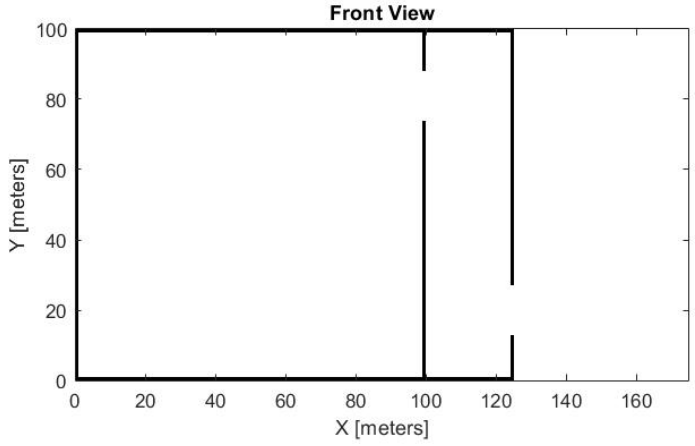
RBE550 – Motion Planning

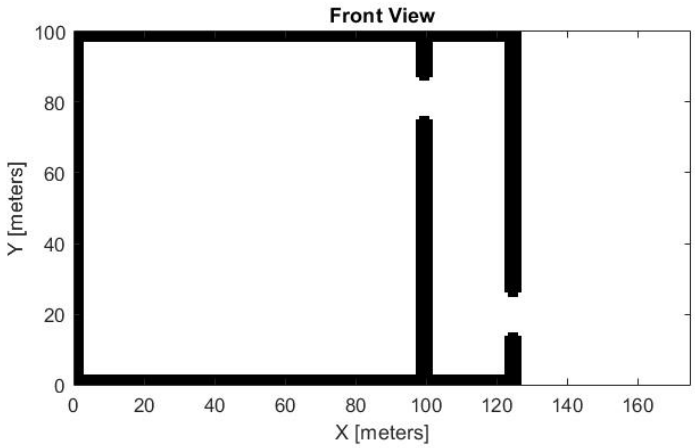
Assignment: **Theft**

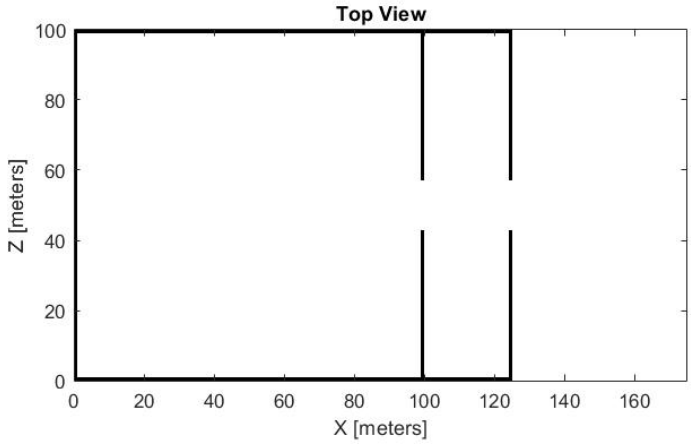
Submitted by:
Suketu Parekh

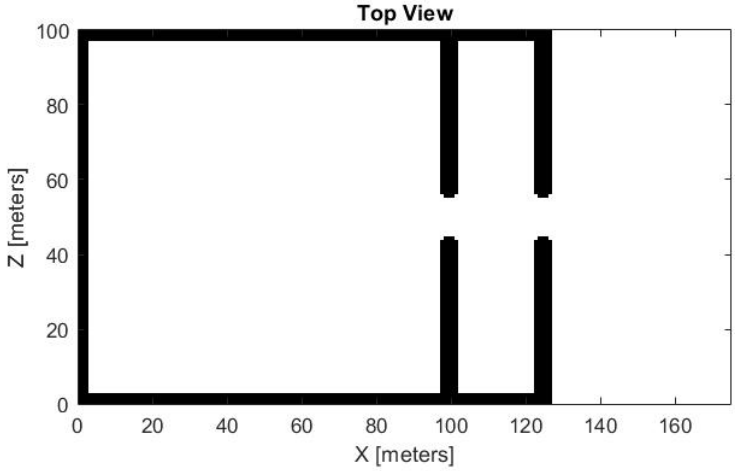
➢ Environment Set-up:

