MODELLING ROBOTS

1. Denavit Hartenberg Parameters What are the main differences between an open kinematic chain, and closed kinematic chain robot mechanism?
2. Which parameters must be paid attention to during 3D modelling of a robotic arm?
3. What does the „degrees of freedom” (DoF) of a robot mean? What’s the connection between the amount of degrees of freedom of a robot, and its ability to complete tasks?
4. Robots with kinematic redundancy (Typical cases of redundant robots, disadvantages of redundancy, inverse kinematics problem, Jacobian-based methods, null-space methods, task augmentation methods, Singularity robustness