



**ROBOTICS TECHNOLOGY IN CAR SEAT POLYURETHANE
INJECTION PROCESS FOR SMALL AND MEDIUM SIZE
INDUSTRIES IN MALAYSIA.**

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In the name of Allah The Most Gracious and The Most Merciful.

With the Selawat and Salam to Prophet Muhammad SAW.

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ABSTRACT

At Rokisar Sdn. Bhd. the method and technique of car seat Polyurethane (P/U) injection process is still done manually. The project of our study is on improving the car seat Polyurethane Injection process at Rokisar Sdn. Bhd. The focus is base on implementing the use of Robot's arms as a new techniques or method in the injection processes. The Quest Simulation Software is used to create the simulation for Robot's arms movement for the automated processes. In this project, work-study method will be adopted as a means of developing the new technology of P/U injection process. The work study method and techniques encapsulating the overall improvement method and technology development as well as associated management issues.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE PROJECT

1.1.1 What is Car Seat Polyurethane Injection Process?

The design of automotive seating is attracting increased attention from vehicle manufacturers. It is recognized that seat styling, comfort and safety contributed to the initial appeal of a vehicle and to satisfy customer satisfaction. The durability of seating can be reflected in the vehicle's residual value. Car seat polyurethane process is a method of producing car seat in order to meet the said objective. The two polyurethane mixtures for car seat are isocyanate and a polyol blend. The components are designed to be mixed together at a one to one ratio before pouring process.

1.1.2 What is Robotics Technology?

Robot Technology has matured as a high quality, reliable, and profitable solution in manufacturing, and applications for the technology that has emerge in the manufacturing industries.