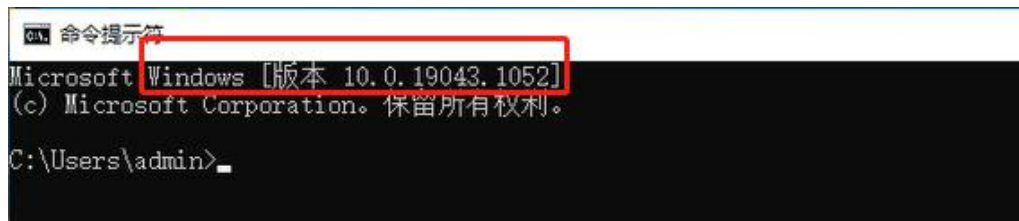


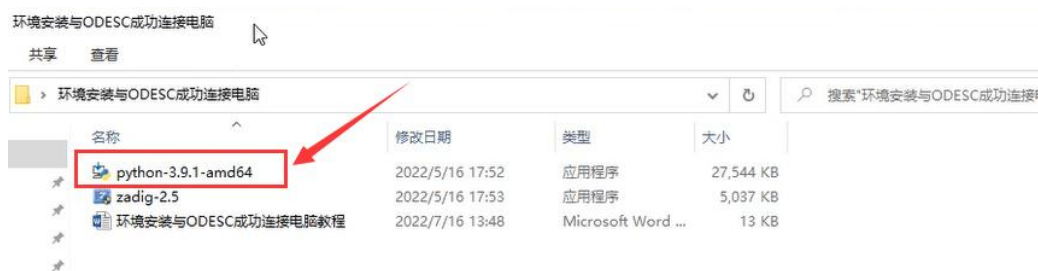
Environment installation tutorial with ODESC Connected Pc

