

Set 1:	2
Set 2:	3
Set 3:	4
Set 4:	5
Set 5:	6
Set 6:	7
Set 7:	8
Set 8:	9
Test 1 with 11 DOFs:	10
Test 2 with 11 DOFs:	11
Test 3 with 11 DOFs:	12

```
clear all; close all; clc;
```

```
L = [.3 .2 .1];           % Kinematic Values
```

```
T = [1 1 1] * pi/50;      % Initial Pose
```

Set 1:

```
close all; clc;
```

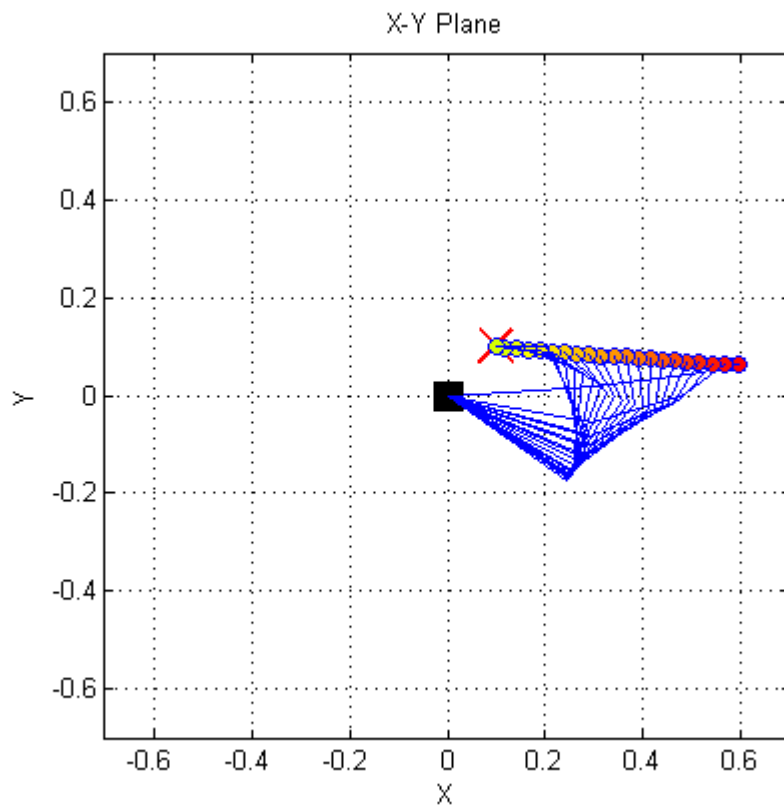
```
G = [.1 .1]';             % Desired EE location
```

```
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):
```

```
   -0.2676    2.2922    1.1246
```

```
** Error (Euclidean Distance to Goal): 0.0016688 m (in 98 steps)
```



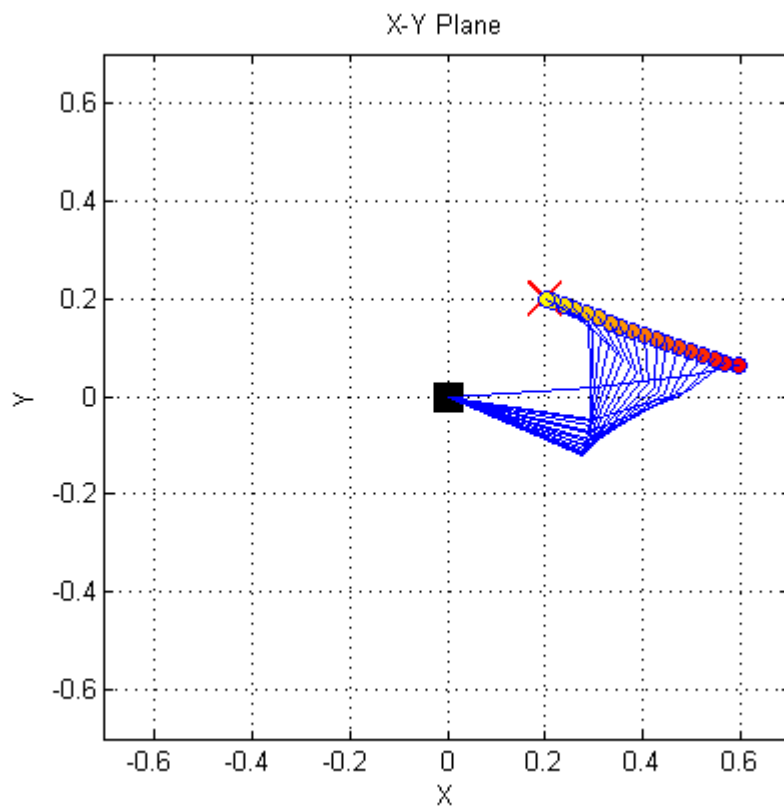
Set 2:

```
close all; clc;
```

```
G = [.2 .2]';           % Desired EE location  
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):  
-0.1685    1.7802    1.0059
```

```
** Error (Euclidean Distance to Goal): 0.0010788 m (in 83 steps)
```



