Q3.2:

Evaluating cuboid-cuboid collision checker:

Test Case	Origin (m) : (x,y,z)	Orientation (rad): (r,p,y)	Dimensions (m): (dx, dy, dz)	Colliding (yes/no)
1	(0,1,0)	(0,0,0)	(0.8,.8,0.8)	No
2	(1.5,-1.5,0)	(1,0,1.5)	(1,3,3)	No
3	(0,0,-1)	(0,0,0)	(2,3,1)	Yes
4	(3,0,0)	(0,0,0)	(3,1,1)	Yes
5	(-1,0,-2)	(0.5,0,0.4)	(2,0.7,2)	Yes
6	(1.8,0.5,1.5)	(-0.2,0.5,0)	(1,3,1)	No
7	(0,-1.2,0.4)	(0,0.785,0.785)	(1,1,1)	Yes
8	(-0.8,0,-0.5)	(0,0,0.2)	(1,0.5,0.5)	Yes

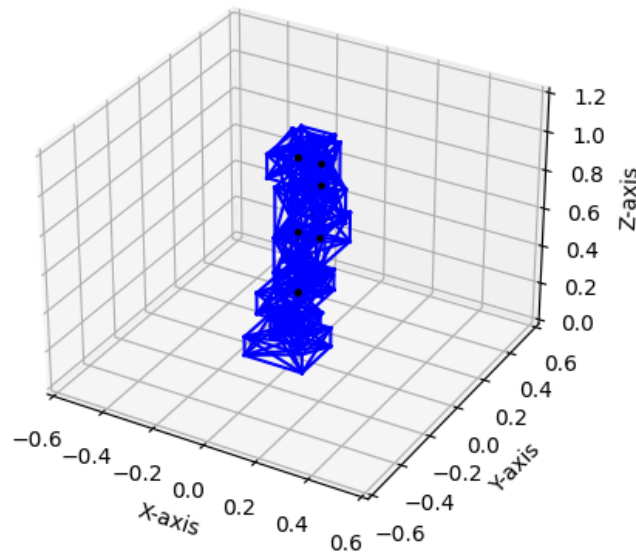**Implement Robot Bounding Boxes**

Figure 3.1.1: robot's bounding boxes for when it is in its home configuration (all angles at 0)

Q4.2:

- A video of the Franka executing a plan output by the RRT without path shortening [Link]
- A video of the Franka executing a plan output by the RRT with path shortening [Link]

Q5.2:

- A video of the Franka executing a plan output by the PRM [Link]