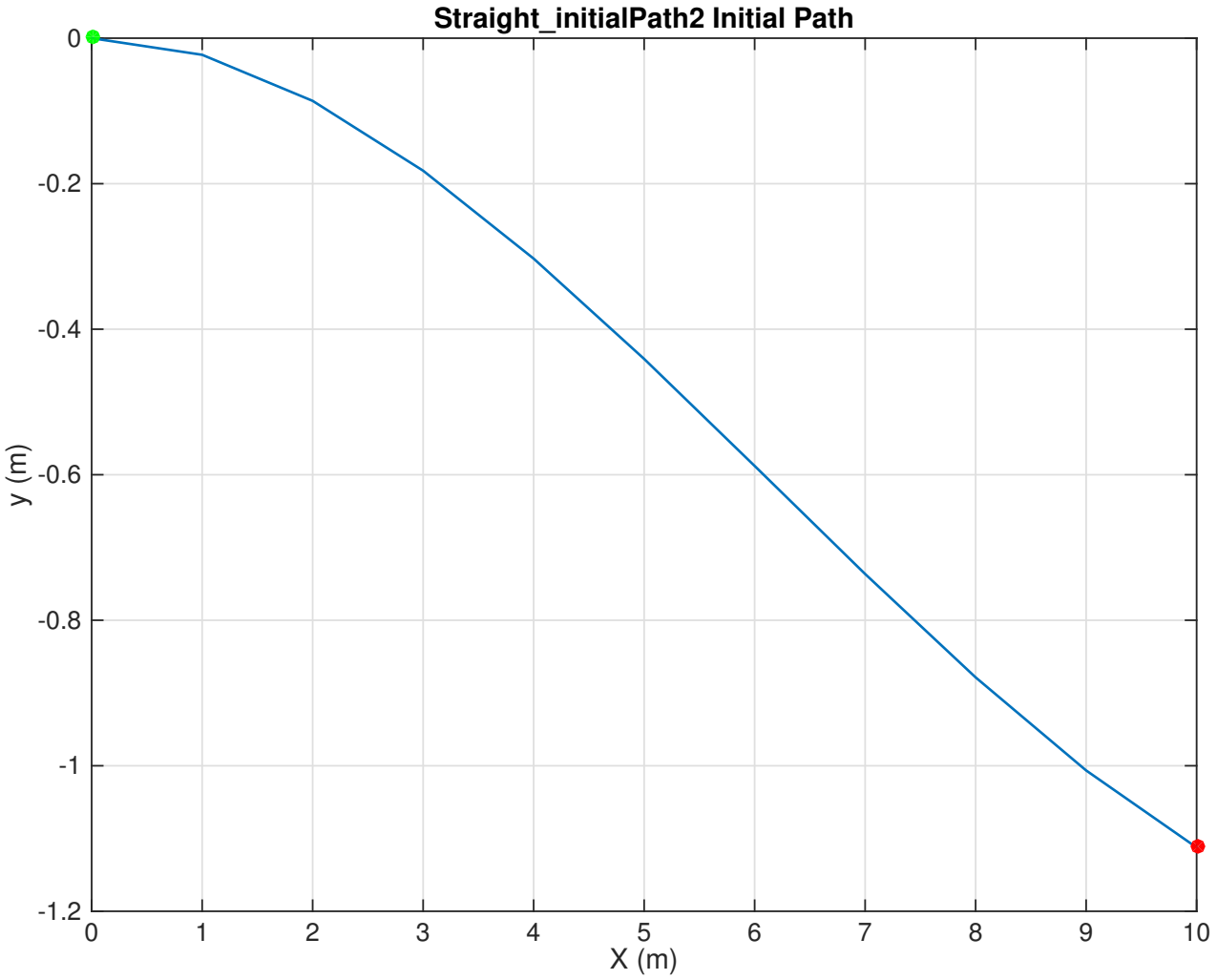
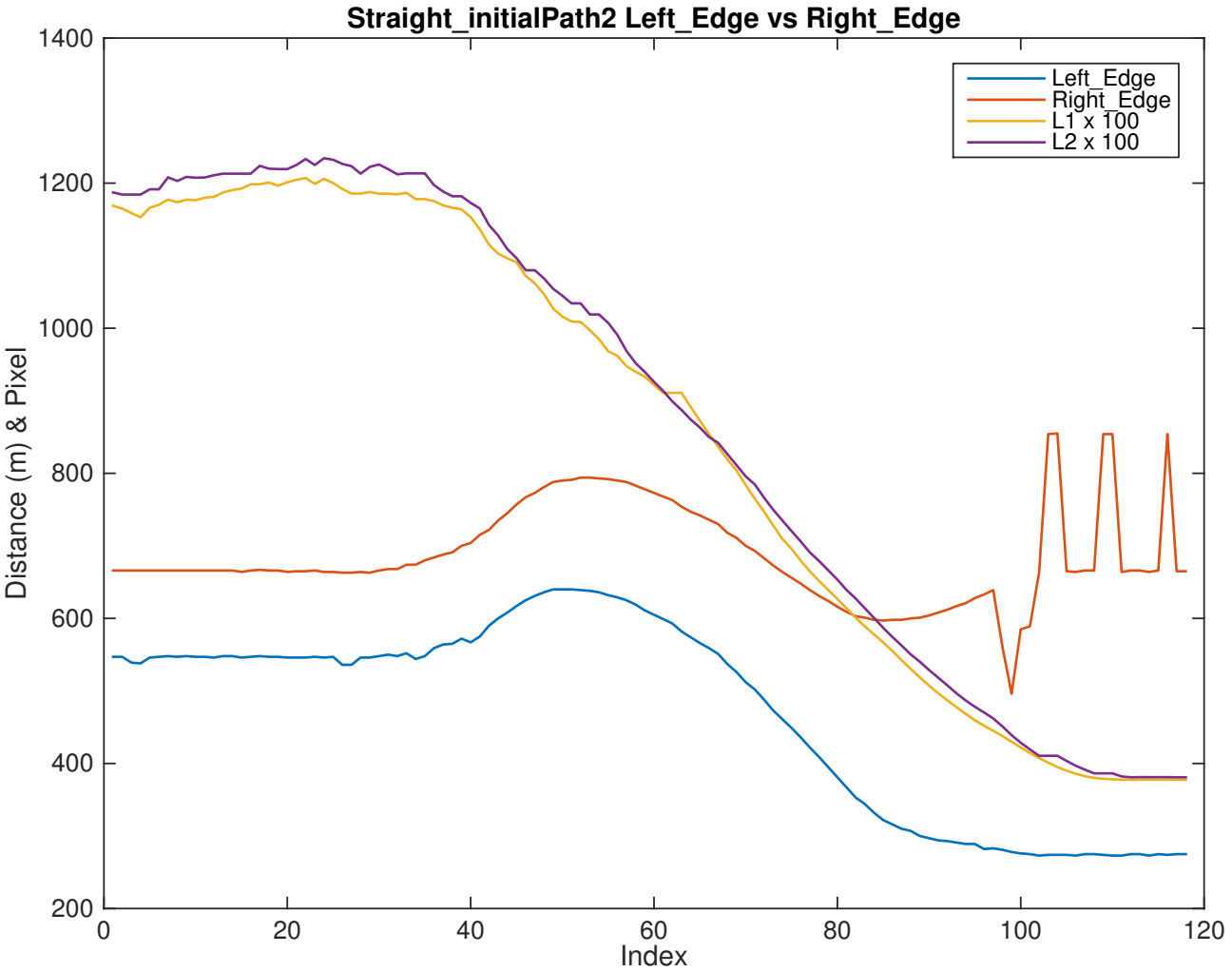
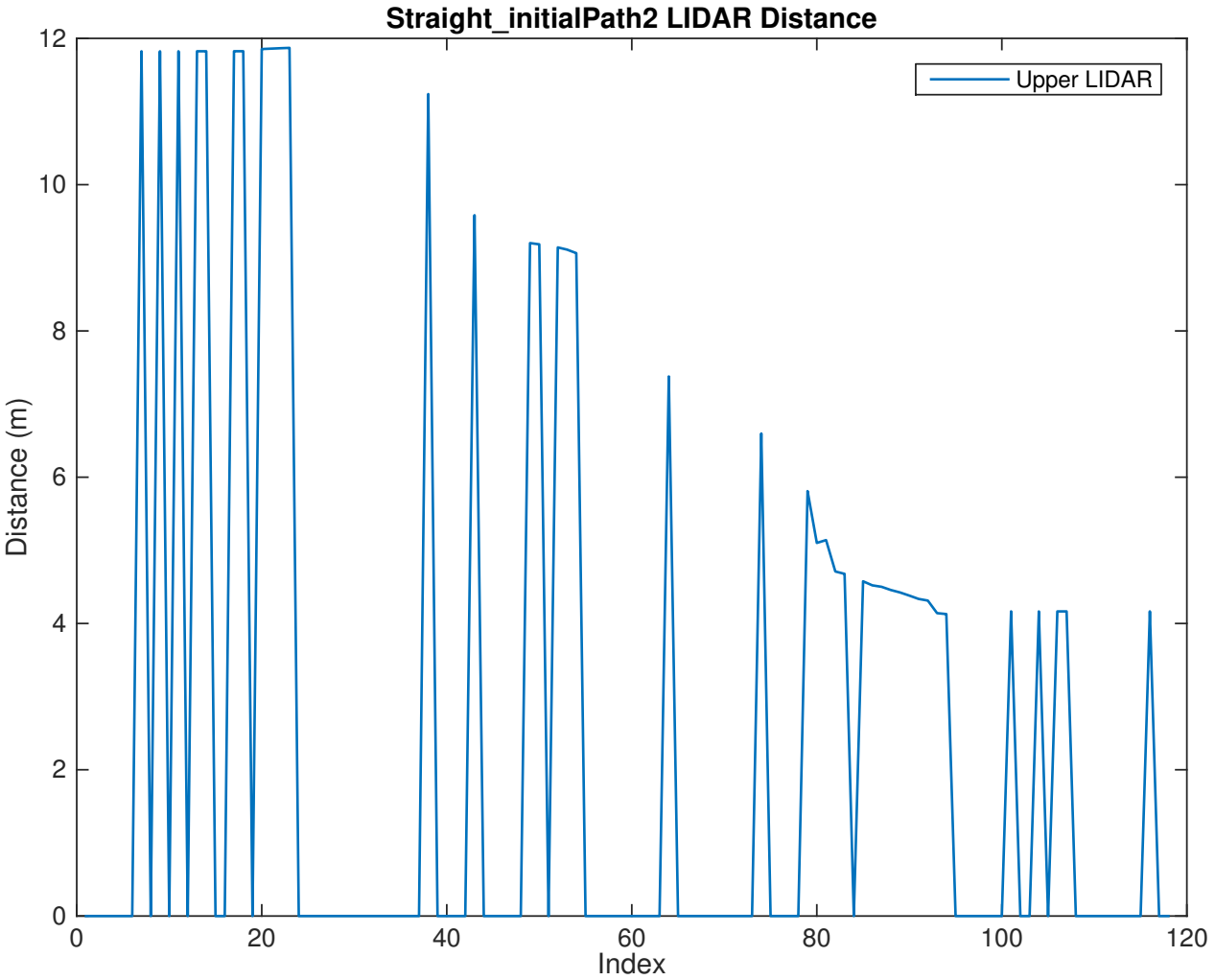
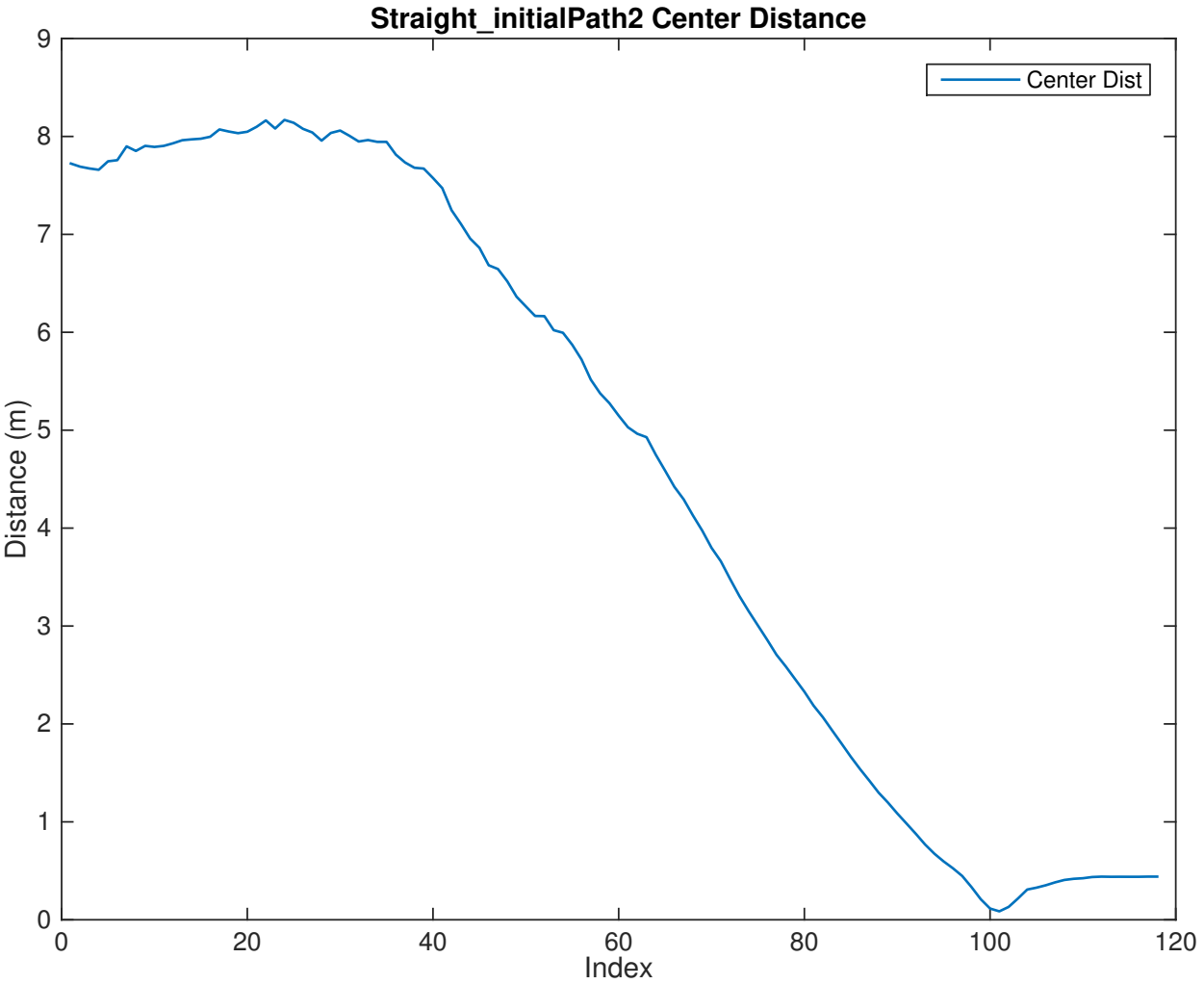
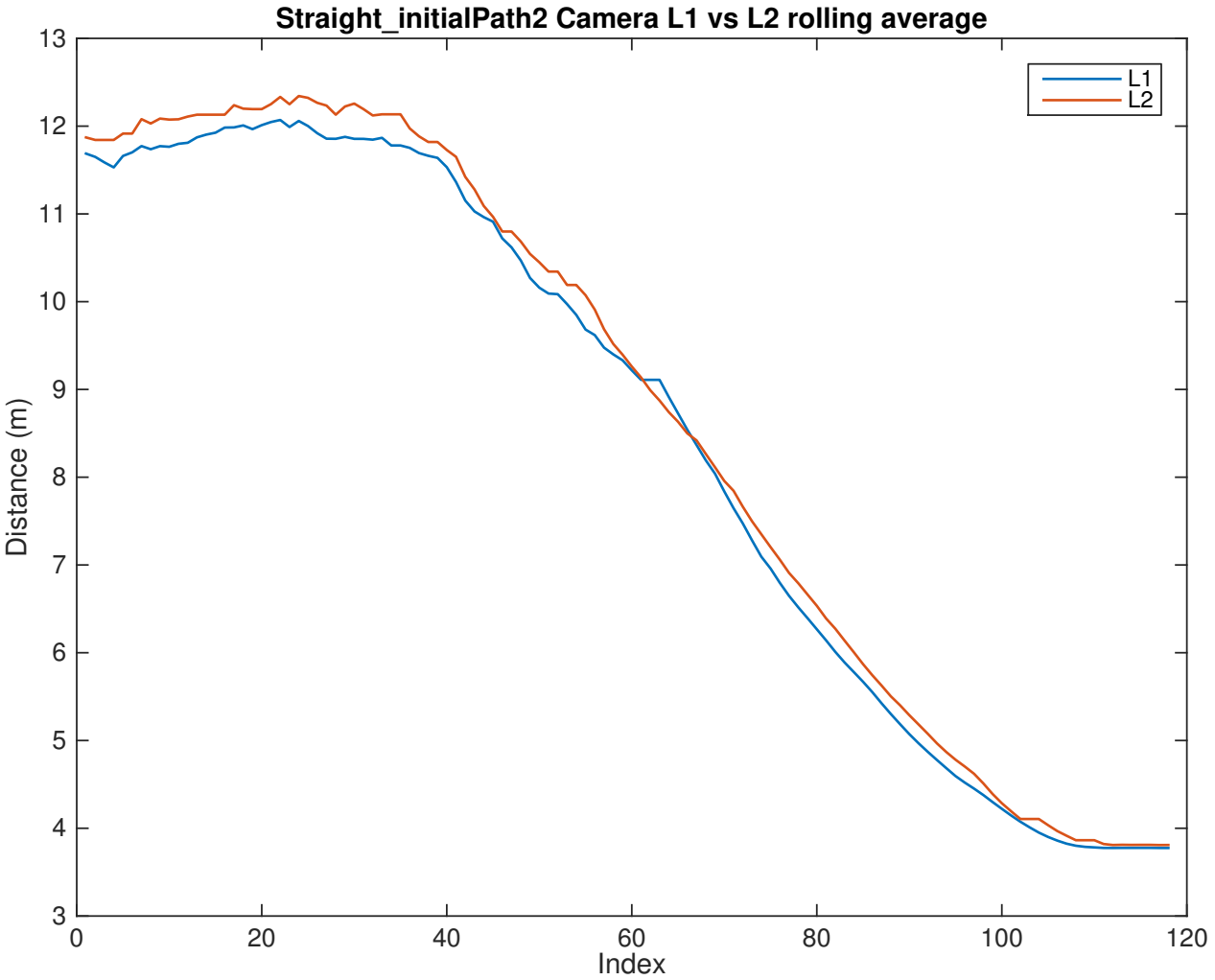

