

Dify Basic Functions

Dify Basic Functions

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1. Course Content

- Understand and master the basic operations and functions of Dify

2. Starting the Dify Service

- Connect to the car's infotainment system via VNC or SSH. Enter the following command in the terminal:

```
sh ~/bringup_dify.sh
```

```

ROS_DOMAIN_ID: 62 | ROS: humble
my_robot_type: M1 | my_lidar: c1 | my_camera: usb
-----
jetson@yahboom:~$ sh ~/bringup_dify.sh
WARN[0000] The "DB_USERNAME" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_DATABASE" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_PASSWORD" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_PASSWORD" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_DATABASE" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_USERNAME" variable is not set. Defaulting to a blank string.
WARN[0000] The "CERTBOT_EMAIL" variable is not set. Defaulting to a blank string
.
WARN[0000] The "CERTBOT_DOMAIN" variable is not set. Defaulting to a blank strin
g.
WARN[0000] The "DB_DATABASE" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_PASSWORD" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_USERNAME" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_USERNAME" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_DATABASE" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_PASSWORD" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_DATABASE" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_PASSWORD" variable is not set. Defaulting to a blank string.
WARN[0000] The "DB_USERNAME" variable is not set. Defaulting to a blank string.
[+] Running 10/10
✓ Container docker-sandbox-1      Runni...          0.0s
✓ Container docker-web-1           Running          0.0s
✓ Container docker-ssrf_proxy-1   Ru...            0.0s
✓ Container docker-db-1           Healthy         0.5s
✓ Container docker-redis-1        Running          0.0s
✓ Container docker-worker_beat-1  R...             0.0s
✓ Container docker-plugin_daemon-1 Running          0.0s
✓ Container docker-api-1          Running          0.0s
✓ Container docker-worker-1       Runnin...        0.0s
✓ Container docker-nginx-1        Running          0.0s
jetson@yahboom:~$
```

- View the car's infotainment system's IP address. This can be done through the OLED screen, `ifconfig`, or directly in the terminal.

```

jetson@yahboom: ~
jetson@yahboom: ~ 80x24
[System Information]
-----
IP_Address_1: 192.168.2.49
IP_Address_2: 192.168.12.34
MACHINE: OrinNx | ROS_DISTRO: humble | ROS_DOMAIN_ID: 30
ROBOT_TYPE: ROSMASTER-M3Pro | CAMERA_TYPE: dabai_dcw2 | RADAR: Tmini-plus*2
-----
jetson@yahboom:~$
```

- Enter the car's infotainment system's IP address directly into the browser's address bar to access the Dify management page. If this is the first time logging in, you will need to use a username and password. You can select the language in the upper left corner.

[!NOTE]

- Account: `yahboom@163.com`
- Password: `yahboom123`
- All account passwords, intelligent agent applications, and RAG data are stored locally.
- The Dify main interface is shown below.

The screenshot shows the Dify workspace interface. At the top, there are navigation links: Explore, Studio (which is selected), Knowledge, Tools, Plugins, and a user profile icon. Below the navigation bar, there are search and filter options: All, Workflow, Chatflow, Chatbot, Agent, Completion, Created by me, All Tags, and Search. A sidebar on the left provides options to Create APP, Create from Blank, Create from Template, and Import DSL file. The main area displays four project cards: 'yahboom-usb_en' (Edited at 12/18/2025 9:00), 'yahboom-usb' (Edited at 12/23/2025 9:42), 'yahboom-nuva_en' (Edited at 12/18/2025 7:42), and 'yahboom-nuva' (Edited at 12/26/2025 9:42). Each card has an 'ADD TAGS' button.

