USB Connection to Vaisala Probe

We have physically confirmed that connections to Linux and Windows devices over USB-A do work with the Vaisala Probe. Any connection to an Apple device will not work because Vaisala does not support drivers for Mac OS. USB-C connections to Linux and Windows devices should work according to Vaisala; however, this has yet to be tested.

Current Code Functionalities

The current code supports reading from the humidity, temperature, and absolute humidity, along with a host of other readings described in the Modbus section of the user guide.
https://docs.vaisala.com/r/J49HqUmH6UBU~acggRJCmA/RCz6uw9yI0demroJF3kKlw

Code has been written that supports purging of the sensor, resetting, and writing data to a CSV file. The former two functionalities have yet to be tested.

Sensor Design

Currently, the ideal sensor design involves a Windows/Linux device with a monitor connected to the probe from the 6-pin Modbus output to the USB-A input. However, in the event that this is not feasible and we would like functionality with Apple devices, we would need to replicate the WiFi socket connection code previously used. This also involves setting up the Raspberry Pi as a WiFi transmitter again, which was disabled to download packages off the internet. A guide to do this can be found pinned in Slack.

Directions for Use

1. The Vaisala probe needs to be plugged into an outlet first. Power is being received when the probe's green ring is on.
2. USB A connection from the 6 pin adapter should be plugged into a Windows or Linux laptop.
3. Running server_modbus.py will display temperature and humidity data for testing.

Note on purging and resetting

In actual tests, the probe should be purged to relieve excess moisture that has built up inside the probe. Resetting should only be done in case of calibration or firmware errors.