Straight_initialPath2 Initial Path
0
-0.2
-0.4
-0.6
-0.8
-1
-1.2
y (m)
0
1
2
3
4
5
6
7
8
9
10
X (m)

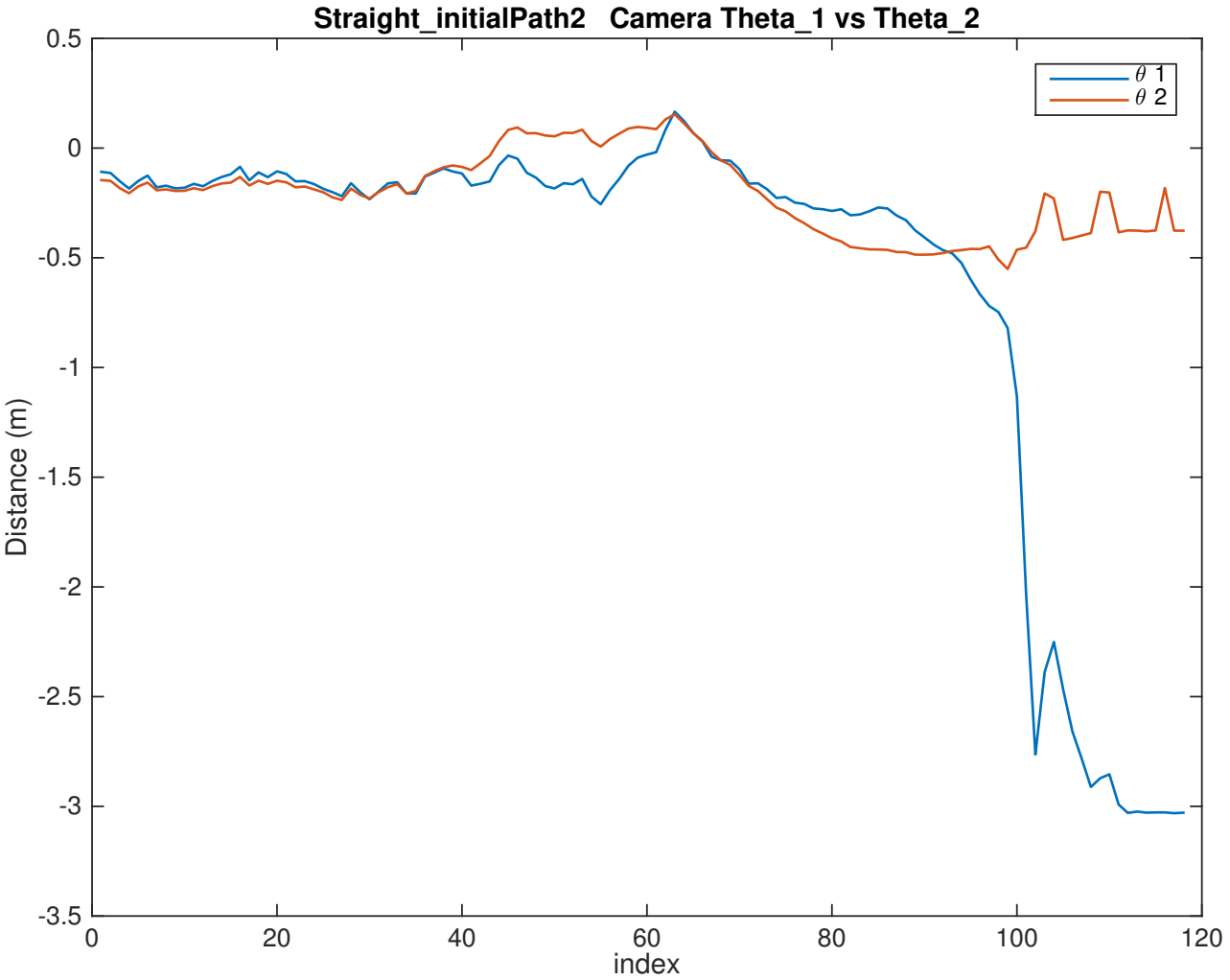
Number_Of_Unique_Paths	King_Pin_Detected
1	false