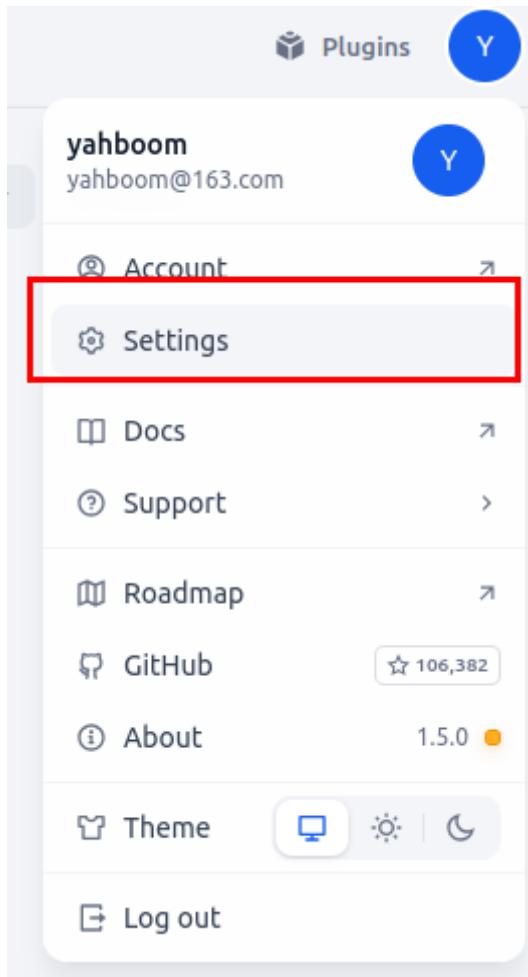
3. Basic Usage

[!TIP]

- If you need to use the model supplier's cloud AI model, please ensure the car's infotainment system is connected to the internet.

3.1 Switching Dify Language

- Generally, the Dify page will open with the browser language. If you need to switch manually, you can do so in the settings.



Settings

WORKSPACE

- Model Provider
- Members
- Data Source
- API Extension

GENERAL

- Language** (highlighted with a red box)

Display Language

- English (United States) (highlighted with a red box)
- 简体中文
- 繁體中文
- Português (Brasil)
- Español (España)
- Français (France)
- Deutsch (Deutschland)

3.2 Integrating Model Provider Services

- Dify has built-in model interface plugins for different model providers. These plugins are maintained and upgraded by their respective model providers. We can install the corresponding model provider's plugin to quickly integrate cloud models from different manufacturers.
- Click on Plugins in the upper left corner of the homepage -> Explore Marketplace -> Models to enter the model interface plugin page.

Empower your AI development

Discover models, tools, data sources, agent strategies, extensions and bundles in Dify Marketplace

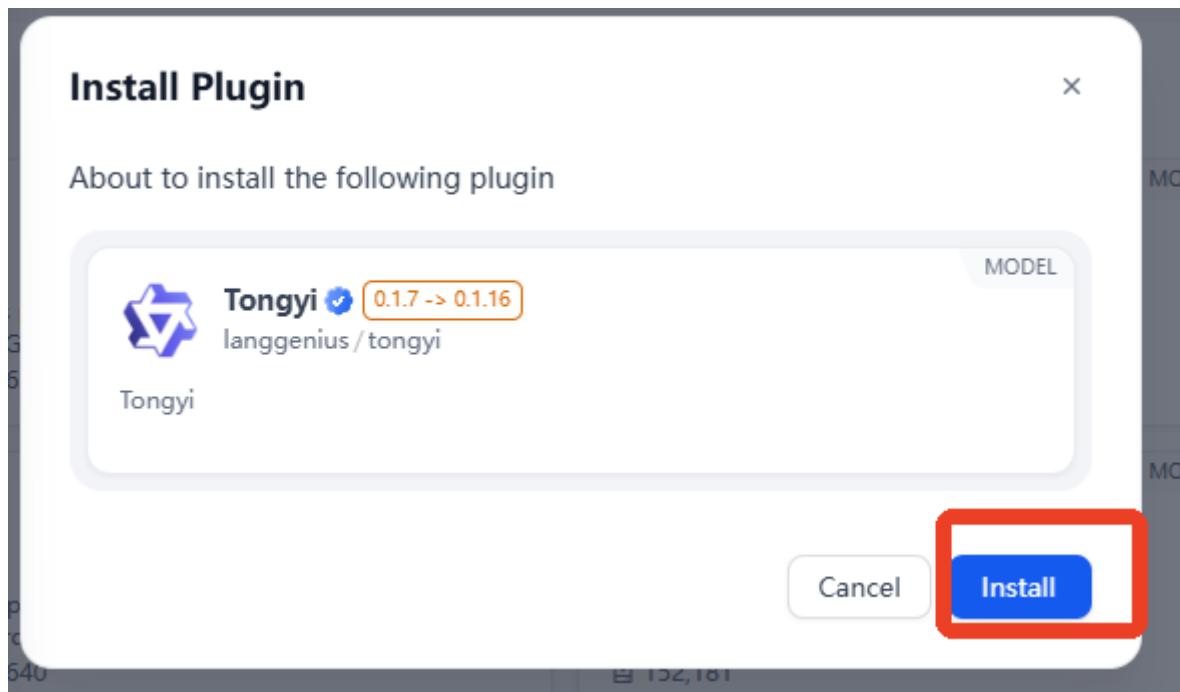
All **Models** (highlighted with a red box)