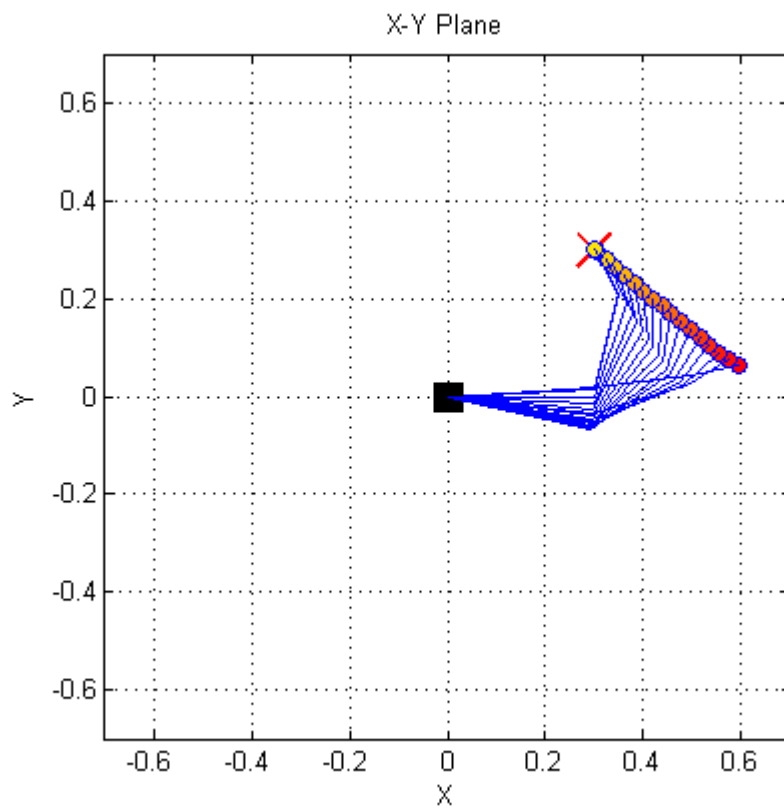
Set 3:

```
close all; clc;
```

```
G = [.3 .3]';           % Desired EE location  
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):  
    0.0596    1.2635    0.7479
```

```
** Error (Euclidean Distance to Goal): 0.00074182 m (in 76 steps)
```