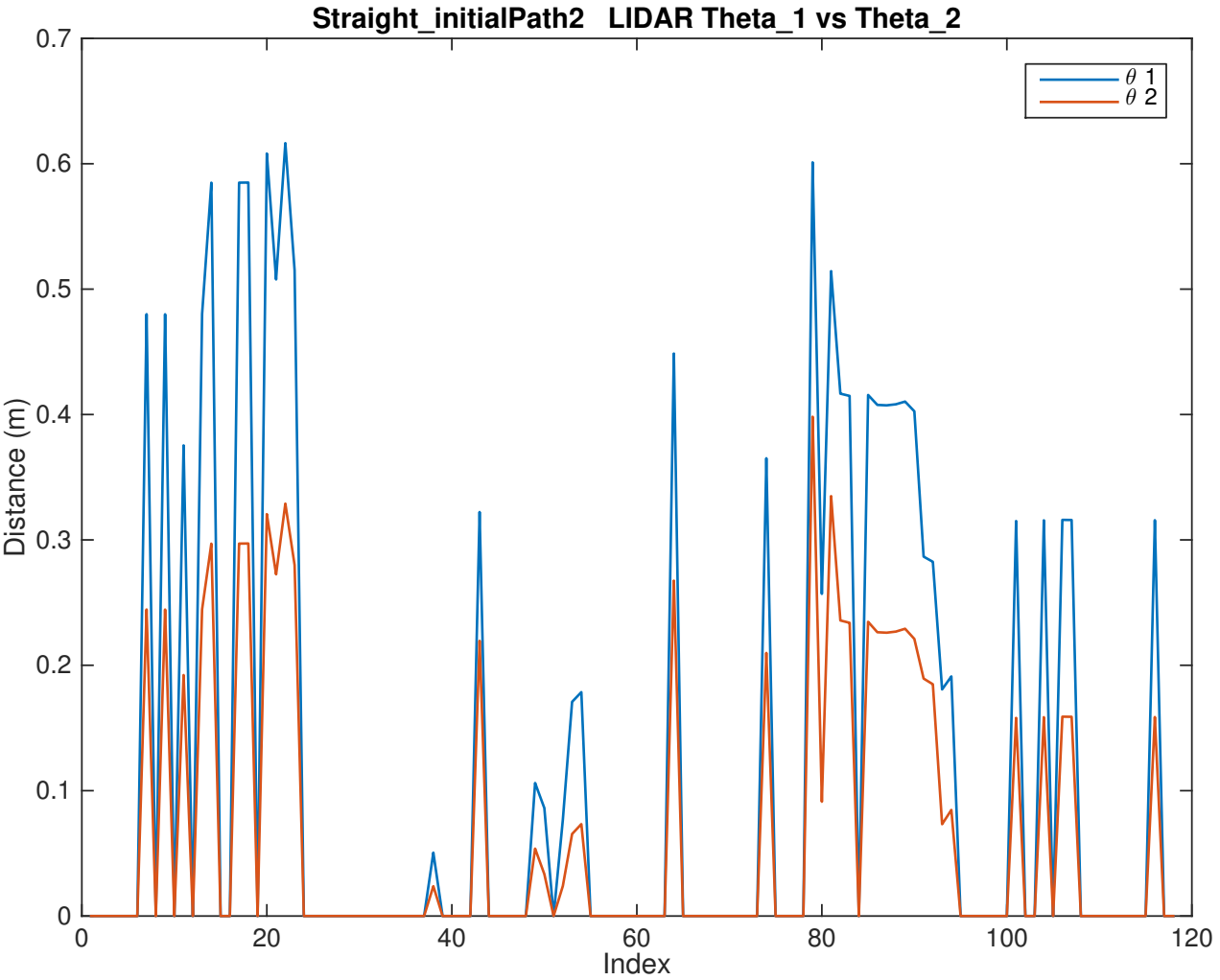

Straight_initialPath2 Left_Edge vs Right_Edge
Left_Edge
Right_Edge
L1 x 100
L2 x 100
Distance (m) & Pixel
Index
1400
1200
1000
800
600
400
200
0
20
40
60
80
100
120

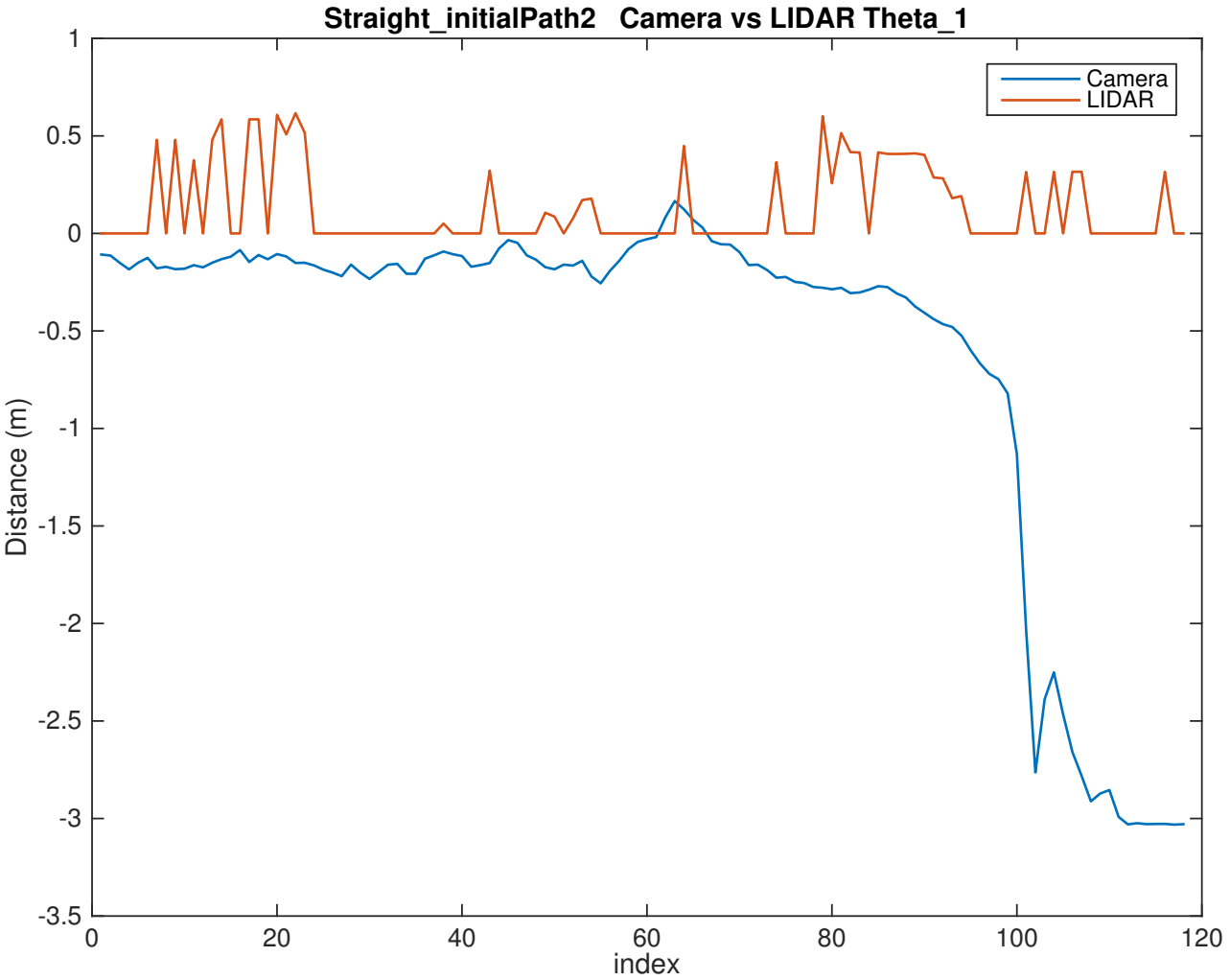

Straight_initialPath2 LIDAR Distance
Upper LIDAR
Distance (m)
Index
0
2
4
6
8
10
12
0
20
40
60
80
100
120

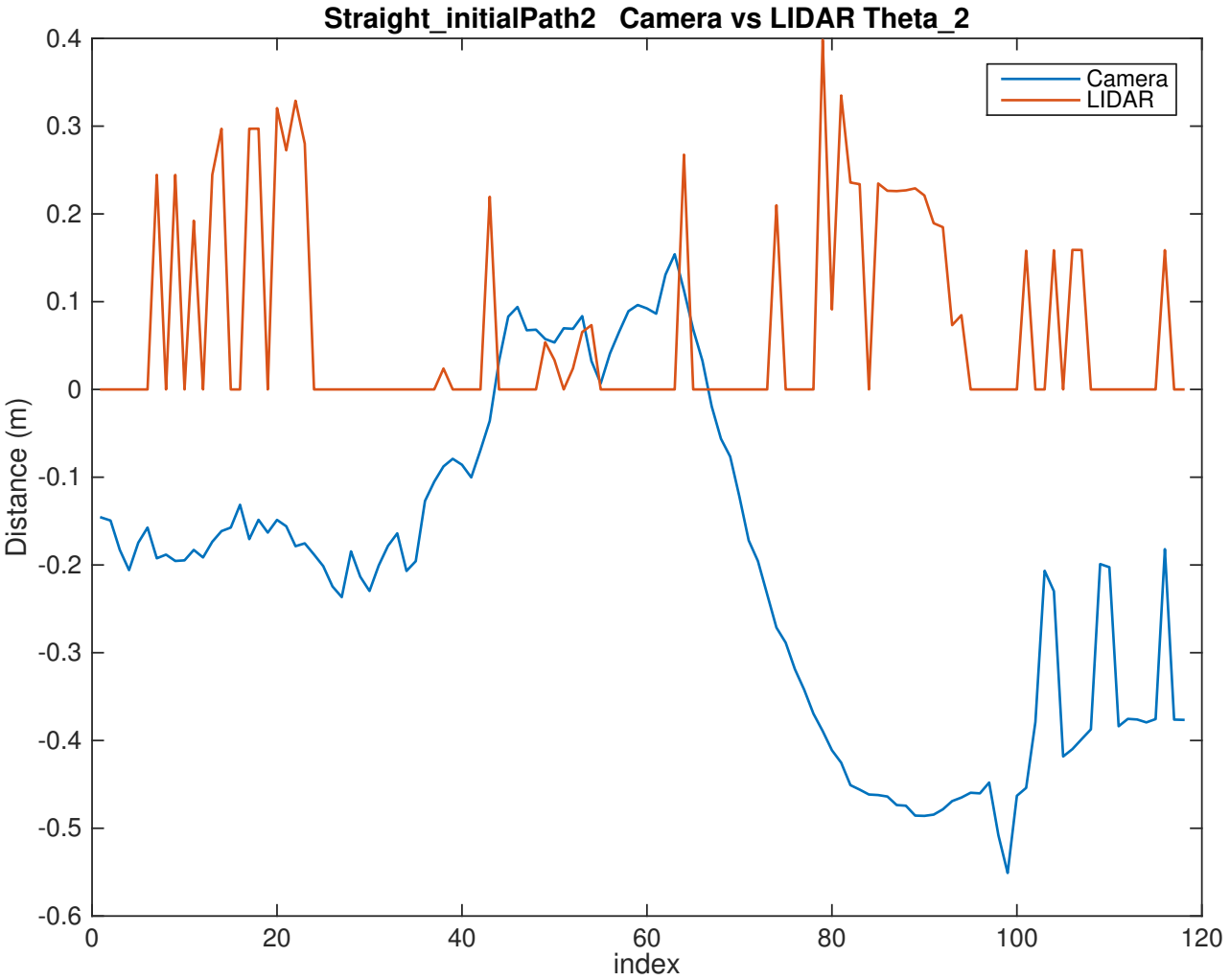

Straight_initialPath2 Center Distance
Center Dist
Distance (m)
Index
0
1
2
3
4
5
6
7
8
9
0
20
40
60
80
100
120

