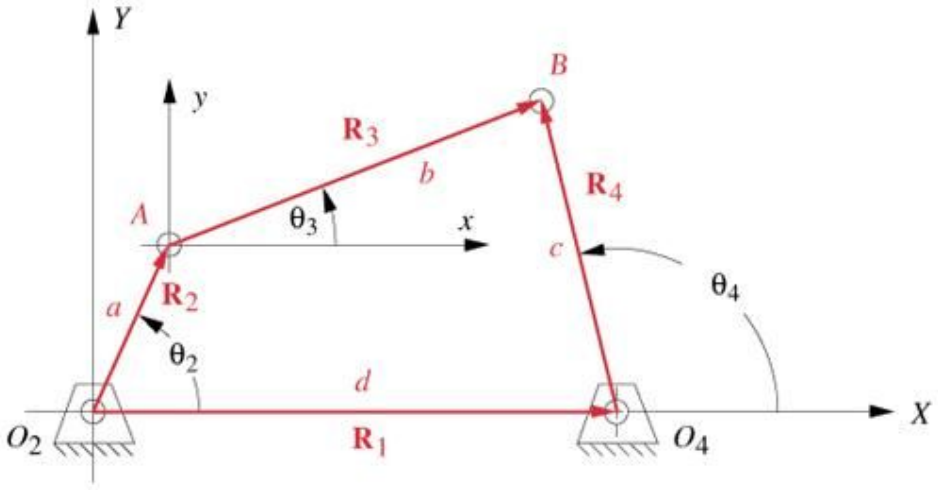
Assignment 2

Write a *MATLAB* code for position analysis of a four bar mechanism. You can refer to equations derived in the class or derive your own. In either case explain the steps and equations clearly in the report. Consider links adjacent to the ground link (#1) as input (#2) and output (#4), thus θ_2 is the input and θ_4 is the output.



The code should be general enough to identify and plot the output vs input curves for the following five cases:

a. Grashof's four bar mechanisms
   i. with both input and output links as cranks
   ii. with input link as crank and output link as rocker
   iii. with both input and output links as rockers (coupler link rotates)
   iv. parallelogram form
b. Non-Grashof's four bar mechanism
   i. with three links as rocker

Assume link lengths to show input-output plots for each case.

The following documents should be submitted on the website:

1. MATLAB code with sufficient comments for understanding
2. A report describing used equations and input-output relations, and plots relating θ_3 and θ_4 to θ_2 for all five cases.
3. (Bonus) Animation for each case.