

Hebi X5-9

Reference website: http://docs.hebi.us/core_concepts.html

Connecting the HEBI X5-9 to the computer

Use the following Static ip and Subnet id values.

Internet Protocol Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 10 . 11 . 12 . 1

Subnet mask: 255 . 255 . 255 . 0

Default gateway:

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server:

Alternative DNS server:

☐ Validate settings upon exit

Advanced...

OK Cancel

In case of requiring reset:

Press the reset button.

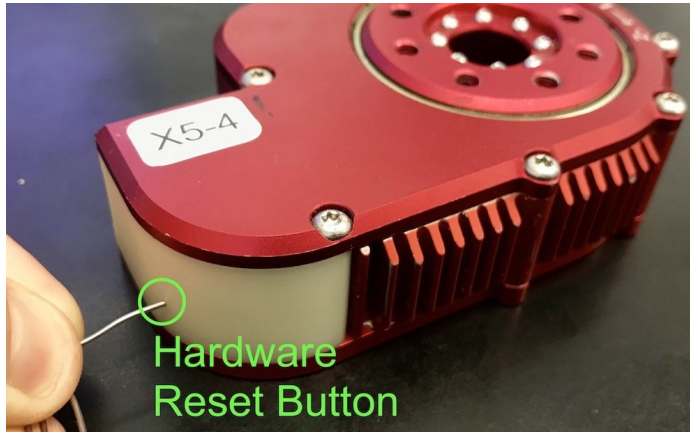
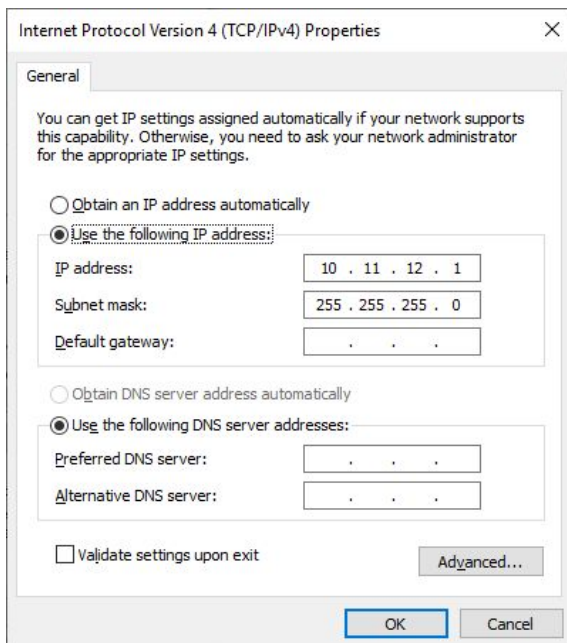


image credits: http://docs.hebi.us/core_concepts.html

Press and hold the reset button till the LED colour changes from solid green to blinking green.

