
sunfounder-create-agent

Release 1.0

sunfounder

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SunFounder Create Agent is a simple application that helps connect SunFounder Online Tutorial to your Raspberry Pi!

The Agent opens a local websocket service, allows Online Tutorial to connect, and connects to the Raspberry Pi via SSH, so that you can establish a connection between Online Tutorial and the Raspberry Pi.

With the **Run** button of the Online Tutorial, you can run the commands and code directly.

DOWNLOAD AND INSTALL

In our tutorials you will see the word **Disconnected** in the top right corner, click on it to connect and run commands and code to the Raspberry Pi, but you need to download the SunFounder Create Agent first.

[Docs](#) » [1 Output](#) » 1.1.1 Blinking LED



Here are the tutorials for installing on different systems:

- [Windows](#)
- [Mac OS](#)
- [Raspberry Pi OS](#)

1.1 Windows

1. Click on **Disconnected**, and select **Download the Agent** in the pop-up window. If you have already downloaded and installed it, please see [Quick User Guide](#).

SunFounder Create Agent

SunFounder Create Agent is a small application, let you run commands right on our online tutorials. Learning programming never been this easy and fun!

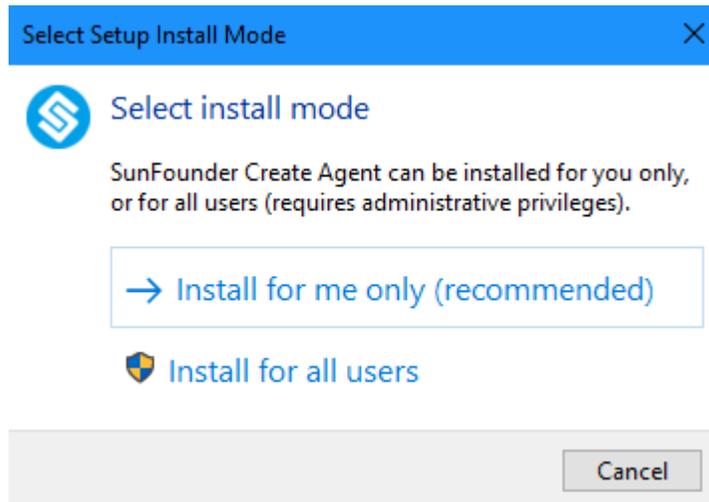
[Learn more >>](#)

To use it, you just need to download the SunFounder Create Agent, and run the application. Then enjoy the journey of learning.