1.0 Computer system Win10, older systems may have compatibility issues.

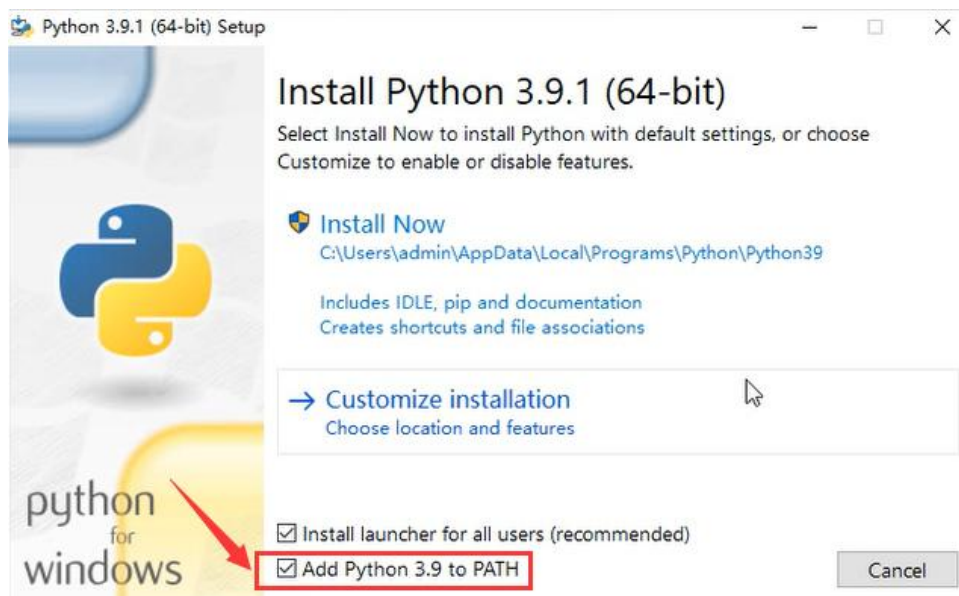


2.0 Install Python, the version is recommended not to be lower than 3.9.

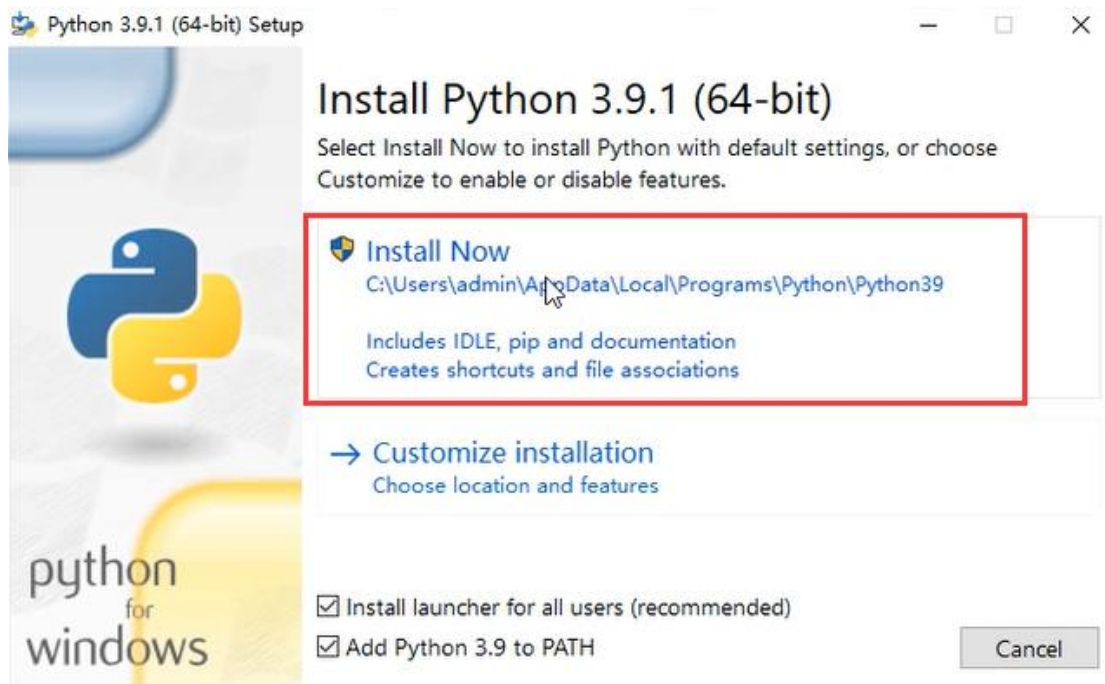
2.1 Double-click to install Python.



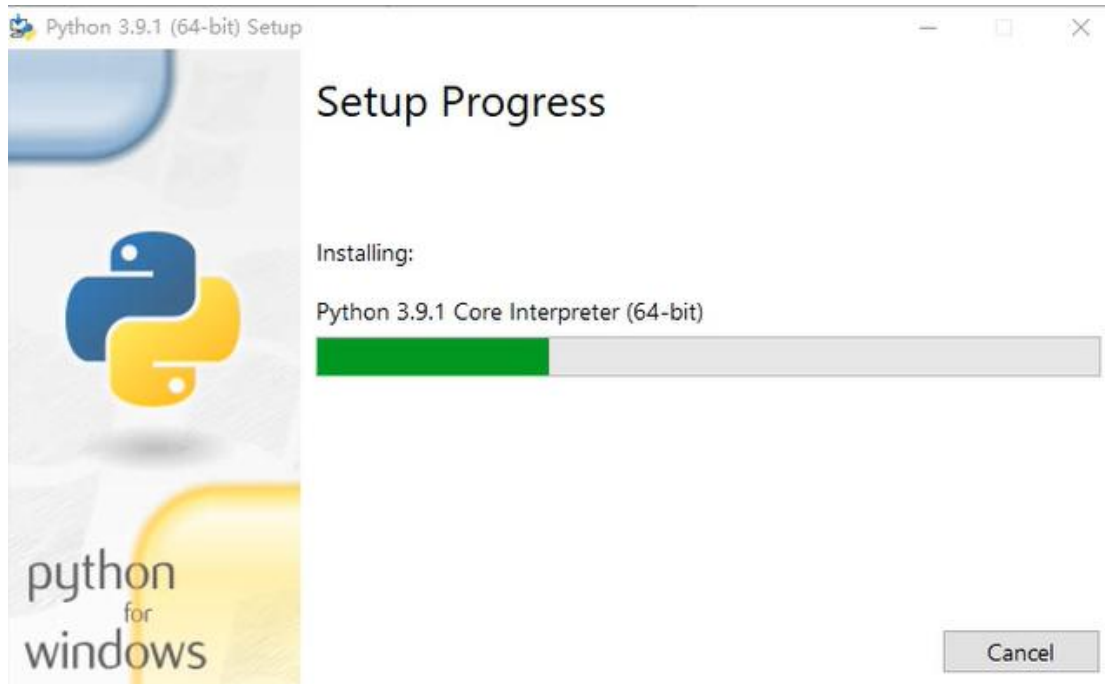
2.2 Check Add Python 3.9 to PATH.



