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ECE-570: Internet of Things

Programming the RAK 3272S Breakout Board

Materials:

* RAL 3272S Breakout Board
* USB to TTL/UART Converter
* Arduino IDE/Visual Studio Code

RAK Pinout Diagram:

A computer chip with many colored wires

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Fig.A. RAK Pinout Diagram.

Connecting the RAK to your computer:

* Attach antenna to the RAK breakout board (Not doing so will result in damage to the board!)
* Attach the RAK module to the UBS to TTL adapter. Note that TX of the RAK module should be attached to RX of the adapter and RX of the RAK module should be attached to TX of the adapter. (See Fig.1. below):

A close-up of a circuit board

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Fig.1. This figure shows the connection between the RAK module and the USB to UART adapter.

* Open Arduino IDE and go to File🡪Preferences🡪 Settings. Add an “Additional board manager URLs”. (See Fig.2. below):

A screenshot of a computer

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Fig.2. To use the Arduino library for the RAK breakout board, you must add the additional board manager URL (https://raw.githubusercontent.com/RAKWireless/RAKwireless-Arduino-BSP-Index/main/package\_rakwireless.com\_rui\_index.json).

A screenshot of a computer

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Fig.3. After adding the URL for the addition board manager select this board.

* Go to boards and make sure that you find the RAK3272 Breakout board module. After selecting the board, you should be able to see the com address and be able to connect to it.
* After connection, you can use the highlighted command to view the AT

A screen shot of a computer

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Fig.4. This figure shows the serial monitor being used at a baud rate of

* If you cant connect to the board but its connected with the USB adapter – you may need to install the USB driver (See Fig.5. below): A screenshot of a computer

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