

Prerequisites for using large models (must read)

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1. Overseas version of OpenRouter
OpenRouter operation steps
2. Overseas version of Qwen

Example cases related to large models, important prerequisite: you need to connect to a wifi that can access the Internet. For specific connection methods, you can go to [1. Basic operations of Raspberry Pi system] --> [6. Connect to WiFi] to see the specific operations. This tutorial will briefly explain it.

1. First download the xgo Bluetooth remote control APP.
2. Enter the app, click the network configuration information in the upper right corner, fill in the wifi name and password, and click to generate a QR code.
3. The robot dog selects the wireless networking function through the buttons on the screen, and points the QR code generated by xgo at the robot dog's camera.
4. After waiting for a while, the wireless networking function will automatically exit, indicating that the wifi is connected

This tutorial is about the configuration of AI large models. If you want to run the large model related cases of the boot program example gameplay normally, you need to follow the steps below to configure it.

1. Overseas version of OpenRouter

Some online large models of the overseas version of the boot example use the middleware of the OpenRouter platform, which is a third-party platform. This large model can be called for free 50 times a day. If you want to continue using it, you can refer to the usage rules for expansion.

The following cases require the use of this large model: Q&A, Embodied intelligence, Smart dog, and Picture to text

OpenRouter operation steps

1. First log in to the following official website

<https://openrouter.ai/>

2. Then log in. You can use multiple ways to log in. This article recommends using a github account to log in to this platform.

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Start a message...



Featured Models

[View Trending](#)

