Seletek Limpet
Quickstart guide

Thank you for choosing the Limpet focuser!

Before using it, you'll have to attach the motor to the telescope (quite easy in most cases, help available here), and, depending on how you're going to use it, some software.

You can connect to the Limpet:

- via Wifi, using the internal access point of the Limpet
- via Wifi, hooking the Limpet to your local access point
- via USB

… and you can control it:

- via ASCOM, with our software and (ASCOM) drivers
- via INDILib, same as above
- from any web browser, using a convenient yet simple control interface

Let's see one by one.

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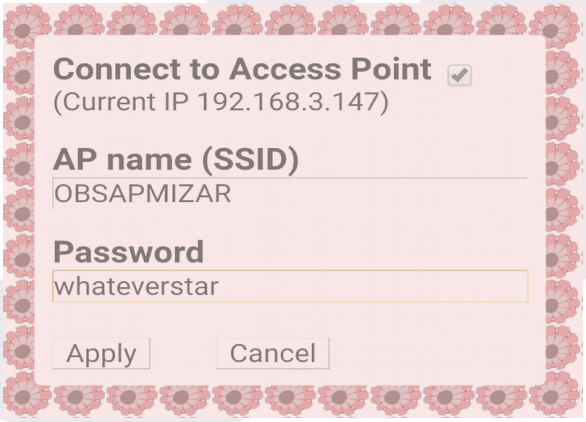
To connect your Limpet to your local wifi network

If you'll be using your Limpet via wifi, at somewhere with an existing network, you'll most likely want to include the Limpet in that network.

To do so:

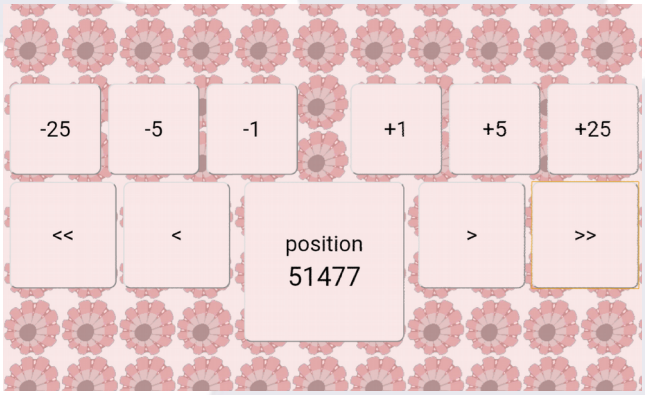
- ✔ Power on your Limpet; it will setup an access point
- ✔ Using your laptop or smartphone, connect to the access point “Limpet_XXX” (where XXX is the serial number of your Limpet)
- ✔ (if it takes more than 2 minutes for you to connect, the access point will be automatically shutdown; please power off / on the Limpet again)
- ✔ Launch your favourite web explorer and connect to “limpet.com”[1]
- ✔ Select “Config” type your access point details, and check “Connect to Access Point”.
- ✔ Once validated (Apply), the Limpet will reboot and try to connnect to your wifi.
- ✔ you can access this configuration window using these same steps in the future should you need to find out the IP address assigned to the Limpet by your network.



1 The name “limpet.com” will work as long as you're connected to the internal access point LIMPET_XXX. In some cases you may need to shutdown your data connection, if limpet.com is not found.

Control the Limpet using a web browser, via wifi, using the Limpet's access point

- ✔ Power on your Limpet; it will setup a wifi access point
- ✔ Using your laptop or smartphone, connect to the access point “Limpet_XXX” (where XXX is the serial number of your Limpet)
- ✔ (if it takes more than 2 minutes for you to connect, the access point will be automatically shutdown; please power off / on the Limpet again)
- ✔ Launch your favourite web explorer and connect to “limpet.com”
- ✔ Select “Control” - and move the focuser
- ✔ After 1 minute of inactivity the page will return to home. Just click again “Control” should you need it.

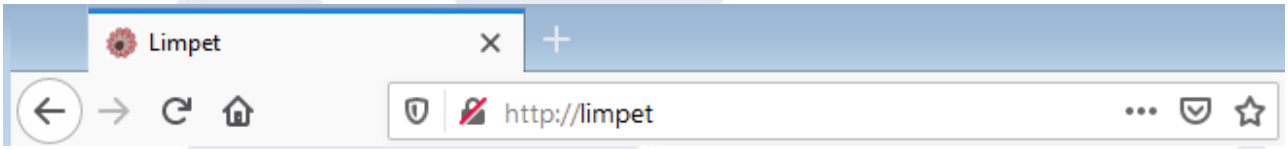


Control the Limpet using a web browser, wifi, using your local access point (not Limpet's internal one)

Beforehand you'll have had to configure this connection, as explained.

