

## ***ABSTRACT***

*PT Dharma Precision Parts is one of the companies incorporated in the Dharma Group located in Cikarang industrial area. The Core business of the company is in the manufacture of spare parts. One of the spare parts made in this company namely products Arm stay which is the liaison between the rearview mirror with a motor vehicle. Product Arm stay is done in several processes such as the process of facing, chamfer, thread roll, grinding, welding, and bending by using operators in each station works. Thus resulting in problems of the company towards the cost continues to rise along with the increasing labor wages each year. Therefore required a automation system that can replace man power operator. Work system automation can be applied to work stations spot welding that still use the operator in the operation. So in this study required a design against the auto loader spot welding that will produce the product concept and the geometry of the product. The method used in this research is a method of designing a generic product is in the stage of concept development and design of system level so that it can produce the product concept and the geometry of the products in the manufacture of machine Auto Loader system with automation. The concept of elected this will be input to the detailed design and testing by researchers of the second.*

*Keywords—product design, concept development, geometric product, auto loader spot welding*