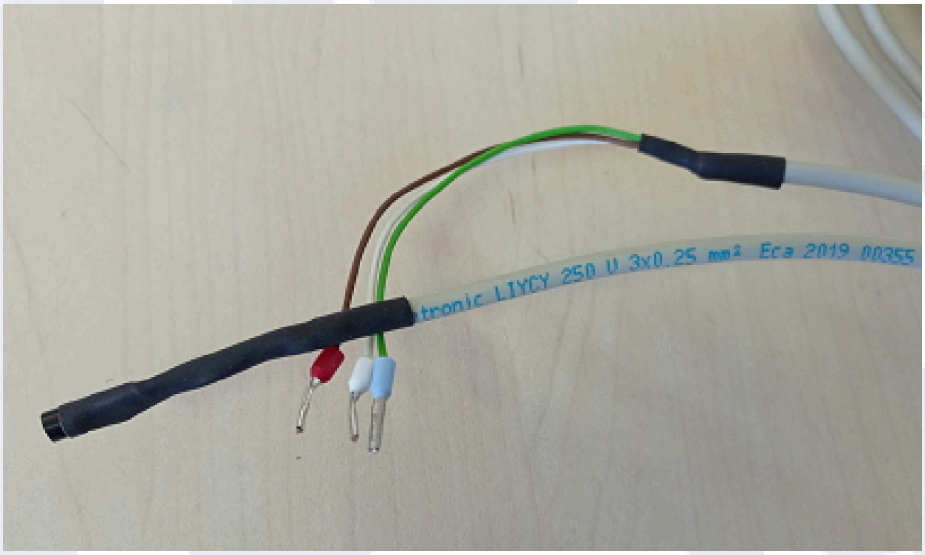
Dragonfly temperature sensing

While the Dragonfly's software does not have (yet) specific support for temperature sensors, they can be used thanks to the analog sensor reading capabilities, and the nice linearility of the voltage sensing.

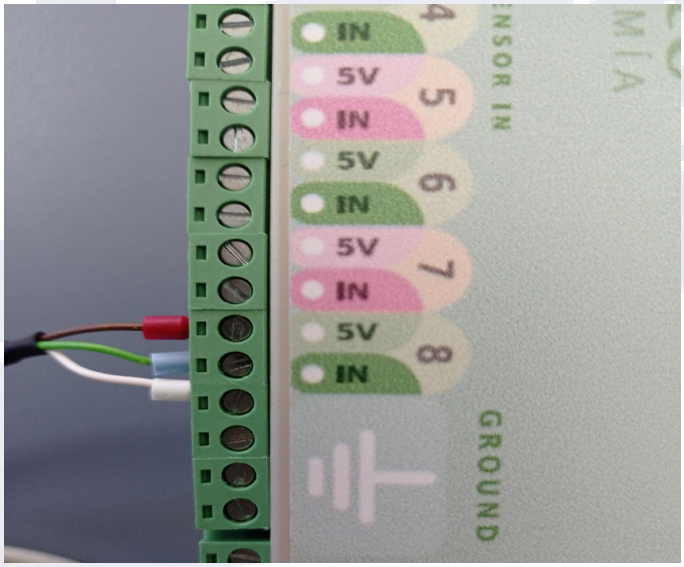
We have tested and calibrated the LM61 sensor, the same we use for the focuser range of products, as it has very good accuracy, range, and is quite easy to assemble.



The temperature sensors have 3 wires, 2 of them provide power (+5v and ground) while the 3rd one will output the temperature (in a proportional voltage).

Red is +5v, white is ground, with the green/blue cable being the sensor output.

To attach the sensor to the Dragonfly, it is suggested to use sensor inputs closer to the ground, that is, sensor 8, then 7... any number of sensors can be attached (up to three quite easily).



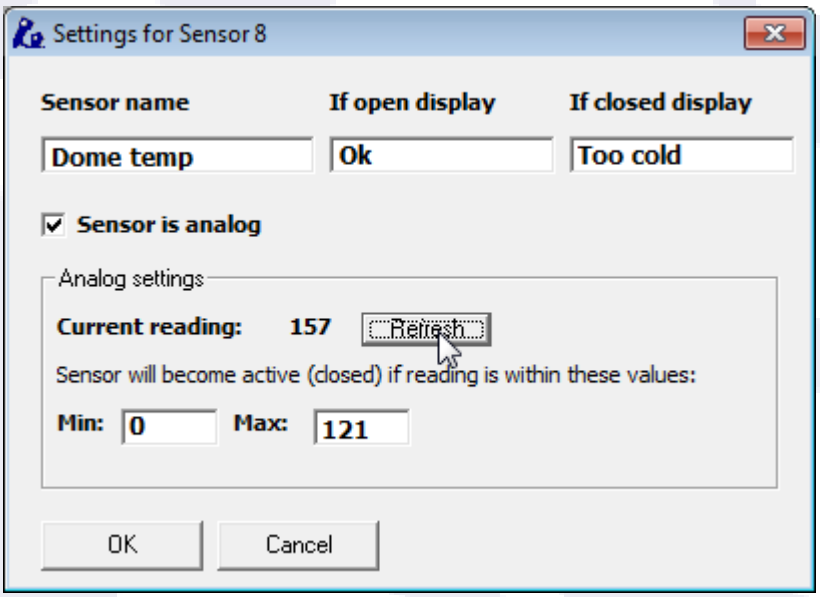
To get the temperature, in °C, the formula is:

```
Temp = (sensor reading – 121) / 1.9558
```

