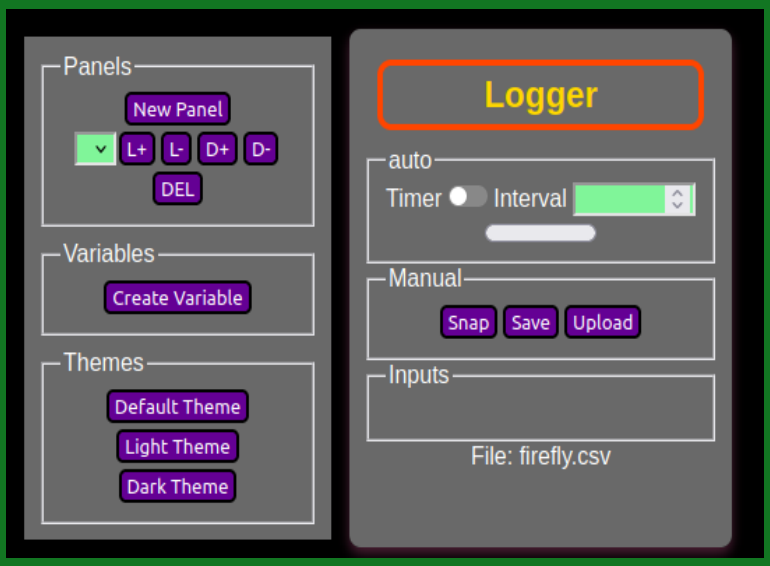
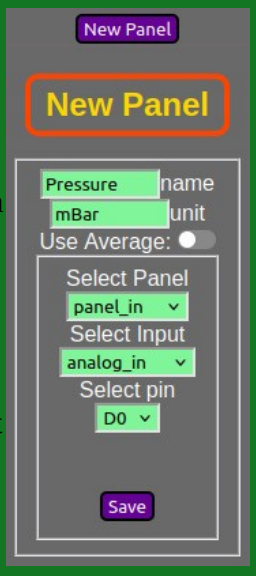
How to use Firefly’s control panel

Once the firefly is connected to your local network its time to start creating some panels.
This is how your interface looks before there are any panels created:



Lets connect an analog pressure sensor to the terminals +,A0 and – of the Firefly’s Analog Input terminal block.

Now press on New Panel and set the parameters like in this image:

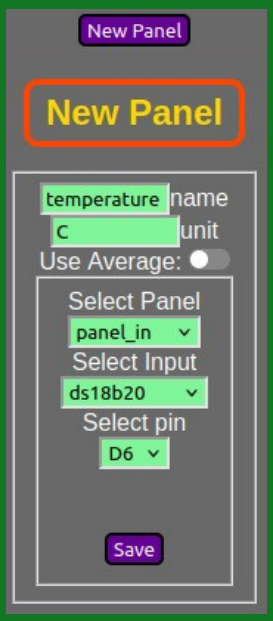


Type a name for the new panel.
Unit displays under the value in a panel.
Select Panel has many different panels to choose from, in this case we are using a generic input panel that has the option to choose a driver to interface with different input protocols.
Select Input comboBox is available just for Panel_in and panel_out. Here you can select the kind of driver to use. In this case we are using the analog_in driver.
Select pin allows you to specify which pins to attach to this panel as we are using a Wemos D1 there is just one analog pin by default its A0.

Once your panel looks like that click on Save.
Notice you don’t see the panel yet as the html for it doesn’t update until you reload the page. Once you reload you should see the new panel.

Ok lets create another panel, this time I will connect a ds18b20 temperature sensor that uses the onewire protocol to communicate with the Firefly, so we need to connect it to the OneWire terminal block of the Firefly. Super easy. This pin has a 4K7 resistor connected to +3.3v as its protocol requires.

Now again press in New Panel.



I have named this panel temperature but of course you can choose any name but it cant have any spaces.