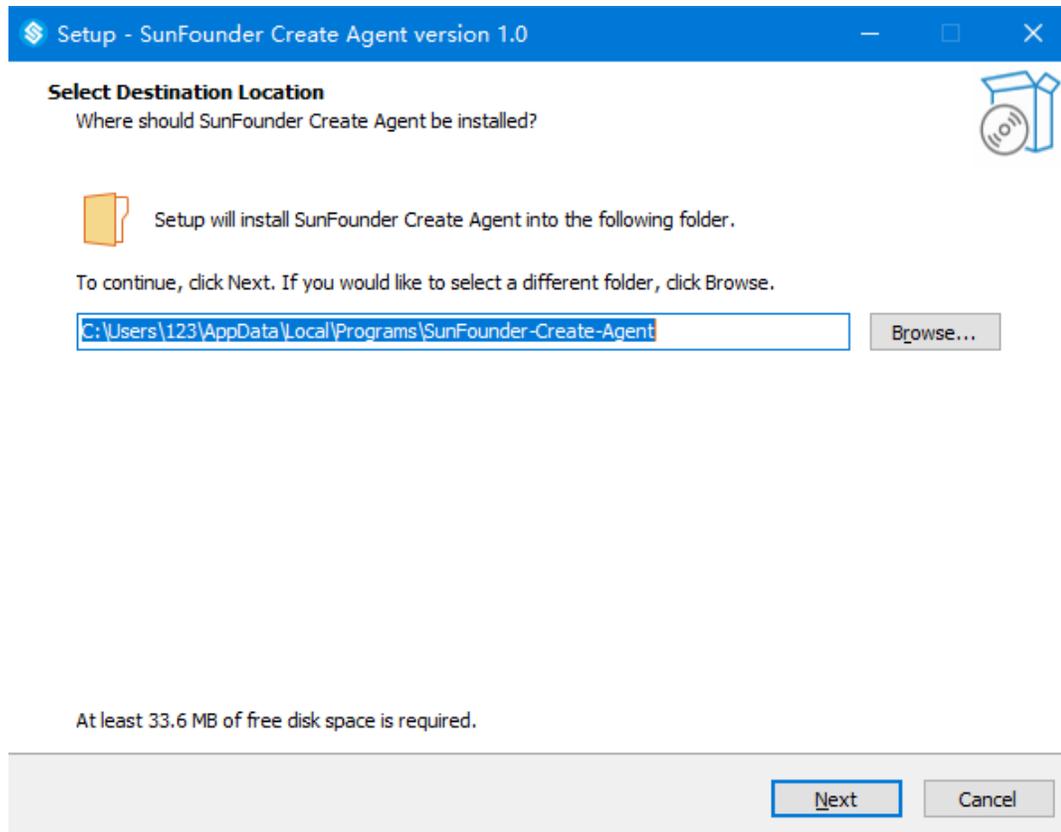
I have opened the Agent

Download the Agent

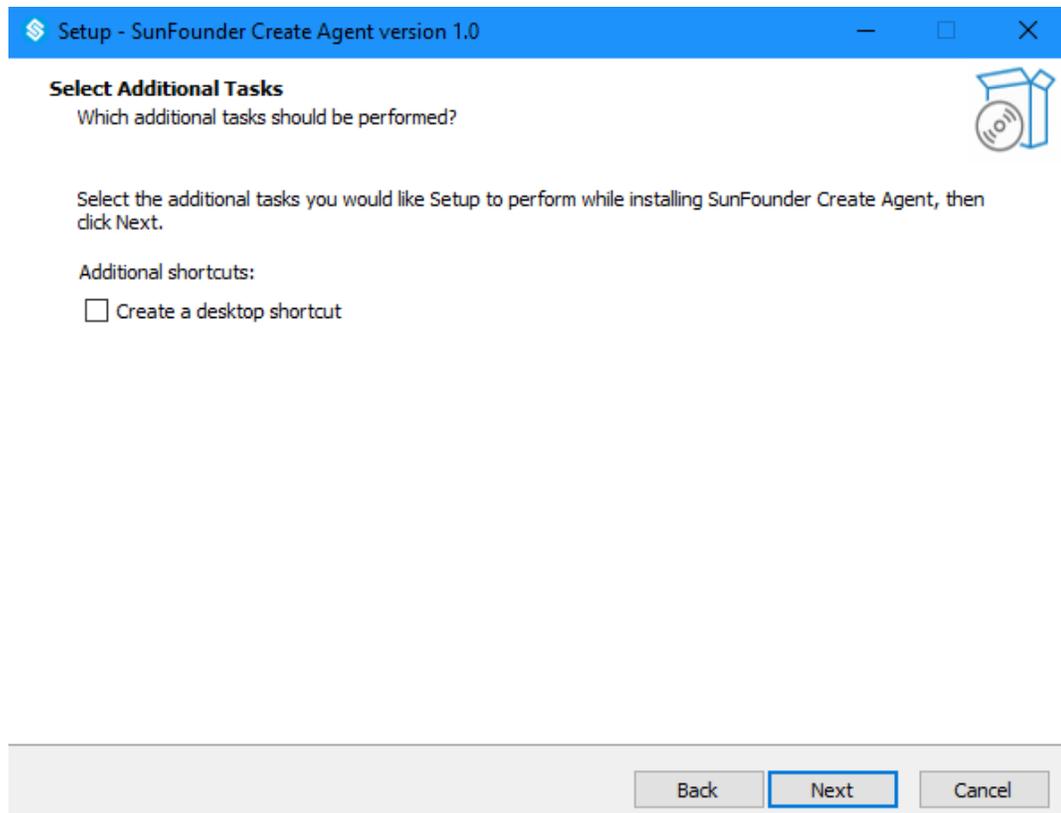
2. Click on the downloaded `SunFounder-Create-Agent-win32-xx.x.x.exe` file, which is usually in the `Downloads/` folder.
3. Select install mode.



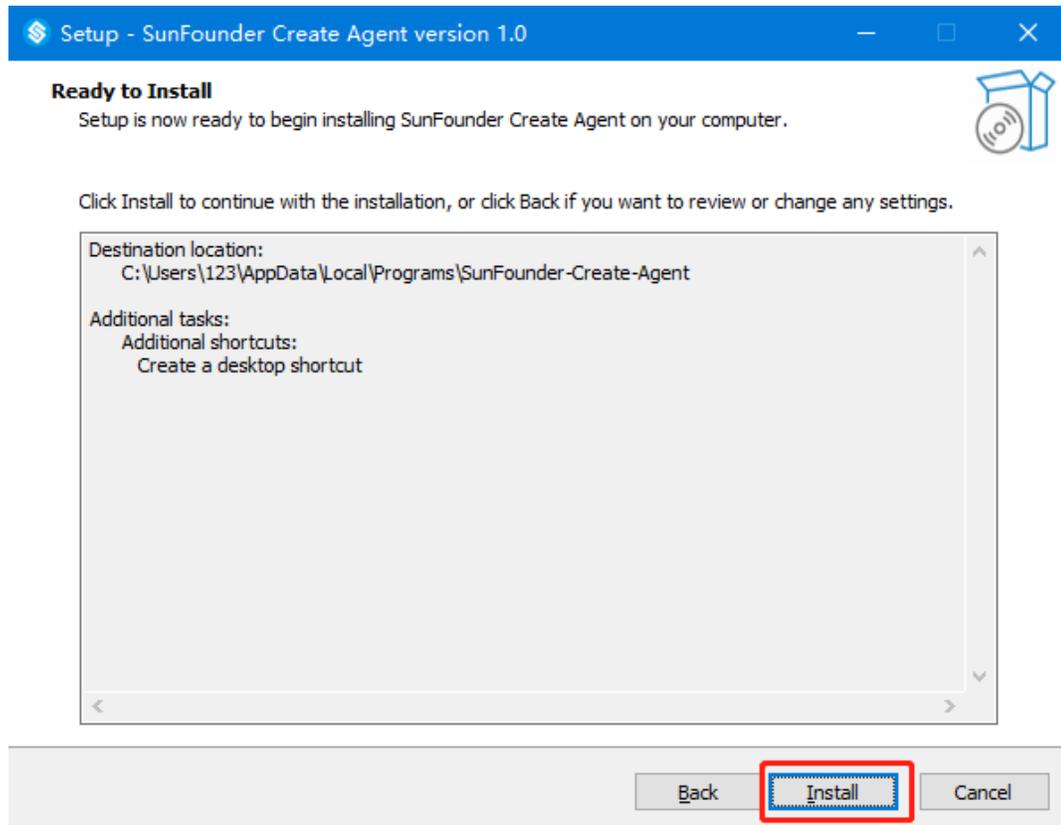
4. The default installation path is shown in the figure. You can also choose another path by using the **Browse** button and click **Next**.