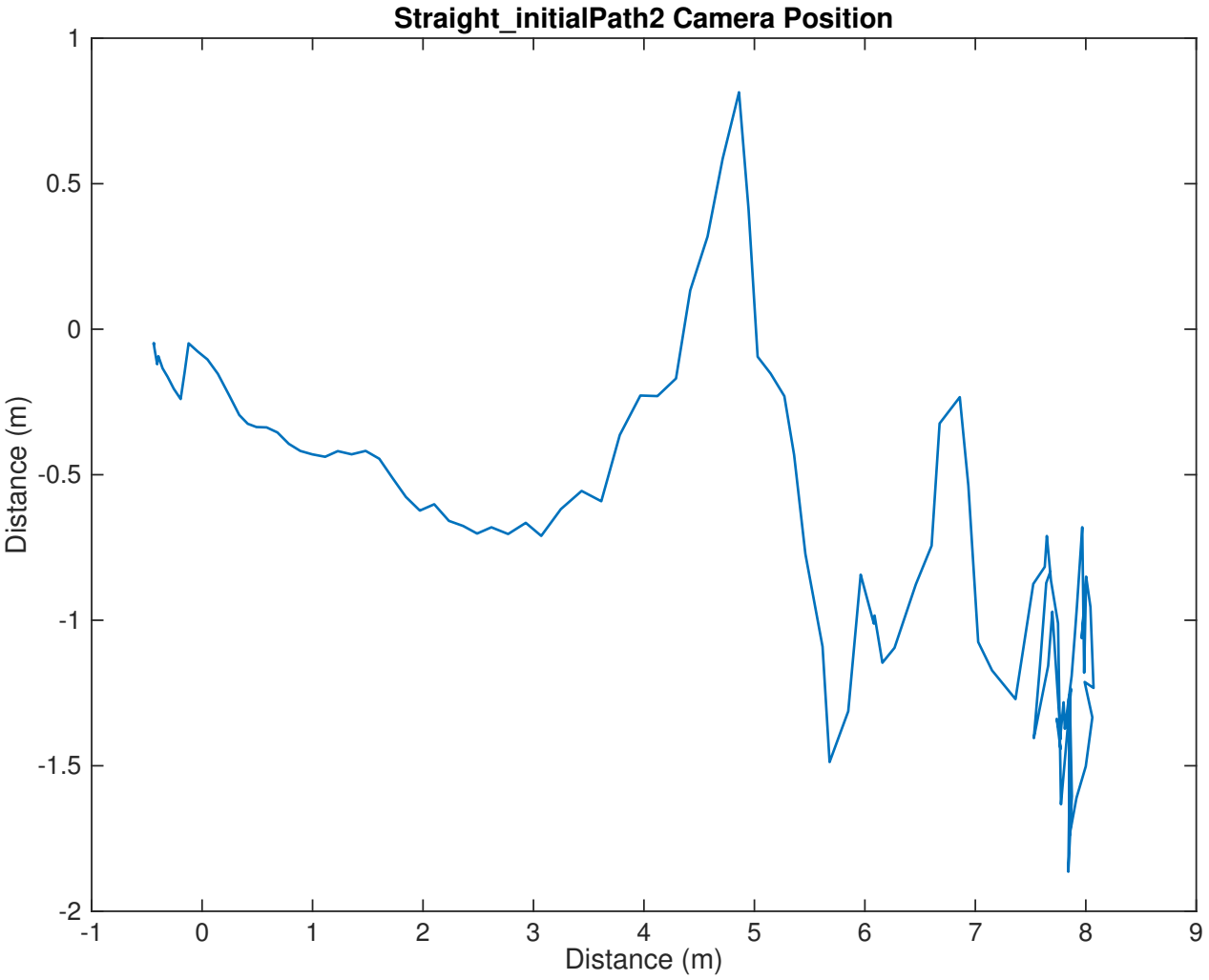

Straight_initialPath2 Camera L1 vs L2 rolling average
L1
L2
Distance (m)
Index
13
12
11
10
9
8
7
6
5
4
3
0
20
40
60
80
100
120

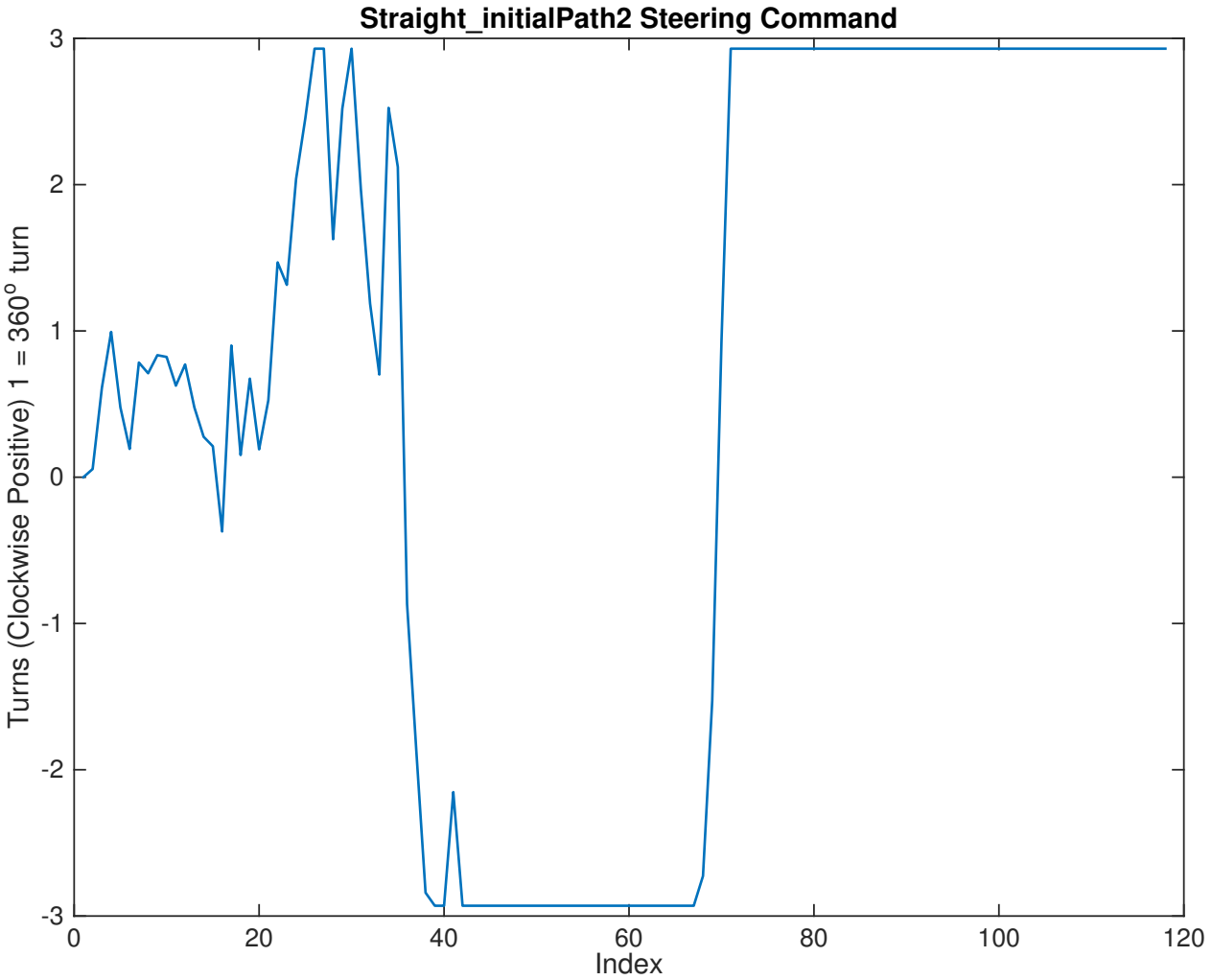

Straight_initialPath2 Camera Theta_1 vs Theta_2
θ 1
θ 2
Distance (m)
index
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
0
20
40
60
80
100
120

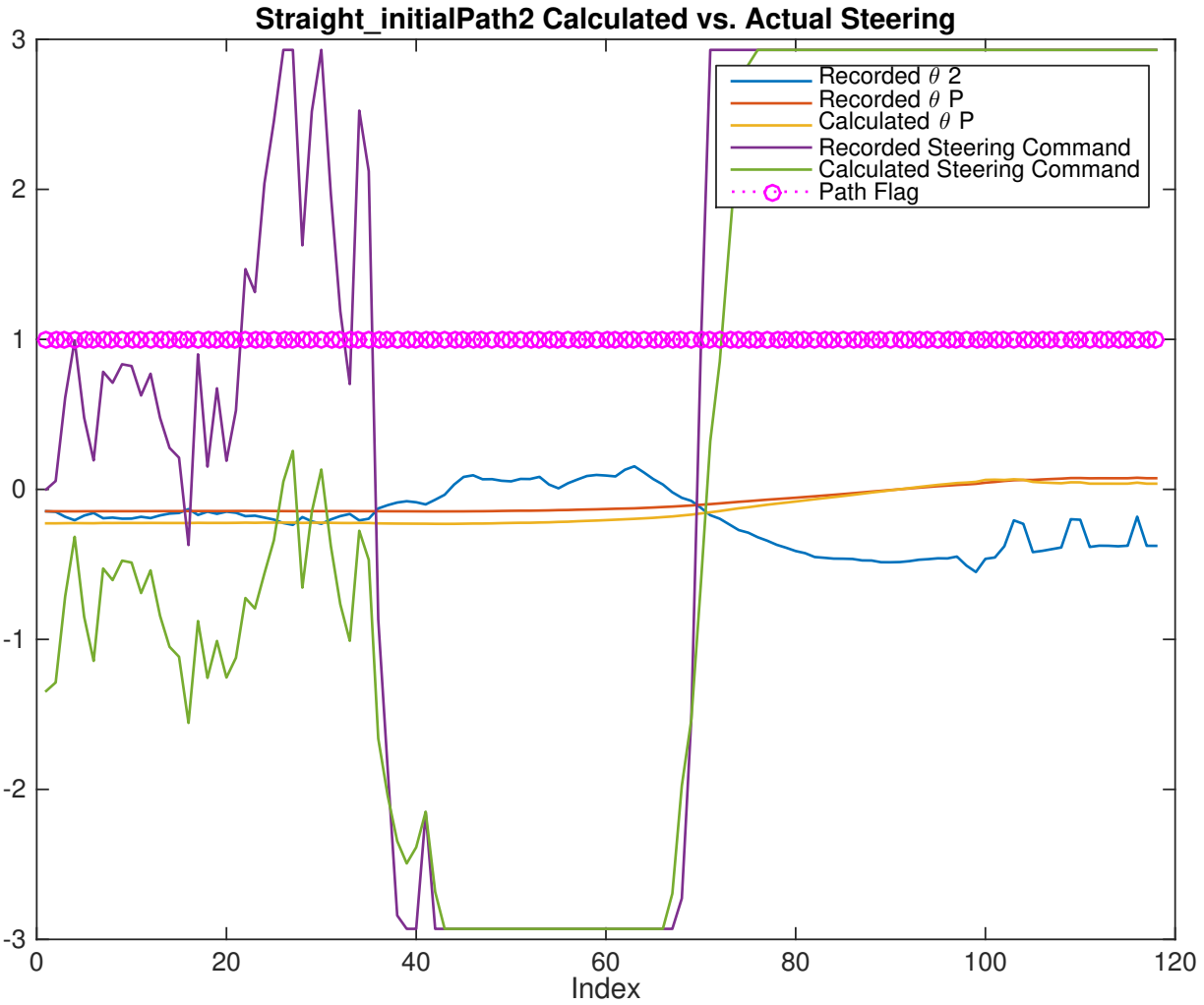

Straight_initialPath2 LIDAR Theta_1 vs Theta_2
θ 1
θ 2
Distance (m)
Index
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
20
40
60
80
100
120

