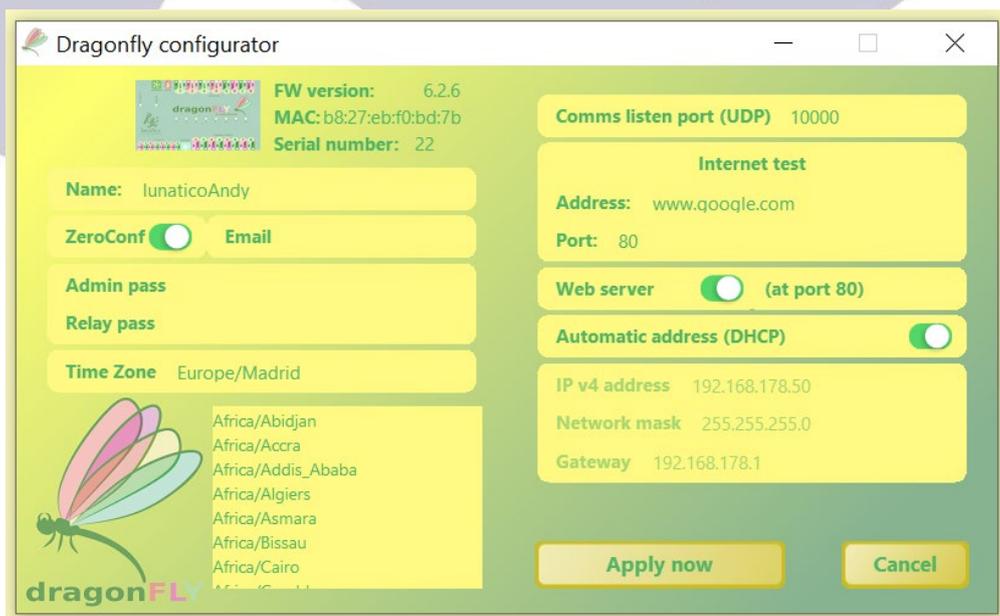


Securing the Dragonfly Web Page

Relay and sensor panel of system lunaticoAndy

(click to change)	RELAY	SENSOR	(click to refresh)
Roof	1	551	RoofOpen
PC	2	11	RoofClosed
Camera	3	11	CW Unsafe
Main Lights	4	546	External Power
Red Lights	5	12	Sensor 5
Obs Heater	6	11	Sensor 6
Relay 7	7	12	Temperature
Mount	8	547	Mount At Park

When you are setting up your Dragonfly for the first time, you could be forgiven for overlooking the slider 'Web server' in the Configurator software.



If you have your own observatory, on a private network, then it probably doesn't matter whether you use the web interface or not. Indeed, many users may not even know that there is an option to control the Dragonfly through a web browser.

It's a different story if you are at a shared facility. There, we would generally advise you to turn this feature off, to avoid the possibility of someone gaining access to your Dragonfly's relays, either accidentally or otherwise.

There are times, however, when all users will need access to the web server, the main one being to check for and apply updates to the Dragonfly.

Dragonfly mk2+ Updates

If possible, don't do this remotely - system may need a manual reset

Current software version is 2.4.

Firmware version is 4626

To send a custom SLP command:

To reboot the system

Diagnostics information

System name: lunaticoAndy Free memory 1: 14216 bytes Free memory 2: 336848 bytes
Internal dfly version: 4626 Serial number: 22
IP address: 192.168.178.50 MAC address: b8:27:eb:f0:bd:7b DHCP active: Yes
Internal time: 04:33:32
ZeroConf system: Active key:

