INDUSTRIAL ROBOTIC ARM 3D MODELLING USING SOLIDWORKS

Introduction:

This project focuses on the design and 3D modeling of an industrial robotic arm using SolidWorks. The aim was to understand the design intricacies of robotic arms, improve CAD skills, and explore their functional applications in automation industries.

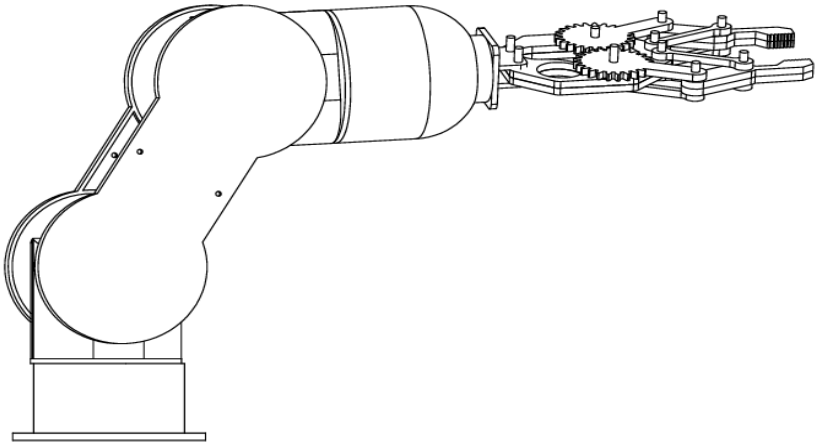
Project Objectives

1. Develop a detailed 3D model of an industrial robotic arm.
2. Enhance proficiency in SolidWorks CAD software.
3. Simulate the motion and operational feasibility of the design.
4. Provide a scalable and realistic representation for potential manufacturing or study.

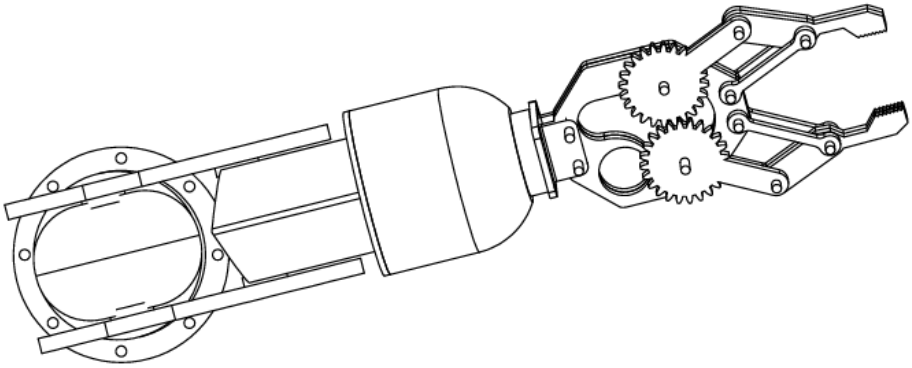
Tools Used

- SolidWorks: For 3D modeling, assembly, and motion simulation

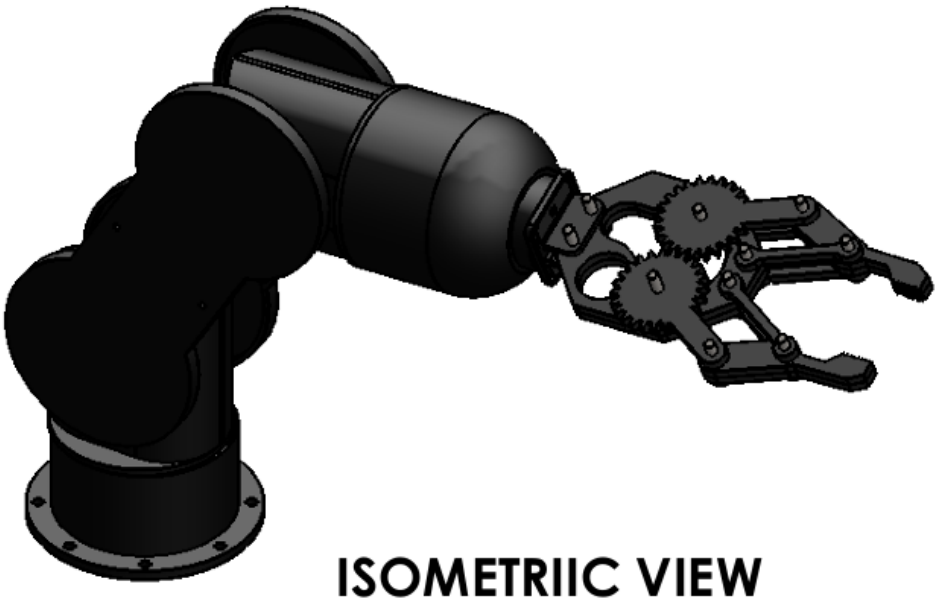
Design



FRONT VIEW



TOP VIEW



ISOMETRIIC VIEW

Results

- A fully designed and functional 3D model of an industrial robotic arm was created.
- The model successfully replicates realistic movement through joint configurations.
- The project enhanced understanding of kinematics, joint articulation, and the mechanical structure of robotic arms.