OCTE Humidity Controller-Documentation

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# Using the Modbus Script

Before executing the script, it is possible to adjust predetermined values for the refrigeration and heating stop point at the bottom of the same config file, that is also used by the script controllino\_modbus.py. The standard values are set to 22.2°C (72.0°F) for the refrigeration stop point and 15.5°C (59.9°F) for the heating stop point.

The script should be located in the directory /usr/local/bin on the banana pi. It can be started with the following command:

fluence\_controller.py

# Functionality

Till now there is no complex control logic implemented. The refrigeration and heating stop point are predetermined and are only once applied by running the script in OCTE mode. In order to change the values, the values need to be adjusted in the config file and the script needs to be rerun.

# Implementation

The script will initialize itself, by reading the configuration from the same config file, that is also used by the script controllino\_modbus.py. By reading the config file, the script will know if it is running in a Cube or OCTE.

After the initialization, the refrigeration and heating stop point are applied as predetermined in the config file. The main functionality is implemented in a while-true loop with the following steps.

1. Read the first coil in the HVAC of the OCTE
2. Check if value is true
   1. The value is true
      1. Covert values from °C into °F
      2. Continue with step 3
   2. The value is false
      1. The values stay in °C
      2. Continue with step 3
3. Try to write the values to the HVAC
4. Check if both write tries were successful
   1. If successful
      1. Break while loop
   2. If unsuccessful
      1. Sleep for ten seconds
      2. Return to step 1.