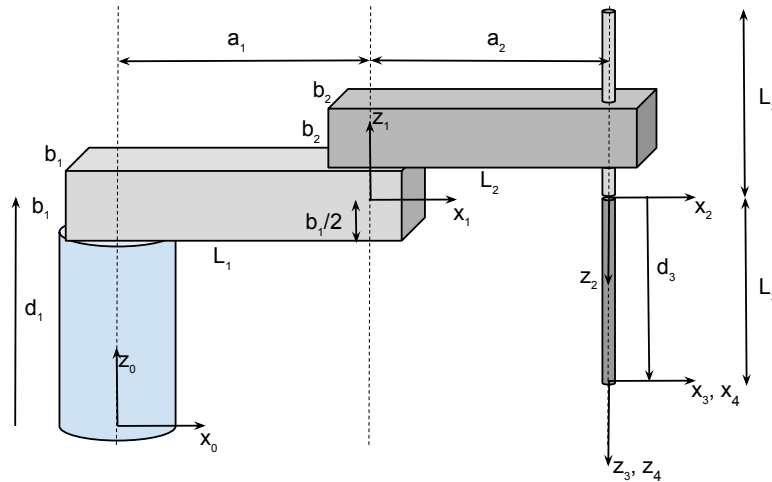## Dynamics of a SCARA-type Robot

Use the Lagrangian and Lagrange equation to find the dynamic equations for the SCARA-type robot with DH Table shown below.

Link i	a_i	α_i	d_i	θ_i
1	a_1	0	d_1	θ_1
2	a_2	π	0	θ_2
3	0	0	d_3	0
4	0	0	0	θ_4

Clearly write your answer(s) in terms of the general dimensions labeled, and make the following assumptions:

1. all links have symmetric geometry and uniformly distributed mass,

2. link 1 can be represented by a rectangular parallelopiped of mass m_1 and dimensions shown,

3. link 2 can be represented by a rectangular parallelopiped of mass m_2 and dimensions shown, and

4. links 3 and 4 can be represented by slender rods of equal length and equal mass m_3.