

## Pose\_multiply.py

Test1.py Release Notes: 1.45.0 simpleTest.py test3.py Untitled-1 pose\_multiply.py X

Project Test 1 > pose\_multiply.py > ...

```
1
2 import robopy.base.pose as pose
3
4
5 def main():
6     x = pose.SE3.rand()
7     y = pose.SE3.rand()
8
9     z = x * y
10
11     print(z)
12
13
14 if __name__ == '__main__':
15     main()
```

OUTPUT TERMINAL DEBUG CONSOLE PROBLEMS 4

```
-----
[[-0.14749308 -0.78831317 -0.5973342 -1.98145699]
 [ 0.18897385 -0.61527421  0.76532773  1.75436256]
 [-0.97084225  0.          0.23971926 -0.01357204]
 [ 0.          0.          0.          1.          ]]
-----
```

## Pose\_plot.py

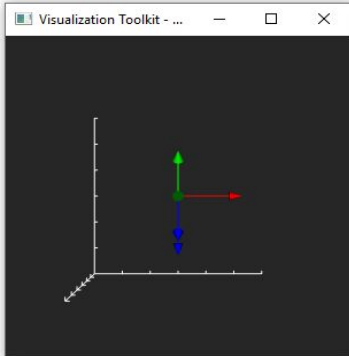
pose\_plot.py - test 1 (Workspace) - Visual Studio Code

Test1.py Release Notes: 1.45.0 simpleTest titled-1 pose\_multiply.py pose\_plot.py x

Project Test 1 > pose\_plot.py > ...

```
1
2 import robopy.base.pose as pose
3
4
5 def main():
6     pose.SE3.Rx(theta=[45, 90], unit='deg').plot()
7
8     pose.SE3.Rx(theta=[45, 90], x=[1, 1], y=[1, 0], z=[0, 0], unit='deg').plot()
9
10    pose.S02(45, unit='deg').plot()
11
12    pose.S03.Rx(theta=[45, 80], unit='deg').plot()
13
14    pose.SE2(theta=[45], unit='deg').plot()
15
16    pose.SE2(theta=[45, 80], x=[0, 2], y=[0, 1], unit='deg').plot()
17
18
19 if __name__ == '__main__':
20     main()
```

Visualization Toolkit - ...



OUTPUT TERMINAL DEBUG CONSOLE PROBLEMS 4

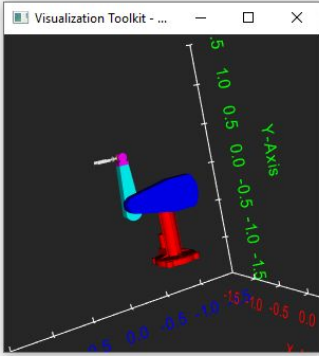
## Puma560\_animation.py

Test1.py Release Notes: 1.45.0 simpleTest titled-1 pose\_multiply.py pose\_plot.py puma560\_animation.py x

Project Test 1 > puma560\_animation.py > ...

```
1
2 import robopy.base.model as model
3 import numpy as np
4
5
6 def main():
7     robot = model.Puma560()
8
9     a = np.transpose(np.asmatrix(np.linspace(1, -180, 500)))
10    b = np.transpose(np.asmatrix(np.linspace(1, 180, 500)))
11    c = np.transpose(np.asmatrix(np.linspace(1, 90, 500)))
12    d = np.transpose(np.asmatrix(np.linspace(1, 450, 500)))
13    e = np.asmatrix(np.zeros((500, 1)))
14    f = np.concatenate((d, b, a, e, c, d), axis=1)
15
16    robot.animate(stances=f, frame_rate=30, unit='deg')
17
18
19 if __name__ == '__main__':
20     main()
```

Visualization Toolkit - ...



OUTPUT TERMINAL DEBUG CONSOLE PROBLEMS 6

