

1 Writing Controller Code

This section blablabla

1.1 Level 1

The code equivalent to the Simulink block gave similar results which can be seen in Figure 1 and Figure 2. A sampling time of 10 ms was used for the code. Different sampling times were tested and it was noticed that when using a lower sampling time the impact on the trajectory planner increased. When a lower sampling time is used the change of acceleration is missed by a few milliseconds and therefore impact the velocity and position. This gives the difference in the position of the motor which is seen in Figure 2.

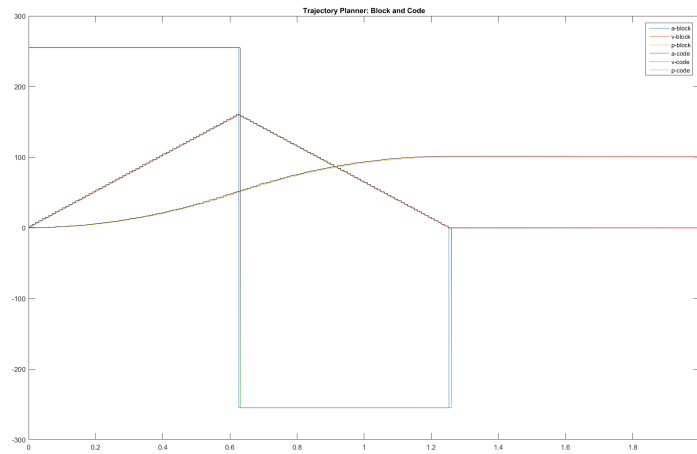


Figure 1: Trajectory planner signal comparison

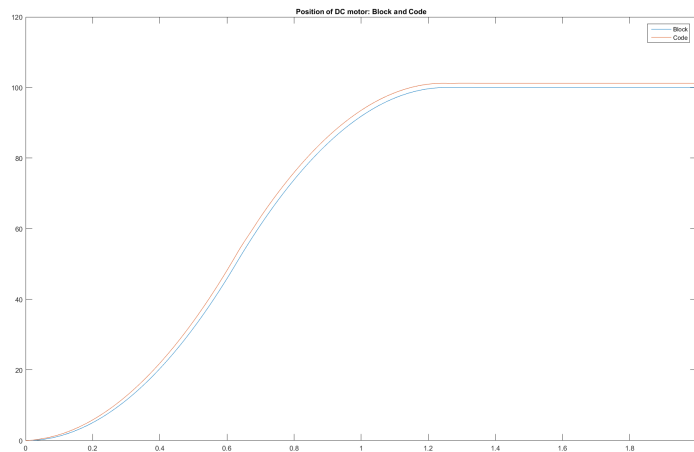


Figure 2: Motor position comparison