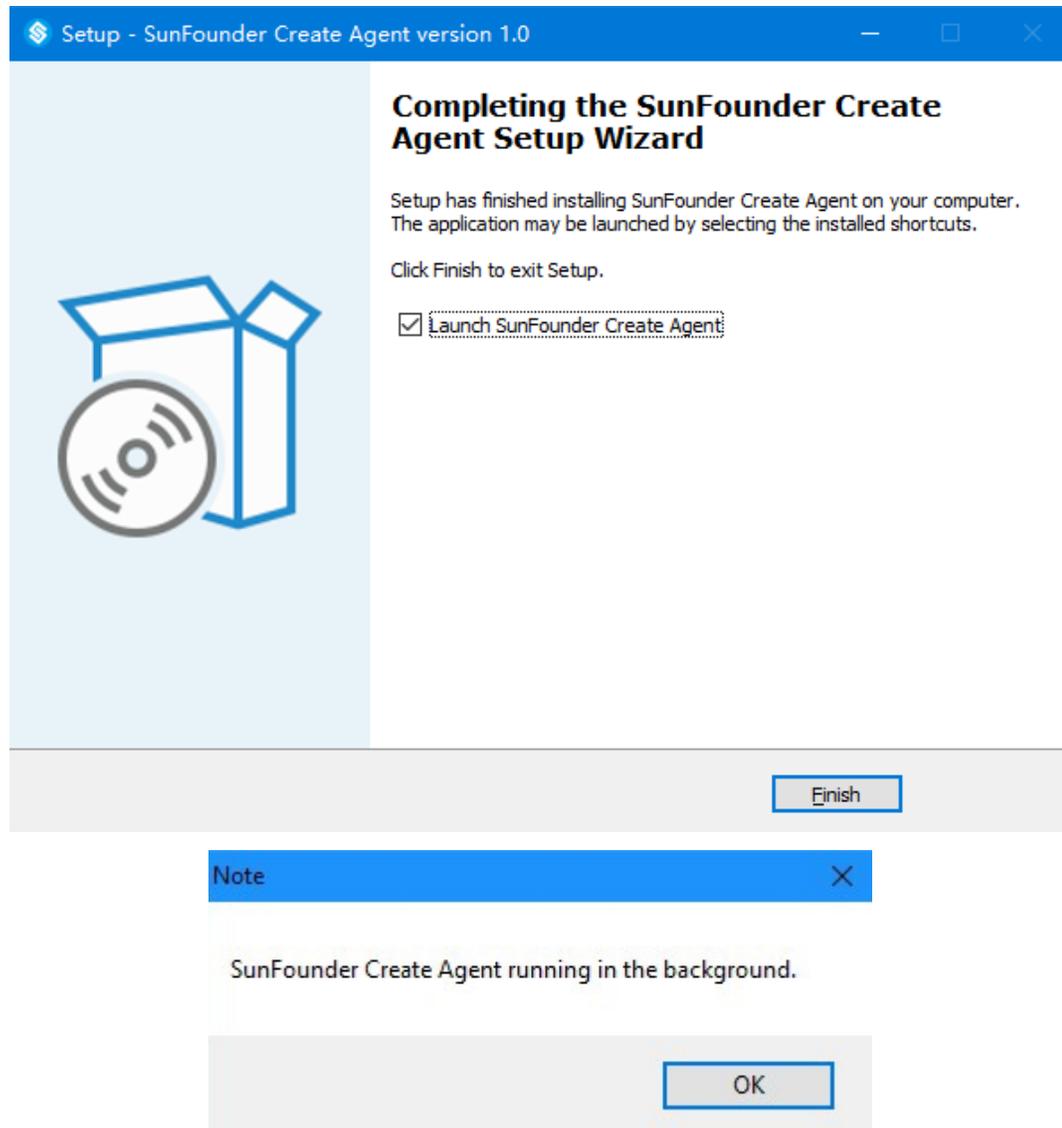
5. Select whether to create a desktop shortcut.



6. Click **Install** to continue with the installation, or click **Back** if you want to review or change any settings.



7. Wait a very short time and when the following pop-up window appears, the installation is successful. In this pop-up window, **Launch SunFounder Create Agent** is checked by default, click **Finish**, and this Agent will be run at this time.



1.2 Mac OS

1. Click on **Disconnected**, and select **Download the Agent** in the pop-up window. If you have already downloaded and installed it, please see *Quick User Guide*.

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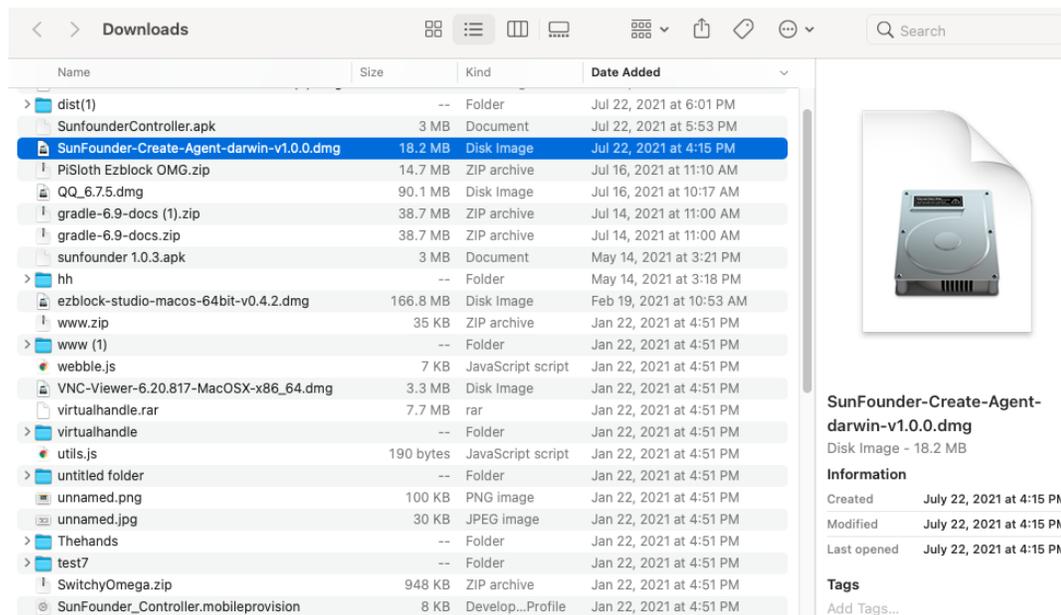
[Learn more >>](#)

To use it, you just need to download the SunFounder Create Agent, and run the application. Then enjoy the journey of learning.

I have opened the Agent

Download the Agent

2. Click on the downloaded `SunFounder-Create-Agent-darwin-xx.x.x.dmg` file, which is usually in the Downloads/ folder.



3. Drag the `SunFounder-Create-Agent-darwin-xx.x.x.dmg` to the **Applications** folder to install it.



1.3 Raspberry Pi OS

1. Click on **Disconnected**, and select **Download the Agent** in the pop-up window. If you have already downloaded and installed it, please see *Quick User Guide*.

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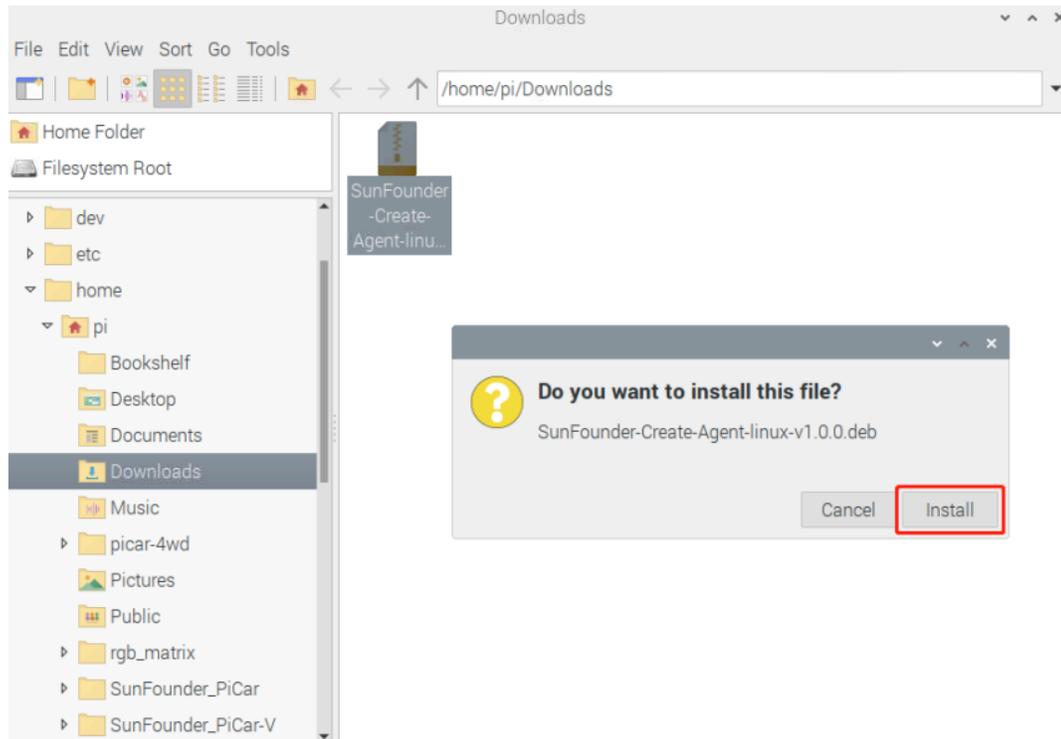
[Learn more >>](#)

