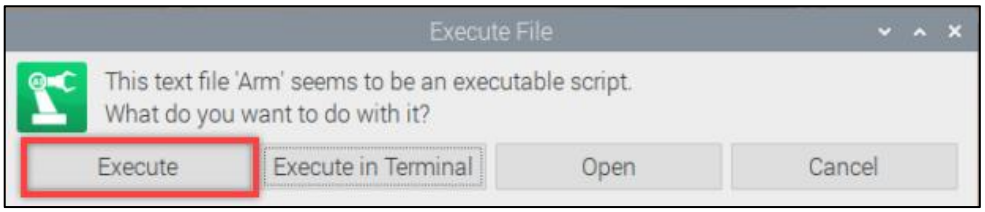
Lesson 1 PC Software Introduction

1. Start PC software

1.1 Start with Software (recommended for beginner)

1) Double-click Arm icon on desktop.

2) Click “Execute” in the pop-up interface to open PC software.



1.2 Start with command line

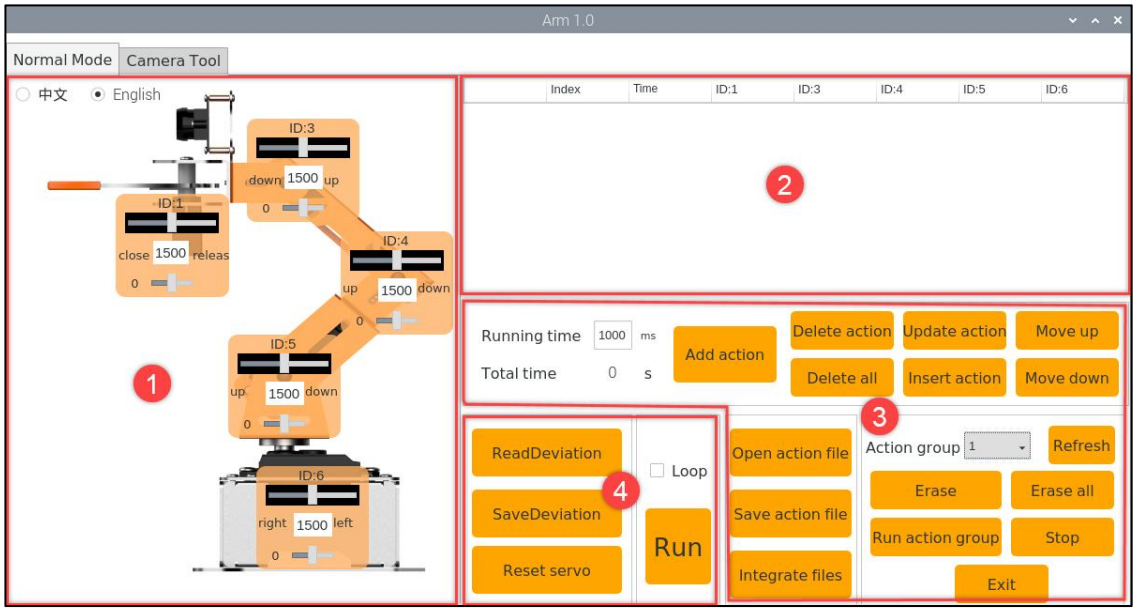
1) Click  on desktop to open the LX terminal.

2) Enter “sudo MasterPi_PC_Software/Arm.py” command in terminal to open PC software.

2. The Interface distribution of PC Software

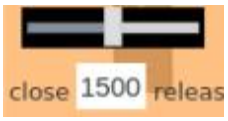
The interface distribution is as follow:

It can be divided into 4 parts:



①：Servo Control Area

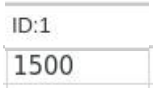
This area displays the selected servo icons. The servo position can be adjusted by dragging corresponding slider.

Icon	Function Instruction
	It represents the servo ID number. Take ID1 as an example.
	Used to adjust the servo angle. The minimum value is 0 and the maximum value is 1500.
	Used to adjust the servo deviation. The minimum value is -150 and the maximum value is 150.

②：Action Data List

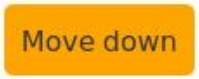
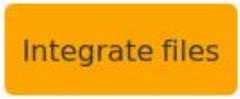
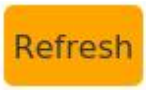
Action data list displays the execution time of each action in the current action group and the value of each servo in each action.

	Index	Time	ID:1	ID:3	ID:4	ID:5	ID:6
▸	1	2000	1500	590	2500	700	1500
	2	200	1500	500	2500	700	1500
	3	200	1500	800	2500	700	1500
	4	200	1500	500	2500	700	1500
	5	200	1500	800	2500	700	1500
	6	200	1500	590	2500	700	1500

Icon	Function Instruction
	Action number
	The time it takes to execute the action.
	The corresponding action value under this ID. Double-click  to modify the value directly.

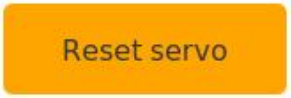
③：Action Group Setting Area

Icon	Function Instruction
Running time 1000 ms	The time for running a single action. You can click it to modify.
Total time 3.0 s	Total time for running action group.
Add action	Add the servo value in servo control area to the last line of the action data list as a new action.
Delete action	Delete the selected action in action data list.
Delete all	Delete all the actions in action data list.
Update action	Update the selected value in action data list. (Servo value is replaced with the current servo value in servo control area. The action running time is replaced with the time set in “running time”.)
Insert action	Insert a line of action in front of the selected action. (The action time is “Running time(ms)” and the angle value is the servo value in servo control area.)
Move up	Exchange the position of the selected action with the previous line.

	Exchange the position of the selected action with the next line.
	Click “run” to run the action in action data list once. (If check “Loop”, the robot will run the action repeatedly)
	Click it to open action file to add the selected action group data to action data list. (Action group file path: **MasterPi->ActionGroup**)
	Save the current action in action data list to the specified location. (Action group file path: **MasterPi->ActionGroup**)
	After opening an action group, click “Integrate files” and then open another action group file, which can integrate two action group files into a new action group.
	Display the saved action groups in the PC software.
	Click “Refresh” to refresh action group option bar.
	Delete the current action group file.
	(Cautious) delete all action group files .

	Execute the action group (the selected number) once.
	Stop the executing action group.
	Exit the current PC software interface.

④：Deviation Setting Area (the function buttons in this area just for reference)

Icon	Function Instruction
	Click it to automatically read the saved deviation.
	Click it to save the deviation adjusted by PC software to the robot.
	Click it to restore all the servo values in servo control area to 1500.