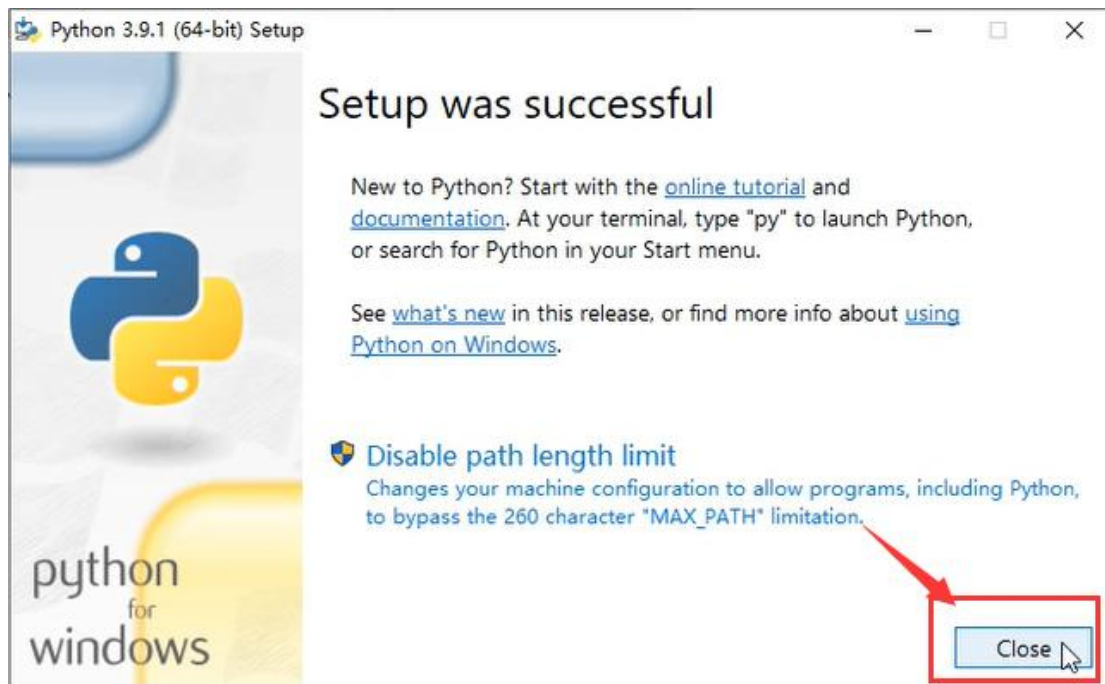
2.3 Default path, click Install Now.



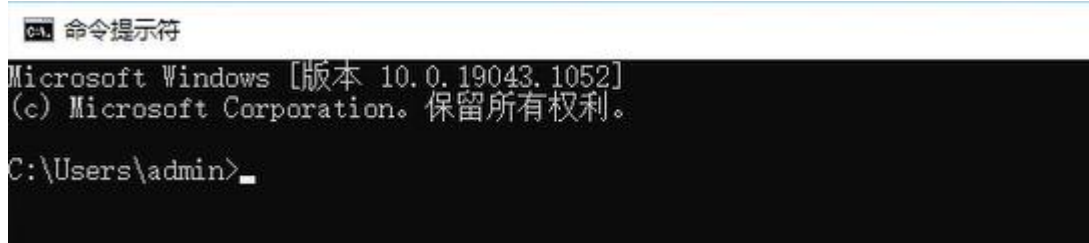
2.4 Wait for installation.



2.5 When the installation is complete, click Close.



2.6 Enter cmd to open the terminal and hit Enter.



2.7 Enter `python --version`, enter. The installation Python version number is displayed, and the installation is successful.



3.0 Installation odrivetool

3.1 Command terminal, enter `pip install odrive==0.5.1.post0`, enter. Wait for installation.

```
命令提示符 - pip install odrive==0.5.1.post0
Microsoft Windows [版本 10.0.19043.1052]
(c) Microsoft Corporation。保留所有权利。

C:\Users\admin>python --version
Python 3.9.1

C:\Users\admin>odrivetool
'odrivetool' 不是内部或外部命令，也不是可运行的程序
或批处理文件。

C:\Users\admin>pip install odrive==0.5.1.post0
Collecting odrive==0.5.1.post0
  Downloading odrive-0.5.1.post0.tar.gz (41 kB)
    |#####| 41 kB 86 kB/s
Collecting ipython
  Downloading ipython-8.4.0-py3-none-any.whl (750 kB)
    |#####| 286 kB 21 kB/s eta 0:00:22
```