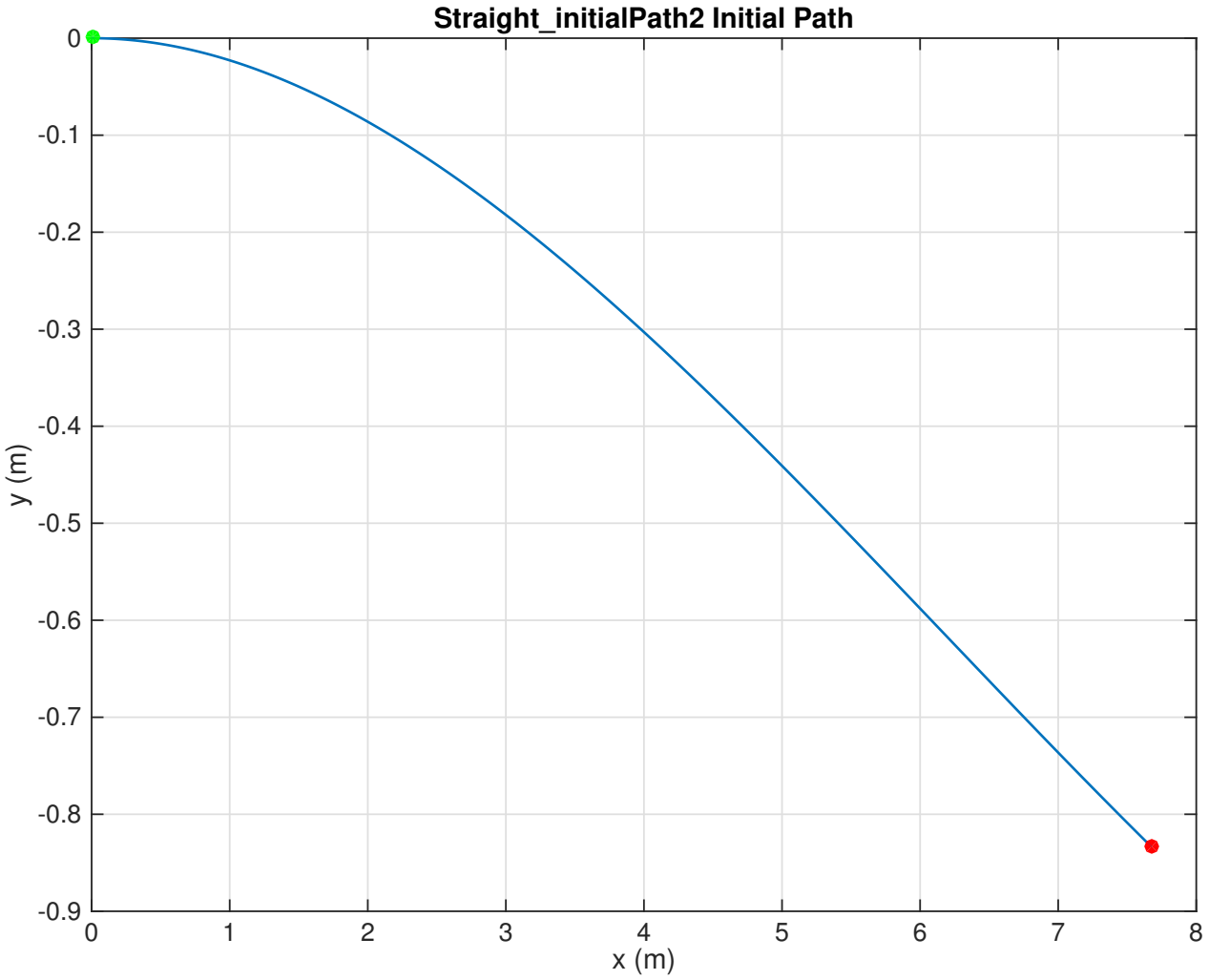

Straight_initialPath2 Camera vs LIDAR Theta_1
Camera
LIDAR
Distance (m)
index
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
0
20
40
60
80
100
120


Straight_initialPath2 Camera vs LIDAR Theta_2
Camera
LIDAR
Distance (m)
index
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
0
20
40
60
80
100
120

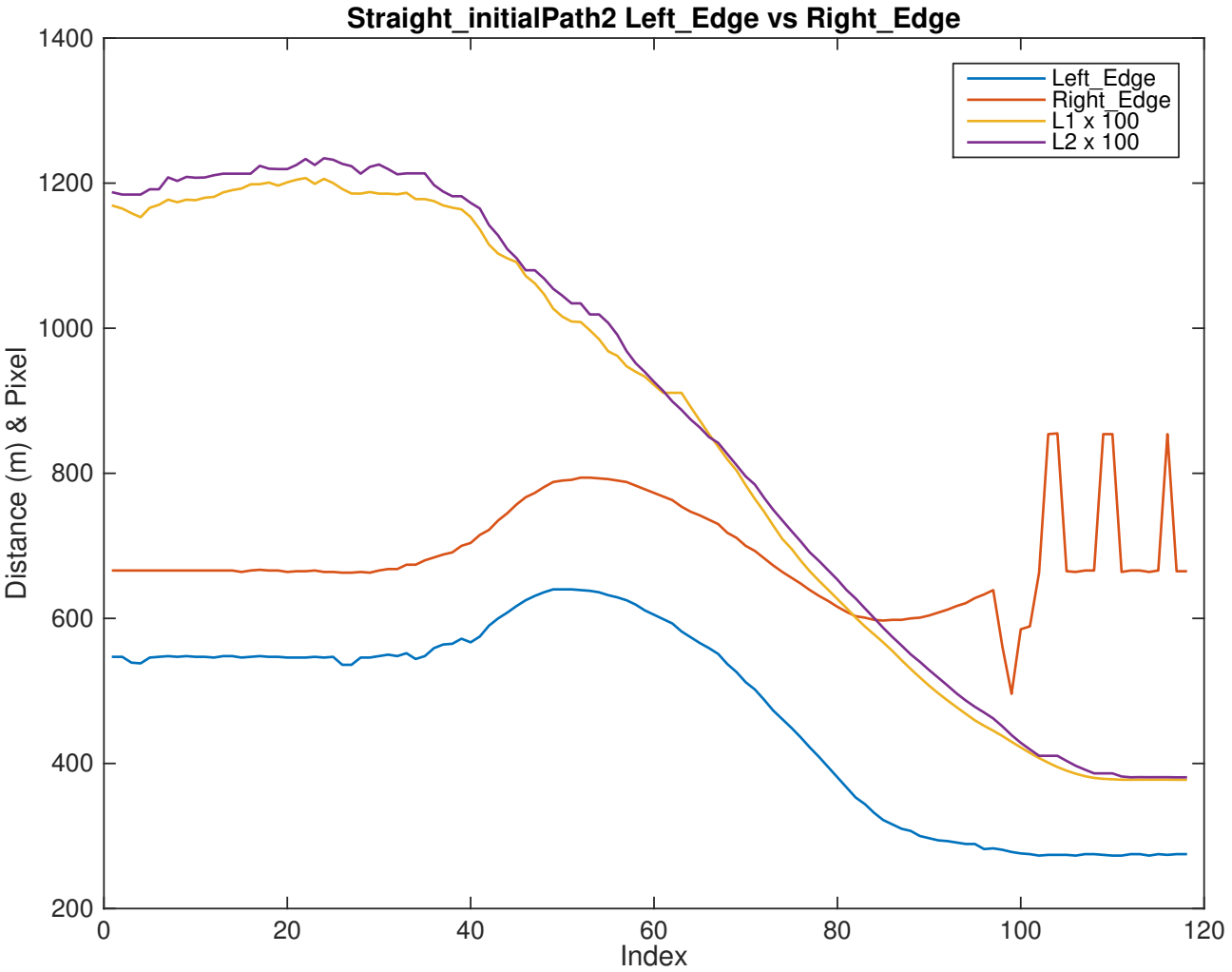

Straight_initialPath2 Camera Position
Distance (m)
Distance (m)
1
0.5
0
-0.5
-1
-1.5
-2
-1
0
1
2
3
4
5
6
7
8
9

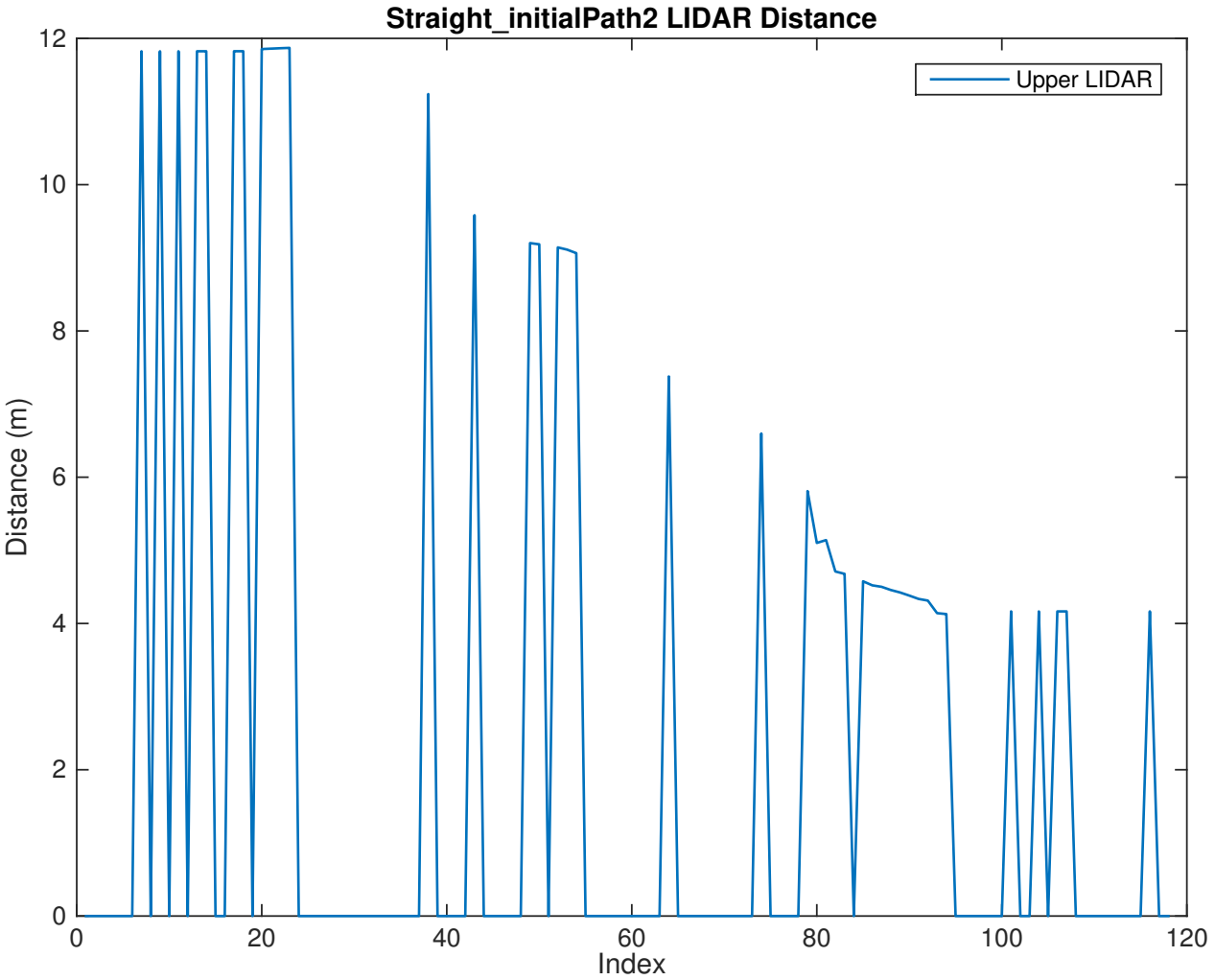

Straight_initialPath2 Steering Command
Turns (Clockwise Positive) 1 = 360° turn
Index
3
2
1
0
-1
-2
-3
0
20
40
60
80
100
120