System running normally

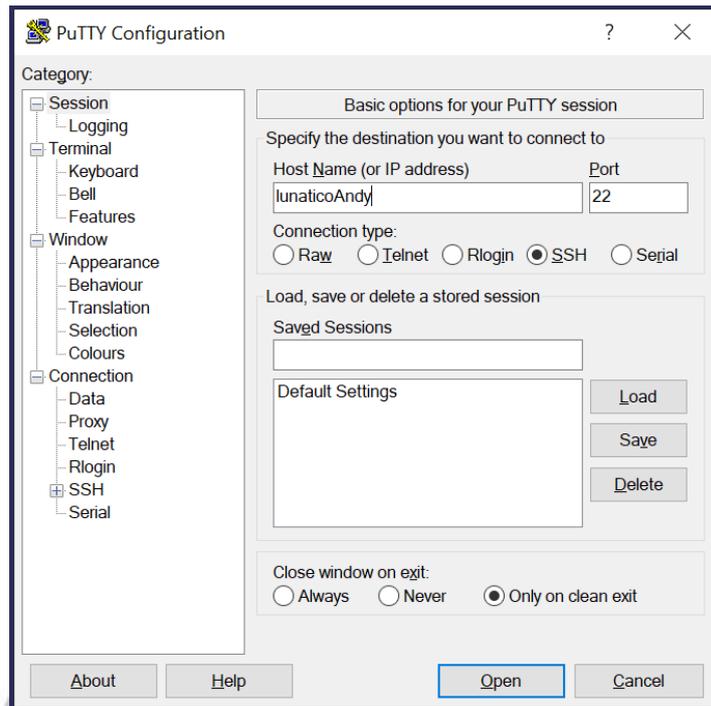
For this reason, you may wish to add a user password to the webpage of your Dragonfly.

Please note, even with password protection, you should never open the Dragonfly's web server port to the internet!

Getting Started

Using Putty

We need access to the dragonfly via *ssh* (secure terminal). A popular and free program is "Putty". It can be downloaded from <http://www.putty.org/>.



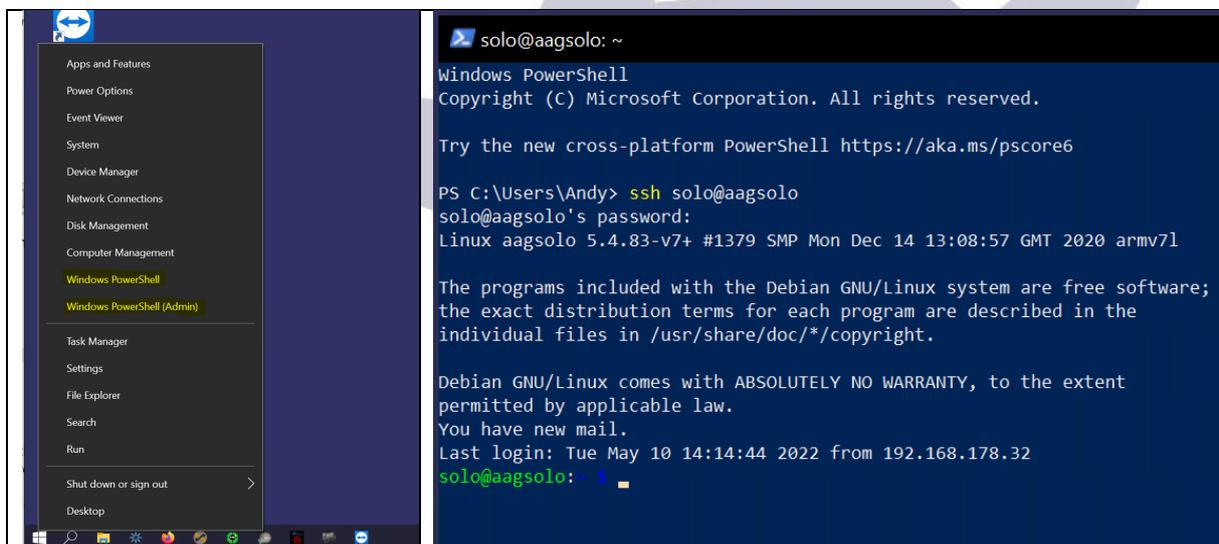
Just type the name or IP Address of the Dragonfly in the Host Name field and leave the rest as it is, then press <enter>.

You'll be asked if the signature is valid, select 'yes', and when prompted, enter:

- User: dragonpi
- Password: dragonpi

Using Windows PowerShell

Another option for Windows 10 users is to use the built in PowerShell which includes a ssh client. To open PowerShell, right-click on the Windows icon on the taskbar and select the appropriate version from the menu.



Making Changes to the Dragonfly

To begin, we need to make the files system writeable:

```
dragonpi@lunaticoAndy:~ $ rootrw
```

(If you are prompted for the password, enter *dragonpi*).