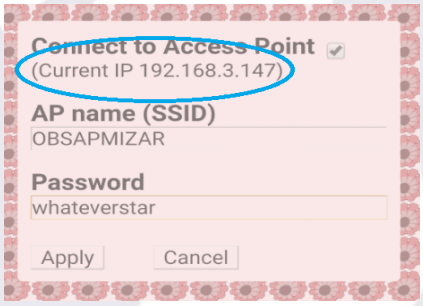
From windows:

- ✔ Launch your favourite web explorer and in the address bar type: http://limpet

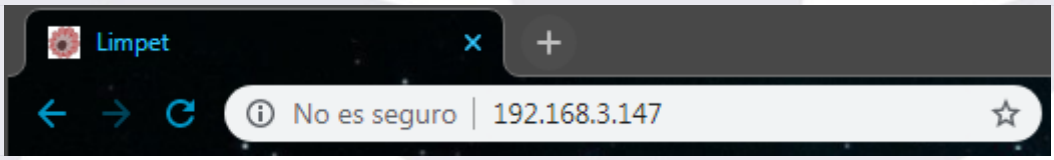


From Linux, OSX or a smartphone:

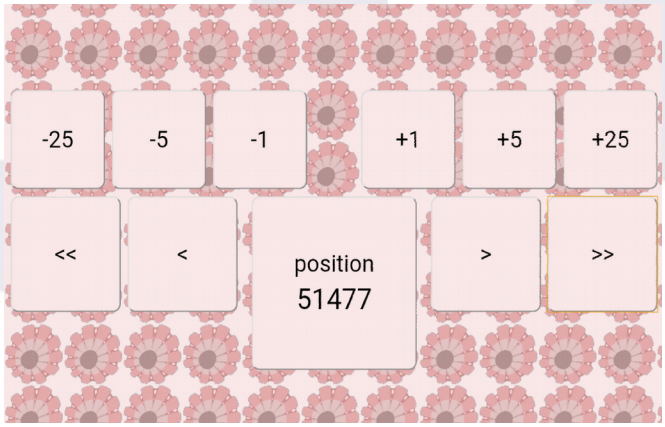
- ✔ you need to find out Limpet's IP address first. You can do so either checking your router DHCP leases, or you can access the configuration page again (same method as when you configured it initially) and you'll see the address displayed there:



- ✔ Once with the IP, and connected to your network, type: http://192.168.3.147 (replace with the actual address!) in your web browser