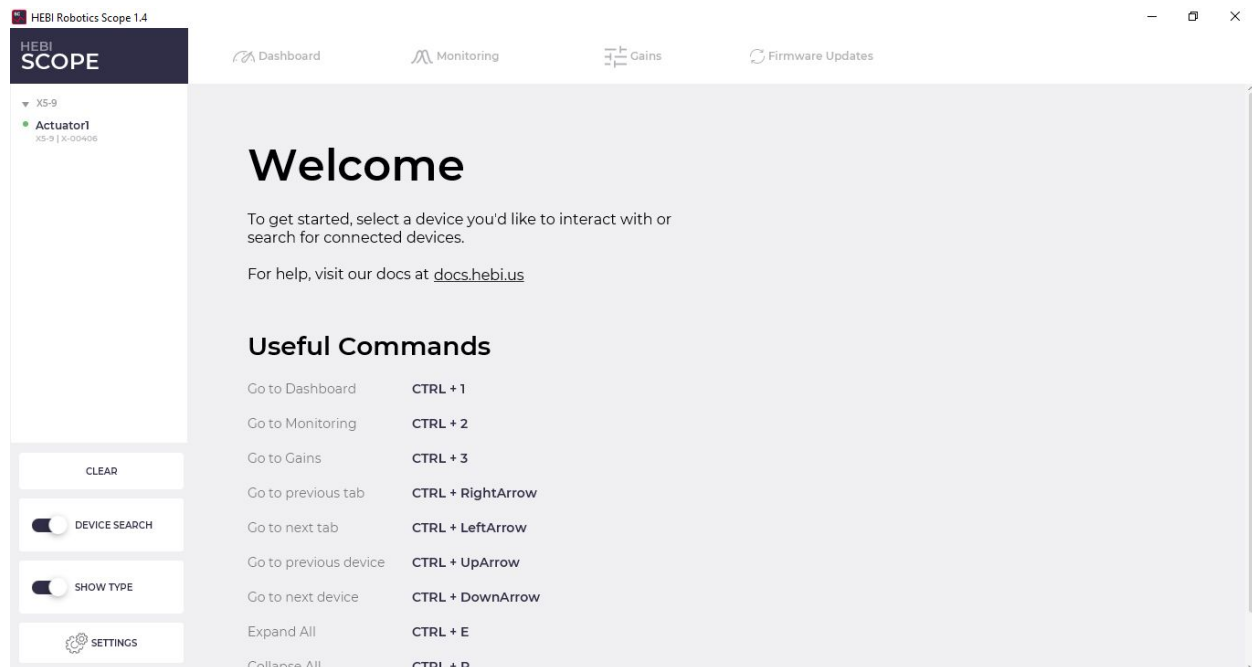
Type in the same static ip address



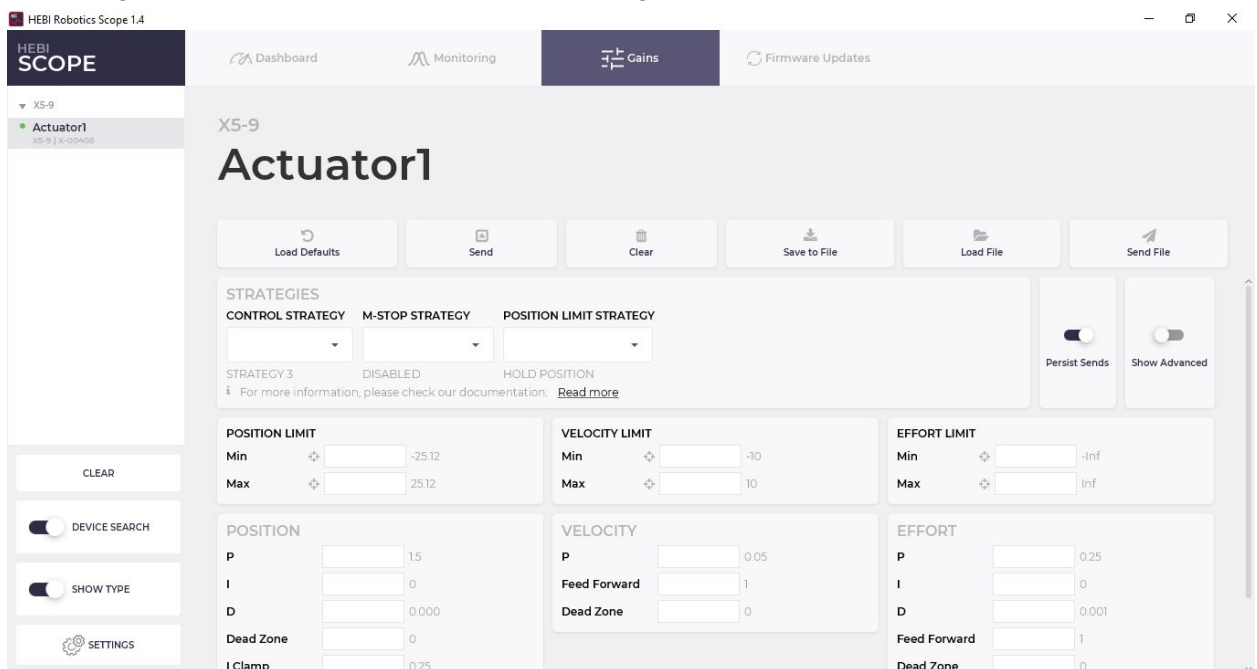
- HEBI website has a **mistake** in the IP address after reset, it mentions 10.11.12.13 as the static ip after a reset but **actually 10.11.12.1 is the one that works.**
- The **subnet mask 255.255.255.0** on the website is **correctly mentioned.**