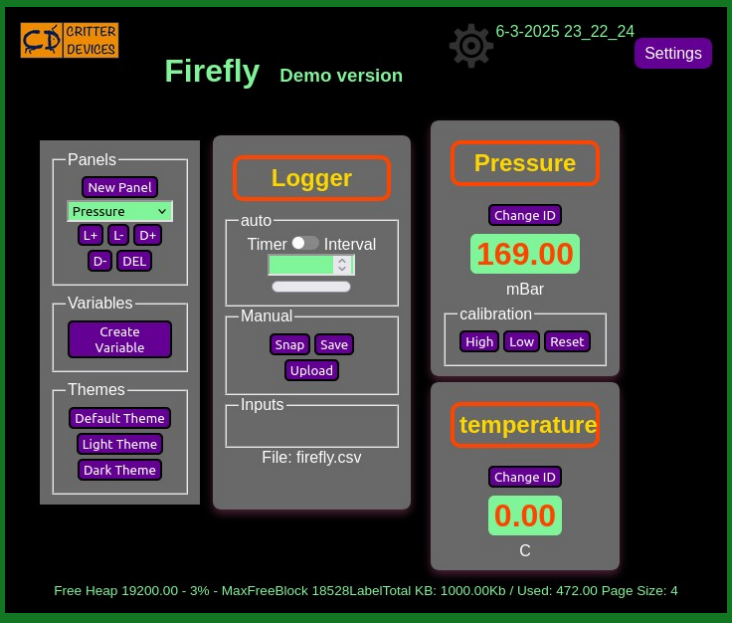
Unit I wrote C for celcius

I chose again a generic input panel.

The input driver is ds18b20

The pin used for onewire in the Firefly board is D6.

Press Save and refresh the page. Now you should have something like this:



We can see now 2 panels have been created and update periodically. Now those 2 panels appear also in the comboBox below the New Panel button. The selected item in the comboBox affects which item is going to be affected by the buttons bellow:

L+: add to logger

L-: delete from logger

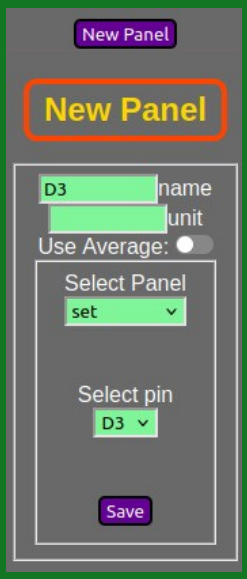
D+: add to OLED display

D-: delete from display

DEL: delete panel

Panel operations require a page reload to show in the control panel.

Ok lets now create some different panels than panel_in, for example:



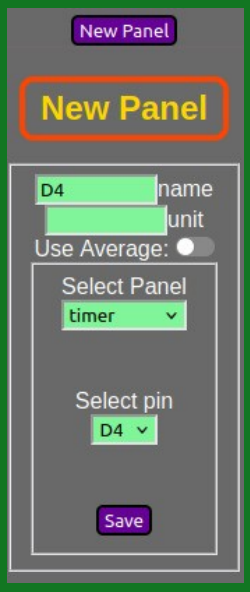
This time we are creating a panel of the Set kind, its a special panel that allows you to bind a digital output with the panel.

I'm naming this panel D3 but you could name it whatever of course. Literally.

This kind of panel doesn't need a unit.

I selected pin D3 that in the case of the Firefly board is connected to a relay and a led.

Before I show you the results we are going to create another panel, this one is a Timer its useful when you need to control on-off intervals of any digital output. In this case we'll use the second relay of the Firefly board that is connected to D4.



I named this panel D4 just to not get confused.

