This folder contains the python test script **cmd\_test.py.** It can be used to test sending/receiving commands between PC and GX firmware via UART1. Specifically, it can used for stress-testing the UART (more on this below)

Notes for use:

Firmware:

* + This code works with firmware in the ***develop*** branch as of July 12. Command Codes are likely to change again, so be aware of future compatibility issues.
  + Compile firmware with UNIT\_TEST defined (this will give you access to the unit test Echo command, which the stress testing uses). Optionally compile with TEST\_COMMANDS defined if you want to dump all the command TX and RX bytes on debug UART2-- you can open up a puTTY terminal and see all the USB traffic

Python setup:

* + Don’t need to import anything else. Just copy all the folders/files to a virtual environment to prevent clashing with other python comm packages. This is temporary until I can synchronize with the released comm packages.

*Further explanation: I had to use modified versions of Phil’s communication modules-- specifically, gx\_communication modules were modified to handle updated command structures and command codes, which are not available yet in the released gx\_communication package. This will need to be synchronized eventually which is why this code is not committed yet in BitBucket.*

To run Stress Test:

* + Run **cmd\_test.py**. Enter “help” for a list of supported commands
  + “stress1” will repeatedly send the Echo command with payload of 1 byte, for the requested number of cycles. Note: Echo just sends back the transmitted payload.
  + “stress2” will repeatedly send the Echo command with a random-sized payload, for the requested number of cycles