

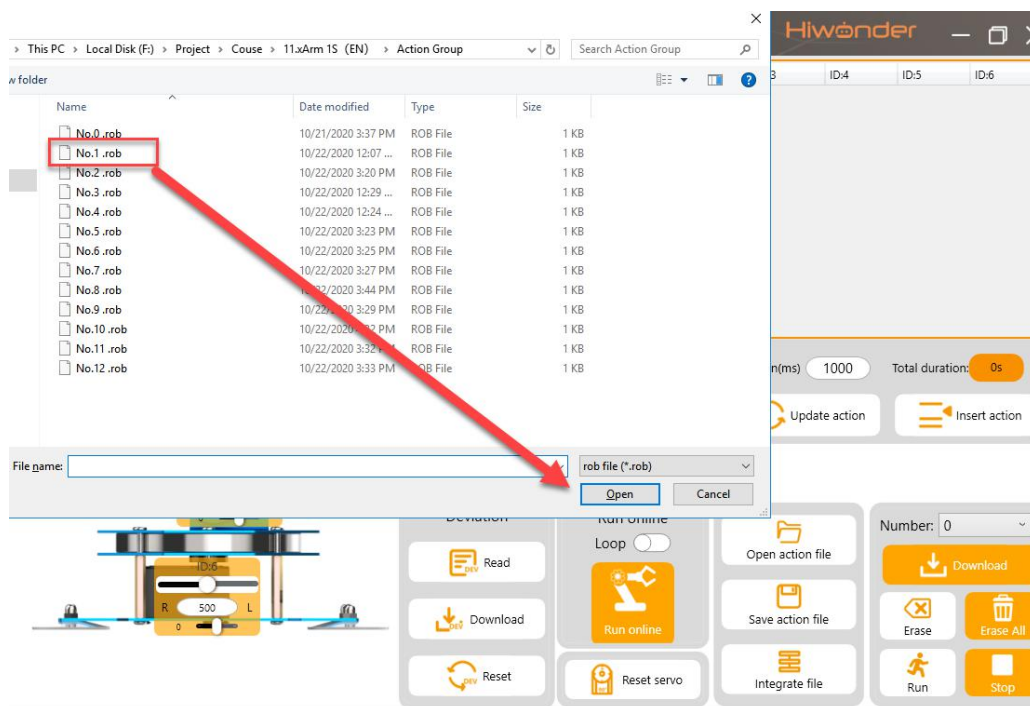
Lesson 4 Integrate Action Files

1. Project Outcome

Learn robot arm Integrate action groups function and realize the merging between action groups.

2. Complete Program

Step1: Turn on PC software, connection software serial port, click action group setting area “Integrate file” button, open No.1 action group “5.Appendix->Action group”.



Step2: Now, we see that the No.1 action group parameter is shown in the action group details list.

	Index	Time(ms)	ID:1	ID:2	ID:3	ID:4	ID:5	ID:6
	1	800	300	500	300	900	700	500
	2	800	300	500	150	800	450	500
	3	200	300	500	150	800	450	500
	4	400	550	500	150	800	450	500
	5	200	550	500	150	800	450	500
	6	500	550	500	155	800	520	500
	7	200	550	500	155	800	520	500
	8	800	550	500	300	800	450	500
	9	400	550	500	300	800	450	500
	10	600	300	500	300	800	450	500
	11	200	300	500	300	800	450	500
	12	800	300	500	300	900	700	500

Step3: Click “serial Action group” button again, and select the No.2 action group file for series connection.

