



**BUILDING UP A PHYSICAL MODEL LAYOUT OF
FMS FOR FURNITURE INDUSTRY**

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ABSTRACT

This report is written to understand flexible manufacturing system (FMS) and to develop FMS layout for the furniture industry. Our report starts with the understanding of FMS components. In general, FMS is defined as a fully automated operation yet flexible production for a family of parts. In studying FMS, the components consist of workstation, material handling, computer control system, and human resources.

This report can be as a continuation from the studies of FMS Layout for Furniture Industry that has been done by other group. We were involved since in the earlier stage of the study. However, that particular study is mainly on the layout. This report is mainly on the model designed to produce a better and systematic way of producing a side rail.

From this report too, the side rail line is not in a systematic manner. A new FMS side rail cell is designed with modified mechanism and high technology machines are used. It is to upgrade the product flow and output as well as the quality.

We begin our project by visiting several furniture factories. Then we study their layout and tried to come out with the best method of production versus the existing layout. Next, we simulated the layout and fabricated a certain parts that we have decided focus. The cell should be flexible in terms of size it processes. The cell is practical to be applied because the part doesn't have much difference in size and shape. However the designed cell is still can be improved with better technology and operations method.

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