Using the Scope program

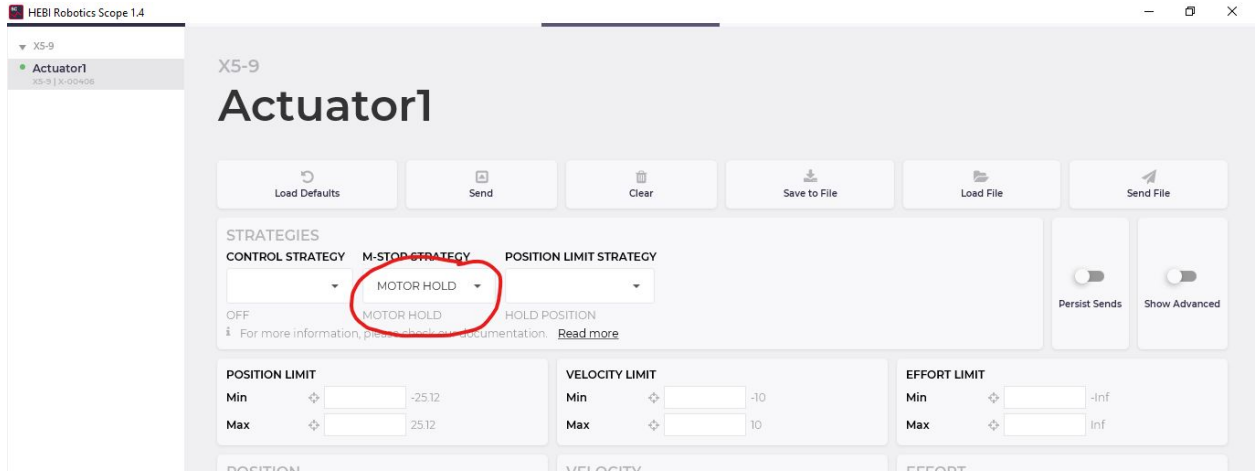
Open Scope program (Download: <http://docs.hebi.us/tools.html#scope-gui>)



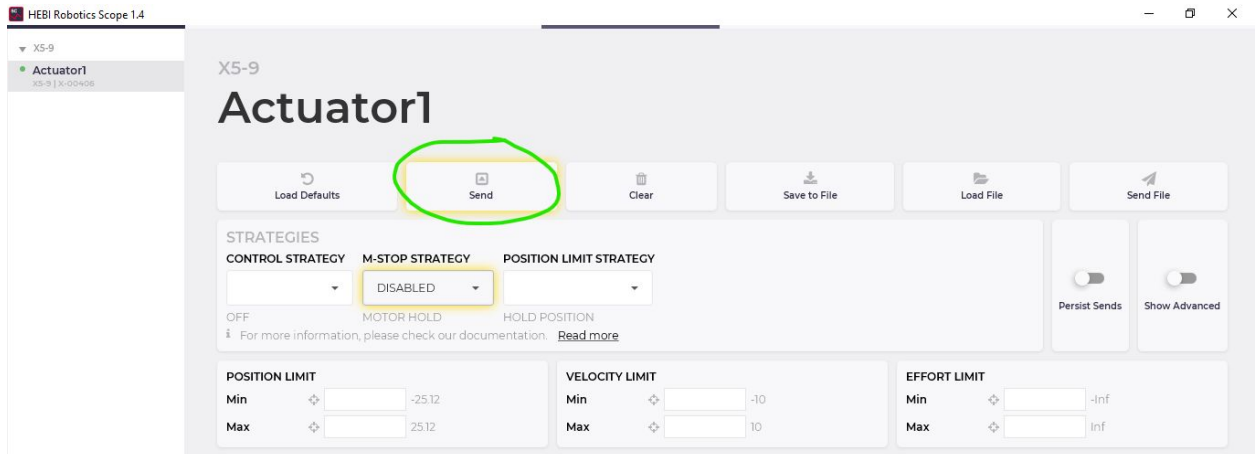
1. Click on Actuator1 on the left hand side (or whatever name the HEBI actuator has).
2. Click on gains, on the top bar (second from the right)



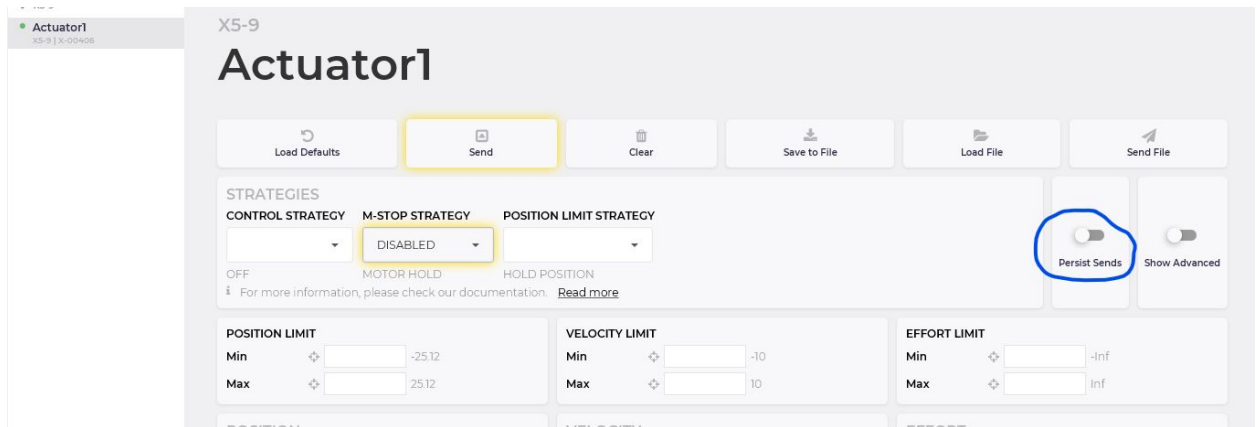
3. If the **M-Stop strategy** (red circle) is in **MOTOR Hold** mode, then change it to **DISABLED**



