

## Assignment #1

Implement a function called forward kinematic to calculate  ${}_0T^n = A_1 \times A_2 \times \dots \times A_n$ . The DH parameter is as the following

Puma 560						
joint	$\alpha$	$a$	$\theta$	$d$	Joint's Type	
1	90	0	*	0	Rotation(Position)	
2	0	0.431800	*	0	Rotation(Position)	
3	-90	0.020300	*	0.150050	Rotation(Position)	
4	90	0	*	0.431800	Rotation(Orientation)	
5	-90	0	*	0	Rotation(Orientation)	
6	0	0	*	0	Rotation(Orientation)	

Then calculate the position and the orientation of the Puma 560 if the joint values are

$\theta_1 = 20$  degree

$\theta_2 = 30$  degree

$\theta_3 = 100$  degree

$\theta_4 = 120$  degree

$\theta_5 = 30$  degree

$\theta_6 = 40$  degree