Gemini 2.5 Pro Preview

New

by google

83.1B

Tokens/wk

13.9s

Latency

+7.42%

Weekly growth

GPT-4.1

New

by openai

39.9B

Tokens/wk

584ms

Latency

+13.06%

Weekly growth

Claude 3.7 Sonnet

by anthropic

324.5B

Tokens/wk

1.5s

Latency

-3.37%

Weekly growth

7.9T

Monthly Tokens

1.9M

Global Users

50+

Active Providers

300+

Models

3. Enter the API-KEY page and create one

Credits

Keys

Activity

Settings

Sign out

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Global Users

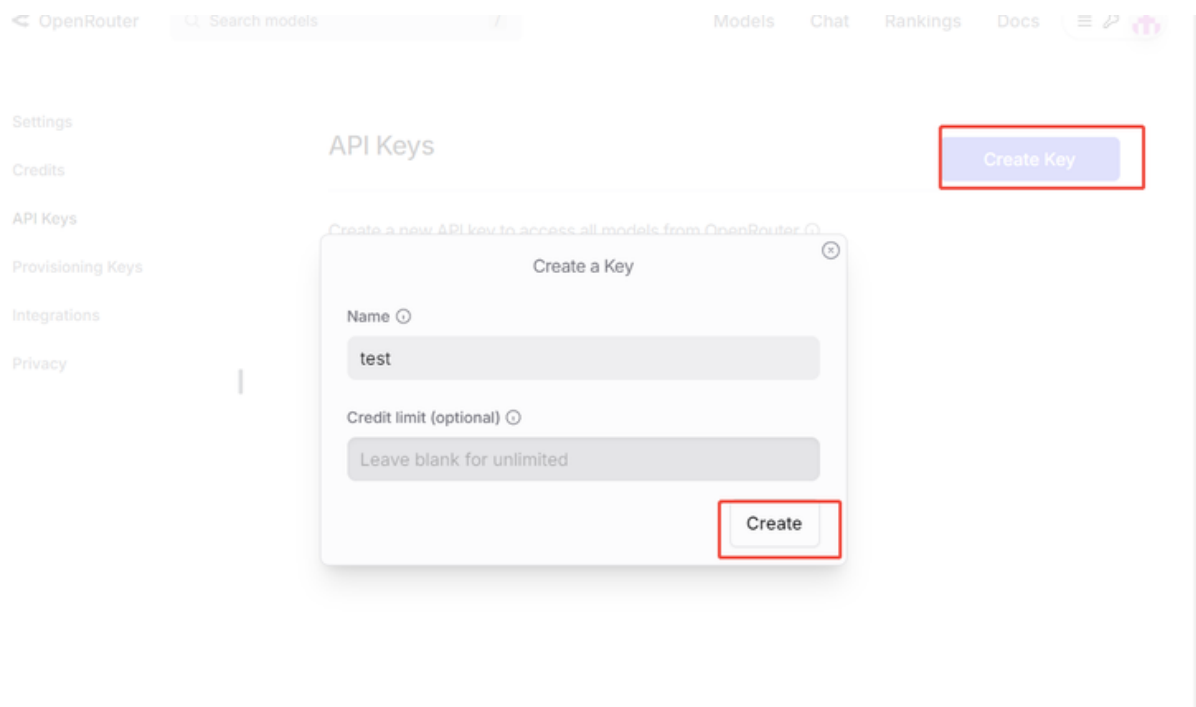
50+

Active Providers

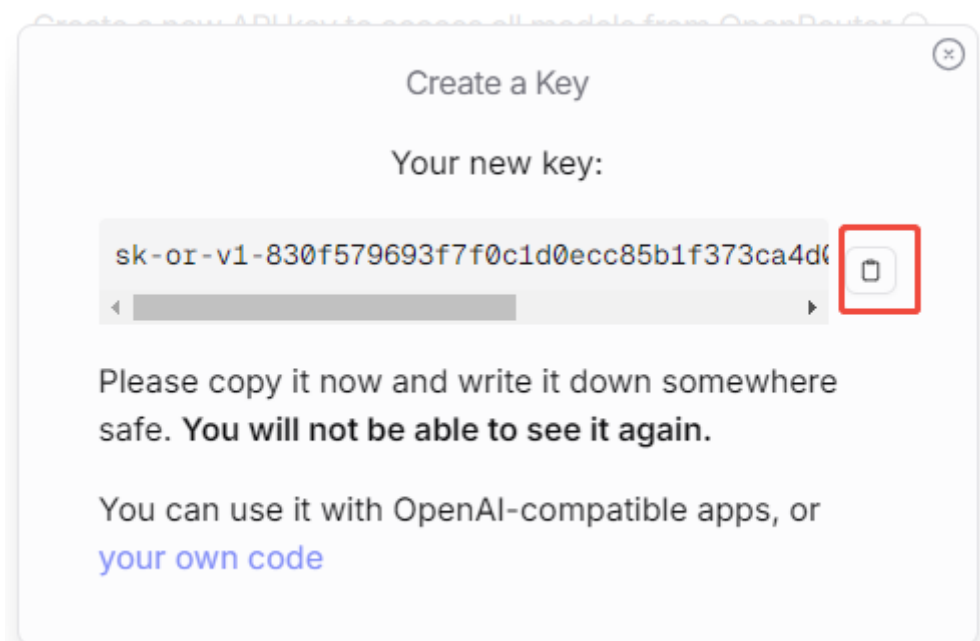
300+

Models

<https://openrouter.ai/settings/keys>



4. Then copy the created key and save it on your computer. **You can only copy this key when you create it for the first time.** You cannot view it again after leaving this interface.



5. Then we find a free model to test whether the registered account can be used normally

OpenRouter

Search models

/

Models

Chat

Rankings

Docs

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→

Featured Models

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View Trending

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Monthly Tokens

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Global Users

50+

Active Providers

300+

Models

https://openrouter.ai/models

OpenRouter

Search models

/

Models

Chat

Rankings

Docs

Input Modalities

Text

Image

File

Context length

4K

64K

1M

Prompt pricing

FREE

\$0.5

\$10+

Series

GPT

Claude

Gemini

Models

59 models

Reset Filters

free

Sort

DeepSeek: DeepSeek V3 0324 (free)

98.8B tokens

DeepSeek V3, a 685B-parameter, mixture-of-experts model, is the latest iteration of the flagship chat model family from the DeepSeek team. It succeeds the DeepSeek V3 model and performs ...

by deepseek | 164K context | \$0/M input tokens | \$0/M output tokens

DeepSeek: R1 (free)

44.2B tokens

DeepSeek R1 is here: Performance on par with OpenAI o1, but open-sourced and with fully open reasoning tokens. It's 671B parameters in size, with 37B active in an inference pass. Fully open...

by deepseek | 164K context | \$0/M input tokens | \$0/M output tokens

Google: Gemini 2.0 Flash Experimental (free)

31.2B tokens

Gemini Flash 2.0 offers a significantly faster time to first token (TTFT) compared to Gemini Flash 1.5, while maintaining quality on par with larger models like Gemini Pro 1.5. It introduces notable ...

by google | 128K context | \$0/M input tokens | \$0/M output tokens

正在等待 openrouter.ai 的响应...

