

```
function thetalist_new = NextState(thetalist,thetadot_list,timestep, max_vel)
% NextState: based on a simple first-order Euler step that output the next stage set of angles
% Input:
%     thetalist : set of angles of current state of the robot (6 jointsangles)
%     thetadot_list : six joint angular velocities
%     timestep : the time step between each state
%     max_vel : the maximum velocity magnitude
% Output:
%     thetalist_new : the next state set of angles
addpath('mr\')

if thetadot_list > max_vel
    disp('Joint velocity exceeds maximum allowed')
else
    thetalist_new = thetalist + (thetadot_list*timestep);
end
end
```

Warning: Name is nonexistent or not a directory:
D:\Documents\GitHub\MAE204-FinalProject\main\mr

Not enough input arguments.

Error in NextState (line 12)
if thetadot_list > max_vel


```
clc; clear all;
thetalist{1} = [-pi/6,-pi/2,pi/2,-pi/2,-pi/2,5*pi/6];
vel = [0.1,0.1,0.1,0.1,0.1,0.1];
maxvel = pi;
dt = 0.01;
Tf = 1;
N = Tf/dt;

gripper_state = ones(1,N);
gripper_state(30:50) = 0;
output = zeros(N,7);
for i = 1:N
    thetalist{i+1} = NextState(thetalist{i},vel,dt,maxvel);
    output(i,:) = [thetalist{i},gripper_state(i)];
end

csvwrite('m.csv',output)
```


Link to the Video.

<https://drive.google.com/file/d/1NDYg6anIH79okCc6sluspAbgZ5PJvH0K/view?usp=sharing>