3.2 The installation is complete.

```
命令提示符
Using cached urllib3-1.26.10-py2.py3-none-any.whl (139 kB)
Collecting certifi>=2017.4.17
Using cached certifi-2022.6.15-py3-none-any.whl (160 kB)
Collecting parso<0.9.0,>=0.8.0
  Downloading parso-0.8.3-py2.py3-none-any.whl (100 kB)
    -----|#####| 100.5/100.8 kB 75.3 kB/s eta 0:00:00
Collecting wcwidth
  Downloading wcwidth-0.2.5-py2.py3-none-any.whl (30 kB)
Collecting six>=1.5
  Downloading six-1.16.0-py2.py3-none-any.whl (11 kB)
Collecting executing
  Downloading executing-0.8.3-py2.py3-none-any.whl (16 kB)
Collecting pure-eval
  Downloading pure_eval-0.2.2-py3-none-any.whl (11 kB)
Collecting asttokens
  Downloading asttokens-2.0.5-py2.py3-none-any.whl (20 kB)
Using legacy 'setup.py install' for odrive, since package 'wheel' is not installed.
Installing collected packages: wcwidth, pywin32, PySerial, pure-eval, pickleshare, monotonic, IntelHex, executing, backcall, all, appdirs, urllib3, traitlets, six, PyUSB, pyparsing, pygments, prompt-toolkit, pillow, parso, numpy, kiwisolver, idna, a, fonttools, decorator, cycler, colorama, charset-normalizer, certifi, requests, python-dateutil, packaging, matplotlib-inline, jedi, asttokens, stack-data, matplotlib, ipython, odrive
Running setup.py install for odrive ... done
Successfully installed IntelHex-2.3.0 PySerial-3.5 PyUSB-1.2.1 appdirs-1.4.4 asttokens-2.0.5 backcall-0.2.0 certifi-2022.6.15 charset-normalizer-2.1.0 colorama-0.4.5 cycler-0.11.0 decorator-5.1.1 executing-0.8.3 fonttools-4.34.4 idna-3.3 ipython-8.4.0 jedi-0.18.1 kiwisolver-1.4.4 matplotlib-3.5.2 matplotlib-inline-0.1.3 monotonic-1.6 numpy-1.23.1 odrive-0.5.1.post0 packaging-21.3 parso-0.8.3 pickleshare-0.7.5 pillow-9.2.0 prompt-toolkit-3.0.30 pure-eval-0.2.2 pygments-2.12.0 pyparsing-3.0.9 python-dateutil-2.8.2 pywin32-304 requests-2.28.1 six-1.16.0 stack-data-0.3.0 traitlets-5.3.0 urllib3-1.26.10 wcwidth-0.2.5
C:\Users\admin>
```

3.3 Enter `odrivetool`, enter. The test installation was successful.

```
Python: C:\Users\admin
.6.15 charset-normalizer-2.1.0 colorama-0.4.5 cycler-0.11.0 decorator-5.1.1 executing-0.8.3 fonttools-4.34.4 idna-3.3 ipython-8.4.0 jedi-0.18.1 kiwisolver-1.4.4 matplotlib-3.5.2 matplotlib-inline-0.1.3 monotonic-1.6 numpy-1.23.1 odrive-0.5.1.post0 packaging-21.3 parso-0.8.3 pickleshare-0.7.5 pillow-9.2.0 prompt-toolkit-3.0.30 pure-eval-0.2.2 pygments-2.12.0 pyparsing-3.0.9 python-dateutil-2.8.2 pywin32-304 requests-2.28.1 six-1.16.0 stack-data-0.3.0 traitlets-5.3.0 urllib3-1.26.10 wcwidth-0.2.5

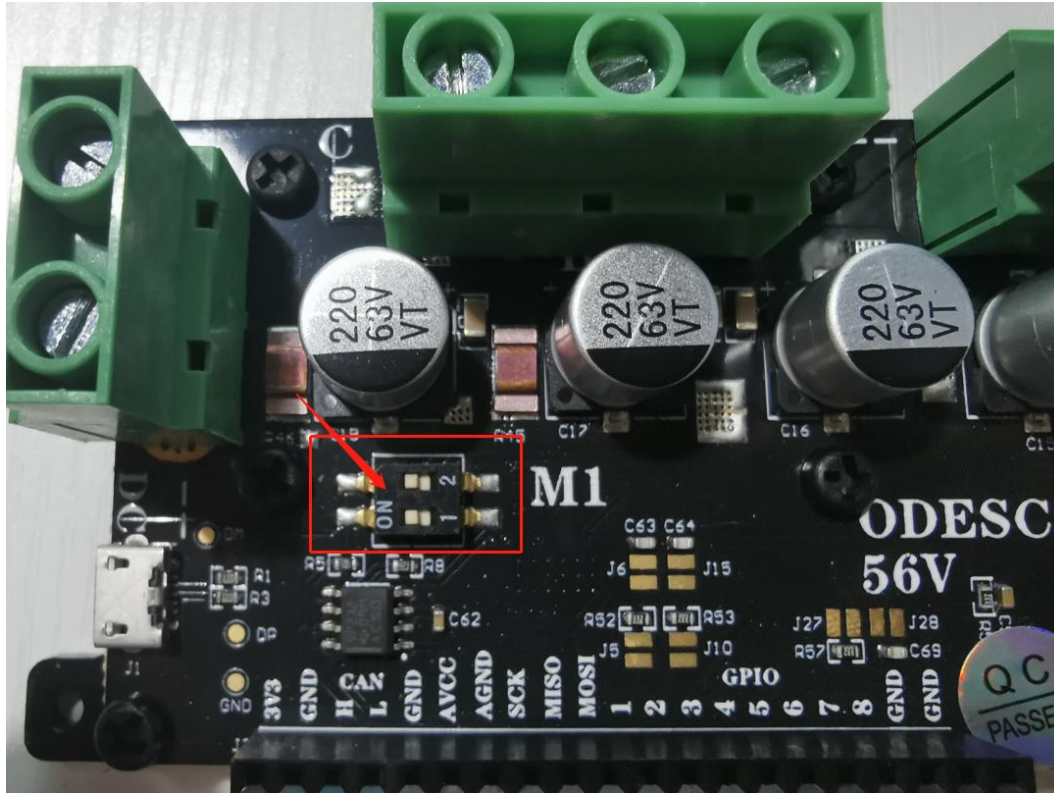
C:\Users\admin>odrivetool
ODrive control utility v0.5.1.post0
Exception in thread Thread-2:
Traceback (most recent call last):
  File "c:\users\admin\appdata\local\programs\python\python39\lib\threading.py", line 954, in _bootstrap_inner
    self.run()
  File "c:\users\admin\appdata\local\programs\python\python39\lib\threading.py", line 892, in run
    self._target(*self._args, **self._kwargs)
  File "c:\users\admin\appdata\local\programs\python\python39\lib\site-packages\fibres\usbbulk_transport.py", line 191, in discover_channels
    devices = usb.core.find(find_all=True, custom_match=device_matcher)
  File "c:\users\admin\appdata\local\programs\python\python39\lib\site-packages\usb\core.py", line 1309, in find
    raise NoBackendError("No backend available")Website: https://odriverobotics.com/

Docs: https://docs.odriverobotics.com/
usb.coreforums: https://discourse.odriverobotics.com/
NoBackendErrorDiscord: https://discord.gg/k3ZZ3mS:
No backend availableGithub: https://github.com/madcowsw/ODrive/

Please connect your ODrive.
You can also type help() or quit().
In [1]:
```

