

ECEG 201 – Homework 09

Due at noon on 2020-03-30

This homework assignment asks you to write a Python function. You must send this function to the instructor as a source file attached to an email message. The source file should contain **only** the function requested.

You **may not** collaborate with another student or discuss this assignment with another student. If you have questions about what is expected, address them to the instructor. The code you submit for this assignment must be entirely your own original work.

In addition to functionality, your code will be graded on style and format. Be sure to run the “Check” function available in Mu and fix any warnings or errors that are produced. Note the proper naming conventions for variables, constants, and functions.

1. Write a Python 3 function named *wait_reply* that takes one integer parameter named *time_limit*. The integer parameter specifies how many seconds the function should wait for a message on the serial line.

Assume that there is an instance of the `busio.UART` class that has already been created, as shown below. You **may not** change the parameters shown here.

```
uart = busio.UART(board.TX, board.RX, baudrate=115200, bits=8,
                  parity=None, stop=1, timeout=1)
```

Within your function you should call `uart.readline()` as often as necessary to wait for a response.

If the `uart.readline()` method returns a string within *time_limit* seconds then your function should just return that string.

If a string is not received within the time specified by *time_limit* then your function should enter an infinite loop. The infinite loop should blink the red LED in the Feather’s onboard NeoPixel. The LED blinking rate of 2 Hz and be illuminated for 50% of the period.