Search plugins

Sort by Most Popular

Model	Description	Downloads
Ollama	Models provided by Ollama, such as GPT-3.5-Turbo, GPT-4, and GPT-5.	392,023
SiliconFlow	SiliconFlow provides access to various models (LLMs, text embedding, reranking, STT, TTS), configurable via model name, API key, and other...	241,912
Xorbits Inference	Xorbits Inference	75,151
LM Studio	Deploy local models using LM Studio	45,853
OpenAI	Models provided by OpenAI, such as GPT-3.5-Turbo, GPT-4, and GPT-5.	356,616
OpenAI-API-compatible	Model providers compatible with OpenAI's API standard, such as LM Studio or llama.cpp Service.	226,640
Anthropic	Anthropic's powerful models.	72,993
ZHIPU AI	ZHIPU AI	43,979
Tongyi	Tongyi	342,130
Gemini	Google's Gemini model.	152,181
Azure OpenAI	Azure OpenAI Service Model	64,956
vilm	vilm provider for guided support	42,169
DeepSeek	Models provided by deepseek, such as deepseek-chat, deepseek-code...	268,737
Volcengine	Volcengine Ark models.	134,545
OpenRouter	OpenRouter is a powerful platform that provides access to a diverse set of language models, including both commercial and open-source...	61,129
Jina	Embedding and ReRank Model Supported	37,576

- This example demonstrates how to install and configure the Tongyi Qianwen plugin. The method for other plugins is the same; simply click to install.



- Afterwards, in the "Model Supplier" field of the "Settings" page, enter the API-KEY obtained from the corresponding platform. If the API-KEY is available, the corresponding plugin's API-KEY will show a green light.

[!TIP]

- For more detailed API-KEY configuration steps and testing methods, please refer to section 6. Configuring API-KEY in the previous chapter.

