LoRa Sensor Gateway for SETECLab's Ground Station Terminal

Most recent version of this repository can be found in:

- GitHub

What is this repository for?

- This repository was created to develop a LoRa Sensor Gateway for the SETECLab's custom GST.

HELTEC LoRa 32 board information

- Documentation page
- Pinout diagram
- Schematic
- ESP32 datasheet

MCP9600 I2C Thermocouple Amplifier

- Datasheet

Enclousure

How do I get set up?

- Install Git
- Install Arduino IDE
- Install ESP32 Board in the Arduino Boards Manager Open Arduino IDE, then Select `Tools`->`Board:-`>`Boards Manager...` Search `ESP32` and install it.
- Install Heltec ESP32 Library in the Arduino Library Manager Open Arduino IDE, then Select `Sketch-`>`Include Library`->`Manage Libraries...` Search `Heltec ESP32` and install it.
- Install Adafruit MQTT Library in the Arduino Library Manager Open Arduino IDE, then Select `Sketch-`>`Include Library`->`Manage Libraries...` Search `Adafruit MQTT` and install it.
- Install Adafruit MCP9600 Library in the Arduino Library Manager Open Arduino IDE, then Select `Sketch`->`Include Library`->`Manage Libraries...` Search `Adafruit MCP9600 Library` and install it.

Library source code and examples

- Adafruit_MQTT_Library

Contribution guidelines

- If you want to propose a review or need to modify the code for any reason first clone this repository in your PC and create a new branch for your changes. Once your changes are complete and fully tested ask the administrator permission to push this new branch into the source.

- If you just want to do local changes instead you can download a zip version of the repository and do all changes locally in your PC.

Who do I talk to?

- Juan J. Rojas
- Ian Coberly