
```
% Assignment 2 - Question 2, Forward Kinematics
```

```
clear all;
```

```
%M
```

```
M = [-1, 0, 0, 0;  
      0, 0, 1, 3;  
      0, 1, 0, 2;  
      0, 0, 0, 1];
```

```
%Screw Axes w,v
```

```
S1 = [0,0,1, 0,0,0];  
S2 = [1,0,0, 0,2,0];  
S3 = [0,0,0, 0,1,0];
```

```
Slist = [S1',S2',S3'];
```

```
%Body Axes
```

```
B1 = [0,1,0,3,0,0];  
B2 = [-1,0,0,0,3,0];  
B3 = [0,0,0,0,0,1];
```

```
Blist = [B1',B2',B3'];
```

```
%thetalist
```

```
thetalist = [pi/2;pi/2;1];
```

```
%Configuration Space frame
```

```
Ts = FKinSpace(M,Slist,thetalist);
```

```
%Configuration Body Frame
```

```
Tb = FKinBody(M,Blist,thetalist);
```

```
% OUTPUT:
```

```
%
```

```
%
```

```
% Tb =
```

```
%
```

```
%   -0.0000    1.0000   -0.0000   -0.0000  
%   -1.0000   -0.0000    0.0000    0.0000  
%         0    0.0000    1.0000    6.0000  
%         0         0         0     1.0000
```

```
%
```

```
%
```

```
% Ts =
```

```
%
```

```
%   -0.0000    1.0000   -0.0000   -0.0000  
%   -1.0000   -0.0000    0.0000    0.0000  
%         0    0.0000    1.0000    6.0000  
%         0         0         0     1.0000
```

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