ME 115(b): Homework #1
(Due April 13, 2012)

Problem 1: Find/describe the singular configurations of the elbow manipulator regional structure (just the first 3 joints, where the goal is to place the origin of the tool frame at desired $(x_T^D, \ y_T^D, \ z_T^D)$ cartesian position). One way to do this is to compute the hybrid Jacobian and then take the determinant. Another way is to use the geometric method described in class.