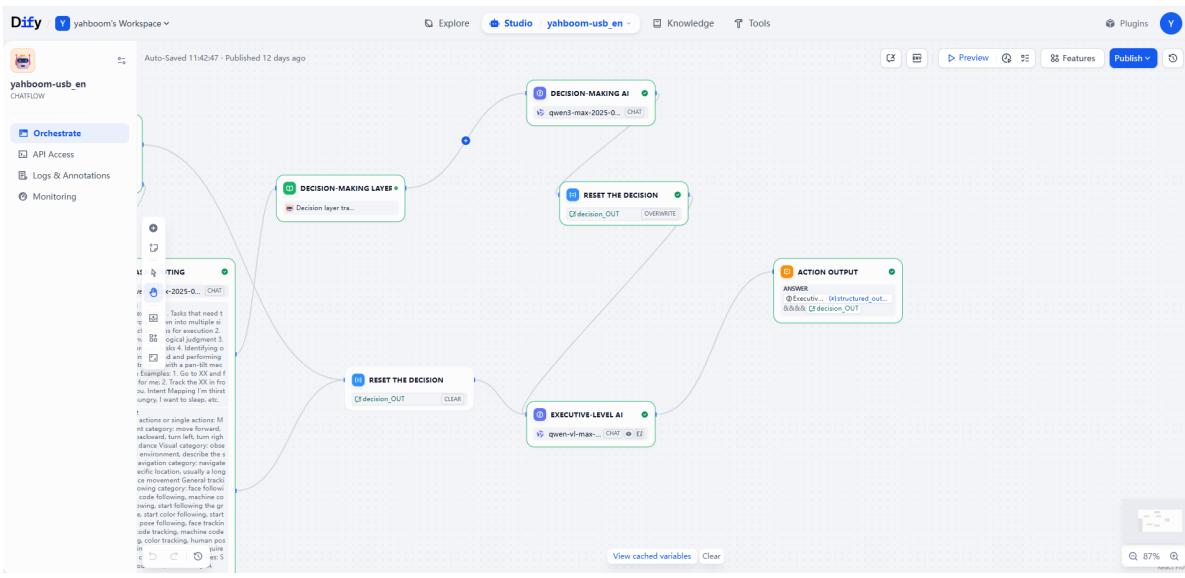
The screenshot shows the 'Model Provider' settings page. On the left sidebar, under 'WORKSPACE', the 'Model Provider' tab is selected and highlighted with a red box. Other options include 'Members', 'Data Source', 'API Extension', 'GENERAL', and 'Language'. The main area is titled 'Model Provider' and contains a 'Models' section. Under 'Models', there is a list of 'Tongyi' with sub-options: LLM, TEXT EMBEDDING, RERANK, SPEECH2TEXT, and TTS. To the right of the models, there is a 'System Model Settings' button and a search bar. Below the models, there is a 'To be configured' section with 'OpenRouter' and an 'Add API Key' button. A red box highlights the 'Config' button next to the 'wang' API key. Another red box highlights the 'Add API Key' input field.

3.3 Switching Models in AI Applications

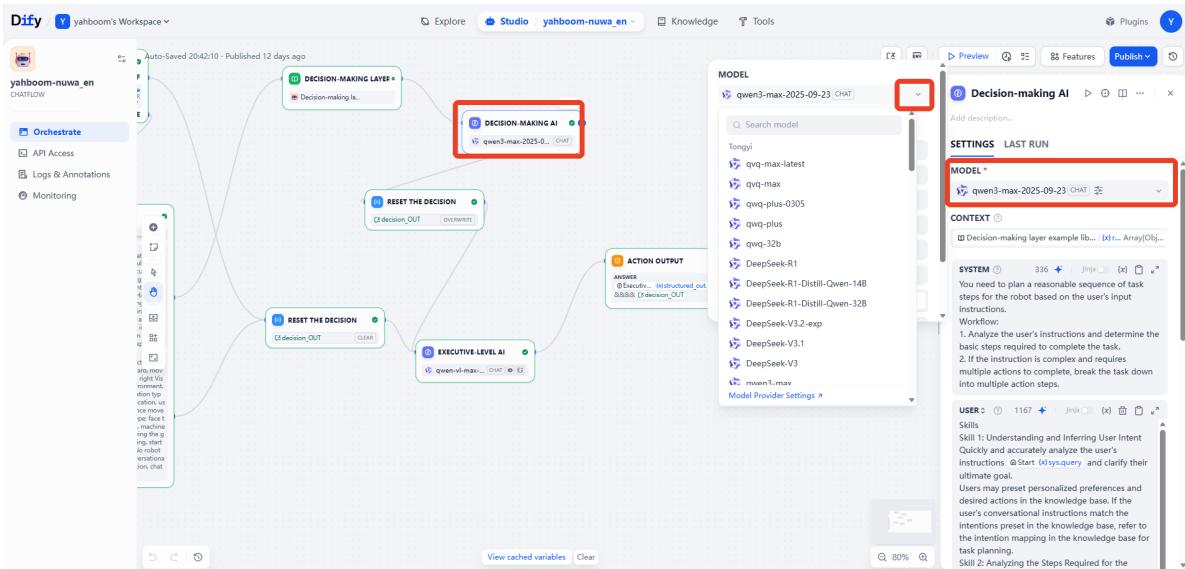
- For already developed AI agent applications, you can quickly switch between different models to test their effects. Here, we use ROSMASTER-M3. Taking the core AI agent `multi_brains` in Pro as an example, open the AI agent application on the homepage.



