**Friday, March 1st, 2024**

I was not at school today because I was sick.

**Wednesday, March 6th, 2024**

I was not at school today because of a doctor’s appointment, however, I did some research into the serial communication issues I was having last week. It turns out clearing the input/output buffers actually erases any messages that are waiting to be sent. On the other hand, flushing the buffer forces any data in the buffer to be sent. Some online sources suggest flushing the input buffer, even though the issue I am having is with output of data. This seems to be possible through several different methods in the library, such as flushInput(), and read\_all(). I will try these fixes on Friday to see if I can get real-time communication working. I will also verify that the permissions are set correctly, including “udev rules”, which are apparently necessary to access the port. Given that I am already able to access it, just slowly and inconsistently, I do not think this is the problem, however, I will check again to make sure.

In case the Jetson 🡨🡪Arduino serial communication does not work out, I looked into directly controlling the motor controller off of the GPIO pins on the Jetson. NVIDIA provides a library to do this (<https://github.com/NVIDIA/jetson-gpio> ), however, they do not explicitly mention support for the board we have. Furthermore, the library is unlikely to be real-time since it is running on an operating system which will inevitably introduce delays and interruptions, which is why I have not tried it until now.

**Thursday, March 7th, 2024**

I did some more research on the Jetson GPIO library and whether it would work with my board. It turns out that the documentation had not been updated, but the library does in fact support the new boards. Furthermore, I found example code for PWM output, which is what I need: <https://github.com/NVIDIA/jetson-gpio/blob/master/samples/simple_pwm.py>