

## Contents

- Position with all theta angles = 0

```
L(1) = Link([0 1 0 pi/2]);
L(2) = Link([0 1 0 -pi/2]);
L(3) = Link('prismatic', 'theta', 0, 'a', 0, 'alpha', pi/2, 'offset', 1);
L(3).qlim = [0 1]
L(4) = Link([0 0 0 -pi/2]);
L(5) = Link([0 1 0 0]);
L(5).qlim = [0 0];
```

```
R1 = SerialLink(L, 'name', 'Koprov_HW4');
R1.plotopt = {'workspace' [-2,2,-2,2,-2.5,5]}
```

```
R1.teach
```

```
L =
Revolute(std):  theta=q1    d=1          a=0          alpha=1.571    offset=0
Revolute(std):  theta=q2    d=1          a=0          alpha=-1.571   offset=0
Prismatic(std): theta=0      d=q3      a=0          alpha=1.571    offset=1
Revolute(std):  theta=q4    d=0          a=0          alpha=-1.571   offset=0
Revolute(std):  theta=q5    d=1          a=0          alpha=0         offset=0
```

```
R1 =
```

```
Koprov_HW4:: 5 axis, RRP RR, stdDH, slowRNE
```

j	theta	d	a	alpha	offset
1	q1	1	0	1.5708	0
2	q2	1	0	-1.5708	0
3	0	q3	0	1.5708	1
4	q4	0	0	-1.5708	0
5	q5	1	0	0	0

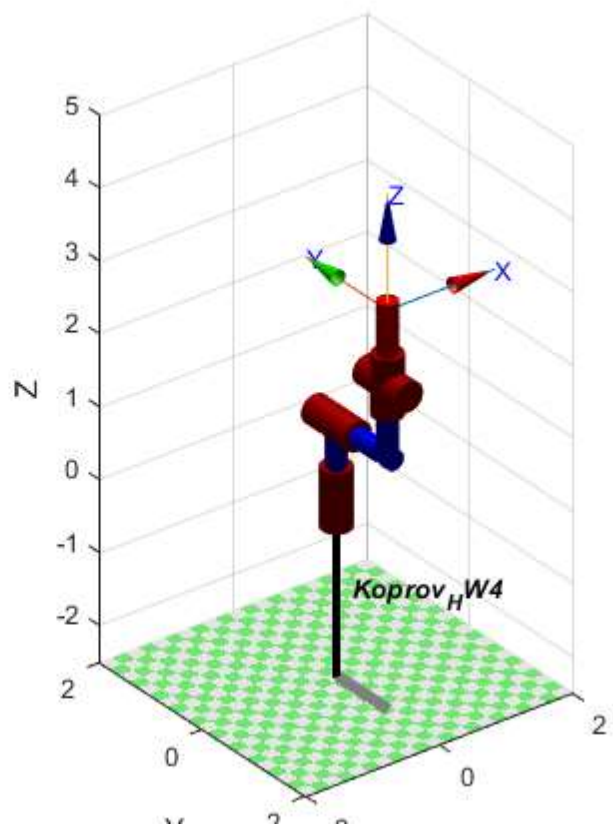
Teach

X: 0.000  
Y: -1.000  
Z: 3.000

R: -0.0  
P: 0.0  
Y: -0.0

q1 0  
q2 0  
q3 0  
q4 0  
q5 0

X



Position with all theta angles = 0

```
R1.fkine([0 0 0 0 0])
```

ans =

1	0	0	0
0	1	0	-1
0	0	1	3
0	0	0	1