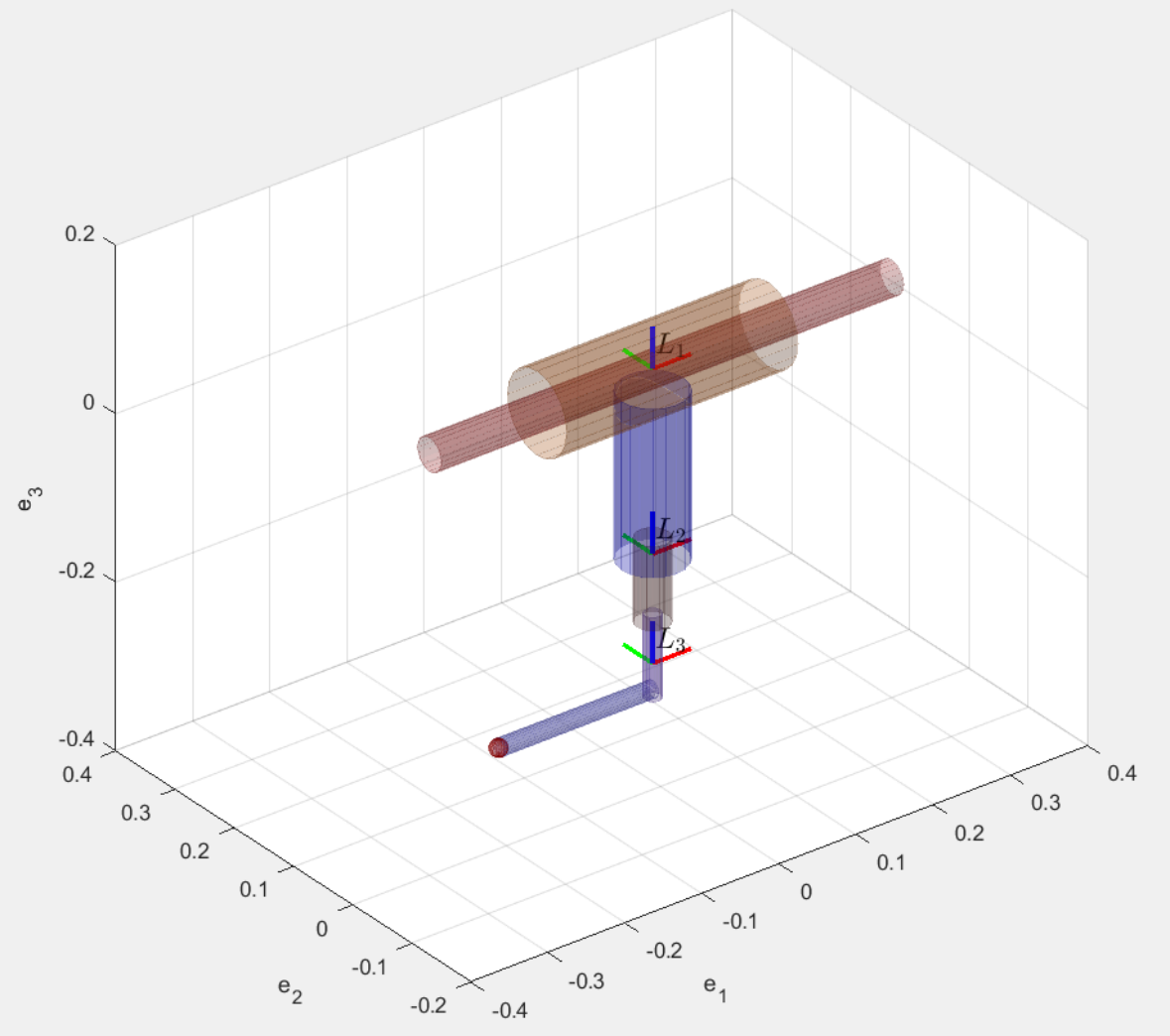

The robot that I made is a robot used to play table tennis. Most of the codes of the robot has been derived from the SCARA robot given to us.

The robot is made of 7 main structures which are 6 cylinders and 1 sphere. The sphere acts as the End point of the robot. The 6 cylinders are all transformed (scaled, rotated, translated) into different sizes and position to create the required structure of the robot.

The robot has main 3 joints:

Joint1- helps in prismatic movement of the main upper body of the robot

Joint2- helps in revolute movement of the handle of robot

Joint3- helps in prismatic movement of the handle of robot

These three joints can be seen in the figure through the axis represented as L1, L2 and L3. Prismatic movement is the sliding movement and revolute movement is the rotating movement.

We can visualize the robot and the parent-child relationship as following:

Cylinder 1 [Fixed]

Cylinder 2 [Joint1, Prismatic]

Cylinder 3[Fixed] Cylinder 4[Joint 2, Revolute]

Cylinder 5[Joint 3, Prismatic]

Cylinder 6[Fixed] Sphere 7 [Fixed]