Control System

The hardware and software implementing the interfaces between the subsystems were tested and are functional. The software implementing the physical constraint, however, could not tested due to machining complications that caused misalignment of the encoder wheels rendering their reading unreliable.

With regards to the 1 kHz speed requirement, the system currently falls short by 100Hz due to (1) AVR-CAN RS232 interface only being able to function at 57600 baud and (2) the data being sent from the Beagleboard is too large to transmit at 1 kHz at that speed. If using the same setup, one solution would be to reduce the transmission of unnecessary data (bits).