Homework 1

[S21] Advanced Robotics

Robot – Tripteron https://www.youtube.com/watch?v=beuY401hfh8

Tasks:

1. Develop MSA model of the robot
   - Links are flexible cylindrical beams, length = 1 m
   - Active joints are flexible
   - Rigid platform – distance from corners to center = 0.1 m
2. Implement MSA model in Matlab or Python [1][2]
3. Create deflection maps for 100N force in X, Y, Z directions

Assumption of other link and joint parameters up to you, but you should include it in the report.

Requirements:

1. MSA model
2. Code/function explanation
3. Report:
   - Robot design
   - MSA model
   - Deflection map
   - Analysis of obtained results
   - Link to your public project on github.com

Submit only report to moodle. Later submission policy -20% per week.

[1] Cheat penalty: 0 for Homework 1.

[2] It is better to use Google Collab notebook or MATLAB Live Script