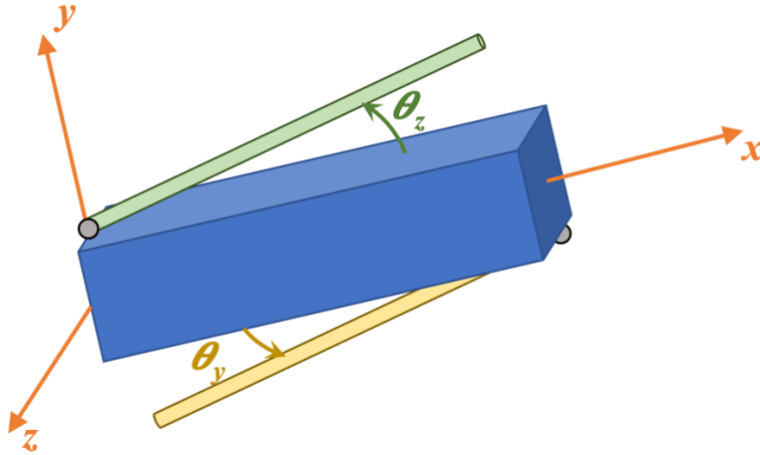**Simulation: Space Robot**

You have to create simulation of the 3D rigid body motion of a space robot (shown in blue below). The robot has two arms – one rotating about the z-axis by an angle θ_z (shown in green) and another rotating about the y-axis by an angle θ_y (shown in yellow). Assume that $\theta_z(t)$ and $\theta_y(t)$ are prescribed functions of time. Assume the satellite to be L x $L/5$ x $L/5$ and mass M, and assume the arms to be of length L and mass $M/4$ each. You can use either Newton-Euler approach, or Lagrange's equations, or Kane's approach.

You will have to verify your results using conservation of linear and angular momentum.

I have created a discussion topic for this topic: Space Robot Simulation. I expect everyone to participate - you are free to talk about assumptions you are making, approach you are taking and why, coding strategies, strategies to time march the equations and motions (along with constraints and constraint forces sometimes), and how you are validating/verifying you code. You cannot share your code or your report.