Assignment4:
2D Kinematic Simulator
Due: Fri, May 12 (11:59 pm)
10 points

You and your partner should take the starting 2D kinematic simulator code and fill in the draw and inverseKin methods of the Robot class. You may work alone if you wish.

Start with the draw method. To complete this method, you will need to figure out how to use AffineTransformations to transform the links to their correct positions. After this method is complete you can perform forward kinematics using the sliders to control joint angles.

Last, code the inverseKin method. This should use gradient following as the general approach. Recall that this means you are to move each joint both forward and backwards, finding distances to goals at each location, then subtract the two to produce the partial derivative for that joint. This should be done for each joint independently. See what you can do about oscillation issues as well as pursuit of goals outside of the workspace.

On the due date, you will electronically turn in your code as well as a short write-up. There will be no live demo of this assignment.