

How the Acid Value and Oryzanol concentration are calculated

Use a model in the new_models.json file that has keys of each device name, i.e. "device_1", "device_2" .. And "AV" for acid value

Each value of new_models.json is a model parameter with the keys: "Constant", "Dark Intensities", "Ref Intensities", "Coeffs", "raw_signal_process", "refl_signal_process", "abs_signal_process" which are:

- "Constant": is constant to add to the calculated value
- "Dark Intensities": value to subtract from the raw sensor vector
- "Ref Intensities": value to divide the sensor vector by to get reflectance
- "Coeffs": Values to multiple the reflectance values to, to get concentration of oryzanol or acid value after adding "Constant"
- "raw_signal_process": list of process to apply to the raw data including SNV correction or Savitzky-Golay filter with settings
- "refl_signal_process": list of process to apply to the reflectance data
- "abs_signal_process": list of process to apply to the logarithm of the reflectance data

PiNIRIoTSensor.send_packet()

- Check if packet id sent (saved data has a packet id that has been assigned)
- if not packet id, assign one

- check the sensor temperature has been passed
(DEPRICATE)

- get CPU temperature
- make packet using the DataPacket class
- if new data, write data to a file
- if new data increment packet id
- pass packet made with DataPacket to
➔ PiNIRIoTSensor.deliver_data_package()