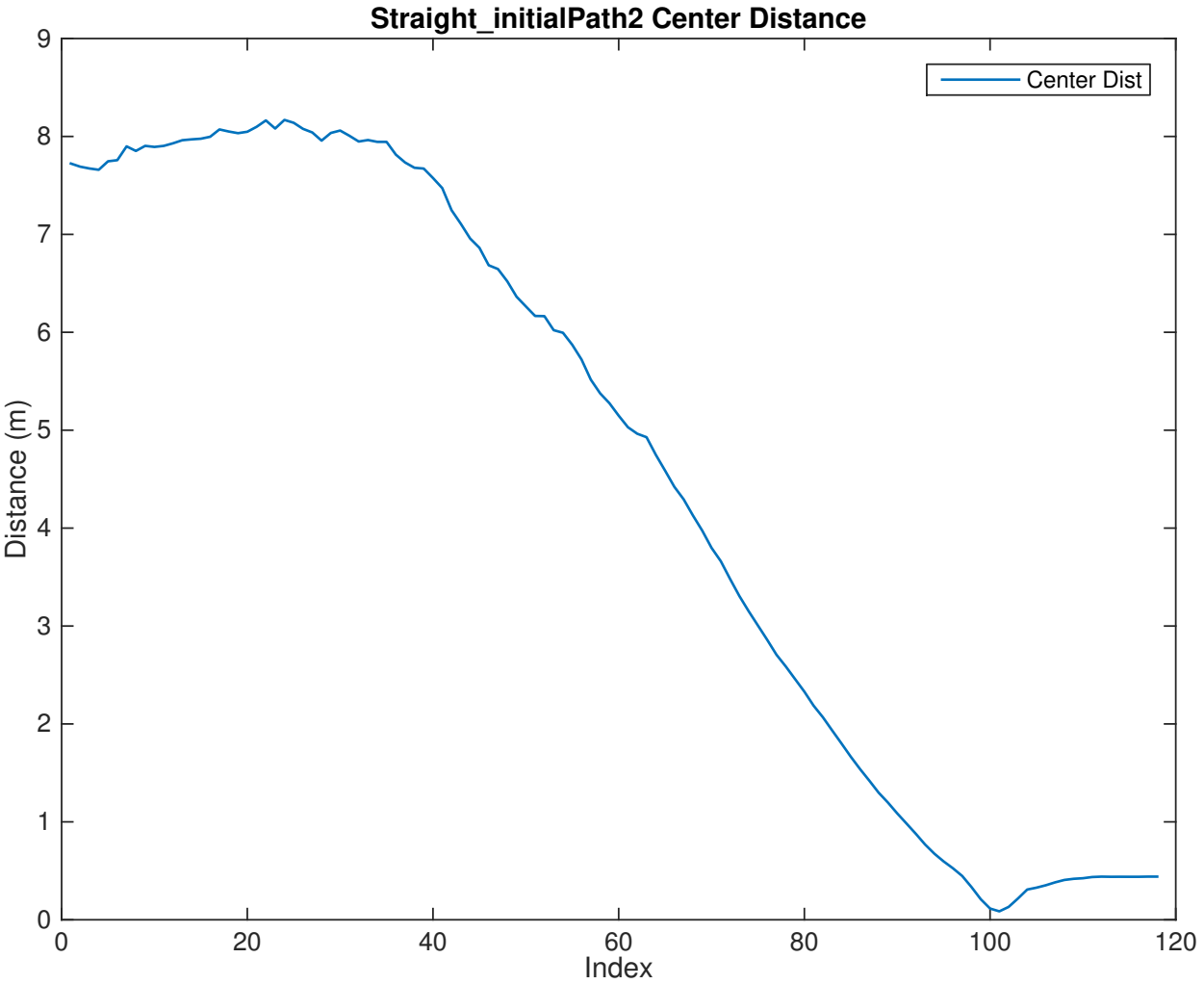

Straight_initialPath2 Calculated vs. Actual Steering
Recorded θ 2
Recorded θ P
Calculated θ P
Recorded Steering Command
Calculated Steering Command
Path Flag
3
2
1
0
-1
-2
-3
0
20
40
60
80
100
120
Index

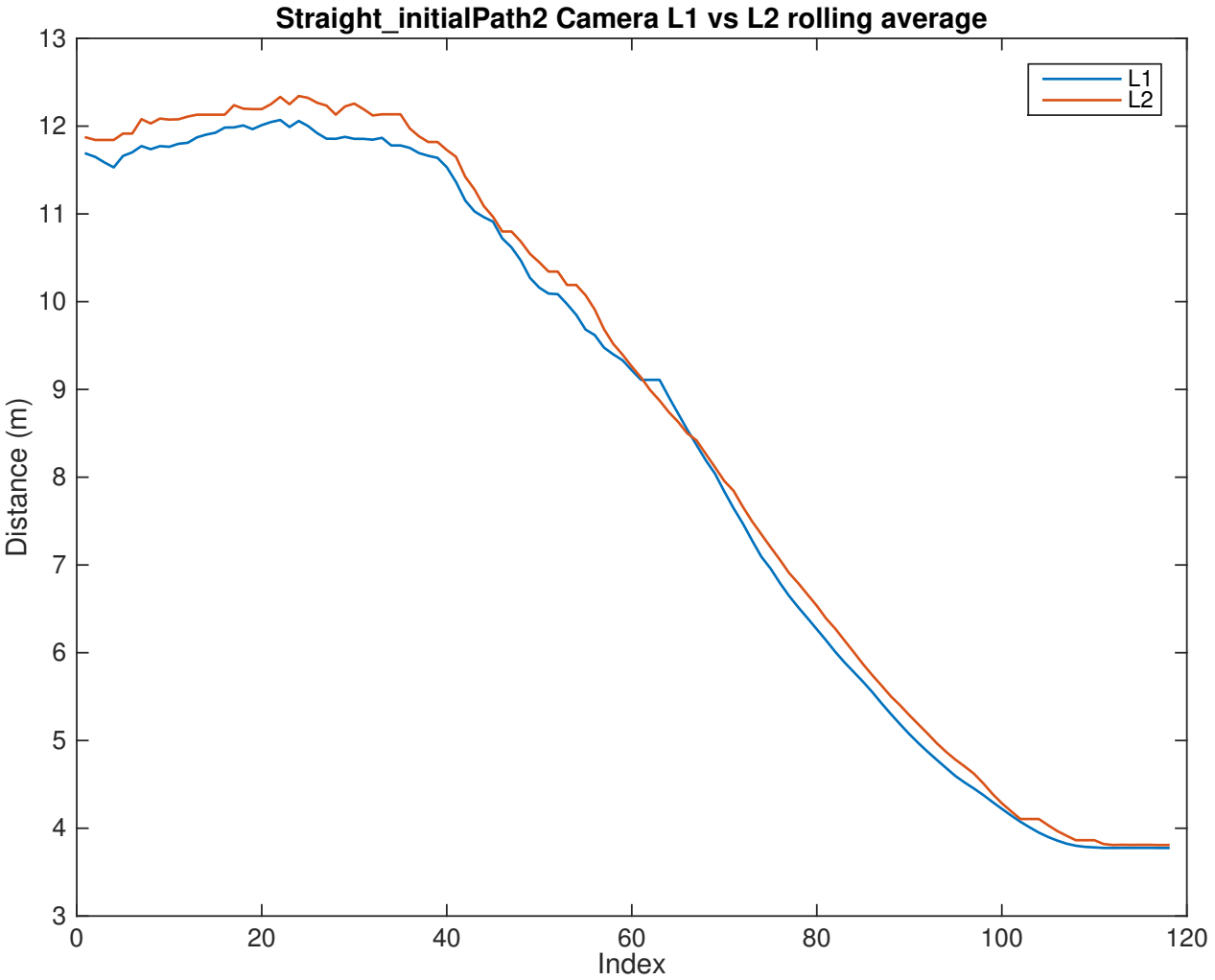

Straight_initialPath2 Initial Path
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
-0.7
-0.8
-0.9
y (m)
0
1
2
3
4
5
6
7
8
x (m)

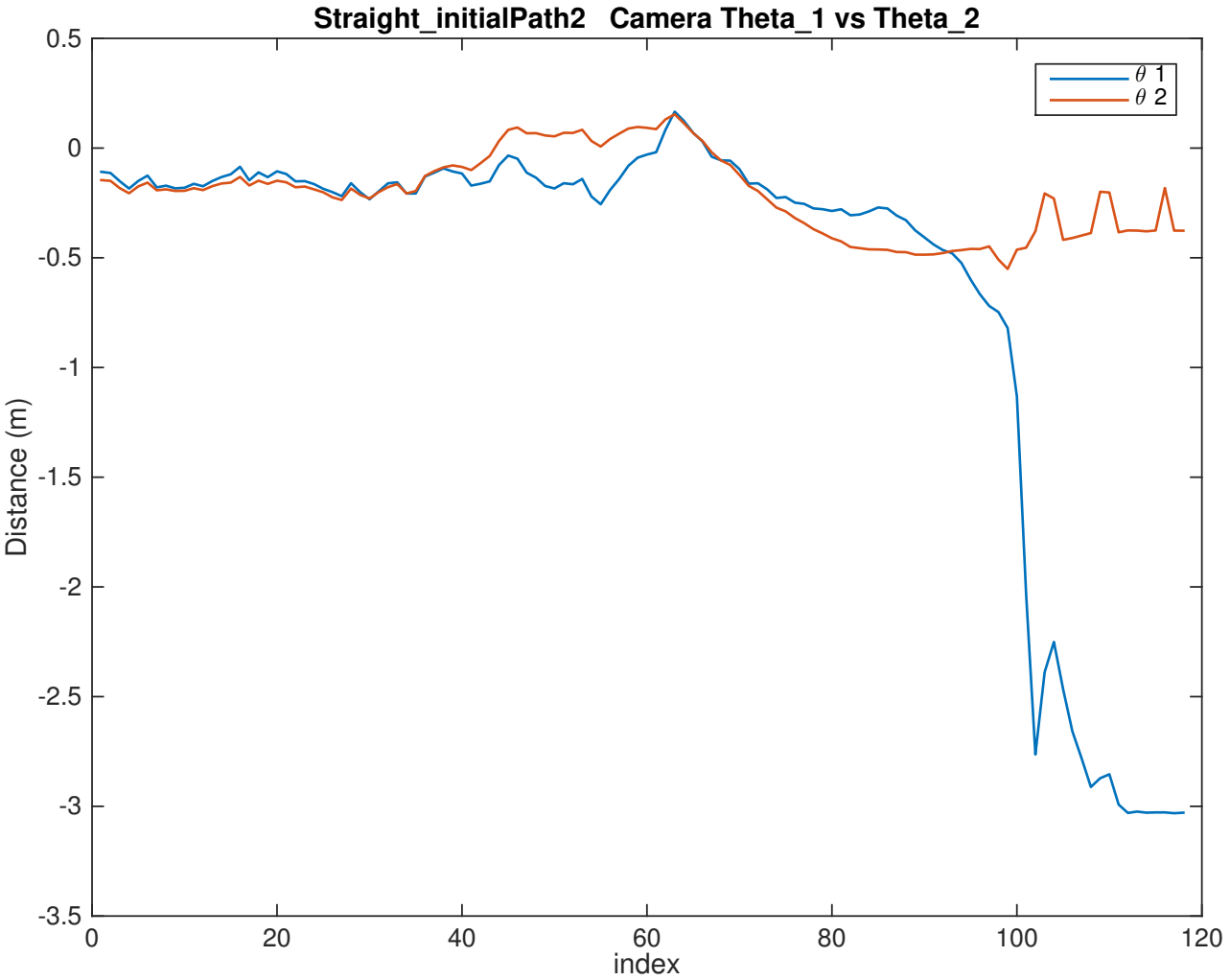
Number_Of_Unique_Paths	King_Pin_Detected
1	false

