CMP408 - Mini Project Proposal

## **Project Description:**

The project that I will undertake is to develop an IoT Hygrometer. This will use the ‘Enviro HAT’ from Pimoroni.com.

This project is going to use a HAT for the Raspberry Pi that will analyse the temperature and humidity of the surrounding air. I can then display this data on the LCD screen on the top of the HAT. The Pi will also send the data to the cloud where it can be processed and displayed in a nice graph for the user to view. The user will also be able to interact with the Raspberry Pi HAT. By using a request button, they will grab the current temperature and humidity.

This project could monitor many things, some of which could include, but is not limited to:

* Reptile Environment Monitor.
* Greenhouse Environment Monitor (Vapour Pressure Deficit).
* Any other environment monitors.
* Environment Controllers (Future Project).

This project could be further taken forward by adding in control of equipment, i.e., a de/humidifier, a heater and extractor fans. This could be accomplished by installing a relay switch which will control the mains power going to the devices. This could then be adapted to control the devices from the cloud and to change parameters such as VPD or humidity and heat.

## **List 3 relevant sources of information you have looked at already which are relevant to this project:**

<https://learn.pimoroni.com/article/getting-started-with-enviro-plus>

<https://www.youtube.com/watch?v=y1KMYcbyX38>

<https://curiositysavestheplanet.com/air-quality-monitor-raspberry-pi-enviro-maker-project/>

## **Does your project involve other humans in any way? (i.e. intend to create survey materials, use other’s personal data etc).**

NO

## **If yes, describe why you need to involve others in this project.**

N/A