To use it, you just need to download the SunFounder Create Agent, and run the application. Then enjoy the journey of learning.

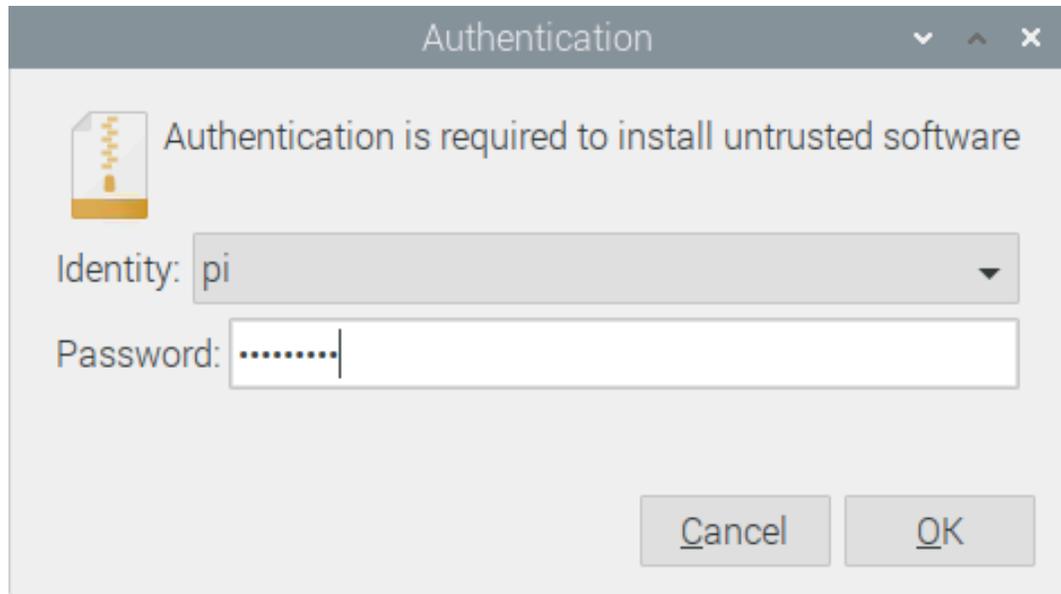
[I have opened the Agent](#)

[Download the Agent](#)

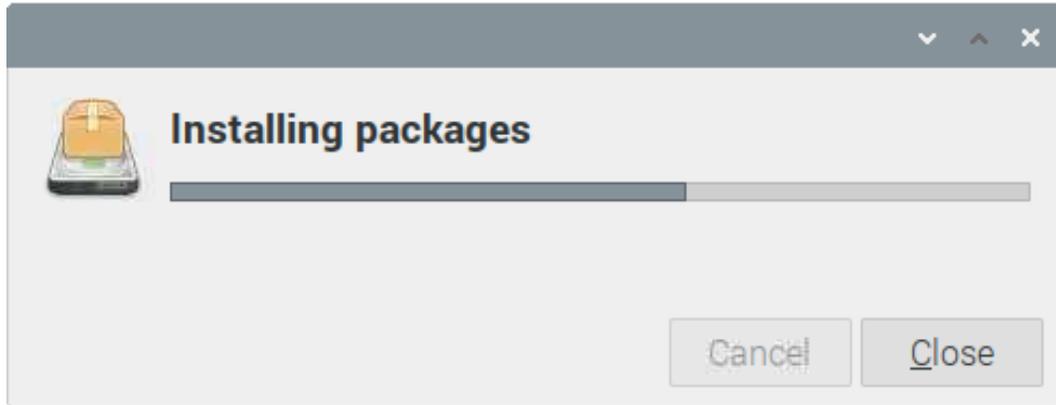
2. Click on the downloaded SunFounder-Create-Agent-linux-xx.x.x.deb file, which is usually in the Downloads/ folder then select **Install**.



3. Enter the username and password, click **OK**.



4. Wait for a very short time, when the pop-up window disappears, the installation is successful.



If the installation is not successful, please refer to the [FAQ](#).

RUN OR QUIT

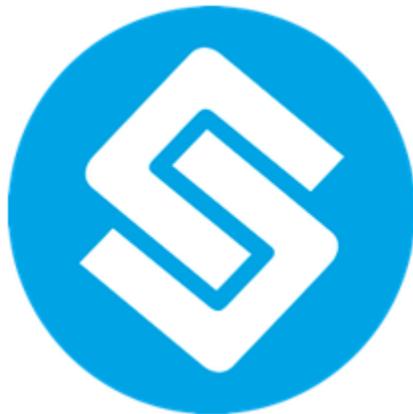
You will need to run this Agent manually every time your computer restarts. The usual method is to find the Sun-Founder Create Agent you installed, and then open it to let it run in the background.

- *Windows*
- *Mac OS*
- *Raspberry Pi OS*

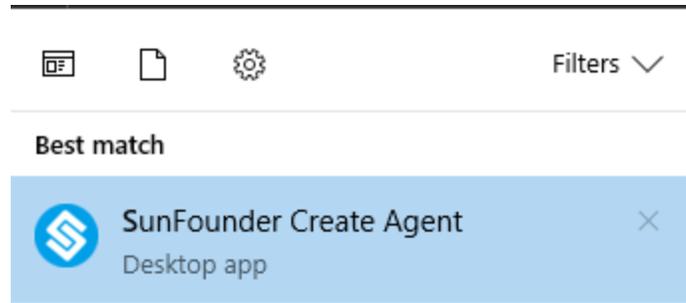
2.1 Windows

Run

You will need to run this Agent manually every time your computer restarts. If you created a desktop shortcut, then you can find the following icon and double-click it to run.

