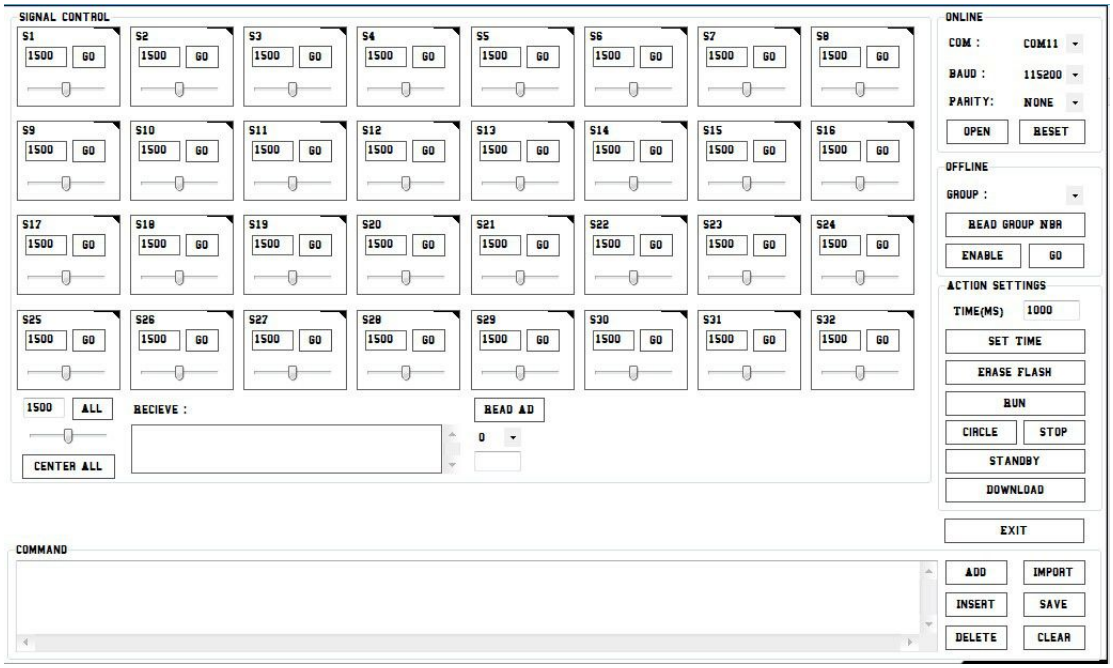
Servo Rhythm Controller Manual V1.0

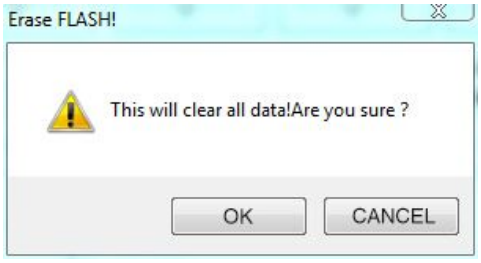


Caution: Before we get started, make sure the board is powered off.

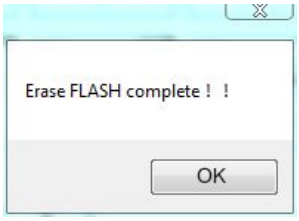
Get Connected With Power Rhythm 32:

- Plug Power Rhythm 32 to your computer via USB cable
- Wait for Windows to recognize it
- Select the right COM port number in the list box, click on the “OPEN” button to connect the Power Rhythm 32. If you don't know the COM port number you are using, just try from COM1, COM2 etc … Do not change any other configurations.

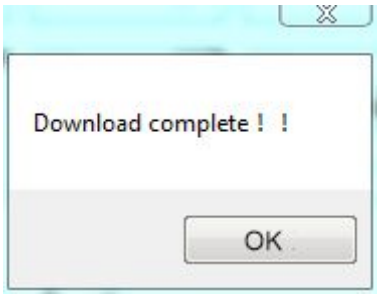
Initialize Power Rhythm 32:



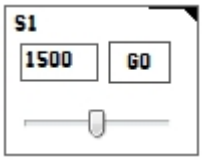
- Click the “ERASE FLASH” button, click the “OK” button on the popping up message box
- Click “OK” when finish erasing flash, this will set the flash data at the initial state



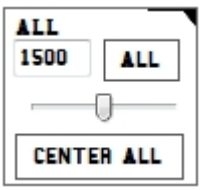
- Click “CENTER ALL” button
- Click “STANDBY” button set the signal output at the initial state, when finish click “OK”



Signal Positioning:



- Single servo positioning: Drag the slider in the Box “S1” or type a value between 500 - 2500 in the edit box, click “GO” button to change the signal 1 position. “S1” means the signal on pin 1 of Power Rhythm 32, If the servo control board and computer are properly connected, LED2 on the control board will blink and the servo will perform as the slider movement.



- Multi servo positioning: Drag the slider in the Box “ALL” or type a value between 500 - 2500 in the edit box, click “GO” button to change all the signal position. Click “CENTER ALL” will set all signal at the 1500 position.

Data Box:

- Data received from Power Rhythm 32 will be displayed in the box.

Analog Read:

- Select the input pin in the list, click “READ AD” to read a value as analog, the value will be displayed in the edit box.

Command Edit:

After signal positioning is done, position data can be saved as command or command group.

- ADD: Add a command to the list “COMMAND”
- INSERT: Insert a new command right below the selected command
- DELETE: Delete the selected command
- IMPORT: Import a “.TXT” file with commands in it
- SAVE: Save the command data to a “.TXT” file, each command occupies one line
- CLEAR: Clear the list “COMMAND”

Action Setting：

- TIME(MS): Edit the value in the edit box will change the time of a command needs before it completes, this can decide the speed of the servo. The unit is mS
- SET TIME: Set all the command time to the value in the edit box
- ERASE FLASH: Erase all the data in the flash, this will set the flash to the initial state
- RUN: This will send all the commands in the list “COMMAND” to Power Rhythm 32 one line a time, and delay some time before next command is sent, the delay time is decided by the TIME(MS)
- CIRCLE: Circle to send the commands in the list “COMMAND” one line a time
- STOP: Stop the “RUN” or “CIRCLE” operation
- STANDBY: Set the positions in the signal boxes as the standby positions, when the Power Rhythm 32 gets no new command, all output signals will go to those positions
- DOWNLOAD: Download the commands in the list “COMMAND” to the flash on the Power Rhythm 32

Offline Operation:

- GROUP: The number of offline command group will be displayed in this list
- READ GROUP NBR: Read the number of offline command group from Power Rhythm 32, and display it in the list “GROUP”
- ENABLE: Enable the selected group in the list to run, this button will change to “DISABLE” after click, click “DISABLE” to stop running the offline command group
- GO: All the offline command will be ran and circled, start from group 1

Software design: https://github.com/AiFrame/Servo_Rhythm_Controller
Website: http://aiframe.me
Forum: http://forum.aiframe.me
E-mail: support@aiframe.me