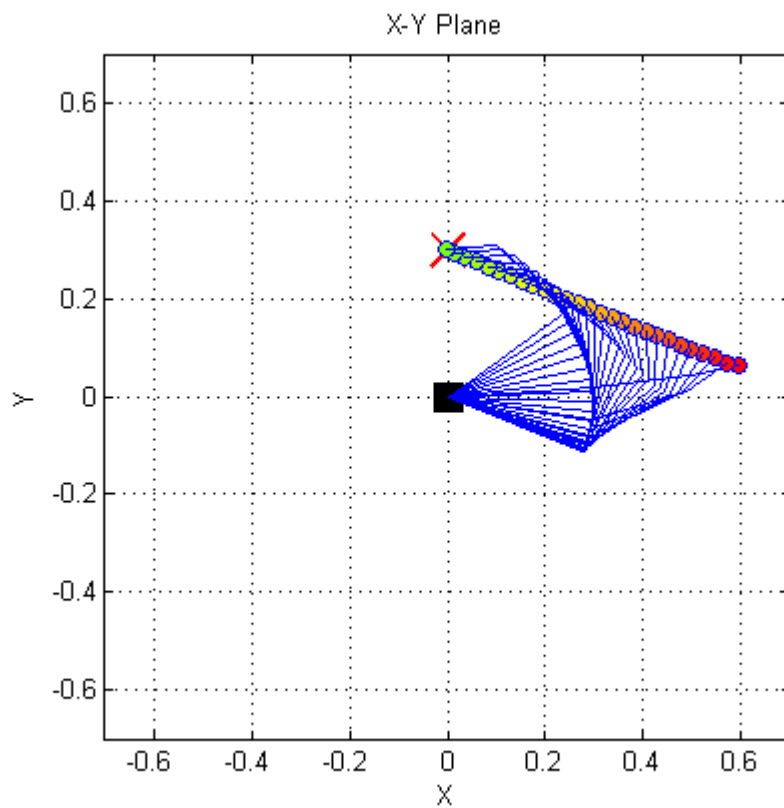
Set 4:

```
close all; clc;
```

```
G = [.0 .3]';           % Desired EE location  
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):  
   0.6129   1.7805   0.8311
```

```
** Error (Euclidean Distance to Goal): 0.00091374 m (in 128 steps)
```



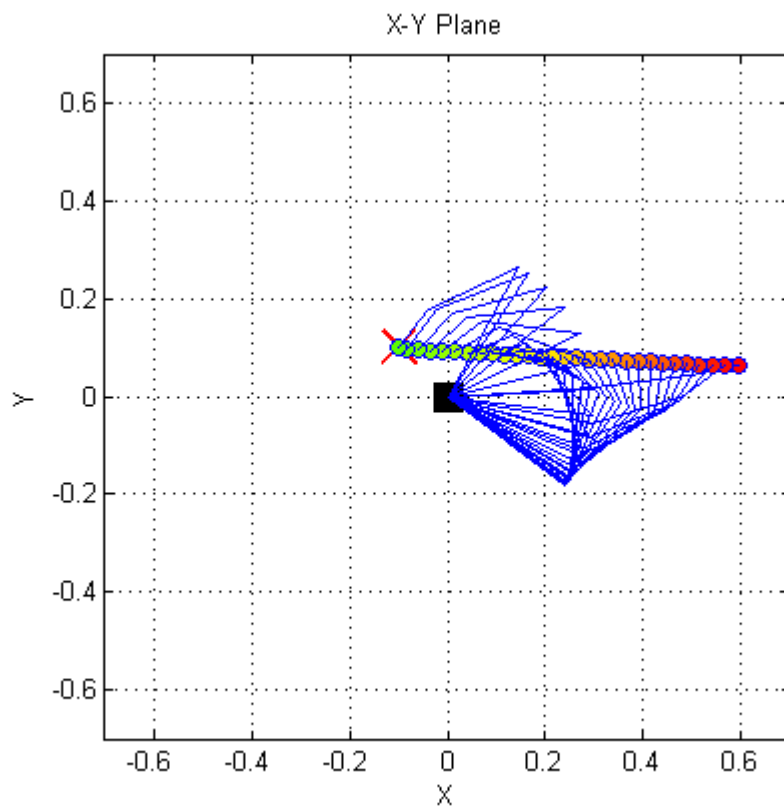
Set 5:

```
close all; clc;
```

```
G = [-.1 .1]';           % Desired EE location  
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):  
1.0714    2.5048    0.4832
```

```
** Error (Euclidean Distance to Goal): 0.0015235 m (in 138 steps)
```