4.0 ODESC is connected to the computer.

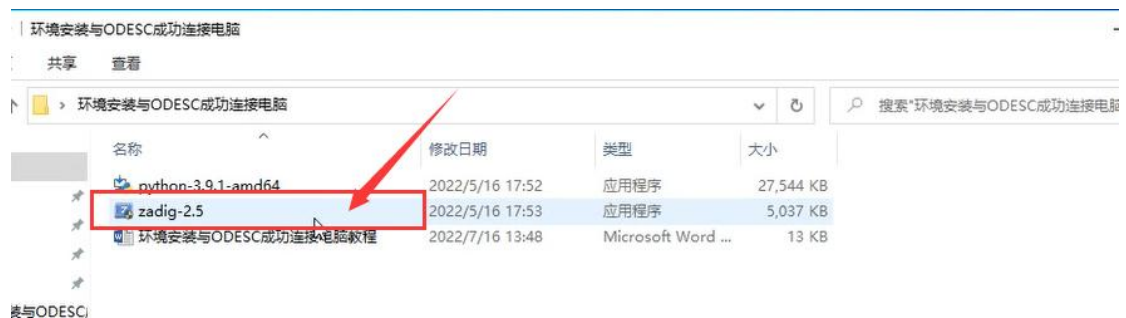
4.1 ODESC DIP switch to reach the position shown in the figure. (No DIP switch, no operation required)