Click on Send



- Click on **PERSIST Sends** on the left side to ensure that M-Stop strategy remains disabled each time the actuator is switched on.



Going back to the Dashboard will now show NotTriggered

Actuator1

Red LED

Clear LED

Persist

Reset

Reset BL

Boot

STATUS

MODE

● Application

LOCKED

● Unlocked

TEMPERATURE

● Normal

MSTOP

● NotTriggered

DEVICE

X5-9

Revision C9V

SERIAL

X-00406

FIRMWARE

X5_8_E

Revision 15.2.0

ELECTRIC TYPE

X5_8_E

Revision 01

CONNECTIVITY

IDENTIFIER

d88039ef1c9f

MAC-ADDRESS

D8:80:39:EF:1C:9F

IP ADDRESS

10.11.12.13 (Static)

NETMASK

255.255.255.0

Actuator1
X5-9 | X-00406

X5-9

Actuator1

Red LED

Clear LED

Persist

Reset

Reset BL

Boot

STATUS

MODE

● Application

LOCKED

● Unlocked

TEMPERATURE

● Normal

MSTOP

● Triggered

DEVICE

X5-9

Revision C9V

SERIAL

X-00406

FIRMWARE

X5_8_E

Revision 15.2.0

ELECTRIC TYPE

X5_8_E

Revision 01

CONNECTIVITY

IDENTIFIER

d88039ef1c9f

MAC-ADDRESS

D8:80:39:EF:1C:9F

IP ADDRESS

10.11.12.13 (Static)

NETMASK

255.255.255.0

CLEAR

39°C
AMBIENT

30°C
WINDING

Params

If you see (Red) Triggered then you have to go to Gains page and change the M-Stop to disabled and ensure that persist is on. After clicking send, the status on Dashboard will become (green) NotTriggered.

Python for HEBI

Link: <http://docs.hebi.us/tools.html#python-api>

Python documentation on HEBI website is very good. Refer to it.

Remember to change the Module Name to Actuator1 and Family name as X5-9 in all python codes (or whatever name you gave the actuator)

```
03a_command_position.py - C:\Users\Karthik\Desktop\UW Internship\Motor_Python_Contro...
File Edit Format Run Options Window Help
#!/usr/bin/env python3

import hebi
from math import pi, sin
from time import sleep, time

lookup = hebi.Lookup()

# Wait 2 seconds for the module list to populate
sleep(2.0)

family_name = "X5-9"
module_name = "Actuator1"

group = lookup.get_group_from_names([family_name], [module_name])
```

The screenshot shows the HEBI web interface. On the left, a sidebar lists the device family 'X5-9' and the selected module 'Actuator1'. The main panel displays the configuration for 'Actuator1' under the 'X5-9' family. Handwritten blue annotations point to 'X5-9' as the 'Family Name' and 'Actuator1' as the 'Module Name'. The interface includes control buttons (Red LED, Clear LED, Persist, Reset, Reset BL, Boot) and three data sections: STATUS, DEVICE, and CONNECTIVITY.

STATUS	DEVICE	CONNECTIVITY
MODE ● Application	X5-9 Revision C9V	IDENTIFIER d88039ef1c9f
LOCKED ● Unlocked	SERIAL X-00406	MAC-ADDRESS D8:80:39:EF:1C:9F
TEMPERATURE ● Normal	FIRMWARE X5_8_E Revision 15.2.0	IP ADDRESS 10.11.12.13 (Static)
MSTOP ● NotTriggered	ELECTRIC TYPE X5_8_E Revision 01	NETMASK 255.255.255.0

After this it is normal Python programming.