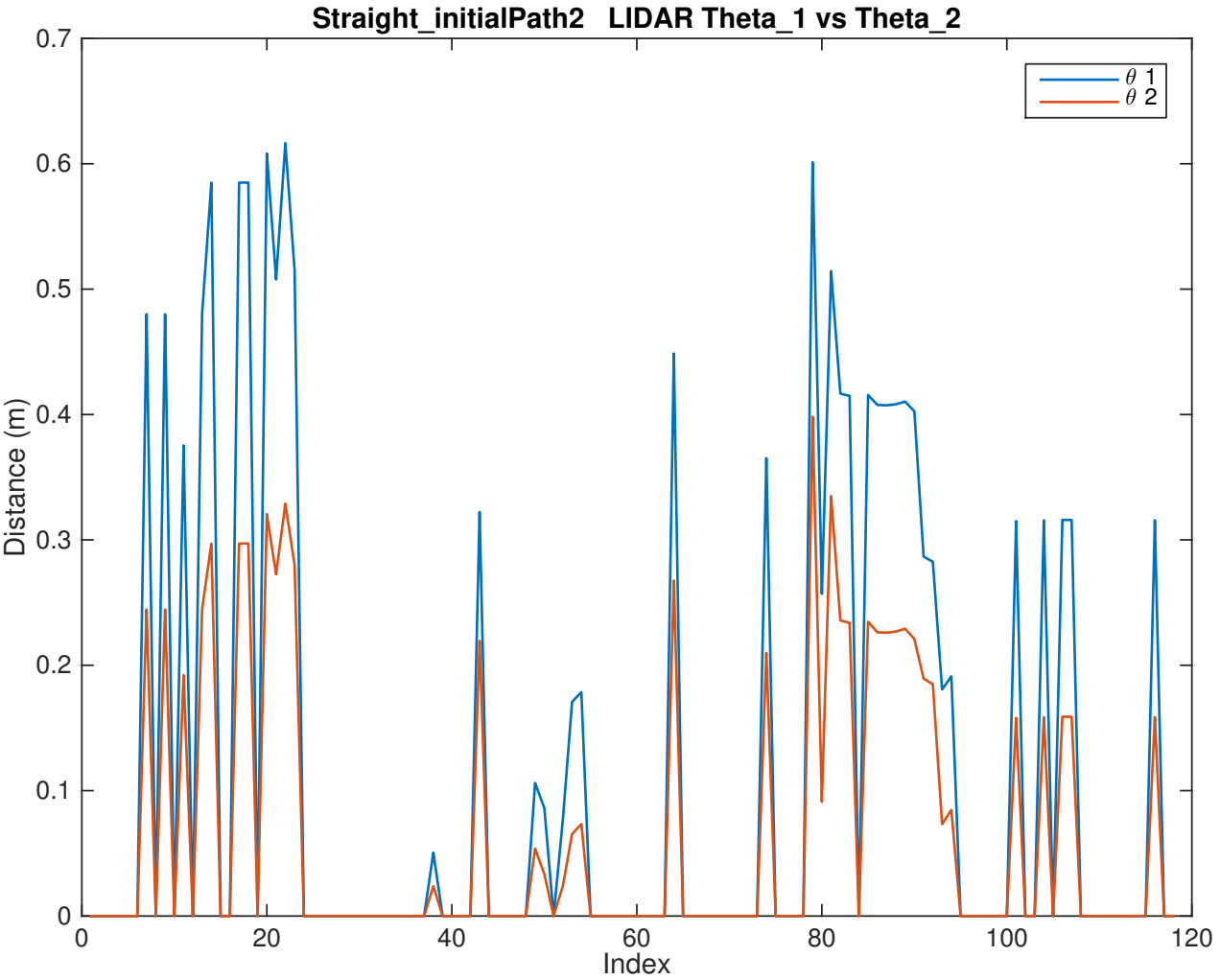

Straight_initialPath2 Left_Edge vs Right_Edge
Left_Edge
Right_Edge
L1 x 100
L2 x 100
Distance (m) & Pixel
Index
1400
1200
1000
800
600
400
200
0
20
40
60
80
100
120

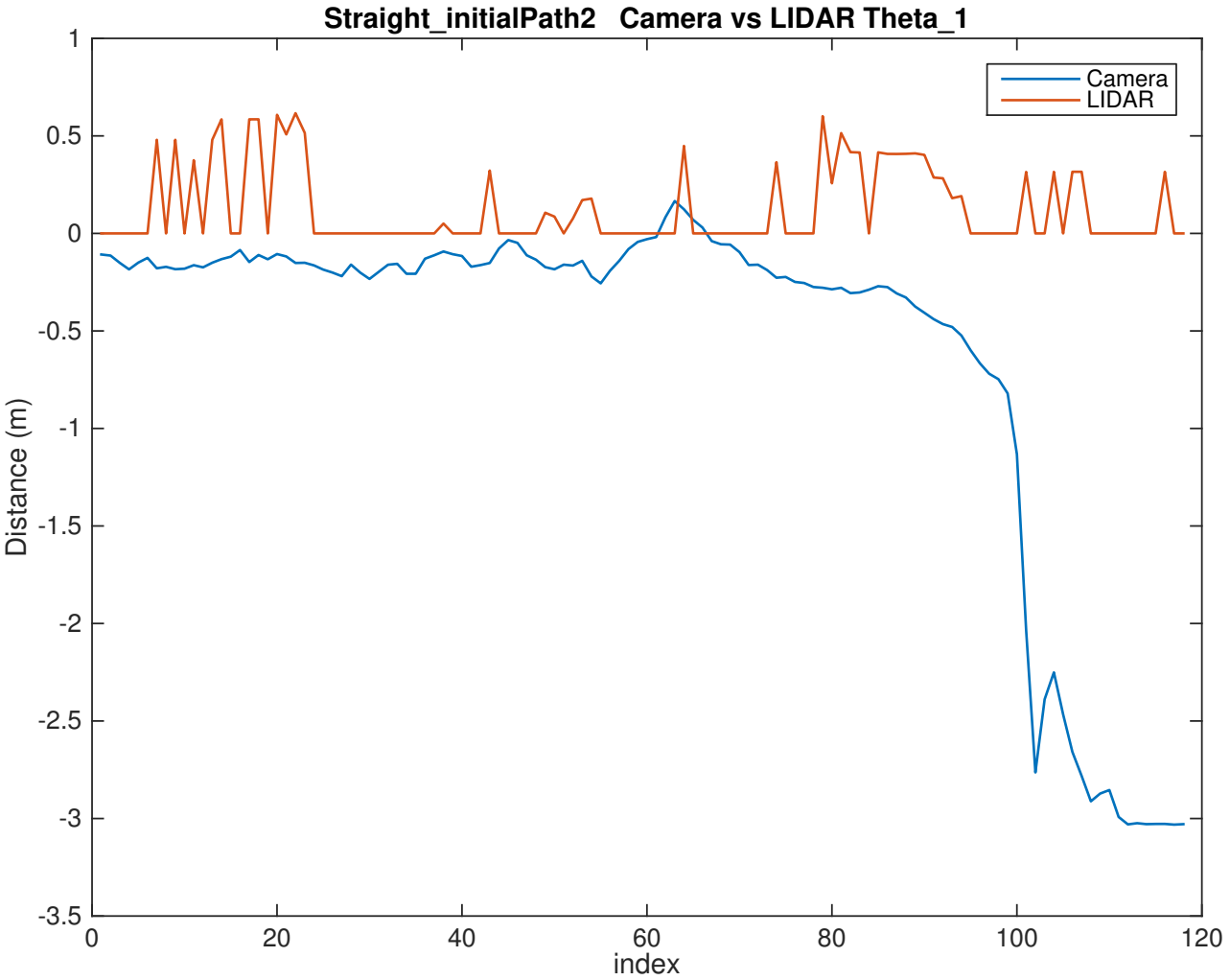

Straight_initialPath2 LIDAR Distance
Upper LIDAR
Distance (m)
Index
0
2
4
6
8
10
12
0
20
40
60
80
100
120

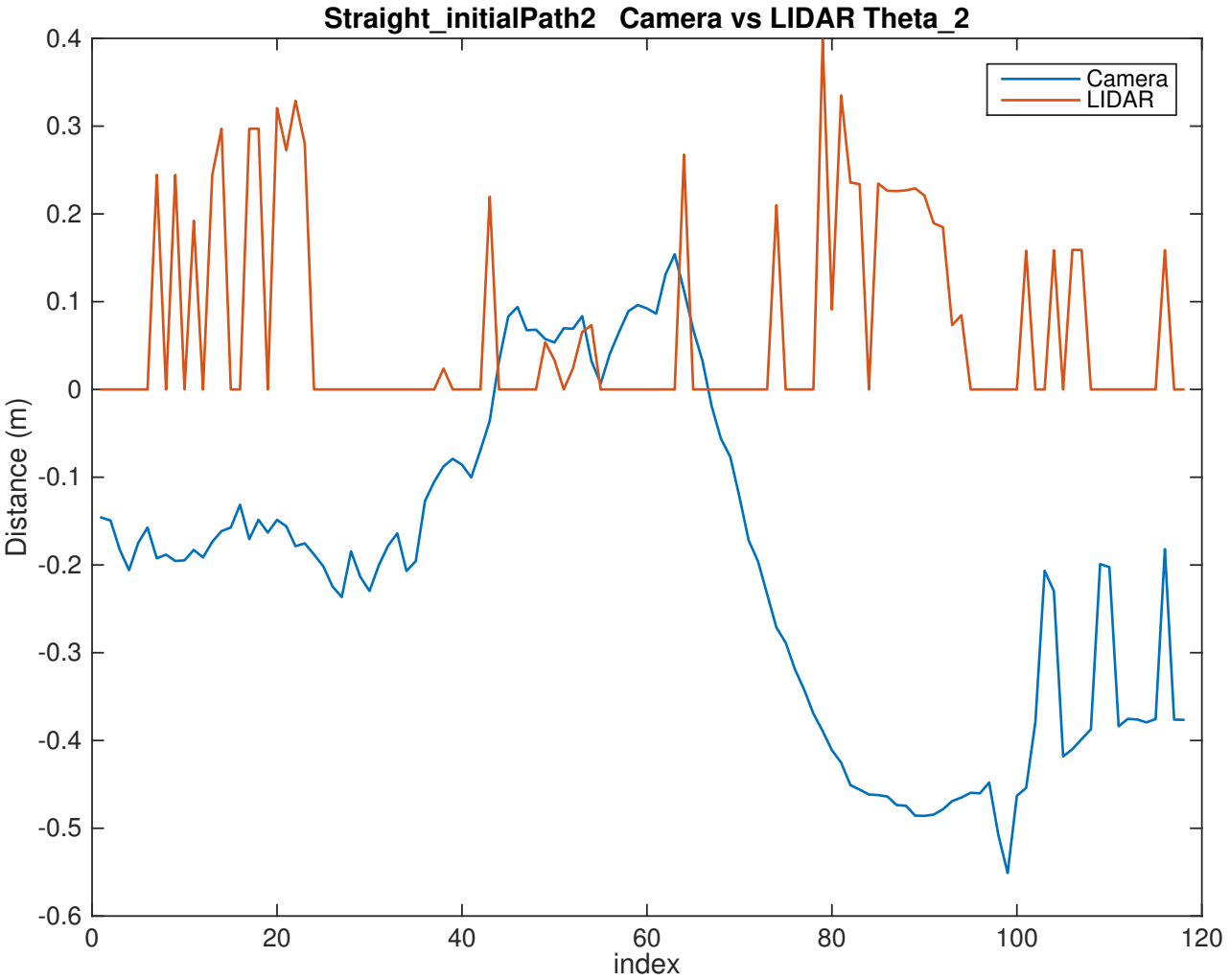

Straight_initialPath2 Center Distance
Center Dist
Distance (m)
Index
0
1
2
3
4
5
6
7
8
9
0
20
40
60
80
100
120