conversely, given a temperature, to calculate the matching reading:

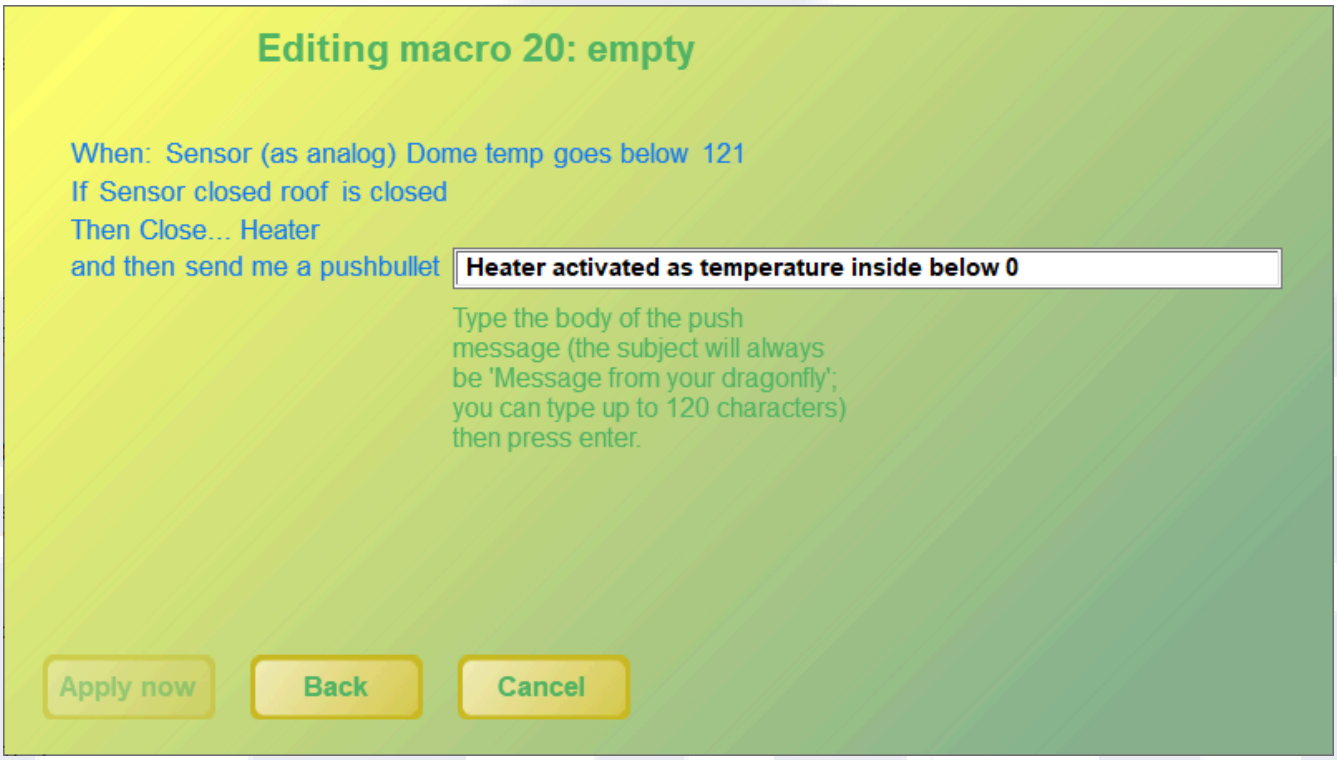
```
Reading = ( temperature * 1.9558 ) + 121
```

We can use the analog sensor options on the Dragonfly panel to, for instace, activate a heater if the temperature drops below 0°C.



Currently, the temperature is at 18.4°C (that reading of 157).

We can easily use a macro (check our express tutorials) to get the heater running:



– don't forget to shut it off when the temperature rises again or the roof is open!