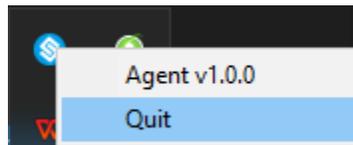


If you have not created a shortcut, you can search for: Sunfounder Create Agent in the search box in the lower left corner, click it to run.



Quit

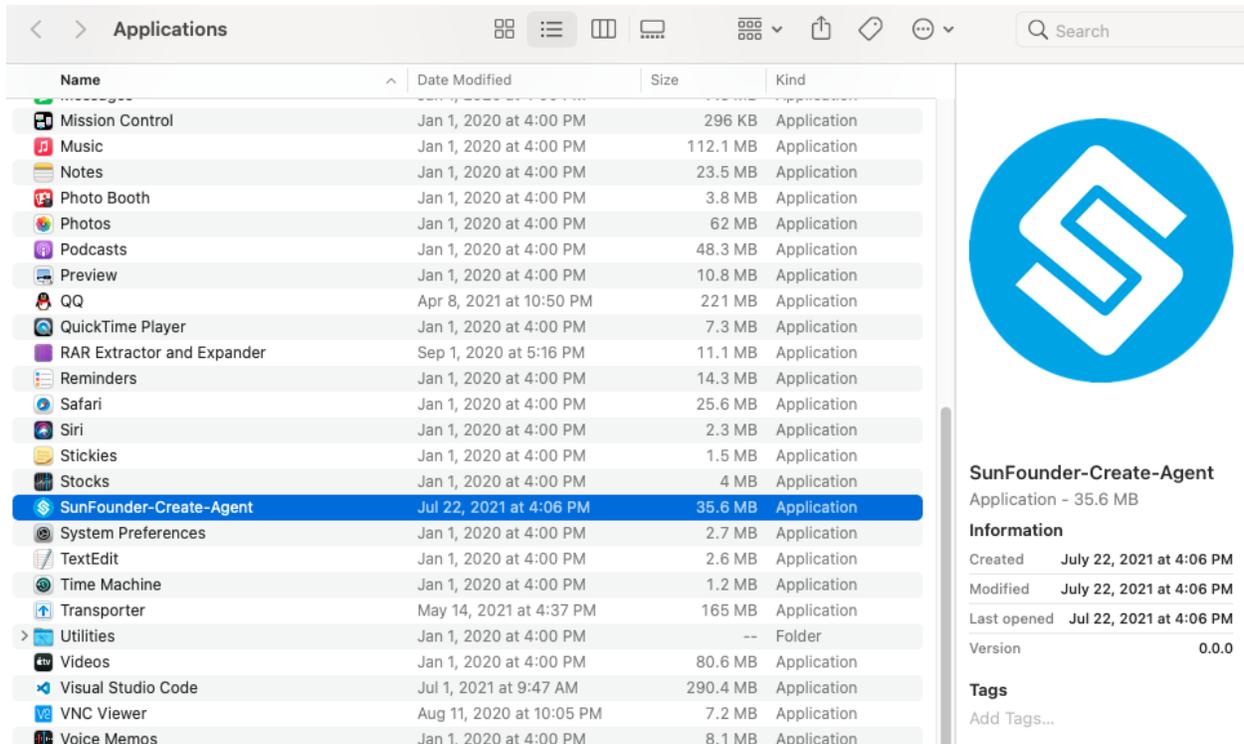
Generally, it only runs in the background and does not affect other processes. If you want to quit it, after finding it in the taskbar, right click and select **Quit**.



2.2 Mac OS

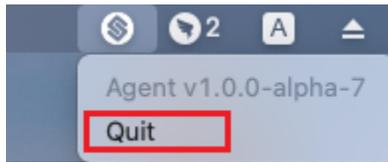
Run

You will need to run this Agent manually every time your computer restarts. Find it in the Applications folder, click and select **Open** to make it run in the background.



Quit

Generally, it only runs in the background and does not affect other processes. If you want to quit it, after finding it in the taskbar, right click and select **Quit**.