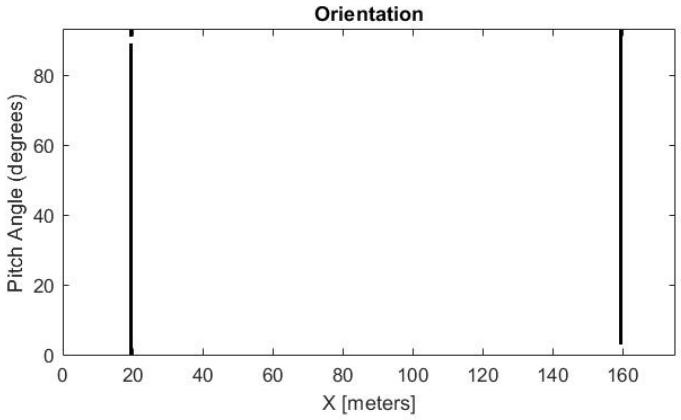
Component-wise projection of the obstacle field (environment):

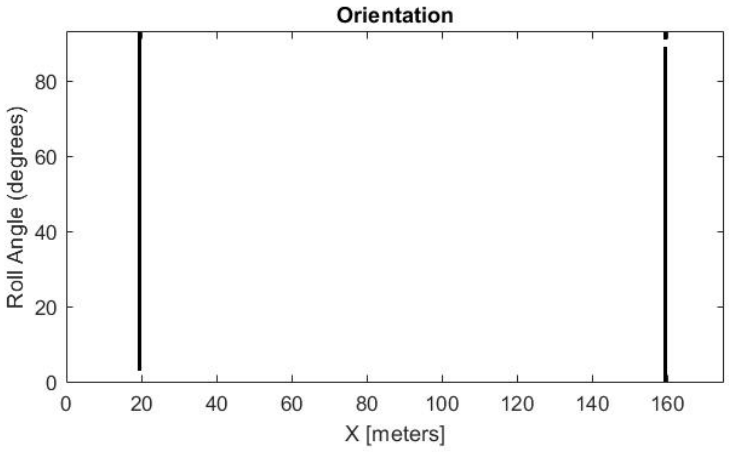




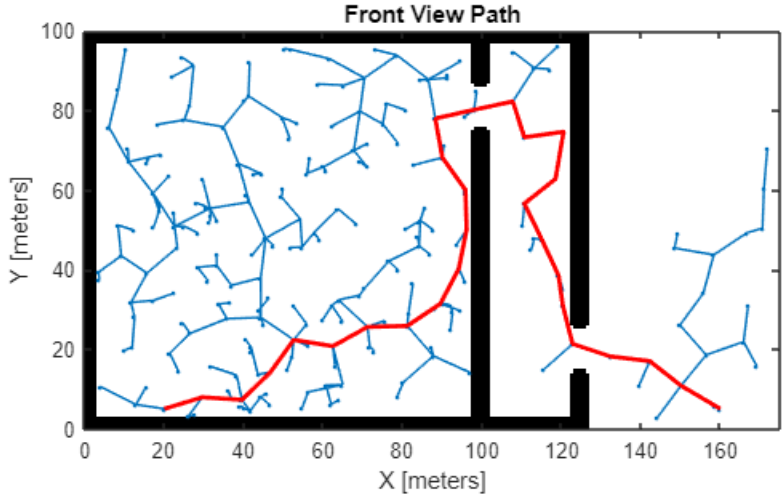

Top View
Z [meters]
X [meters]
0
20
40
60
80
100