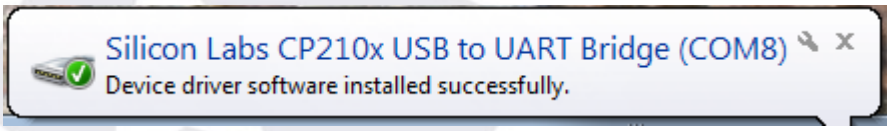


- ✔ Now you can access the control page and move the motor

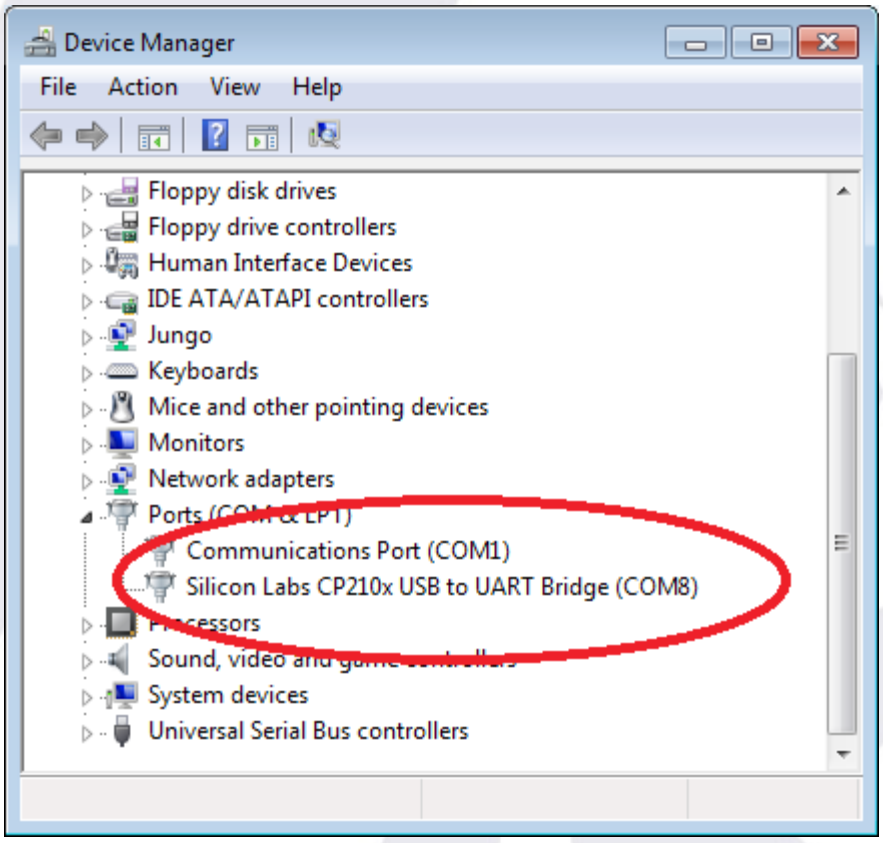


Windows PC via USB

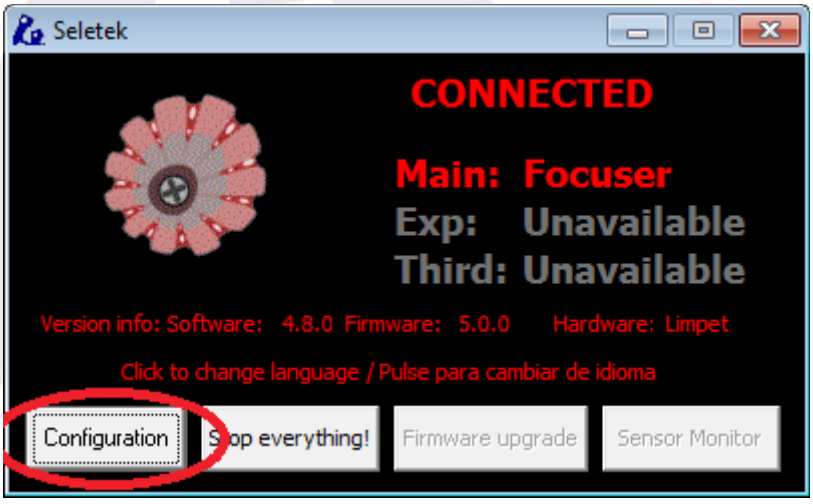
- ✔ download and install the drivers for your windows version from SiLabs
- ✔ connect the Limpet to the PC, power it up
- ✔ Windows will load the drivers and display a message with the COM port assigned