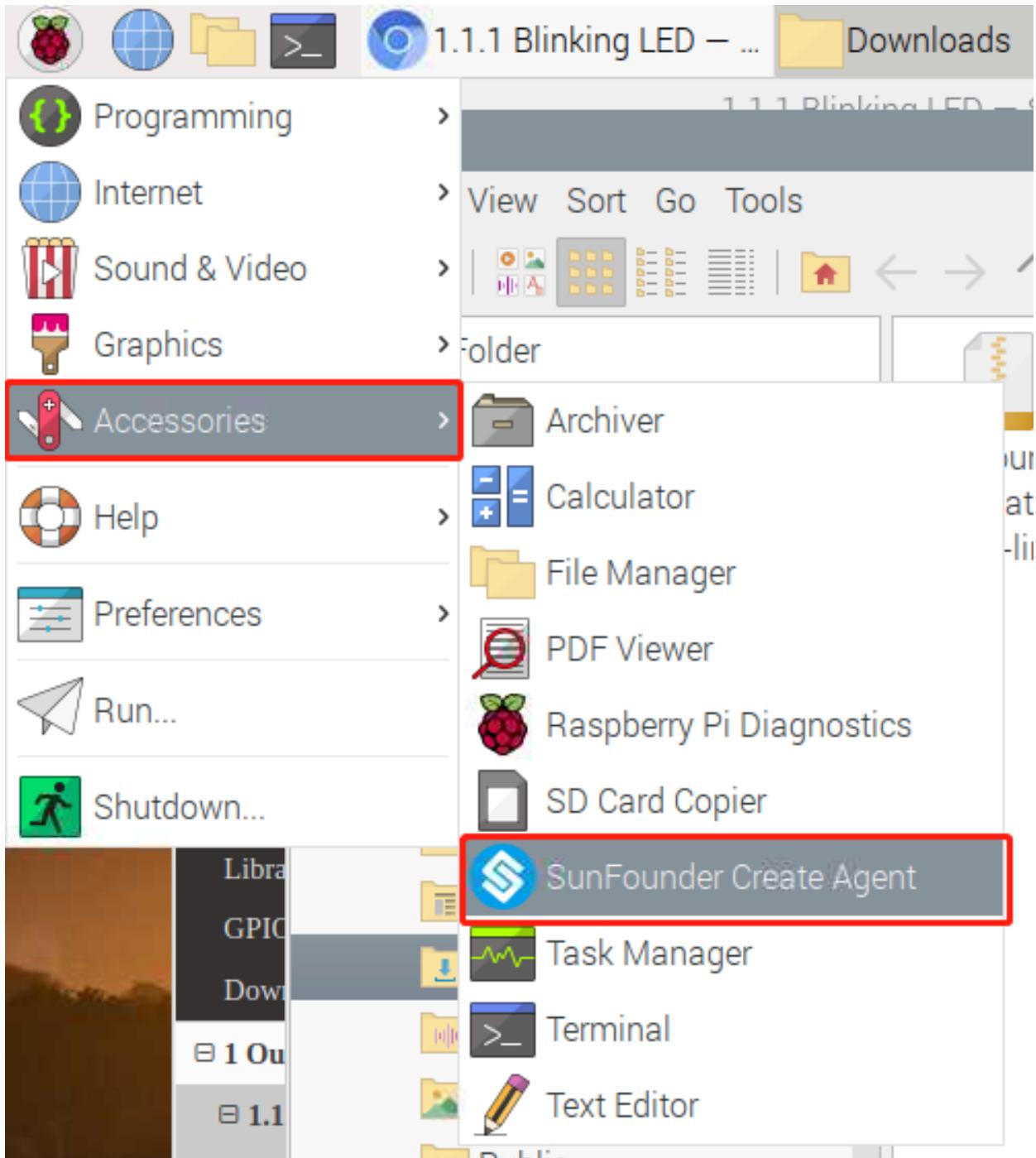


2.3 Raspberry Pi OS

Run

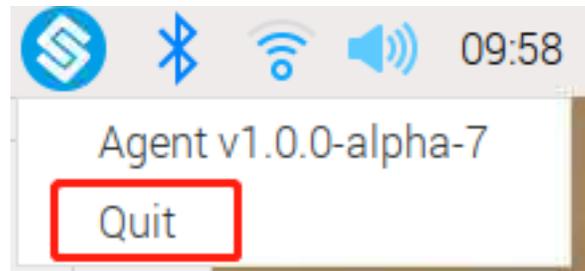
You will need to run this Agent manually every time your computer restarts. Click on the Raspberry Pi menu icon in the upper right corner and select **Accessories** → **Sunfounder Create Agent**.

After a while a pop-up will show that it is already running in the background.



Quit

Generally, it only runs in the background and does not affect other processes. If you want to quit it, after finding it in the taskbar, right click and select **Quit**.



QUICK USER GUIDE

3.1 Connect to Raspberry Pi

1. You will need to run this Agent manually every time your computer restarts. The usual method is to find the SunFounder Create Agent you installed, and then open it to let it run in the background.
 - *Windows*
 - *Mac OS*
 - *Raspberry Pi OS*
2. Click **Disconnected**.

Docs » 1 Output » 1.1.1 Blinking LED

 Disconnected

3. If you do not have the Agent installed, please click **Download the Agent**, detailed tutorial refer to: *Download and Install*. If you have downloaded and installed the Agent and have it running, click **I have the opened the Agent**.

SunFounder Create Agent

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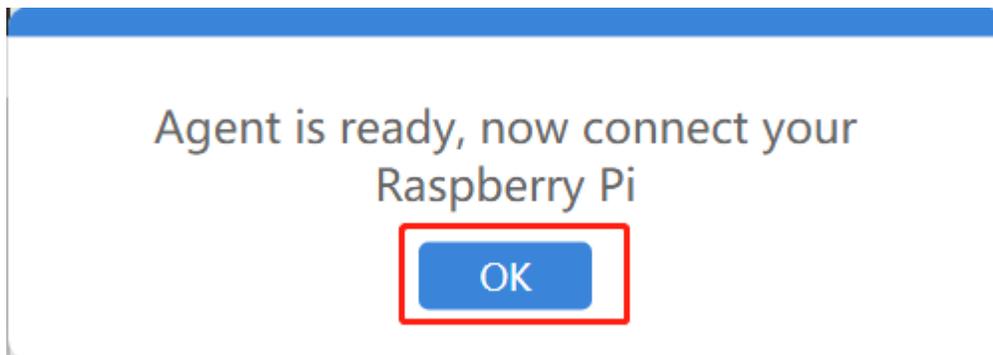
[Learn more >>](#)

To use it, you just need to download the SunFounder Create Agent, and run the application. Then enjoy the journey of learning.

[I have opened the Agent](#)

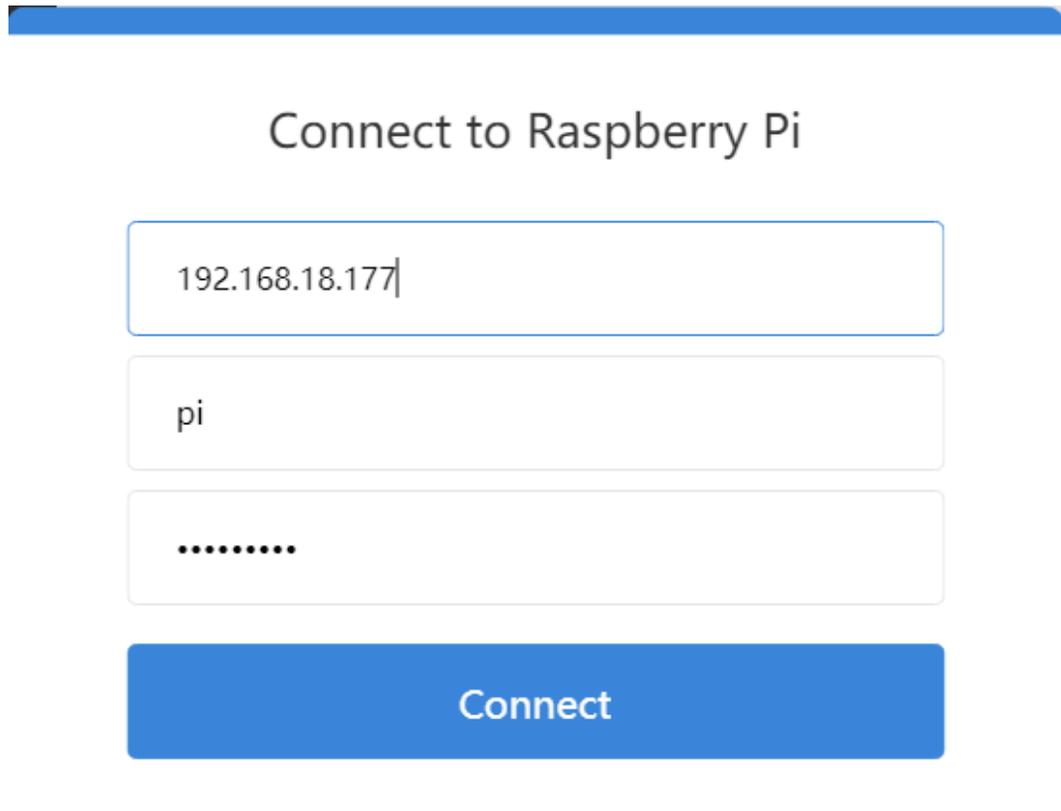
[Download the Agent](#)