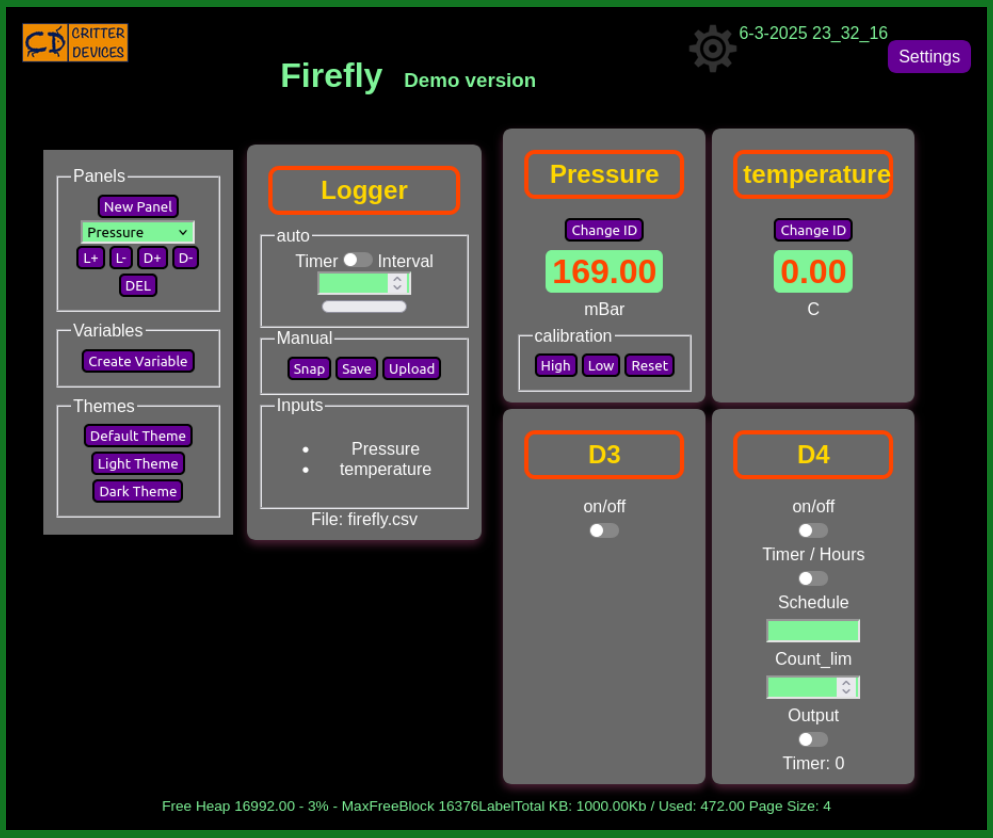
The Select Panel comboBox is set to Timer.

A timer needs to select a pin for its output, in this case is pin D4 connected to relay 2 of the Firefly board.

Once your panel looks like this you can press the save button.

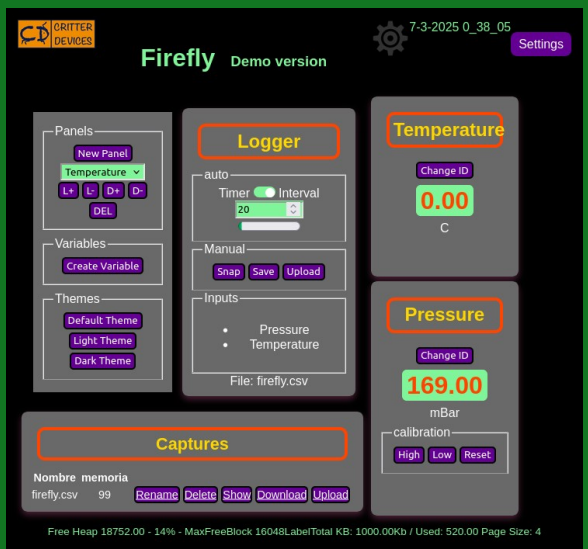
Go ahead and reload the page.

If all went well you should see something like this:



In the above picture I have already selected the temperature and pressure panels and pressed the buttons L+ (add to logger) and D+ (add to display) so you can see at the bottom of the logger it lists the inputs. The logger can work with a timer (interval in seconds) in auto mode or you can press the Snap button to manually record values.

In the next picture the logger has been set to 20 seconds and its timer is on. Once we have taken some captures we can see at the bottom the Captures section which shows capture files (might need a page reload) , in this case we have a file named firefly.csv with a length of 99 bytes. You can rename and delete the file, the button Show displays a graphic of the data and download allows you to get the csv file.



Example of a chart generated by the device by clicking on the Show button of the Captures section.

This concludes this small explanation, there is much more to explain but this is a work in progress…