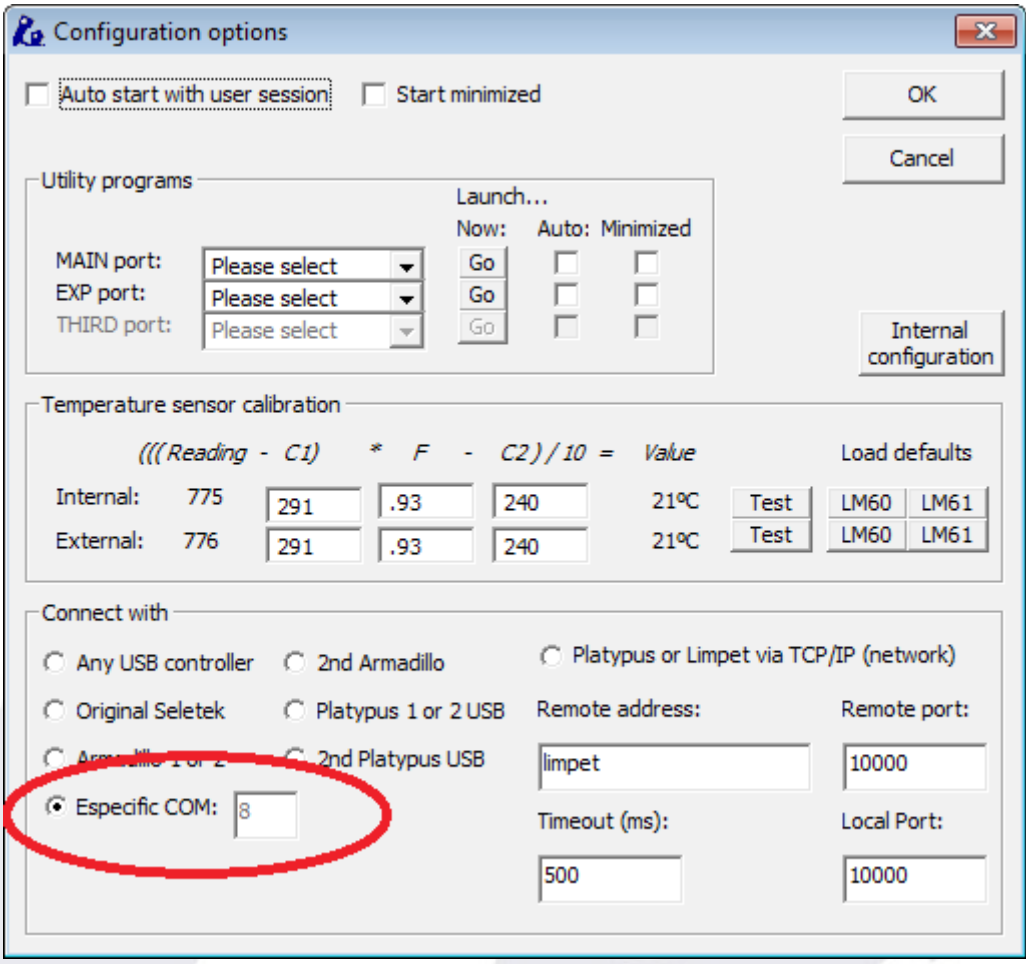


- ✔ Alternatively, you can check this from the device manager

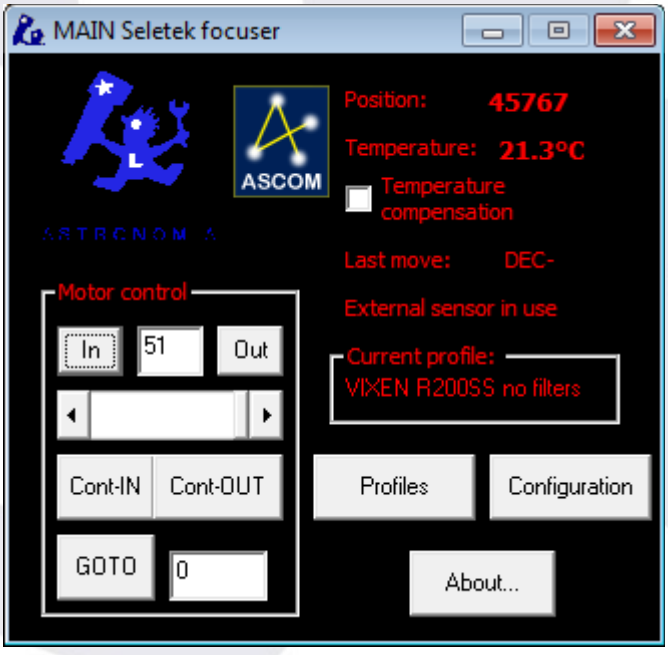


- ✔ Install the Seletek software, run it, click “Configuration”, and choose the COM port; you'll have to close and reopen it for this to take effect.