4. Click **OK**.



5. Enter the Raspberry Pi IP, username and password, and click **Connect**.

Note: If you are reading the tutorial on Raspberry Pi and want to connect with itself, you can use local ip address 127.0.0.1 or local network name localhost



6. The connection is successful and you can now run the code directly from your browser.

Connection successful

3.2 Run the Command and Code

1. After successful connection, the Raspberry Pi IP will be displayed in the upper right corner. And Terminal will appear on the right side.

The screenshot shows a web page titled "1.1.1 Blinking LED" with a sub-section "Introduction". A red box highlights the IP address "192.168.18.2" in the top right corner. To the right, a terminal window displays the SSH login process, including the message "SSH is enabled and the default password for the 'pi' user has not been changed." and the prompt "pi@raspberrypi:~ \$".

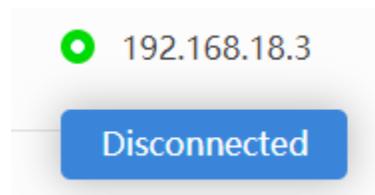
2. On the page, you will see some command lines and codes with boxes as shown below, which means you can **Reset/Copy/Run/Stop** them directly.

The screenshot displays three terminal snippets, each with "Reset", "Copy", "Run", and "Stop" buttons. The first snippet shows the command `cd /home/pi/raphael-kit/c/1.1.5/`. The second snippet shows `gcc 1.1.5_4-Digit.c -lwiringPi`. The third snippet shows `sudo ./a.out`. To the right, a larger terminal window shows the execution of these commands, including the output of `gcc` and `sudo ./a.out`.

- **Reset:** Reset to initial state.
 - **Copy:** Copy the complete command or code to the clipboard. This function is generally used when you have modified the code and there is no problem with debugging. You can copy the complete code and paste it into the source `.py` file.
 - **Run:** To run the command or code, you need to stop the previous run before you click Run next time.
 - **Stop:** Equivalent to `Ctrl+C`, used to stop a command or code.
3. The Terminal on the right side is also editable but you need to click on the right area first before you can start entering commands.

```
pi@raspberrypi:~/raphael-kit/c/1.1.5 $ nano 1.1.5_4-Digit.c
pi@raspberrypi:~/raphael-kit/c/1.1.5 $
```