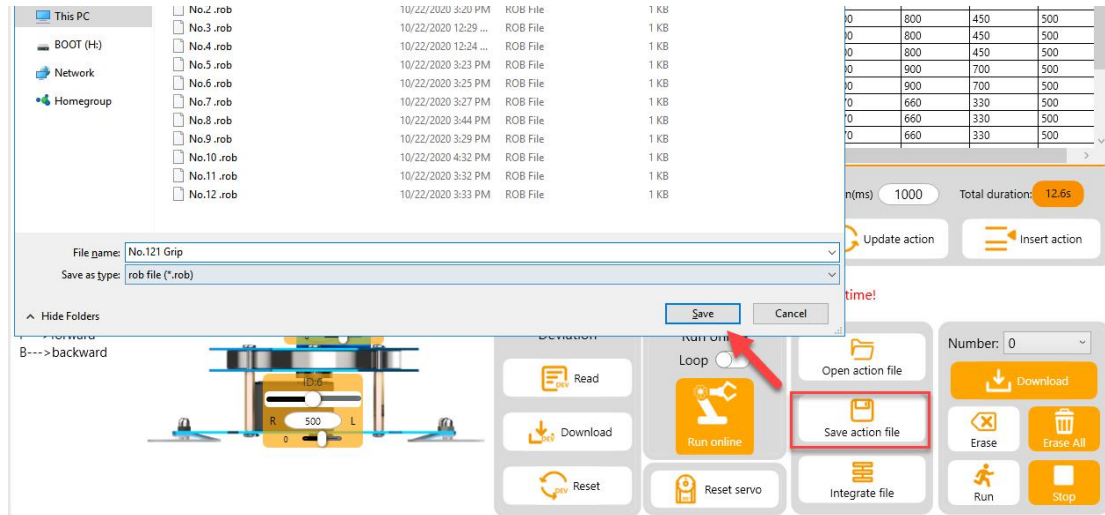
	Index	Time(ms)	ID:1	ID:2	ID:3	ID:4	ID:5	ID:6
	4	400	550	500	150	800	450	500
	5	200	550	500	150	800	450	500
	6	500	550	500	155	800	520	500
	7	200	550	500	155	800	520	500
	8	800	550	500	300	800	450	500
	9	400	550	500	300	800	450	500
	10	600	300	500	300	800	450	500
	11	200	300	500	300	800	450	500
	12	800	300	500	300	900	700	500
	13	800	300	500	300	900	700	500
	14	1500	300	500	170	660	330	500
	15	400	300	500	170	660	330	500
	16	400	550	500	170	660	330	500
	17	200	550	500	170	660	330	500
	18	700	550	500	140	660	380	500
	19	200	550	500	140	660	380	500
	20	700	550	500	90	760	480	500
	21	400	550	500	90	760	480	500
	22	400	300	500	90	760	480	500
	23	200	300	500	90	760	480	500
	24	800	300	500	300	900	700	500

Step 4: We can click “Run Online” button to run the new action group in series online.

The screenshot shows the xArm (V2.8) software interface. On the left is a 3D simulation of a robotic arm with joints labeled ID:1 through ID:6. A legend on the left lists movement commands: R--->release, C--->close, L--->left, R--->right, F--->forward, B--->backward. The top right shows the Hiwonder logo. The center-right panel displays a table of action group data, which is a duplicate of the table in Step 3. Below the table are buttons for Manual Coding, Read angle, Add action, Delete action, Update action, and Insert action. The bottom right panel contains a 'Run online' button, which is highlighted with a red box, along with other controls like Deviation, Loop, Open action file, Save action file, Integrate file, Number, Download, Erase, Erase All, Run, and Stop.

Index	Time(ms)	ID:1	ID:2	ID:3	ID:4	ID:5	ID:6
4	400	550	500	150	800	450	500
5	200	550	500	150	800	450	500
6	500	550	500	155	800	520	500
7	200	550	500	155	800	520	500
8	800	550	500	300	800	450	500
9	400	550	500	300	800	450	500
10	600	300	500	300	800	450	500
11	200	300	500	300	800	450	500
12	800	300	500	300	900	700	500
13	800	300	500	300	900	700	500
14	1500	300	500	170	660	330	500
15	400	300	500	170	660	330	500
16	400	550	500	170	660	330	500

Step5: Click the " Save Action File" button to save the new series connection action group for later debugging. Here we name it "121 Rotation ".



Step 6: If the action details list exceeds 1020 actions in serial, the PC software will prompt that the limit is exceeded. In this case, the action group can not be downloaded to the controller and only can be run and checked on line.