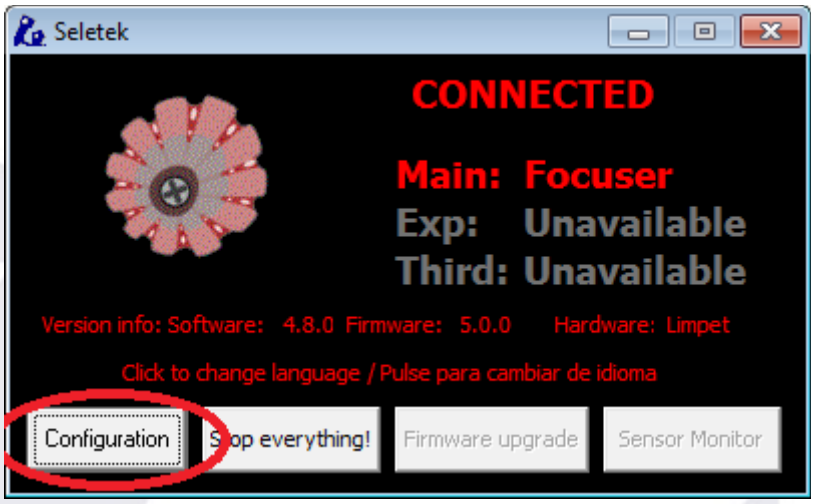


✔ Run the “Focuser” program from the start menu

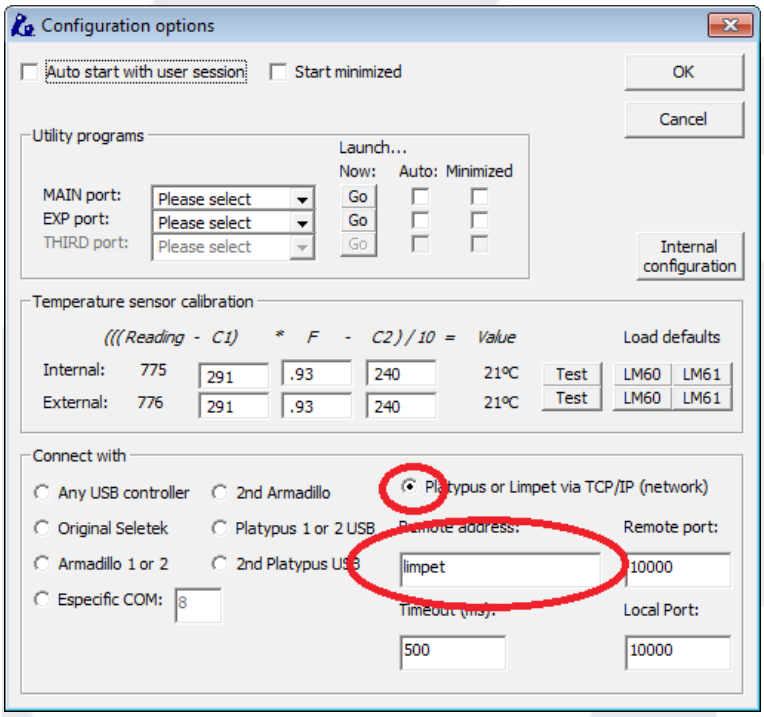


✔ You're ready to go, using our focuser program or via ASCOM.

Windows PC via network

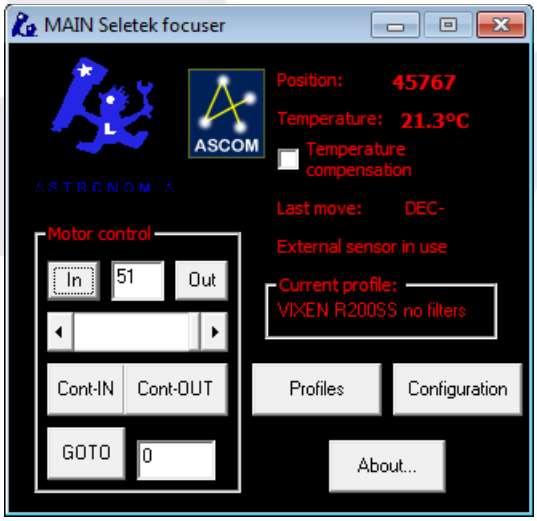


- ✔ check how to connect your Limpet to your network
- ✔ or connect directly to the internal access point.
- ✔ no drivers needed
- ✔ Install the Seletek software, run it, configuration, and choose network, name “Limpet”; you'll have to close and reopen it for this to take effect.



