

1.Introduction

1.1 Purpose of the requirements document: This Software Requirements Specification (SRS) identifies the requirements for the ROS project(**Robotic Arm Simulation using ROS**). The purpose of the present document is to explain how we organize our project, the different steps of the conception and the project achievement.

1.2 Scope of the project:

I)The platform and software used for this robot are extensible and open-source.

li) It is a low cost robot.

The benefits of this frame work are:

We can simulate any kind of robot using the Gazebo simulation tool

No need to invest on any hardware if you are making any project

ROS provides algorithm for many sensors for robotics

ROS provides many libraries like:

- perception
- object identification
- segmentation and recognition
- Face recognition
- gesture recognition
- motion tracking
- egomotion
- motion understanding
- structure from motion (SFM)
- stereo vision: depth perception via two cameras
- motion
- mobile robotics
- control
- planning
- Grasping