4. You can disconnect the Raspberry Pi by clicking ip -> Disconnected in the top right corner.

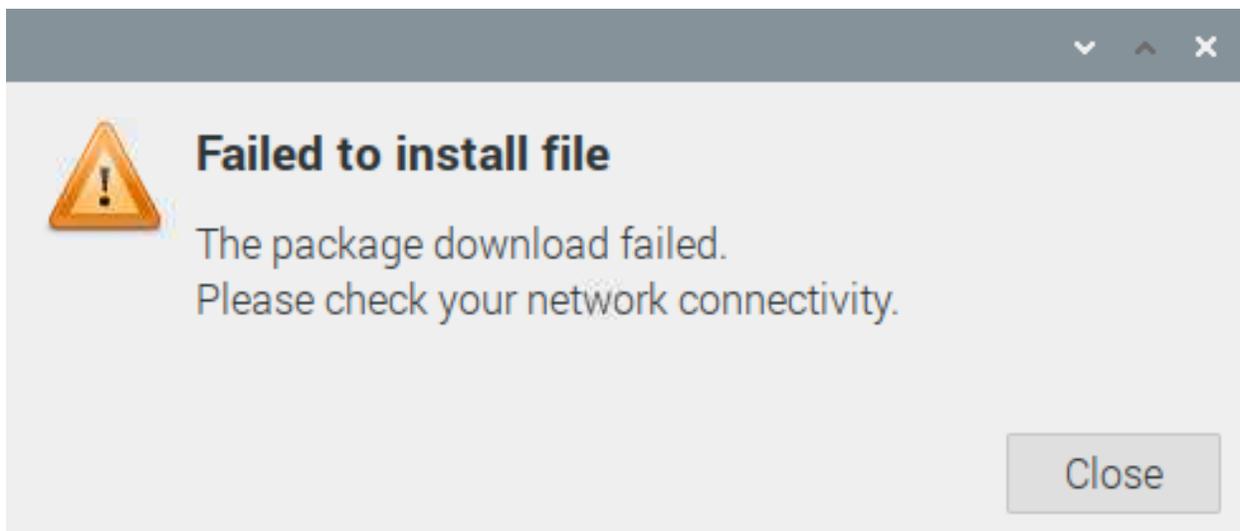


4.1 What kind of operating systems does Agent support?

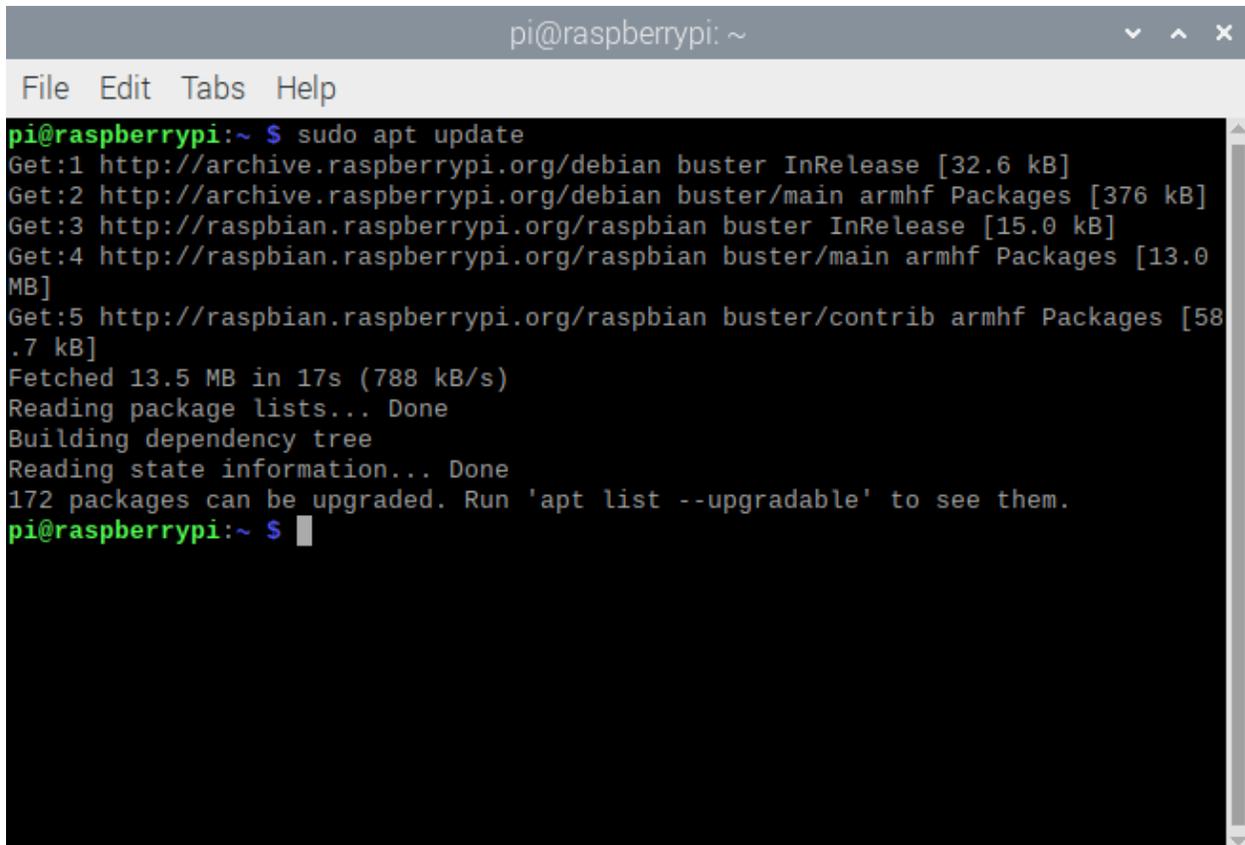
Currently Agent supports **Win10**, **macOS Big Sur 11.5**, **Raspberry Pi OS Buster** and above.

4.2 Agent installation failed?

The Agent may fail to install in Raspberry Pi OS, in which case you need to update via `sudo apt update`.



After the update is successfully installed, double-click `SunFounder-Create-Agent-linux-xx.x.x.deb` again to install.

A terminal window titled 'pi@raspberrypi: ~' with a menu bar containing 'File', 'Edit', 'Tabs', and 'Help'. The terminal output shows the execution of 'sudo apt update' and its progress: downloading release files from archive.raspberrypi.org and raspbian.raspberrypi.org, fetching 13.5 MB in 17 seconds, and reporting that 172 packages can be upgraded. The prompt returns to 'pi@raspberrypi:~ \$' with a cursor.

```
pi@raspberrypi:~ $ sudo apt update
Get:1 http://archive.raspberrypi.org/debian buster InRelease [32.6 kB]
Get:2 http://archive.raspberrypi.org/debian buster/main armhf Packages [376 kB]
Get:3 http://raspbian.raspberrypi.org/raspbian buster InRelease [15.0 kB]
Get:4 http://raspbian.raspberrypi.org/raspbian buster/main armhf Packages [13.0
MB]
Get:5 http://raspbian.raspberrypi.org/raspbian buster/contrib armhf Packages [58
.7 kB]
Fetched 13.5 MB in 17s (788 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
172 packages can be upgraded. Run 'apt list --upgradable' to see them.
pi@raspberrypi:~ $
```

4.3 Recognizes as a “virus”?

If during the process of installing the Agent, some security protection software recognizes it as a “virus”, please trust this software. If possible, please give us a screenshot, and we will actively communicate with them.

- Email: cs@sunfounder.com

4.4 Agent connection failed?

If you run the code without opening SunFounder Create Agent, Agent connection failed will pop up. Reopen SunFounder Create Agent, click “Try again” to reconnect.



Agent connection failed

Cannot detect Agent, make sure you have download, and open the Agent.

Try again

Download

[Got a problem?](#)

4.5 Run button doesn't work?

When you click Run, the command or code doesn't run, there are 2 reasons.

- Raspberry Pi is disconnected, you need to disconnect by clicking ip -> Disconnected in the top right corner and then reconnect again.
- There is a program running, you need to stop it first when you click Run next time.

4.6 Unable to edit in Terminal?

- You need to click on the right area first before you can start entering commands on the Terminal.
- Or if the Raspberry Pi has been disconnected, you need to reconnect by clicking on the ip -> Disconnected in the top right corner.

4.7 No module named 'xxxxx'

The screenshot shows a Python code editor with the following code:

```

1 import RPi.GPIO as GPIO
2 from tts import TTS
3 import time
4
5 tts = TTS(engine="espeak")
6 tts.lang('en-US')
7
8 SDI = 24
9 RCLK = 23
10 SRCLK = 18

```

Below the code, a terminal window shows a traceback error:

```

> if __name__ == '__main__': # Program sta
>     setup()
>     try:
>         loop()
>     except KeyboardInterrupt:
>         destroy()
> EOF
Traceback (most recent call last):
  File "<stdin>", line 2, in <module>
ModuleNotFoundError: No module named 'tts'

```

Because some codes need to manually install the module, you need to run the command on the page to install the module.

Or run under a specific path, because some libraries are not provided by the Raspberry Pi, but provided by SunFounder. Generally, these modules will be placed under the `xxxx/python/` path, so you need to enter this path before running the code.

4.8 Can only run Python code, but not C?

The screenshot shows a Python code editor with the following code:

```

1 #!/usr/bin/env python3
2 import RPi.GPIO as GPIO
3 import time
4 LedPin = 17
5 def setup():
6     # Set the GPIO modes to BCM Numbering
7     GPIO.setmode(GPIO.BCM)
8     # Set LedPin's mode to output, and initial level to High(3.3v)
9     GPIO.setup(LedPin, GPIO.OUT, initial=GPIO.HIGH)
10 # Define a main function for main process
11 def main():
12

```

The **Run** button is highlighted with a red box.

Because Run button is basically copy commands and hit enters for you, it only works if everything in the editor can run in terminal. And for Python, it also adds a python command ahead to run it under python. You can run Python code directly with Python command, but you cannot do it with C. You can still run commands to compile C into an executable and run it.

4.9 What browsers are supported?

1. SunFounder Create Agent currently supports **Chrome** and **Firefox** browsers, and does not support **Safari** and **Internet Explorer** browsers.