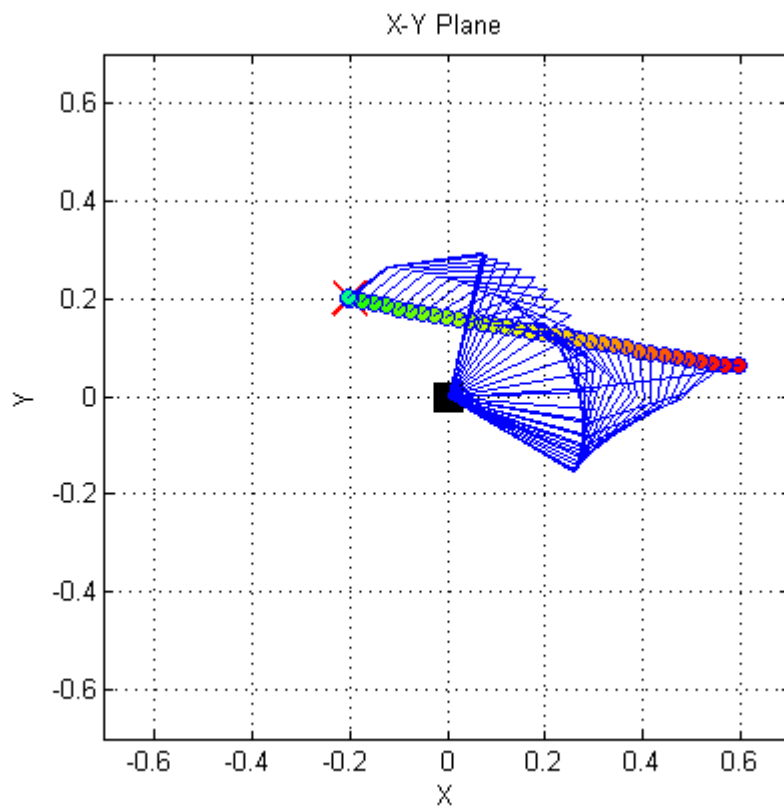
Set 6:

```
close all; clc;
```

```
G = [-.2 .2]';           % Desired EE location  
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):  
1.3231    1.9516    0.5561
```

```
** Error (Euclidean Distance to Goal): 0.0019957 m (in 211 steps)
```



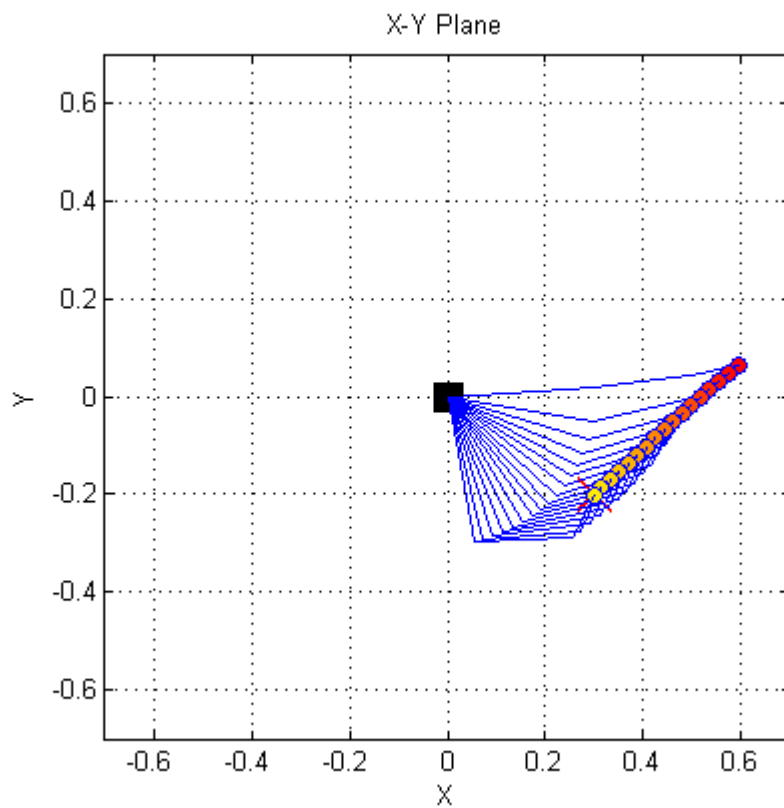
Set 7:

```
close all; clc;
```

```
G = [.3 -.2]';           % Desired EE location  
jacobianIK(L, T, G);
```

```
* Joint Space Solution (rad.):  
-1.3874    1.4103    1.0871
```

```
** Error (Euclidean Distance to Goal): 0.0012063 m (in 79 steps)
```



Set 8:

```
close all; clc;
```

```
G = [.3 .8]';           % Desired EE location  
jacobianIK(L, T, G);
```

Warning: Goal is out of reach! But lets try ...

Now up to 500 iterations!

