# Chapter 2

1. robot consists of a collection of rigid bodies connected by joints.
2. The number of degrees of freedom (dof) of a robot is the smallest number of real-valued coordinates needed to represent its configuration.
3. The dof of a robot, and hence the dimension of its configuration space, is the sum of the dof of its rigid bodies minus the number of constraints on the motion of those rigid bodies provided by the joints.

***DOF (degrees of freedom) = dim = -***

1. A robot arm is typically equipped with a **hand or gripper**, more generally called an **end-effector**, which interacts with objects in the surrounding world.
2. We call the space of positions and orientations of the end-effector frame the **task space**