Then we'll stop the web server:

```
dragonpi@lunaticoAndy:/etc/lighttpd $ sudo service lighttpd stop
```

Next, we need to edit the web server configuration file:

```
dragonpi@lunaticoAndy:~ $ sudo nano /etc/lighttpd/lighttpd.conf
```

We need to add the following lines to the configuration file:

```
GNU nano 3.2
server.modules = (
    "mod_indexfile",
    "mod_access",
    "mod_alias",
    "mod_redirect",
    "mod_rewrite",
    "mod_cgi",
    "mod_auth",
)

auth.backend = "plain"
auth.backend.plain.userfile = "/etc/lighttpd/.lighttpd_password"
auth.require = (
    "/" => (
        "method" => "basic",
        "realm" => "Secure area",
        "require" => "user=andy"
    )
)
```

(Substitute the user *andy* for the username of your choice.)

To save the file, press CTRL+O, followed by CTRL+X to exit nano.

Next, we need to create the file: `.lighttpd_password`:

```
dragonpi@lunaticoAndy:/etc/lighttpd $ sudo nano /etc/lighttpd/.lighttpd_password
```

Simply enter the username chosen in the `lighttpd.conf` file, followed by a `:` and the password of your choice, before saving and exiting as above (CTRL+O, CTRL+X).

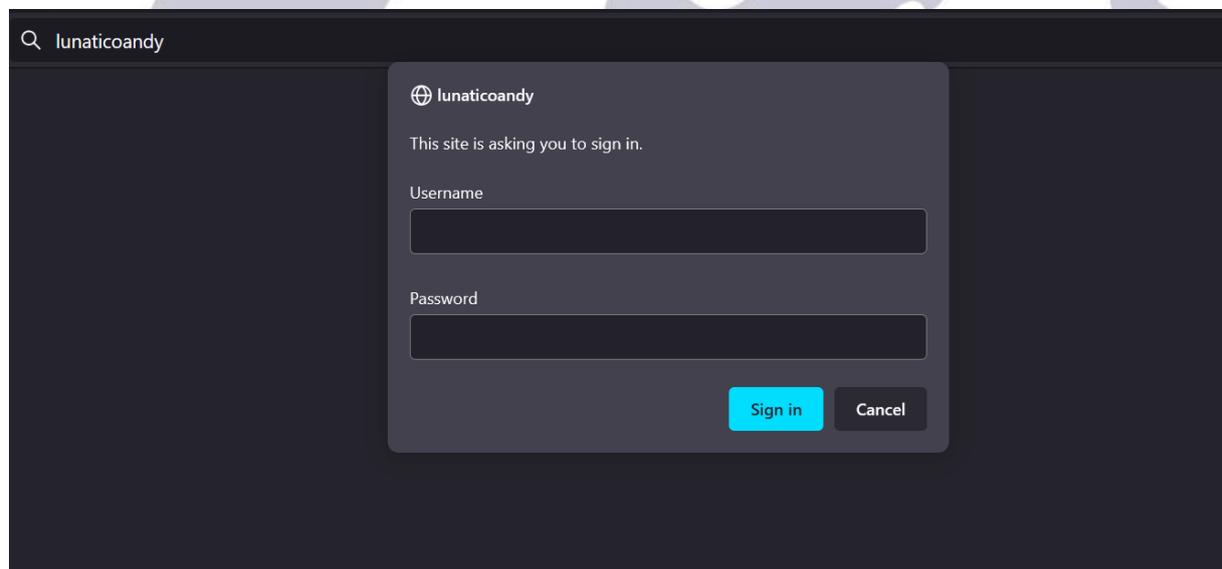
```
GNU nano 3.2
```

```
andy:mypassword
```

Now we can restart the web server:

```
dragonpi@lunaticoAndy:/etc/lighttpd $ sudo service lighttpd start
```

If all has gone well, you should now be presented with the following screen when attempting to visit the Dragonfly's web page.



The screenshot shows a web browser interface with a search bar containing 'lunaticoandy'. A sign-in dialog box is displayed in the center, titled 'lunaticoandy'. The dialog contains the text 'This site is asking you to sign in.' followed by two input fields: 'Username' and 'Password'. At the bottom right of the dialog are two buttons: 'Sign in' (highlighted in blue) and 'Cancel'.

That's it!

For further information, visit the forum at: <https://lunaticoastro.com/lunabbs>.