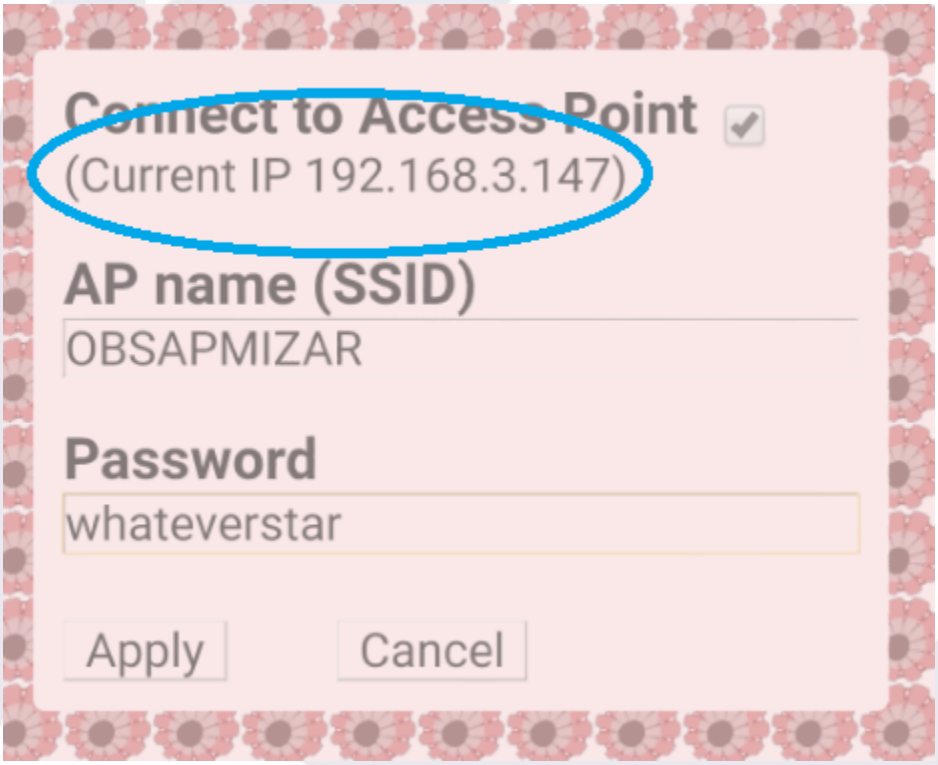
- ✔ Run the “Focuser” program from the start menu

- ✔ You're ready to go, using our focuser program or via ASCOM.



Linux INDILib via USB or network

- ✔ the USB drivers are already installed in your Linux system
- ✔ If connecting via network, you have to find out the IP address of your Limpet, please proceed as explained above to configure it; instead of changing the configuration, just check the “Current IP” address displayed. This is the address assigned to the Limpet by your network.



- ✔ recent INDILib distributions also include the Seletek Armadillo / Platypus drivers – you can use any of them to connect your Limpet, just make sure of using the Main port.
- ✔ Ignore any messages about name mismatch; the driver will work perfectly

Some final notes

- If any web page looks wrong, just reload it.
- If the buttons or the text look small, try changing from portrait to landscape, or vice versa.
- The control page will timeout, and return to the main page, after 1 minute of inactivity. If you want to keep the page active, but don't want to move the motor, just click (or touch) the “position” button.
- The buttons <, <<, >>, > in the control page will move the motor while being clicked / touched, faster if << >>, slower if < >.
- The buttons +25, +5... etc, will move the motor that number of steps.
- Also about the control page, it's been designed to be more comfortable in landscape position, specially for smartphones.
- More information about the windows software, online.
- Network names: accessing your Limpet via network is unfortunately not uniform across devices and networks. We've made our best to simplify and explain it, but even so it can be confusing.

If using... / from	**Windows**	**Linux, OSX or smartphone**
Limpet's internal A. P.	limpet.com	limpet.com
Your local wifi network, browser	http://limpet	http://192.168... (limpets' IP address)
Your local wifi network, astronomy software	limpet	192.168... (limpets' IP address)

Technical specifications

- power: 12V dc (13.8V as supplied by some batteries and power supplies is ok),
- power jack: threaded 5.5/2.1mm jack, center positive
- temperature sensor: external, optional, sensor model LM61
- temperature measurement range: -25ºC to 40ºC (approx)
- motors that can be driven **directly** by the Limpet:
  - unipolar, any motor with a phase resistance of 8 Ohm or more
  - bipolar, many of them, same phase resistance restriction. Some exotic motors won't run smoothly.
  - DC motor, simulating a stepper one, coil resistance of 8 Ohm or more.
- motors that can be driven by the Limpet with some **external hardware driver** (step&dir or similar):
  - any motor

Limitations

The web control interface will, for the moment, only drive Lunatico's stepper motor or very similar ones.