LoRa Edge

Manual Modem-E Update

Content

Version	Changes
1.0	First release.
1.1	Fixed name example sketch

1. Configure Arduino IDE

If the SkyLab LoRa Edge board is already configured: this step can be skipped.

The Arduino IDE can be used for uploading software via the micro USB port. Before it can be used the IDE must be configured.

The first thing is to install the board via board manager.

Go to File → Preferences. Add the following link to Additional Boards Manager URLs:

https://github.com/SkyLabIoT/LoRaEdge_BasicTracking/raw/master/package_skylab_index.json

The board package can be downloaded via Tools → Board → Boards Manager… by searching for SkyLab.

Select the board via Tools → Board → SkyLab Boards → SkyLab LoRa Edge.

2. Update Modem-E firmware

The python script is depended on the pyserial libary. If pyserial is already installed and the script is not working, please uninstall and reinstall pyserial.

Updating the transceiver firmware to the modem firmware goes as follows. The host PC must have Phyton installed.

Upload the LRNodeUpdateTxToModem example sketch to the device. The example sketch can be loaded via File → Examples → SkyLab LoRa Edge → LRNodeUpdateTxToModem.
Wait for blue LED to be on.
Start the Python script (UPDATELRCHIP.py).
Select the correct COM port in the python application.
Check if firmware is being send by looking at Python program and the device LED (should be flashing red).
Sending the firmware takes about 2 min.
The Python program displays done and closes 30 sec later when done.
The green LED on the device stays on when firmware is updated.
Upload the mode A device example sketch.
The firmware should now be upgraded to Modem-E and the example sketch should work.