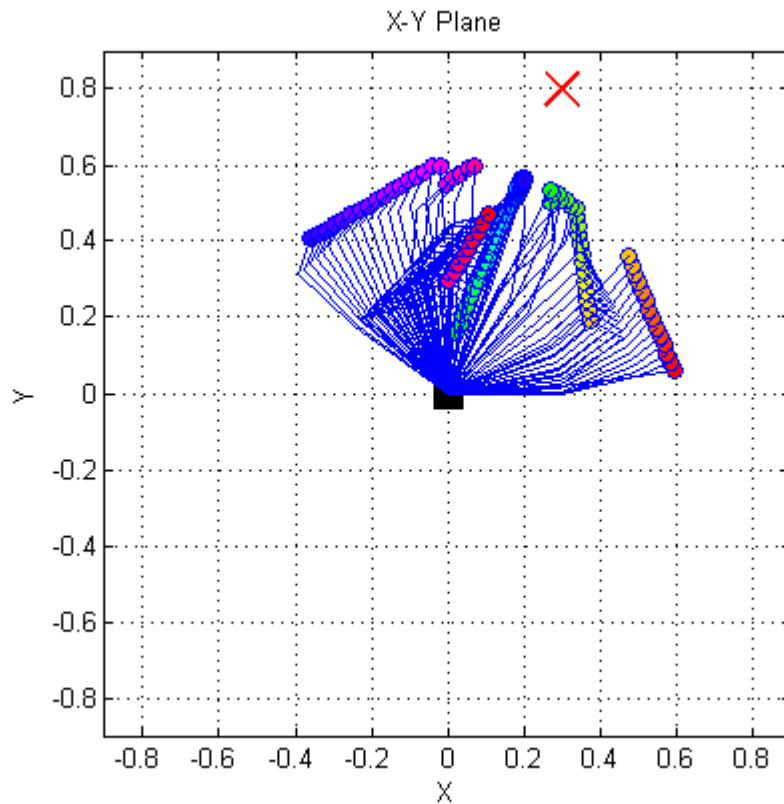
That is the max and cannot reach the goal ...

Perhaps it is out of reach!

* Joint Space Solution (rad.):

-60.9124 99.5726 68.4262

** Error (Euclidean Distance to Gaol): 0.37918 m (in 501 steps)



Test 1 with 11 DOFs:

```

close all; clc;
L = [.3 .2 .1 .1 .2 .1 .3 .1 .1 .1 .1];           % Kinematic Values
T = [.4 .6 .2 .5 .1 .7 .3 .2 .1 .1 .1] * pi/50;    % Initial Pose

G = [.3 .8]';           % Desired EE location
jacobianIK(L, T, G);

```

* Joint Space Solution (rad.):