4.2 The power supply powers ODESC and connects the computer using a USB cable.

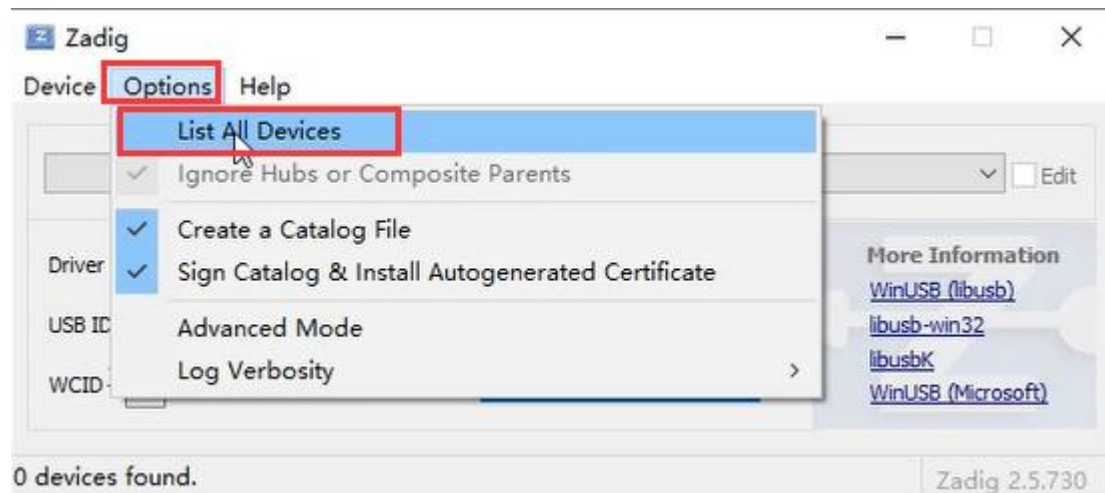
5.0 Zadig installs the driver

5.1 Double-click to install Zadig.

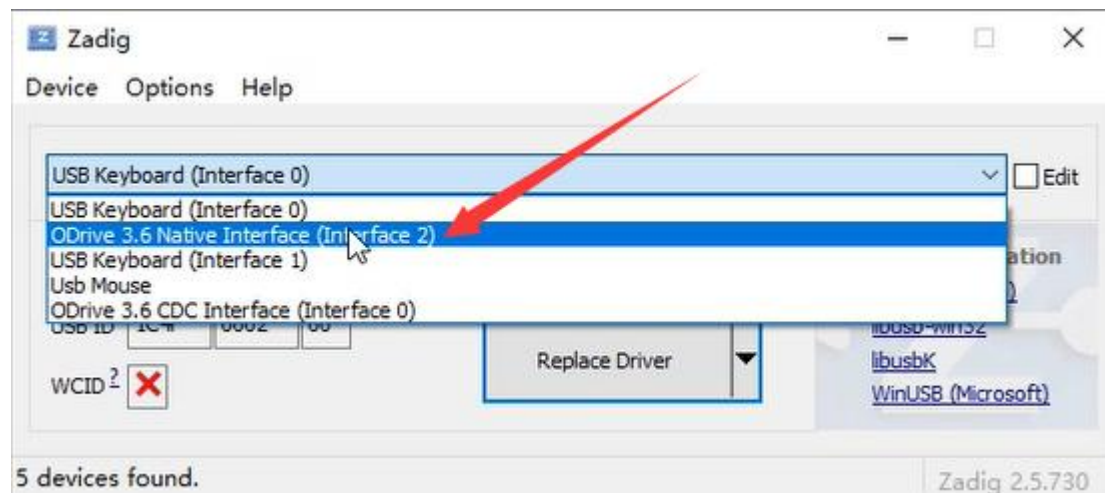


5.2 Select NO to cancel the online upgrade.

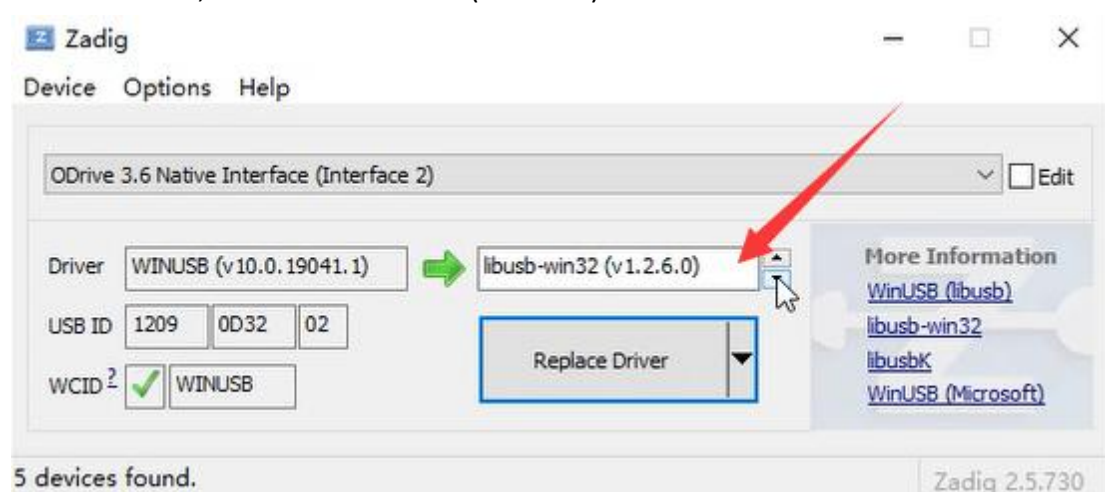
5.3 Select Options and check List All Devices.