120
140
160

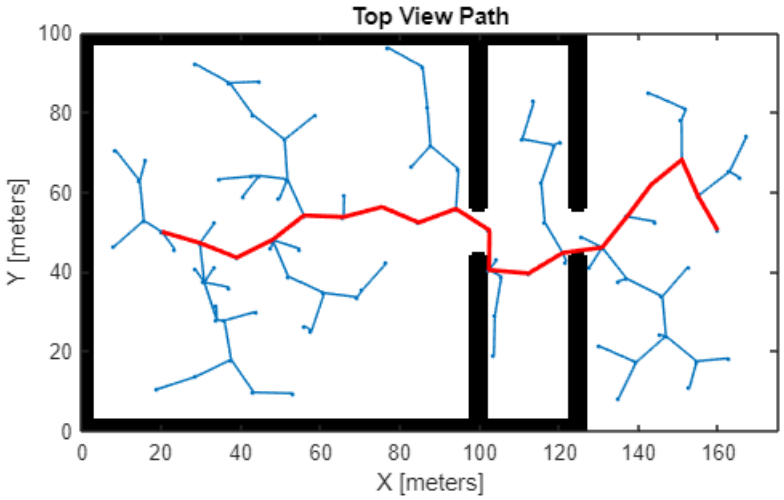

Top View
Z [meters]
X [meters]
0
20
40
60
80
100
120
140
160

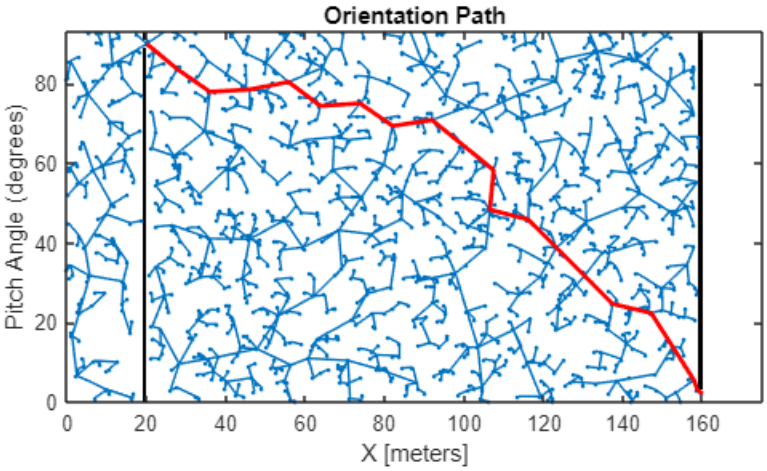


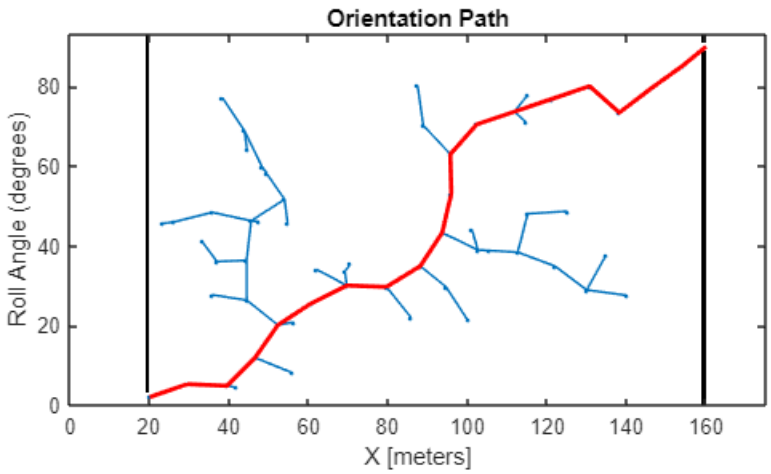


➢ Planner Implementation Results:

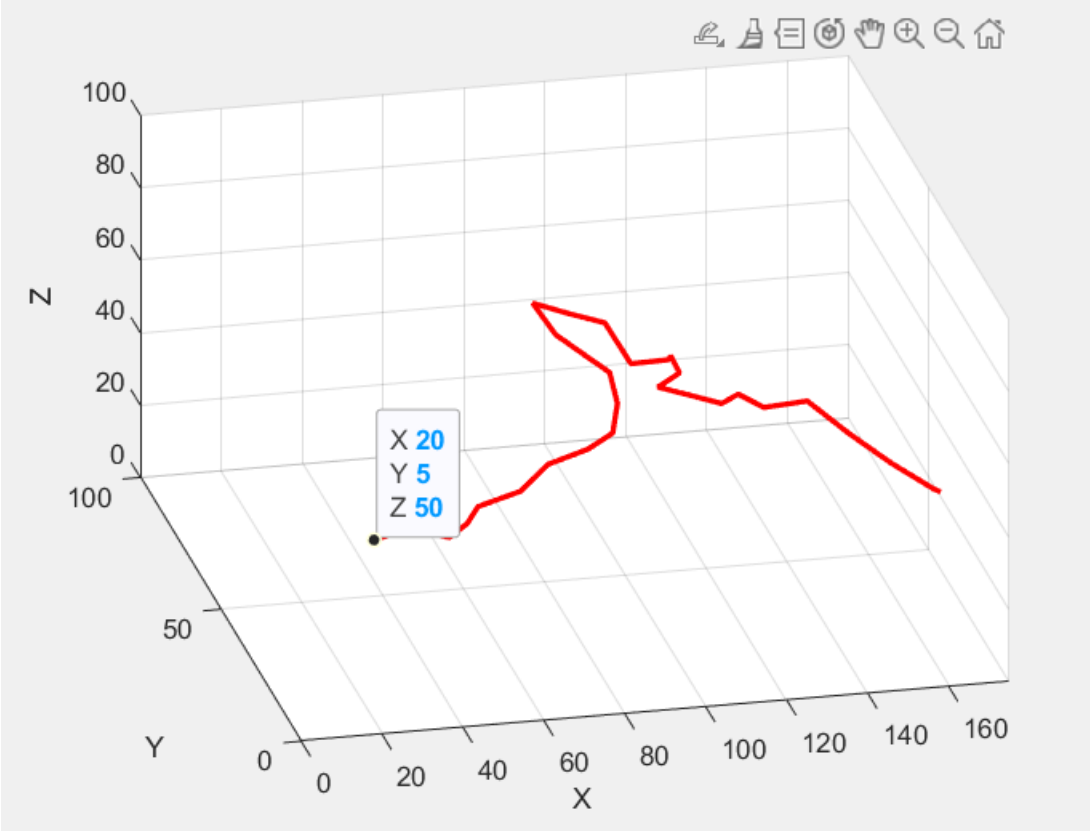

Front View Path
Y [meters]
X [meters]
0
20
40
60
80
100
120
140
160

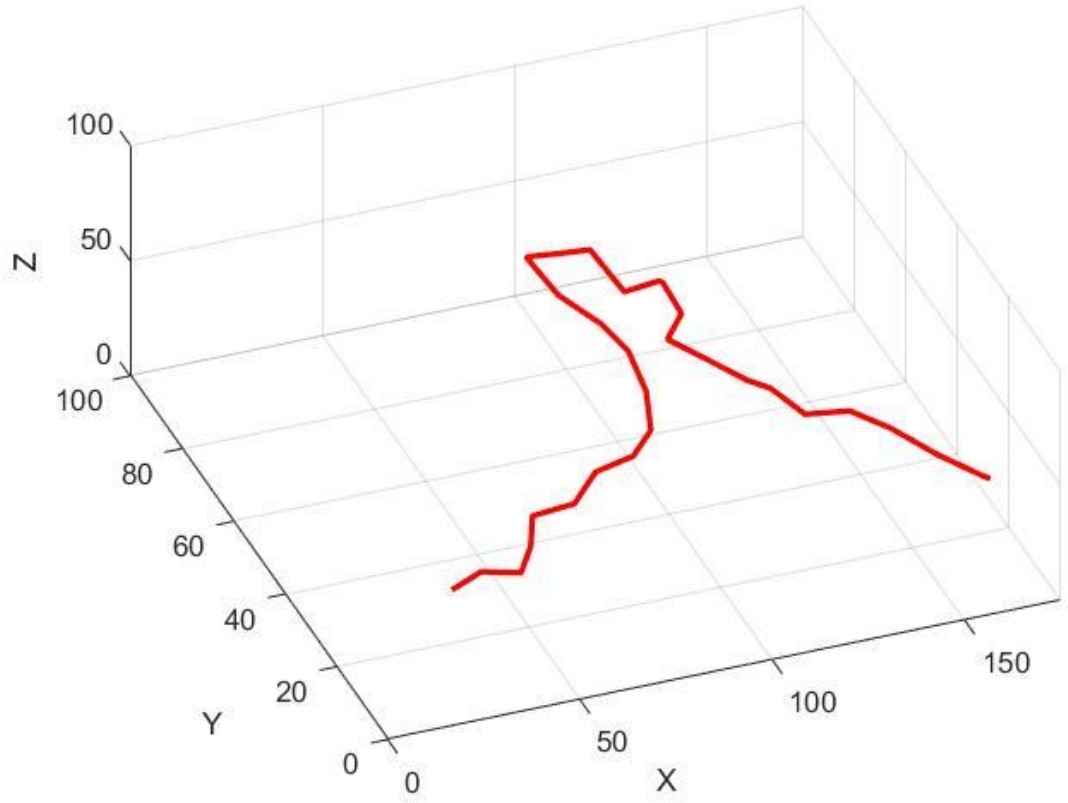

Top View Path
Y [meters]
X [meters]