- There are three core AIs: Task Routing, Decision-Making AI, and Execution-Making AI.



- Here, we take switching the Decision-Making AI as an example. Open the **Decision-Making AI** card, and you can switch between different vendor models in the model selection bar.

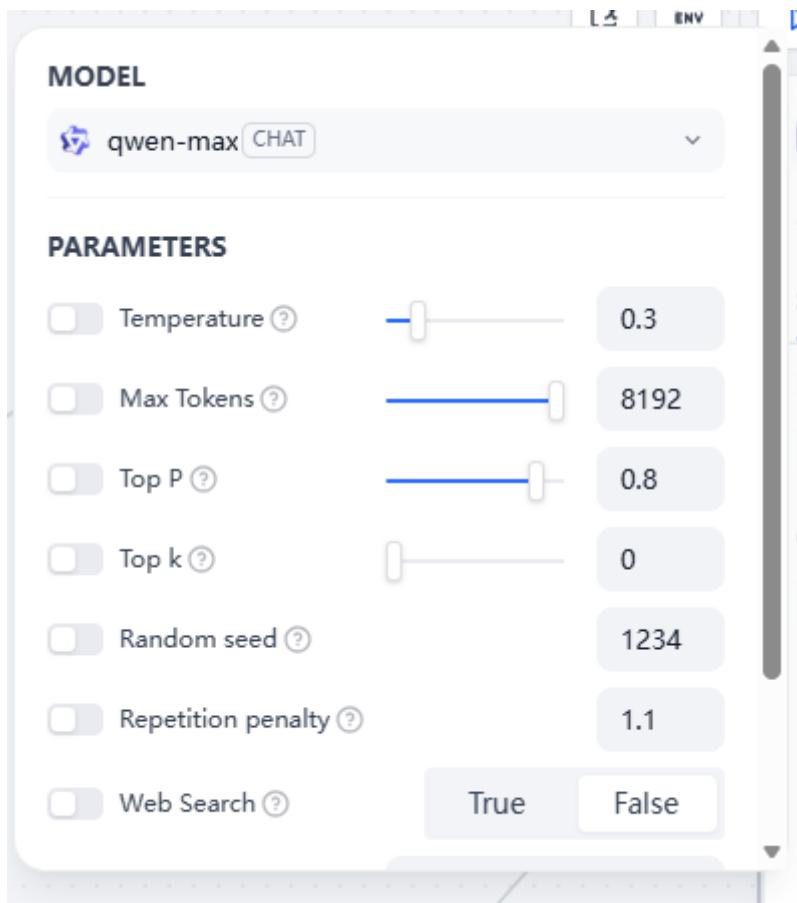


- We can also fine-tune the parameters of the model's response effect. The detailed function of each parameter can be viewed with the mouse.
- Taking temperature as an example:

