Project I

- You are designing a simple walking robot which uses four bar linkages to walk
- Using at least one four bar linkage, design a locomotion system to get Robbie the Robot from point A to point B (a straight line). No other energy can be added to the system except via four bar linkage which is driven. Otherwise you are free to get creative.
- You will have to perform a graphical and analytical analysis and synthesis on this design
- BONUS1 – make a graphical animation of the system via matlab or similar programming and turn in the code as well as an animation
- BONUS2 – make the system

- This is a group project, so you as a group turn in one report
  - THE REPORT WILL BE TURNED IN VIA A TURNITIN SCAN OR DIGITAL FILE COPY ON BLACKBOARD
  - SCANS MUST BE PERFORMED WITH A SCANNER, NOT VIA A CELL PHONE CAMERA, SCANNERS AVAILABLE AT THE LIBRARY
- DUE Friday FEB 20, 2015 by the end of lab
  - This is Due the Friday after next
- You will turn in your design in the form of a report, the requirements document will be posted but will include a description, synthesis and analysis of the design, and must be professionally organized (torn off pieces of paper with coffee stains will lose points)
  - I will give the points breakdown in the report requirements document
- The driving energy can be a motor, spring, rubber band, anything (which is not unsafe for spectators or you)

Hints for the animation

- One way to do this is to run a loop with a pause of approximately 30msec (similar to film) or slightly longer in matlab
- Use the plot command to draw lines and adjust their thickness
- Turn off the hold
- Use the function drawnow in matlab to animate as the loop happens, giving the effect of motion