0
20
40
60
80
100
120
140
160

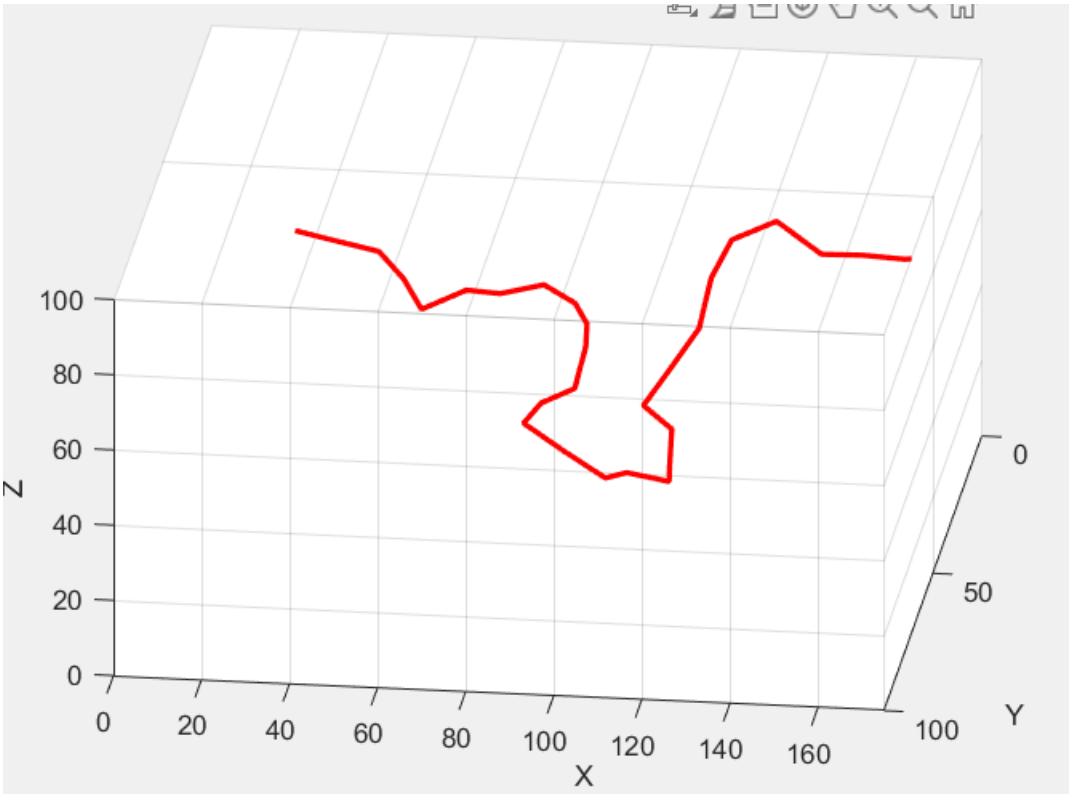

Orientation Path
Pitch Angle (degrees)
X [meters]
0
20
40
60
80
100
120
140
160



➢ 3D Plots of the Output:

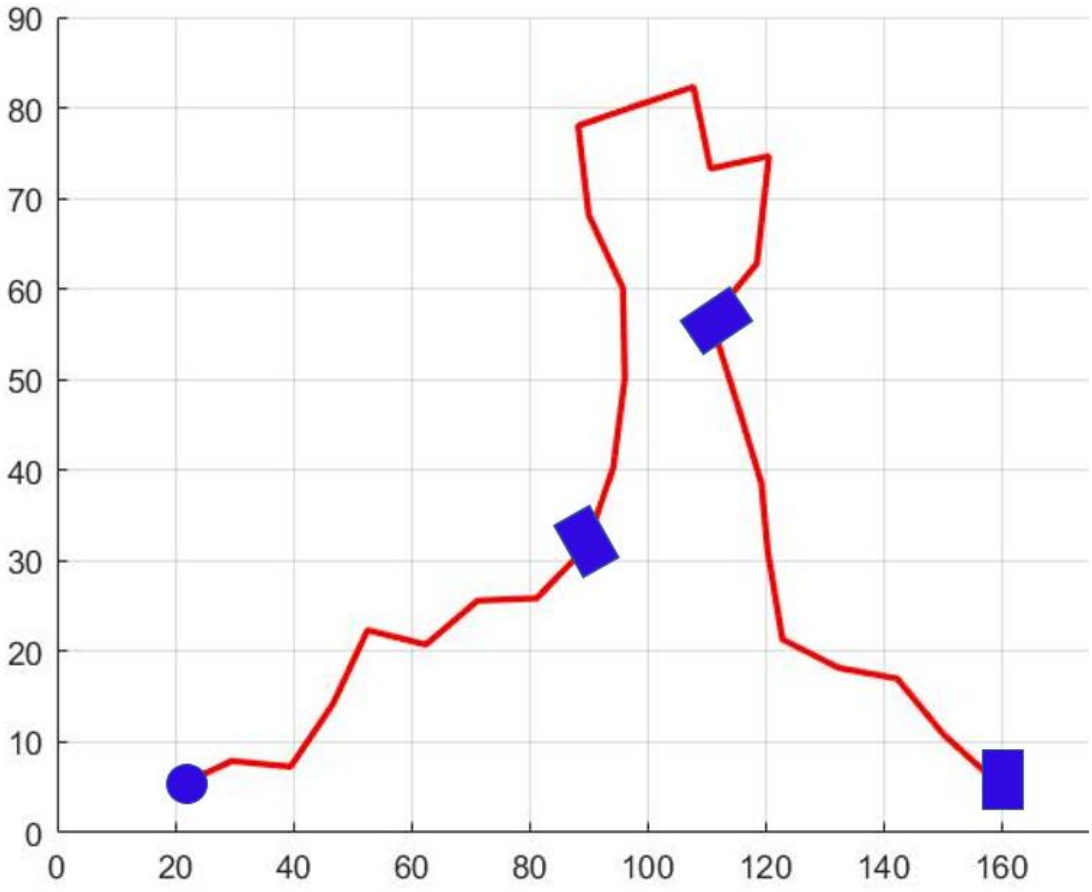



100
50
0
Z
100
80
60
40
20
0
Y
0
50
100
150
X


100
80
60
40
20
0
Z
0
20
40
60
80
100
120
140
160
X
0
50
100
Y

➢ Path Including Orientation:

The following image shows the pitch angle of the cylinder with respect of the path followed at certain points:



➢ Soda Cans from India: