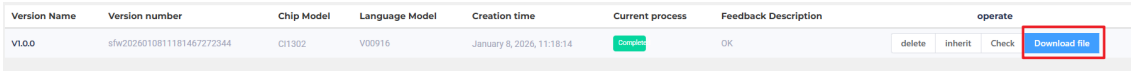
	93	yahboom	wake word	I'm here	host	AA 55 07 00 FB	AA 55 07 00 FB	35

The sequence **AA 55 07 00 FB** is incremented from the previous command word "hi-yahboom" **AA 55 06 00 FB**. Subsequent commands follow the same pattern; therefore, the next wake word's send/receive protocol would be AA 55 08 00 FB. A maximum of 10 wake words can be set.

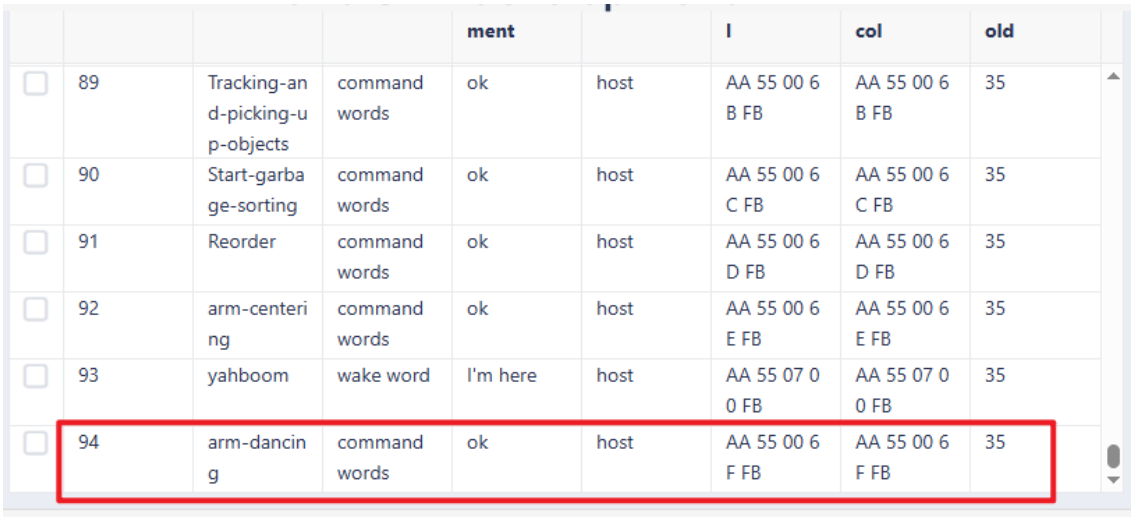
- Click to submit now



- Wait for firmware generation, which takes about 3 minutes. When the **Download File** display turns blue, you can download the firmware.



- Next, flash the firmware. Refer to section 4.3 in [8. AI Large Model Voice Module] - [2. Flash the firmware (Must read)]. After flashing is complete, follow the tutorial to start [9. 2D Voice Control Course] - [1.Simple Voice Control]. After the program starts, use the wake word "yahboom" to wake up the device. If it responds "I'm here", the addition was successful.
- If adding a command word, change the function type to command word, then modify the send protocol and receive protocol. For example, if we want to add a command word **arm-dancing**, we can add the following content to the **new row**:

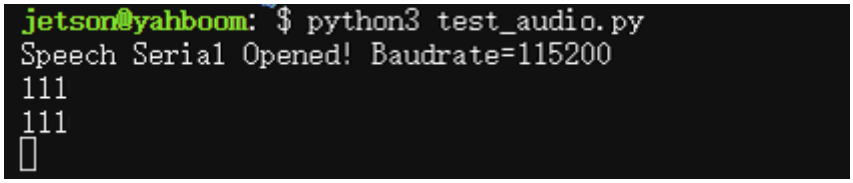


The subsequent send/receive protocol is incremented from the command word "arm-centering" on line 92, whose protocol is AA 55 00 6E FB. We incremented 6E to 6F. By analogy, the following ones are 7A, 7B, etc.

- Similarly, after submission, wait for the firmware production to complete and download it. Then flash it to the voice board, connect the board to the main board, copy test_audio.py from the program source code folder to the ~ directory, and enter the following command to test the added command:

```
python ~/test_audio.py
```

Say "Hello Xiaoya" to wake up the voice module. The module will respond "I'm here", indicating successful wake-up. Then say "Arm dancing" to the voice module. If the terminal prints 111, it means recognition was successful. Here, 111 corresponds to the decimal value of 6F.



- Whether updating command words or wake words, it is recommended to select "inherit" the previous configuration each time.