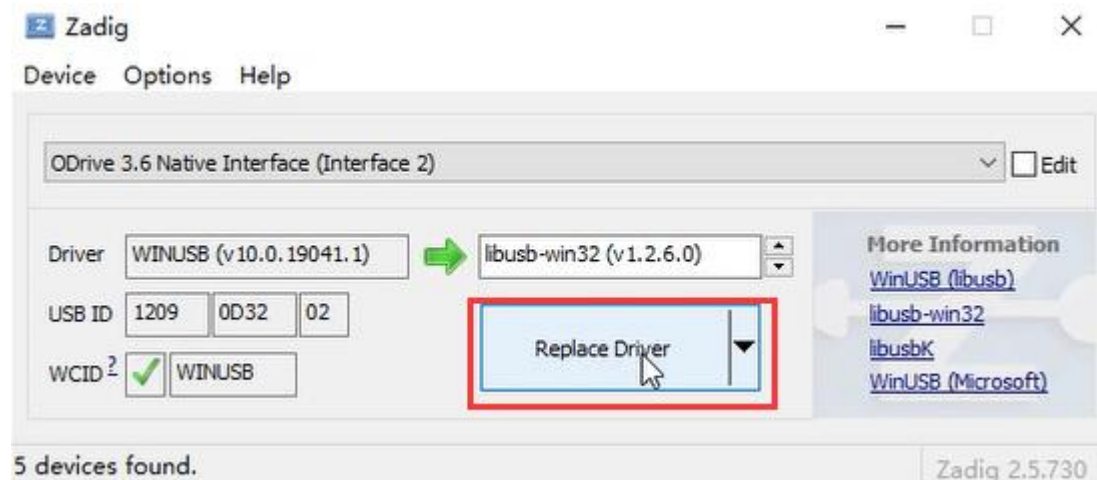
5.4 Select and check ODrive 3.6 Native Interface (Interface 2).



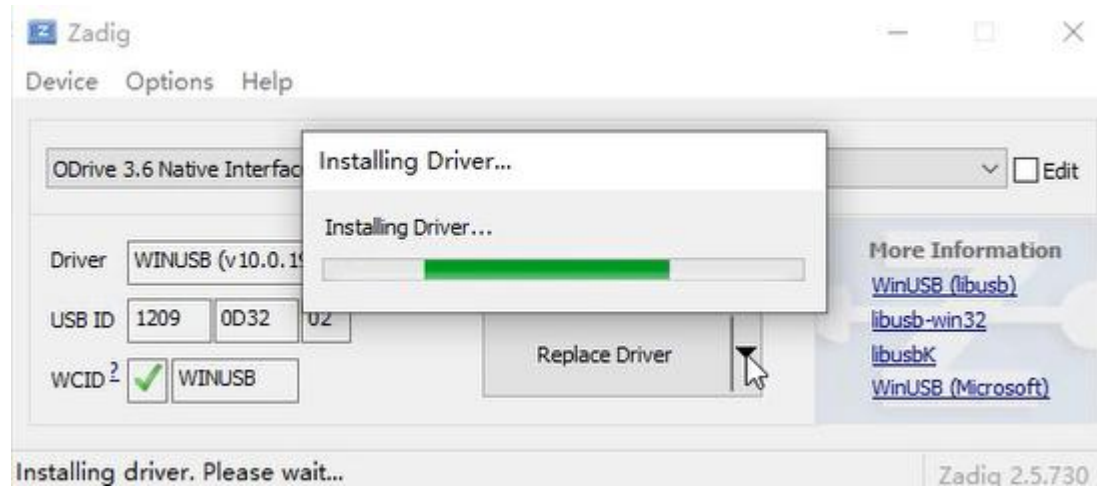
5.5 Click ▲▼, check libusb-win32 (v 1.2.6.0).



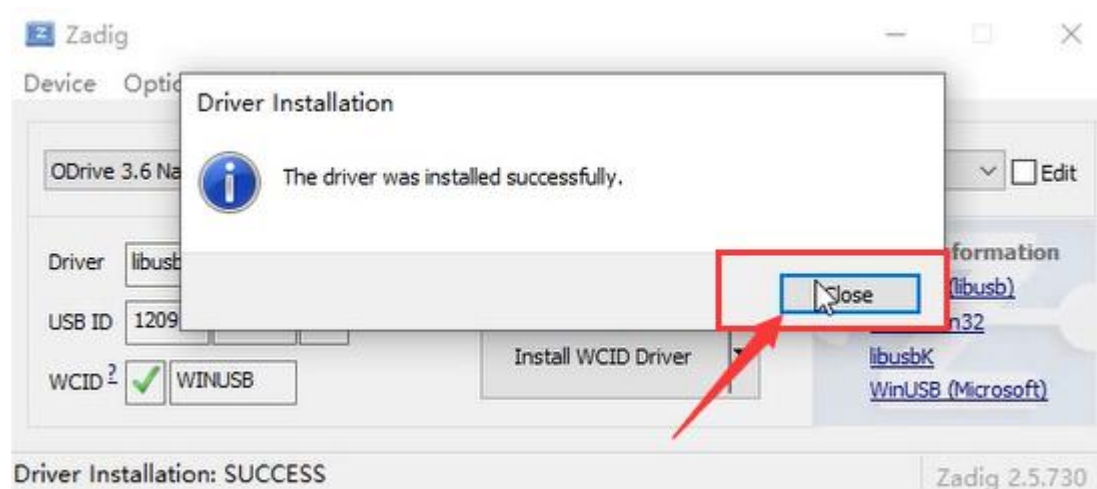
5.6 Click Restore Driver.