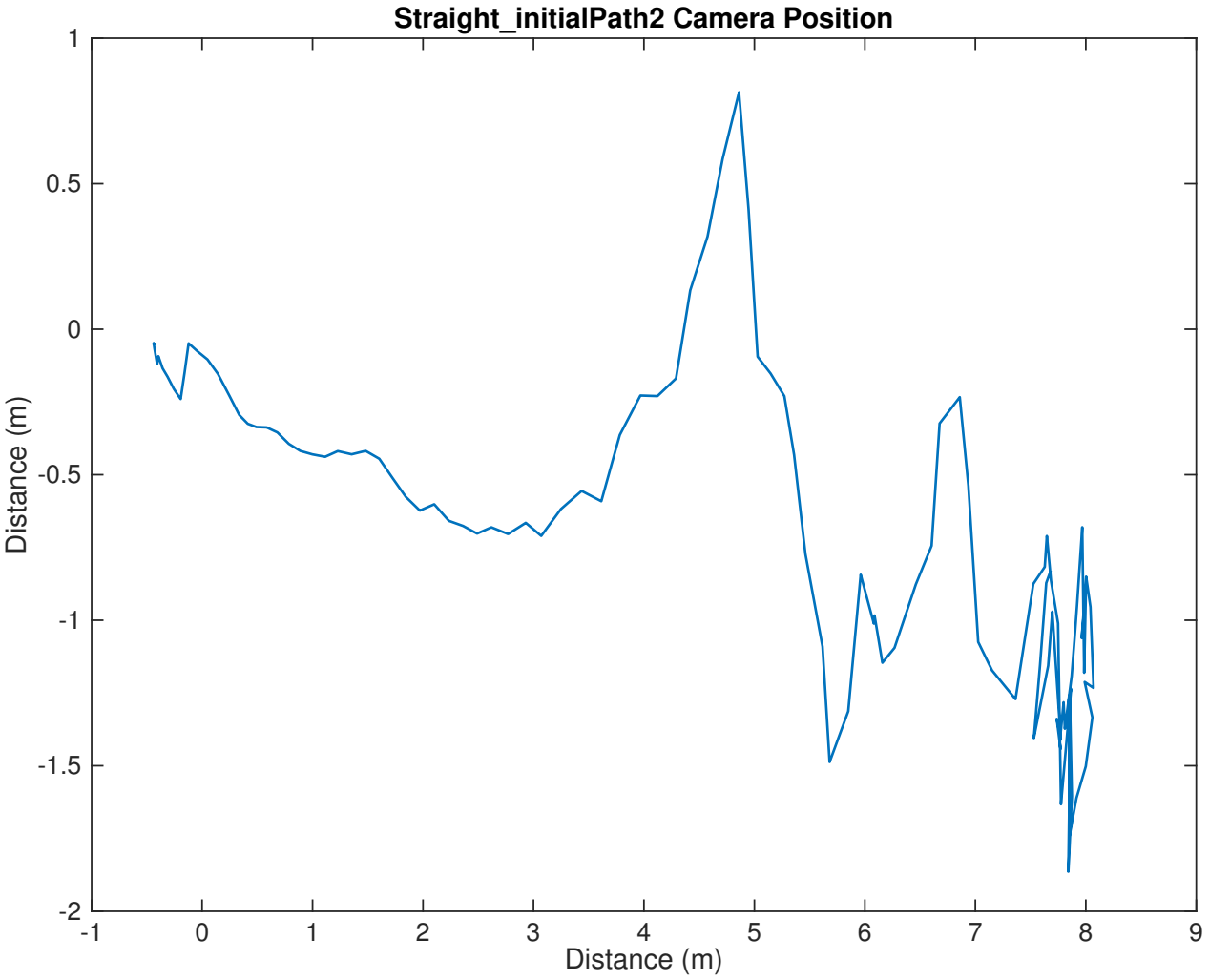

Straight_initialPath2 Camera L1 vs L2 rolling average
L1
L2
Distance (m)
Index
13
12
11
10
9
8
7
6
5
4
3
0
20
40
60
80
100
120

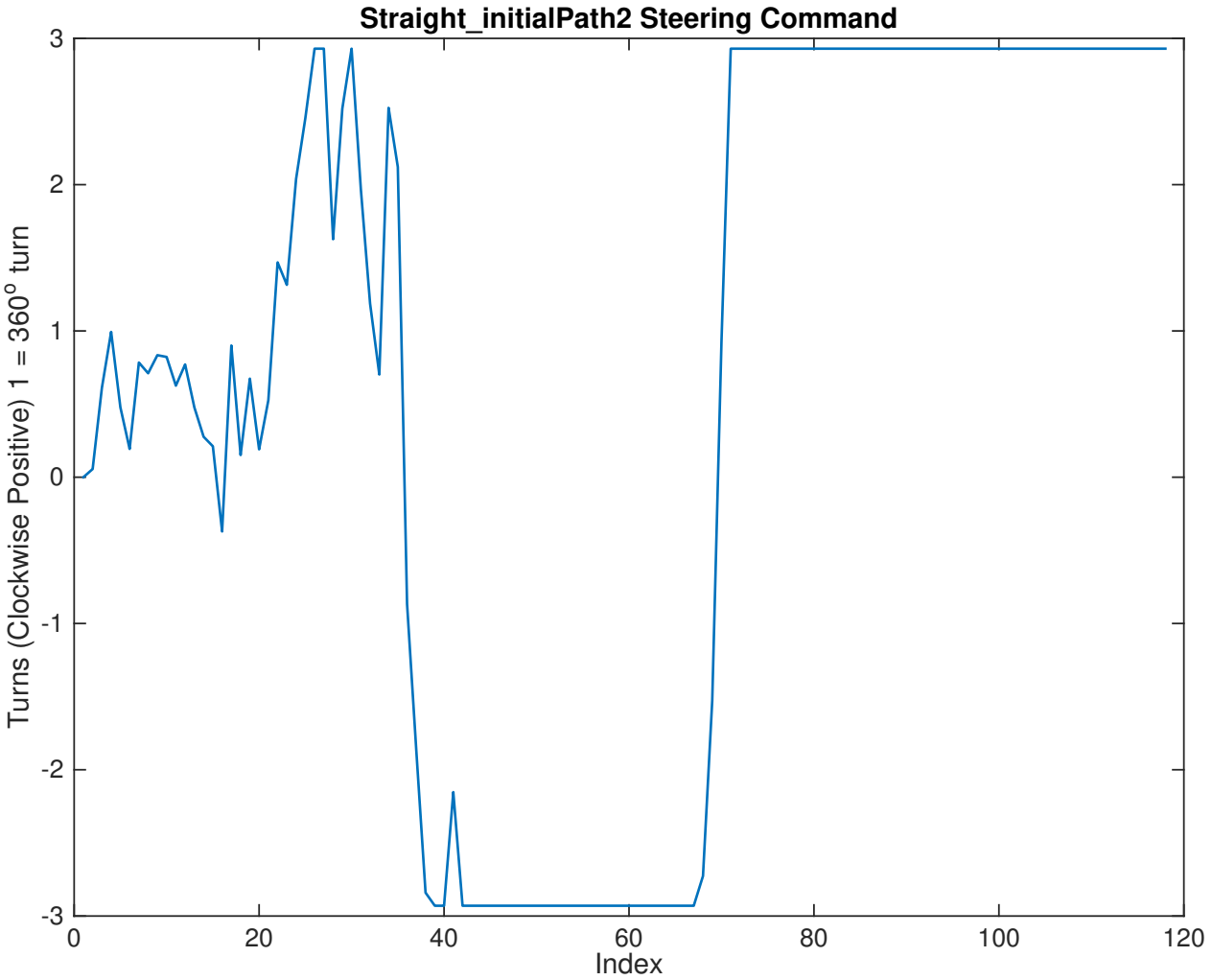

Straight_initialPath2 Camera Theta_1 vs Theta_2
θ 1
θ 2
Distance (m)
index
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
0
20
40
60
80
100
120

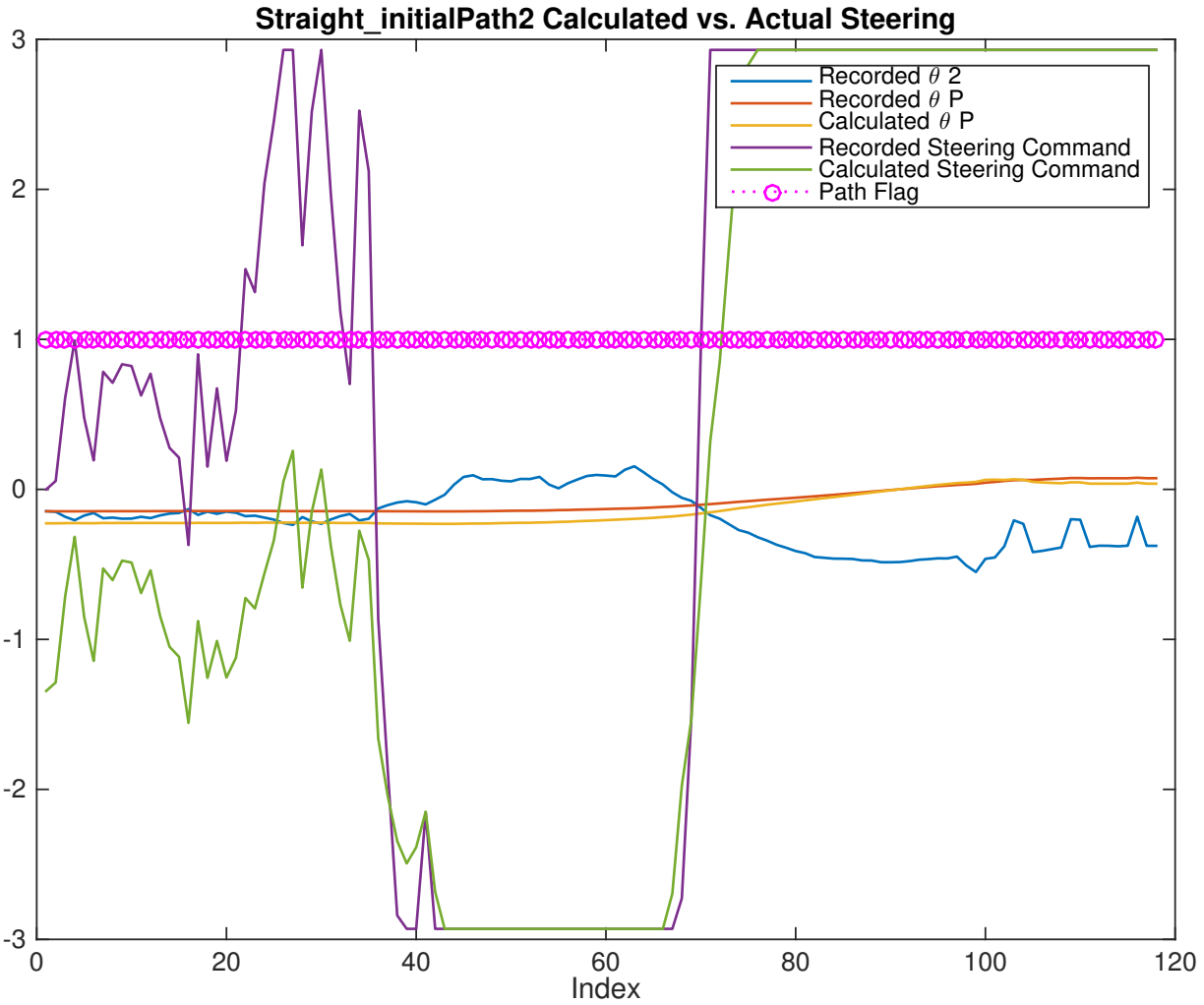

Straight_initialPath2 LIDAR Theta_1 vs Theta_2
θ 1
θ 2
Distance (m)
Index
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0
20
40
60
80
100
120


Straight_initialPath2 Camera vs LIDAR Theta_1
Camera
LIDAR
Distance (m)
index
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
0
20
40
60
80
100
120


Straight_initialPath2 Camera vs LIDAR Theta_2
Camera
LIDAR
Distance (m)
index
0.4
0.3
0.2
0.1
0
-0.1
-0.2
-0.3
-0.4
-0.5
-0.6
0
20
40
60
80
100
120


Straight_initialPath2 Camera Position
Distance (m)
Distance (m)
1
0.5
0
-0.5
-1
-1.5
-2
-1
0
1
2
3
4
5
6
7
8
9


Straight_initialPath2 Steering Command
Turns (Clockwise Positive) 1 = 360° turn
Index
3
2
1
0
-1
-2
-3
0
20
40
60
80
100
120


Straight_initialPath2 Calculated vs. Actual Steering
Recorded θ 2
Recorded θ P
Calculated θ P
Recorded Steering Command
Calculated Steering Command
Path Flag
3
2
1
0
-1
-2
-3
0
20
40
60
80
100
120
Index