6. If it is a normal reply, it means it can be used normally.

The screenshot shows the OpenRouter website. At the top, there's a navigation bar with 'OpenRouter', a search bar, and links for 'Models', 'Chat', 'Rankings', and 'Docs'. The main heading is 'DeepSeek: DeepSeek V3 0324 (free)'. Below it, there's a 'Chat' button (highlighted with a red box) and a 'Compare' button. The text describes the model as 'deepseek/deepseek-chat-v3-0324:free', created on Mar 24, 2025, with 163,840 context, \$0/M input tokens, and \$0/M output tokens. It mentions that the model is a 685B-parameter, mixture-of-experts model, the latest iteration of the flagship chat model family from the DeepSeek team, succeeding the 'DeepSeek V3' model.

Below the description, there's a 'Free' badge and a 'Model weights' link. A horizontal menu includes 'Overview', 'Providers', 'Versions', 'Apps', 'Activity', 'Uptime', and 'API'. The 'Providers for DeepSeek V3 0324 (free)' section explains that OpenRouter routes requests to the best providers. A 'Sort by' dropdown is present. A table lists providers with columns: Chutes, Context, Max Output, Input, Output, Latency, Throughput, and Uptime. The first provider is 'fp8' with 164K context, 164K max output, \$0 input/output, 1.60s latency, 40.37t/s throughput, and 100% uptime.

The bottom part of the screenshot shows a chat interface. It has a 'New Room' button and a 'To:' field set to 'DeepSeek V3 0324 (free)'. A message input field contains 'hello, who are you?'. On the right, there's a user profile for '1577958961@qq.com' and a blue button with the same text. The chat history shows a response from 'DeepSeek V3 0324 (free) | Targon' saying: 'Hello! I'm DeepSeek Chat, an AI assistant created by DeepSeek. My purpose is to help you with a wide range of tasks—whether it's answering questions, brainstorming ideas, assisting with coding, or just having a friendly chat. 😊 How can I help you today?'. At the bottom, there's a 'Web Search' toggle and a 'Start a message...' input field.

- The created API-KEY can directly use the free model. If you want to use the non-free model, you need to purchase the non-free model with your credit card. There is no tutorial or explanation, so you can study it yourself.

2. Overseas version of Qwen

Some online large models in the overseas version startup example use the visual large model of Qwen. This platform is a third-party platform, and the large model is a powerful visual model provided by Alibaba. After the registration and authentication is completed, some large models can be used for free, and more models can be used according to this website.

The following cases require the use of this large model: Control object tracking

1. Open the website and register

Register account

The screenshot shows the Alibaba Cloud registration page. On the left, under 'Account Benefits', there are sections for 'Free Trial' (Get free hands-on experience with 50+ products. Now up to 12 Months for Elastic Compute Service!) and 'Premium Support Services' (1-on-1 pre-sale consultation, 24/7 after-sales technical support with 6 free tickets per quarter). On the right, the 'Sign up to Alibaba Cloud' form is displayed. It asks to 'Please select your account type *'. Two options are shown: 'Business Account' (For purchasing services required by businesses. Enjoy premium support services and exclusive offers.) and 'Individual Account' (For purchasing services required by individuals or for personal use.). The 'Individual Account' option is highlighted with a red box and a radio button. Below the options is a 'Next' button. There are also links for 'Sign up with Google' and 'Sign up with Github'. At the bottom, it says 'Already a member? Sign In'.

This screenshot shows the next step of the registration process. The 'Sign up to Alibaba Cloud' form now includes fields for 'Email Address *' (Enter your email), 'Password *' (Enter your password), and 'Confirm Password *' (Confirm your password). There are 'Sign Up (Step 1 of 2)' and 'Go Back' buttons. The 'Already a member? Sign In' link is still present at the bottom.

2. After registration, enter the contact information according to your country and get certified.
Without certification, you cannot get the free large model

Alibaba Cloud

AI SearchContact SalesEnglishCartConsole

Why UsPricingProductsSolutionsMarketplaceDevelopersPartnersDocumentationServicesModel StudioComplete Sign Up

Successfully registered!

Keep update information.

Complete your account information to use Alibaba Cloud cloud computing services. You can complete the information later.
[Return to Previous Page \[+\]](#)

Security Verification

For account security reasons, please bind your current mobile phone number and use it only in security scenarios such as one time password (OTP) and password retrieval scenarios. [\[+\]](#)

Mobile Phone Number *

+64

Enter a mobile phone number

Verification Code *

Enter a verification code

Obtain Verification Code

Failed to obtain a verification code? [\[+\]](#)

Country/Region

New Zealand

☐ Alibaba Cloud may use your information to contact you about updates and special offers. You can unsubscribe at any time.

Next

Payment Information

3. Enter the large model, select Qwen-VL-Max, and get it for free Take part of the large model quota

Alibaba Cloud

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You can seamlessly integrate our advanced AI models—such as Qwen-Max (MoE), Qwen-VL (visual understanding), and the *Wan* series (video generation)—via Model Studio's purpose-built APIs

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Contact Sales

Qwen2.5 and Qwen2.5-VL Open-Source Free Trial Models will be commercialized from 2025-06-04 00:00:00 (UTC+08). Click here for more details.

Introducing Qwen3

Why Us

Features

Scenarios

Models and Pricing

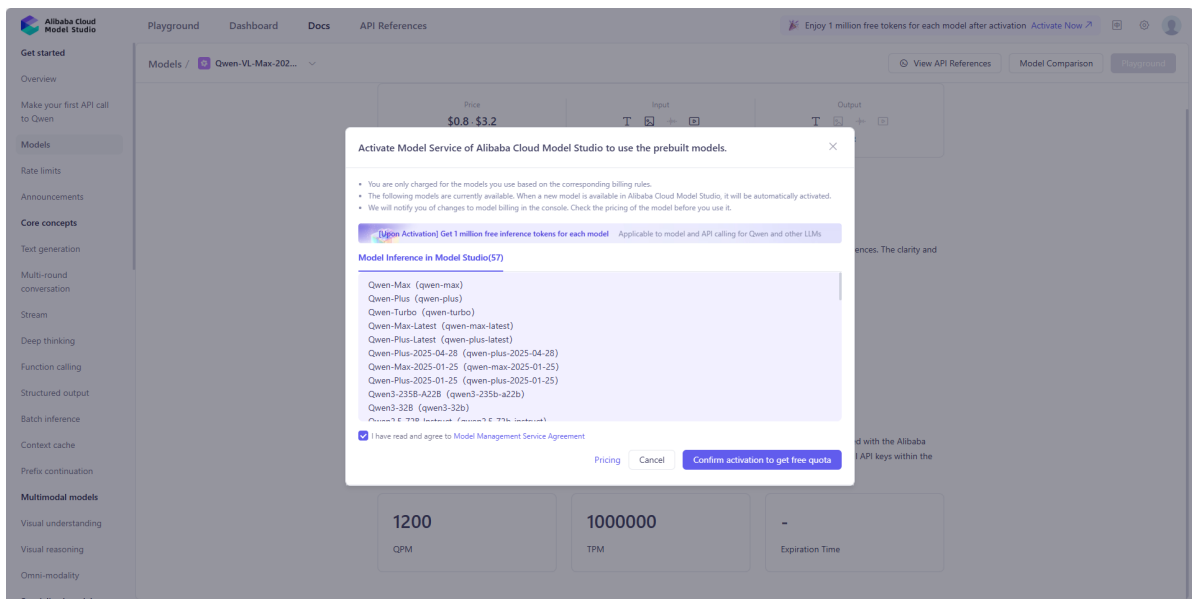
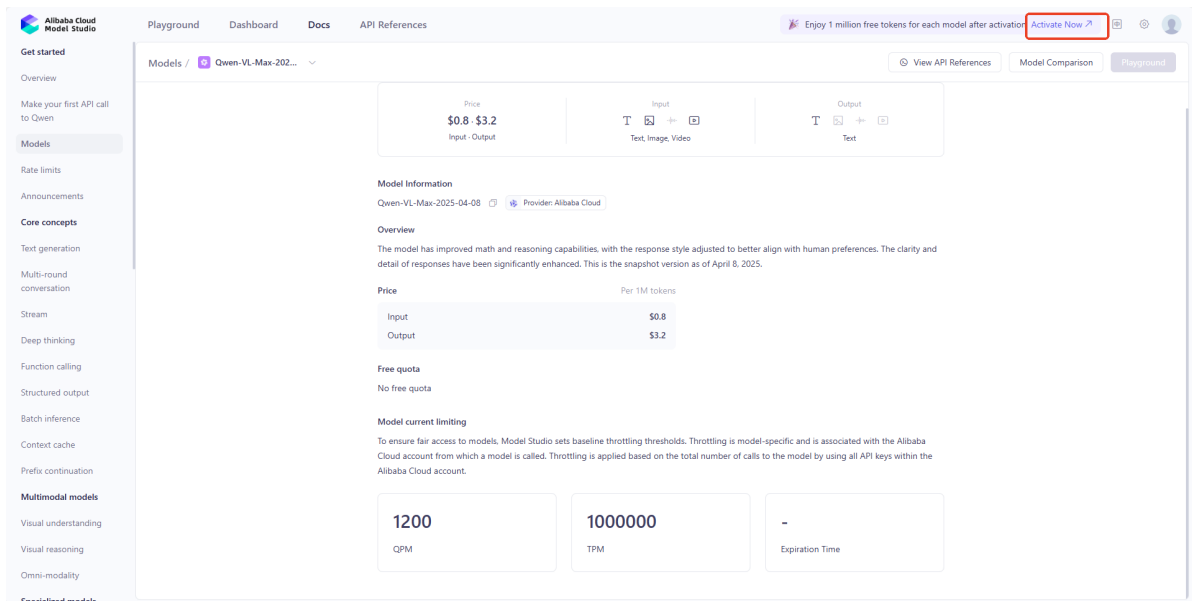
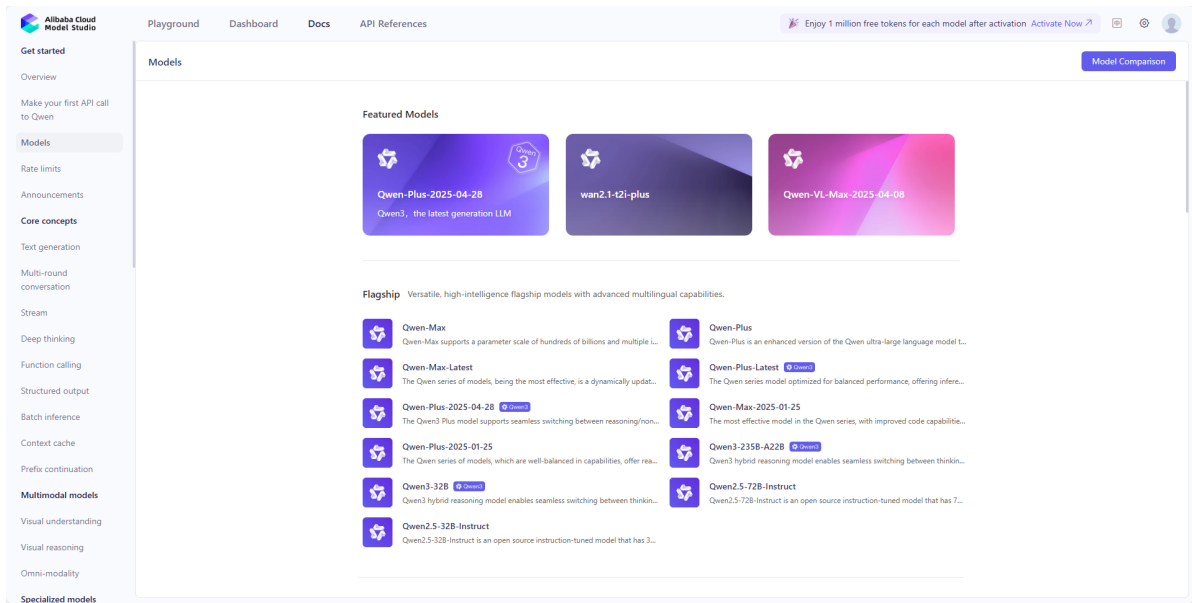
Customer

Documentation

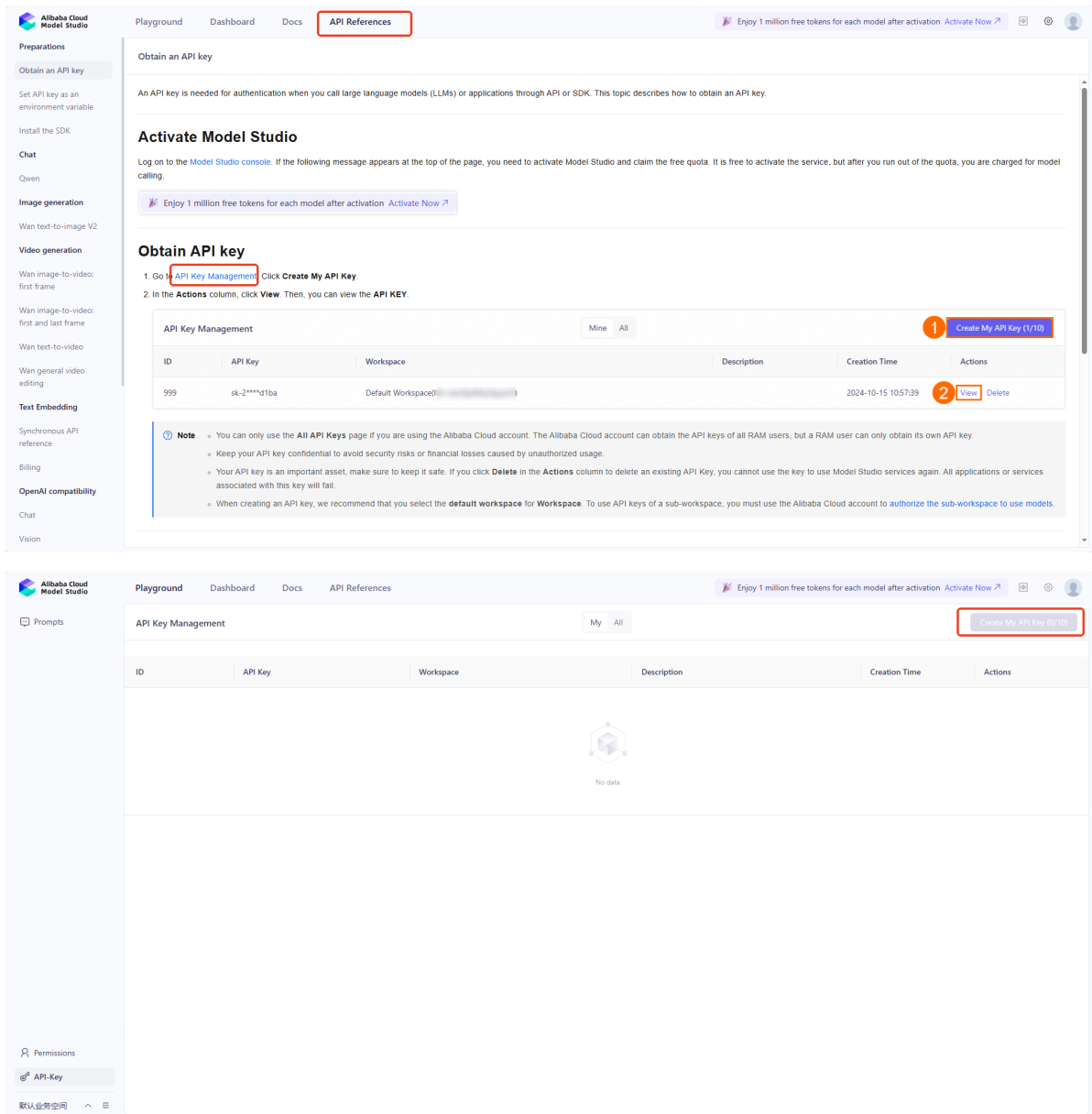
Qwen3: Major Models Unveiled!

All Qwen3 models seamlessly integrate "thinking" and "non-thinking" modes, allowing you to switch modes during conversation. [Try It Now in Model Studio!](#)

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4. Register your own API Key



Then remotely access the robot dog system through vnc and open the terminal. For how to enter the system through VNC, you can watch the tutorial in Chapter 1.

7. Terminal input

```
nano RaspberryPi-CM4-main/demos/API_KEY.py
```

```
1  #####国内key相关的 Domestic key related
2  #星火大模型 Starfire Large Model
3  XINGHOU_APPID = 'xxxxxx' #填写星火大模型的APPID Fill in the APPID of the Spark model
4  XINGHOU_APISecret = 'xxxxxx' #填写星火大模型的APISecret Fill in the Spark model's APISecret
5  XINGHOU_KEY = "xxxxxxxx" #填写星火大模型的APIKEY Fill in the APIKEY of the Spark model
6
7
8  #通义千问 Tongyi Qianwen
9  TONYI_key='xxxxxxxx' #填写通义千问的APIKEY Fill in the APIKEY of Tongyi Qianwen
10
11
12
13 #####国外key相关的 Foreign key related
14 #注册的地址: https://openrouter.ai/ Registered address: https://openrouter.ai/
15 openAI_KEY = 'xxxxxx' #填写openrouter的APIKEY Fill in the APIKEY of openrouter
```

Then enter the API-KEY of OpenRouter and the API-KEY of TONYI_KEY according to the prompts. You do not need to fill in the Spark Big Model. Then press Ctrl+S to save and Ctrl+X to exit. You can run the Big Model routine.

The Spark Big Model key used by overseas customers has been packaged in the relevant cases and does not need to be filled in here.