Auto-generated Report for Softleg Jump

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1 Settings of the problem

The problem to be solved is the jumping procedure of a SEA based leg.The time horizon is 0.04 sec, with a number of steps of 25. That results in an open loop control at 625.0 Hz.

2 Results

The vertical velocity of the leg, at the last timestep, is:

$$\mathbf{0.0181}\ \boldsymbol{m/s}$$

Keep in mind that a good value may be between 0.5 and 2.0 m/s

3 Cost Function

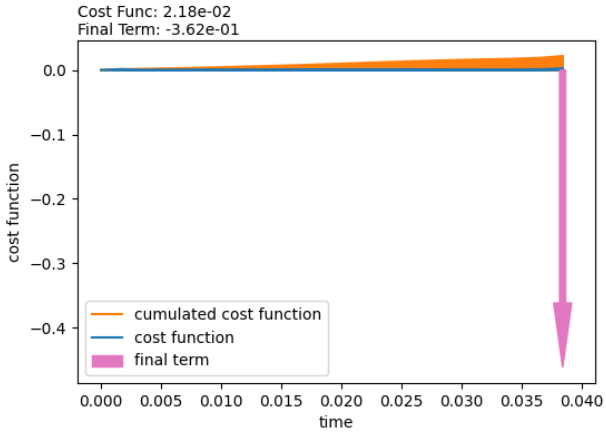

Figure 1: Cost Function Analysis

The values of the cost function and the final term cost are decently balanced, well done.

4 Final Constraints

Final Constraints Evaluation			
Constraint	Lower Bound	End Result	Upper Bound
vel_x of CoM	-0.0	0.0003	0.0
pos_x of CoM	-0.0	-0.012	0.0
vertical tip 1	-0.0	0.0577	0.0

5 Joints Behaviour

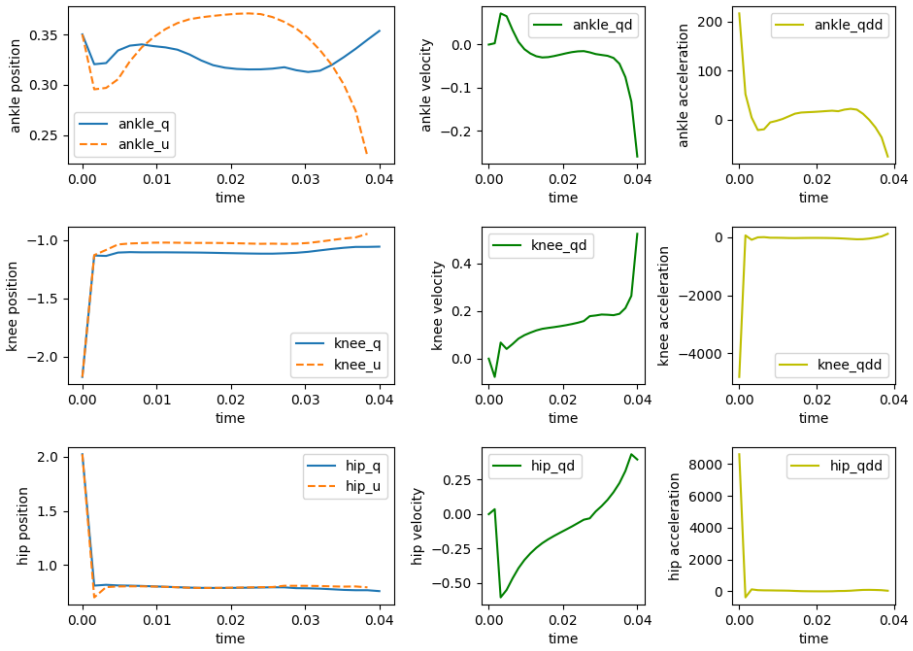

Figure 2: Joints Dynamics

On the figure above you can see on the rows the 3 joints and on the columns its position, velocity and acceleration.

6 Constraints

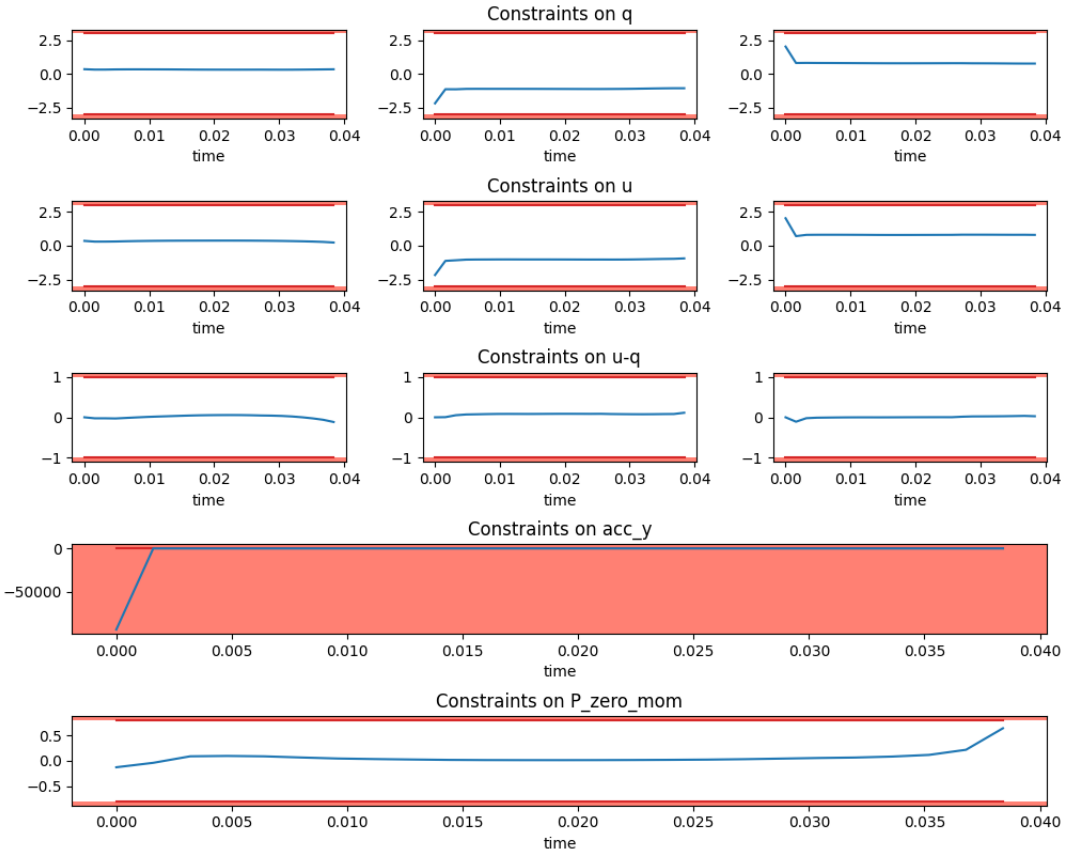

Figure 3: Cost Function Analysis

On the figure above you can see on the rows the different constraint, and on the column their plot per dimension. The titles are based on the configuration you set in the python file.