



Introduction to Robotics

Manipulation and Programming

Unit 2: Kinematics

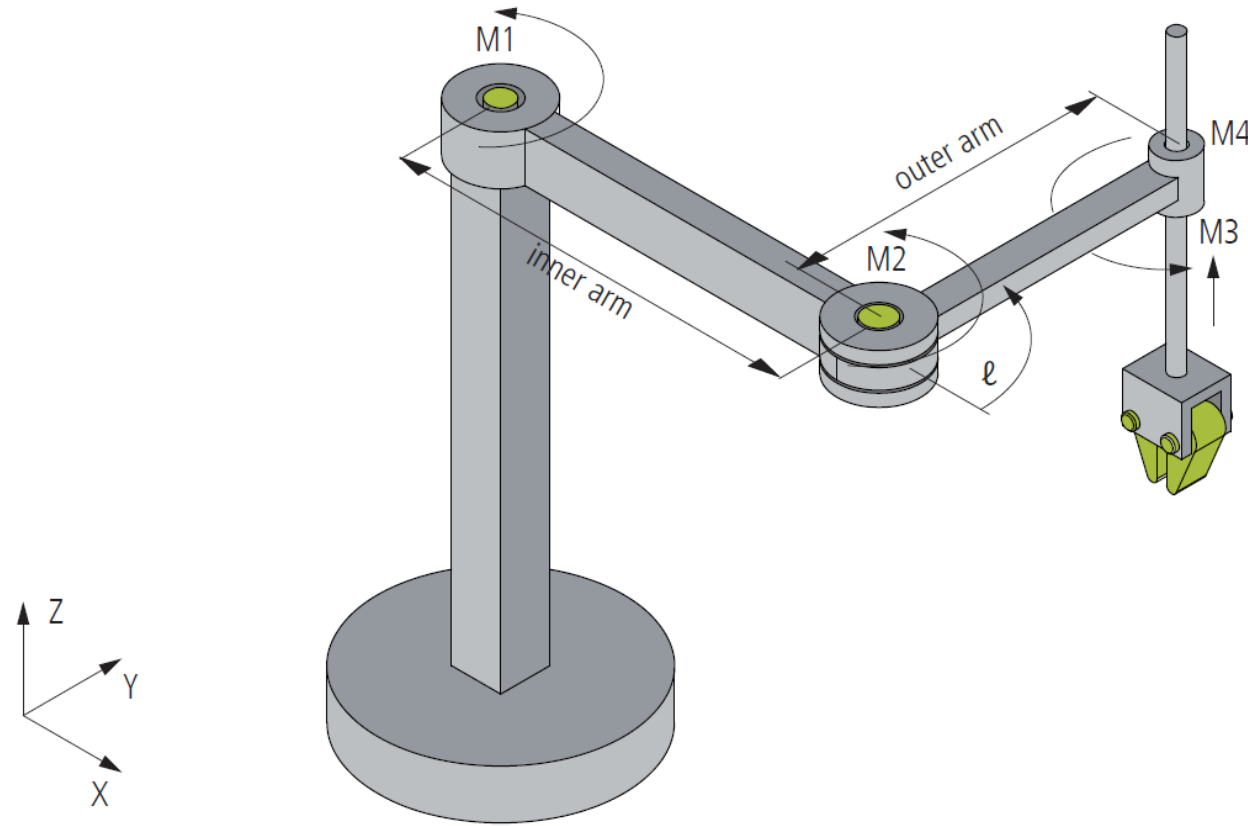
PYTHON LAB PROJECT: SCARA MANIPULATOR MODELING

DR. ERIC CHOU

IEEE SENIOR MEMBER



SCARA Robot Arm Modeling





Problem:

- 1) Model the SCARA Manipulator using Kinematics Diagram
- 2) Write a python program to demonstrate how a point $c = [1, 0, 0]$ with respect to frame 4. will be rotated after the following rotations:
 - Your Python code calculating the complete rotation matrix from frame 0 to frame 4 (DOF 4) for a SCARA manipulator. All link length assume to be 1. 3 Rotational Joint and 1 Prismatic joint.

