

CPSC 526: Computer Animation Assignment 3

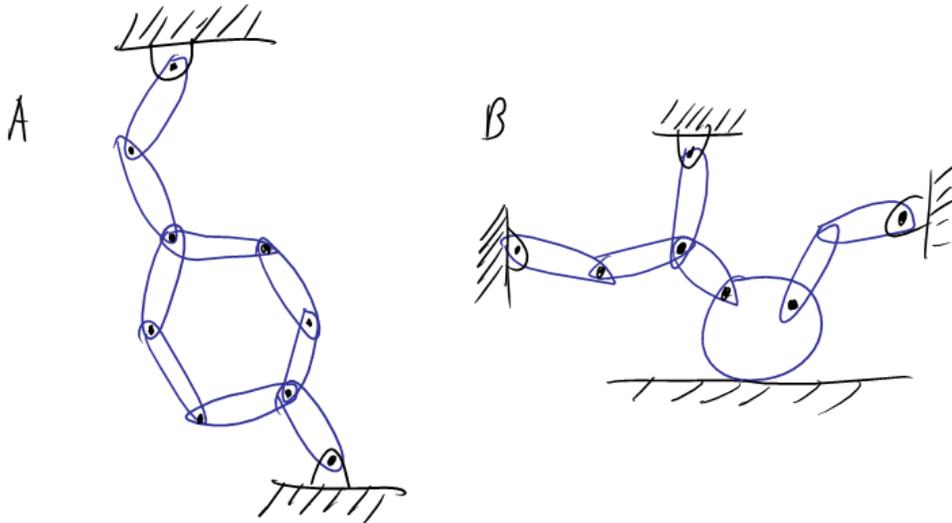
Due in class, Wed, Jan 28, 2013

Answer the questions in the spaces provided on the question sheets. If you run out of room for an answer, continue on the back of the page.

Name: _____

Question 1	/ 4
Question 2	/ 6
TOTAL	/ 10

1. (4 points) How many degrees of freedom do each of the following planar mechanisms have? What is the dimensionality of their state spaces? Assume that the circle in mechanism B maintains rolling contact with the ground. Show your work.



2. (6 points) For the class on Wed Jan 28, read the paper:
Style-based Inverse Kinematics, ACM Transactions on Graphics (TOG, Volume 20 Issue 2, April 2001

which you can find via Google Scholar or via the 'papers' link on the CPSC 526 website.

Before 10pm on Tuesday Jan 27, post a mini-review of the paper to Piazza that addresses the following questions. There is no expectation that you will necessarily understand all the math in the paper. Instead, read the paper for the "big picture" ideas and also be sure to look at the video(s) related to the paper.

1. What problem is the paper trying to solve?
2. Is this an interesting problem to solve?
3. What is the contribution of the paper towards solving this problem?
4. How are the results evaluated? How does it compare to other approaches?
5. What are the main strengths and weaknesses?
6. What future work could be done that builds on this paper?

We will discuss the paper in class, so I also suggest having your notes available for use during the discussion.