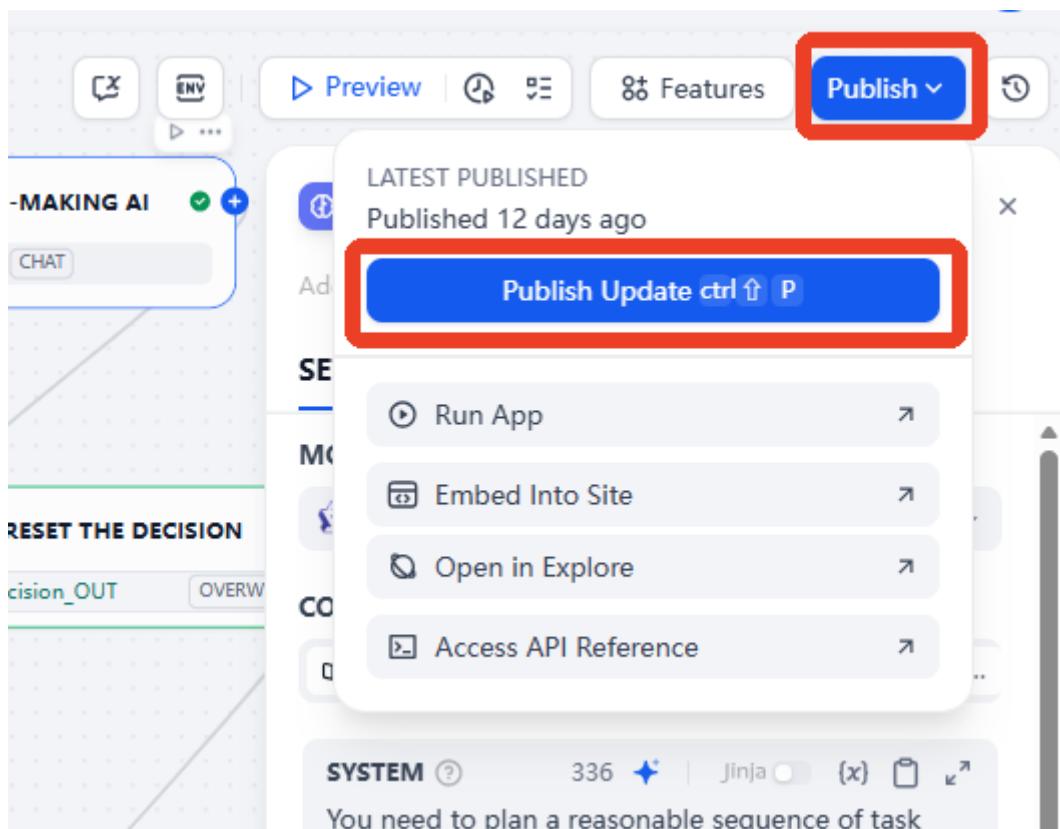
This parameter controls the degree of randomness and diversity. The temperature value controls the smoothing of the probability distribution for each candidate word during text generation. A higher temperature value reduces the peak of the probability distribution, allowing more low-probability words to be selected, resulting in more diverse generation results; while a lower temperature value enhances the peak of the probability distribution, making high-probability words more likely to be selected, resulting in more predictable generation results.

[!TIP]

- Beginners can generally use the default parameters without adjustment.



- Note that after modifying the AI application, you need to click Publish—Publish Update to save the changes.

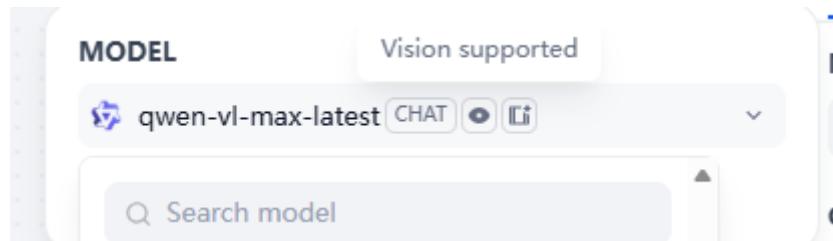


[!WARNING]

Important Notes

- For the execution layer model, because it processes images, only multimodal models can be used (visual models will have special symbols as shown in the image below).

- There are no restrictions on the model for task routing and decision layer models.
- Task routing can choose a model with small parameters to improve response speed.