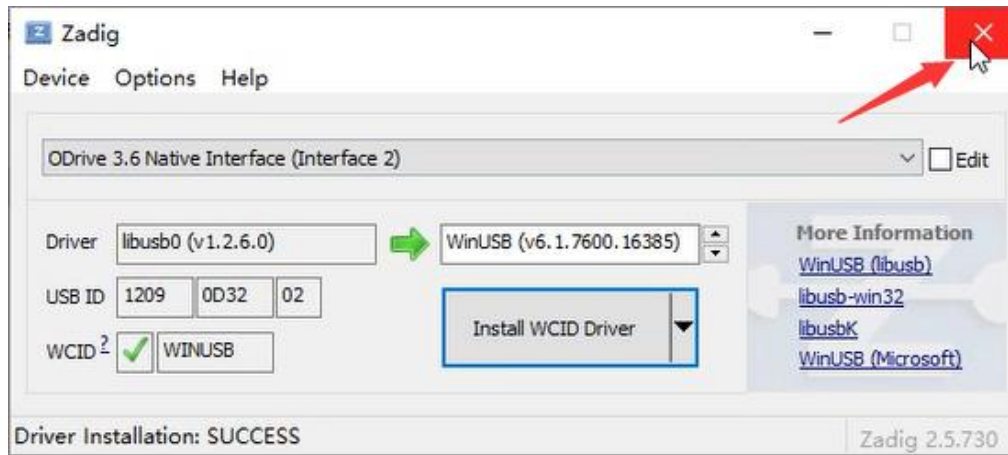
5.7 Wait for installation.



5.8 When the installation is complete, click Close.



5.9 Quit Zadig.



6.0 Test the odrivetool

6.1 Command terminal, enter `odrivetool`, enter. The hardware serial number appears and the connection is successful.

```
Python: C:Users/admin
Microsoft Windows [版本 10.0.19043.1052]

C:\Users\admin>odrivetool
ODrive control utility v0.5.1.post0
Downloading json data from ODrive... (this might take a while)
Website: https://odriverobotics.com/
Docs: https://docs.odriverobotics.com/
Forums: https://discourse.odriverobotics.com/
Discord: https://discord.gg/k3ZZ3mS
Github: https://github.com/madcowswe/ODrive/

Please connect your ODrive.
You can also type help() or quit().

Connected to ODrive 347E36643031 as odrv0
In [1]:
```

6.2 Enter `odrv0.hw_version_variant` to view the current hardware voltage version.

```
Python: C:Users/admin
Microsoft Windows [版本 10.0.19043.1052]

C:\Users\admin>odrivetool
ODrive control utility v0.5.1.post0
Website: https://odriverobotics.com/
Docs: https://docs.odriverobotics.com/
Forums: https://discourse.odriverobotics.com/
Discord: https://discord.gg/k3ZZ3mS
Github: https://github.com/madcowswe/ODrive/

Please connect your ODrive.
You can also type help() or quit().

Connected to ODrive 347E36643031 as odrv0
In [1]: odrv0.hw_version_variant
Out[1]: 56
In [2]:
```


6.3 Enter the `odrv0.vbus_voltage` to view the current supply voltage.

```
Python: C:\Users\admin
Microsoft Windows [版本 10.0.19043.1052]
C:\Users\admin>odrivetool
ODrive control utility v0.5.1.post0
Website: https://odriverobotics.com/
Docs: https://docs.odriverobotics.com/
Forums: https://discourse.odriverobotics.com/
Discord: https://discord.gg/k3ZZ3mS
Github: https://github.com/madcowswe/ODrive/

Please connect your ODrive.
You can also type help() or quit().

Connected to ODrive 347E36643031 as odrv0
In [1]: odrv0.hw_version_variant
Out[1]: 56

In [2]: odrv0.vbus_voltage
Out[2]: 15.093310356140137

In [3]:
```

6.4 Enter `dump_errors(odrv0)` to view errors.

```
Python: C:\Users\admin
Discord: https://discord.gg/k3ZZ3mS
Github: https://github.com/madcowswe/ODrive/

Please connect your ODrive.
You can also type help() or quit().

Connected to ODrive 347E36643031 as odrv0
In [1]: odrv0.hw_version_variant
Out[1]: 56

In [2]: odrv0.vbus_voltage
Out[2]: 15.093310356140137

In [3]: dump_errors(odrv0)
axis0
  axis: no error
  motor: no error
  fet_thermistor: no error
  motor_thermistor: no error
  encoder: no error
  controller: no error
axis1
  axis: no error
  motor: no error
  fet_thermistor: no error
  motor_thermistor: no error
  encoder: no error
  controller: no error

In [4]:
```

6.5 ODESC and the computer communicate successfully.

The environment installation test is complete.