

uArm Metal Getting Started Guide

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Notice

This is a basic guide for uArm beginners.

If you want to explore more by programming, please visit the [uArm Metal Developer Guide](#)

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Safety Instructions

- Please don't put your hands in the highlighted area.

- When uArm is moving, please ensure that nothing that may get hurt or broken is within uArm's moving range.

uArm Metal Parts List

Check if you get all of the following parts

1. uArm Metal main body 2. Power Adapter x1 3. AC Cable x1 4. Pump x1 (with 2 screws) 5. USB Cable x1 6. Foot brackets x 4(with 8 screws) 7. Screw Driver x1

Assembly Instructions

****Step 1**** Install the 4 foot brackets

Please be aware the screws should be inserted from the bottom to top.

****Step 2**** Install the Pump

2.1 Insert 2 screws to install the pump

2.2 Attach the Cable and the Pipe

Operation Instructions

Preparation

1. Power On

If the RED light is on, the uArm is powered.

2. Connect uArm to computer with USB

Software Installation

The installation method on Windows, MacOS and Linux are different. Please directly go to the section relevant to you.

1. [Windows](#)
2. [MacOS](#)
3. [Linux](#)

Windows

Step 1 - Download

Please download the following softwares from the [official download page](#):

- **Driver** - You need to install this driver before you start everything on Windows
- **uClient** - the software that you operate to control the movement of uArm
- **Firmware Helper** - to enable uArm to recognize the operations you made via uClient Upgrade your firmware.

Step 2 - Intall the Driver

****Step 2.1**** - unzip the driver file and run _driver.exe_

****Step 2.2**** - Follow the instructions to install the driver.

Step 3 – Ensure the firmware is the latest version

****Step 3.1**** – unzip the firmware file and run `*firmware_helper_exe*`

****Step 3.2**** – Check the firmware & ensure it is the latest version

- You will get your uArm port No. and whether your firmware is the latest version at this step.
- If the firmware is not the latest, enter "Y" to update.
- After that, Press Enter to Exit.

Step 4 – Prepare JRE for uClient (for first-time users)

****Step 4.1**** – Click on uClient.exe to launch the APP

****Step 4.2**** – Download JRE (for first-time users)

- You will be asked to download JRE (Java Runtime Environment) IF your computer does not have one. - Press OK , download JRE, and run the exe - This download requirement will not pop up again after you finish JRE setup.

MacOS

Step 1 - Open `terminal.app`

Search ``terminal.app`` via Spotlight Search

Step 2 - Enter Command to Start Installation

Step 2.1 Copy & paste the command below to install uArm Enviroment:

```
bash -c "$(curl -fsSL http://download.ufactory.cc/tools/macosex/install.sh)"
```


****Step 2.2** When the installation is finished, you will see the words below:**

****Step 2.3** After installation, you could use commands below:** - ``uarm-firmware`` - upgrade your uArm firmware - ``uarm-listport`` - show all connected uArm

Step 3 - Download uClient

Please download uClient from our official website.

Change the privacy setting on your Mac (or you are not able to run uClient)

 Run `uarm_client.exe` and have fun!

Linux

Step 1 Install pip & avrdude

Before installing the uArm Environment, you need to install:

- pip
- avrdude

via your **Package Management Tool** (`apt` , `yum` , etc):

Example:

```
sudo apt-get install python-pip python-dev build-essential avrdude
```

Step 2 Install uArm Environment

Input the command below to install:

```
pip install pyuarm
```

Done!

You could use following commands in your future usage:

- `uarm-firmware` - upgrade your uArm firmware
- `uarm-listport` - show all connected uArm

Control uArm via uClient ##### Step 1 – Select the right COM and Click *Connect*

- COM No. for uArm may vary.
- Click *Rescan* if uClient does not detect the COM for uArm.
- If there are blue lights flashing, uArm is connected with uClient, and you don't need to click *Connect* again.

Step 2 – Familiarize with uClient

1 – Control uArm movement along X, Y, Z Axis.

2 – Control the end-effector (Suction Cup/Gripper/Universal Holder)

* You may rotate the suction cup from 0° to 180° by moving the yellow line. Rotation does not apply to Gripper or

Universal Holder.

* Click *Catch/Release* to pick/release (for suction cup) or grab/release (for gripper). *Catch/Release* does not apply to Universal Holder

3 – Leap Motion Control (alternative to mouse control)

IF you have a Leap Motion Controller, you may control uArm in this way.

****To enable Leap Motion Control, please:****

① Connect Leap Motion Controller to PC, and tick the box in uClient

② Place the Leap Motion Controller in a way that you are facing the flashing GREEN light

③ Ensure that you have downloaded Leap Motion APP (for PC)

Leap Motion is activated when the uClient interface displays the following:

You may change the minimum Z value of Leap Motion Control.

****4 – You may reset uArm to the default position.****

Community Support

Welcome to the uArm Community!

[FAQ]()

[Customer Service](http://customer.ufactory.cc/)

[Developer Guide](https://drive.google.com/open?id=0B-L-tCvknXU9YIlyemVwRldZc1U)

[Official Forum](https://forum.ufactory.cc/)

[Reddit](https://www.reddit.com/r/uArm) | [Youtube](https://www.youtube.com/channel/UCyy5ekYtq35jFtPpY3O_tVA)
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