Latest notes-updates

Random tips you might find useful: 6.5.25

- there are essentially two types of devices: esp32 and RAK devices
- ESP32 devices can use wifi, RAK cannot without additional modules
- upgrading firmware on RAK devices is done as a drive you drop firmware onto, using the chrome app in serial mode
- upgrading firmware on ESP32 devices also uses the chrome app in serial mode, but does so in target mode: look for JTAG in the connected devices
- the various configuration utilities: Apple iPhone/mac, android, chrome serial and even the python configuration tools all have some different options: some don't allow module changes
- when making any change, look to make sure the device restarts-the only exception is when changing modules for some reason
- powering RAK devices using the solar charging port is possible, as long as the solar panel voltage is under 5Vdc, though solar units from RAK reach 6.5 Vdc, so go figure
- powering RAK devices by battery should be done with caution: the terminals are reversed (red + is inboard)
- 3.7 V batteries are becoming scarce, especially the 3000 mAh units, which can last all day-the 1100 mAh batteries are still around
- sensors can be added to both units: as a clip on the RAK units (very cool) or by soldering to the esp32 units
- some esp32 units are larger with screens and GPS included, some even use longer round batteries which can be had on ebay
- antennas need a ground plane, so the whip antenna you are using may not suffice-order either a longer whip or a dipole antenna for better coverage.
- MQTT can be confusing: first make sure it is enabled on LoRa settings, then make sure the primary channel has uplink and downlink enabled, and finally check the MQTT module for inclusion.
- I set MQTT to msh/US which seems to work for now

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