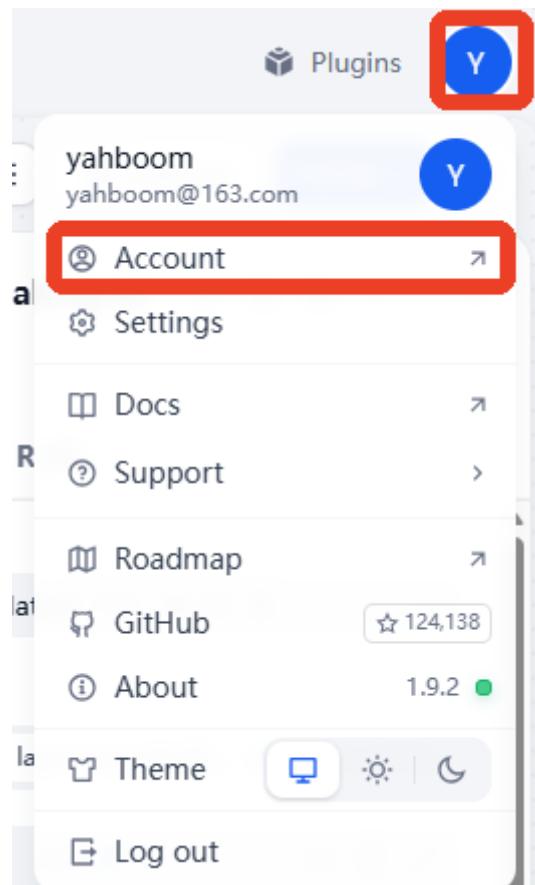


4. Account Settings

[!NOTE]

The dify account is information stored locally and has no privacy risks. The ROSMASTER-M3 Pro comes with a default administrator account. This section of the tutorial should only be consulted if you need to modify the account information.

- Click your avatar in the upper right corner —> Account



- Account information is as follows; you can modify the information as needed.

My Account

 **yahboom**
yahboom@163.com

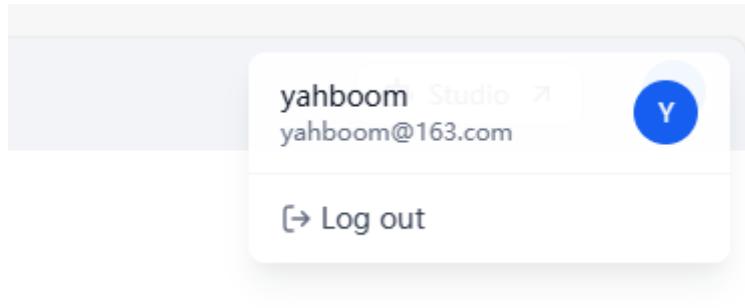
Name
yahboom Edit

Email
yahboom@163.com Change

Password
You can set a permanent password if you don't want to use temporary login codes Reset password

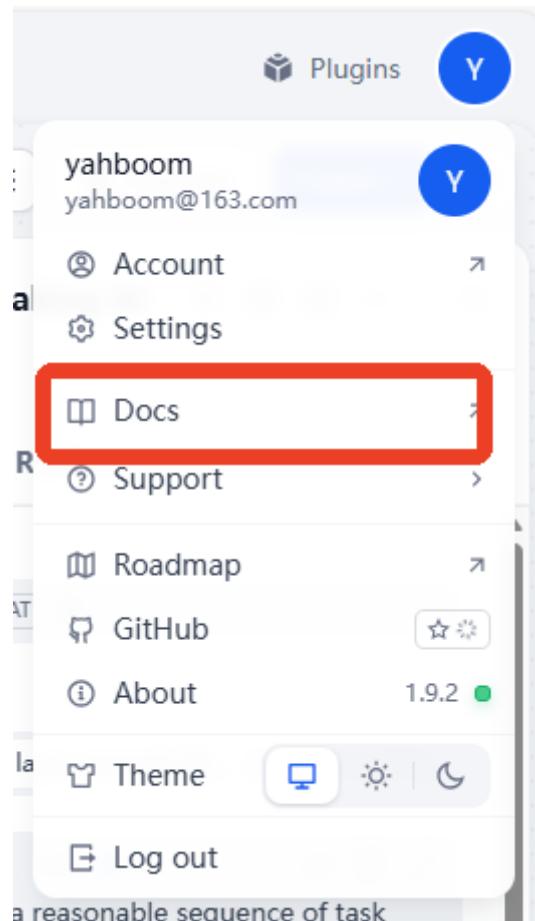
Account's data
The user data of your account.
Show 4 apps >

- To log out, click your avatar again.



5. Development Documentation

- For users with further development needs, you can view more detailed development documentation. Click your avatar in the upper right corner —> View Help Documentation



- This will open the Dify online developer documentation page. You can select different content from the dropdown list on the left.

Dify



Search... Ctrl K

Use Dify ^

Use Dify ✓

Self Host

API Reference

Develop Plugin

Nodes ▾

User Input

Trigger >

LLM

Knowledge Retrieval

Answer

Output

Agent