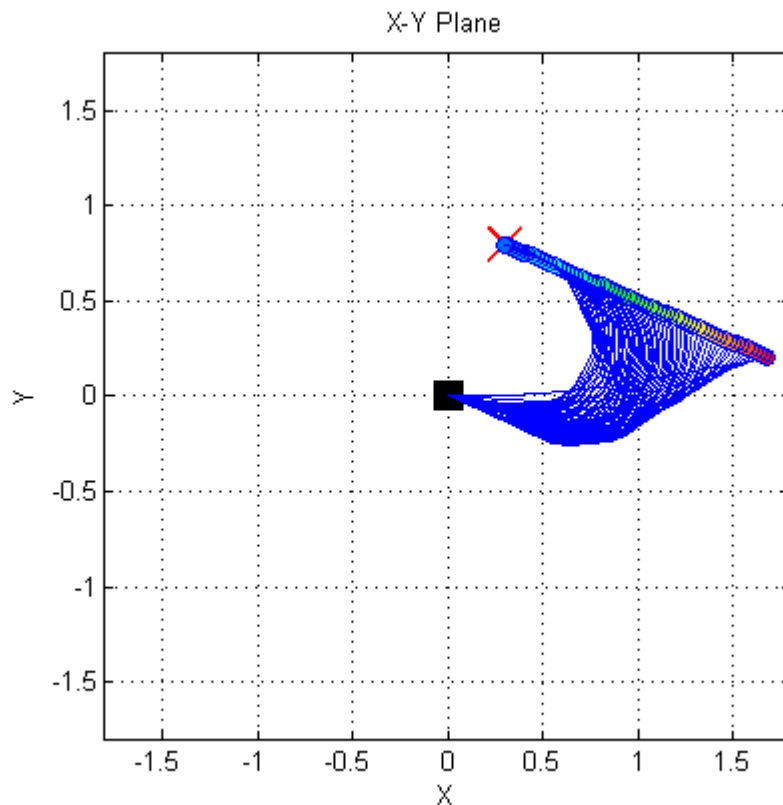
Columns 1 through 7

-0.1330 0.1413 0.2878 0.3792 0.4003 0.4858 0.4456

Columns 8 through 11

0.3122 0.2453 0.1726 0.0918

** Error (Euclidean Distance to Goal): 0.0015369 m (in 301 steps)



Test 2 with 11 DOFs:

```

close all; clc;
L = [.3 .2 .1 .1 .2 .1 .3 .1 .1 .1 .1];           % Kinematic Values
T = [.4 .6 .2 .5 .1 .7 .3 .2 .1 .1 .1] * pi/50;    % Initial Pose

G = [-.5 .8]';           % Desired EE location
jacobianIK(L, T, G);

```

* Joint Space Solution (rad.):

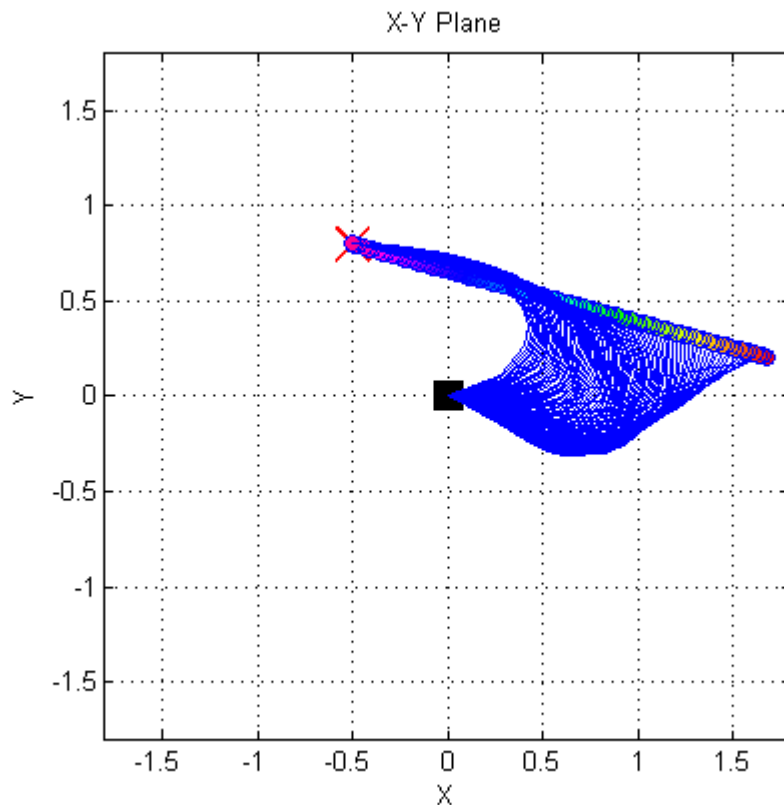
Columns 1 through 7

0.3943 0.4980 0.4856 0.4782 0.4003 0.3307 0.2498

Columns 8 through 11

0.1184 0.0780 0.0507 0.0277

** Error (Euclidean Distance to Goal): 0.0018895 m (in 453 steps)



Test 3 with 11 DOFs:

```

close all; clc;
L = [.3 .2 .1 .1 .2 .1 .3 .1 .1 .1 .1];           % Kinematic Values
T = [.4 .6 .2 .5 .1 .7 .3 .2 .1 .1 .1] * pi/50;    % Initial Pose

G = [-.5 -1]';                                       % Desired EE location
jacobianIK(L, T, G);

```

* Joint Space Solution (rad.):

Columns 1 through 7

```
-1.7190   -0.7657   -0.3345   -0.1251    0.0214    0.3916    0.5071
```

Columns 8 through 11

```
0.7028    0.6599    0.5094    0.2769
```

** Error (Euclidean Distance to Goal): 0.0029787 m (in 501 steps)

