

## **ABSTRACT**

*PT. Dharma Precision Parts is a company that produces motorcycle components such as arm stay. Production process of arm stay is divided into four work stations with an operator in each work station, but high labor cost causes disadvantage for the company because the increased of labor costs is not accompanied by increasing the number of arm stay production because the capacity of production machine is maximum. One of the solution to solve this problem is reducing labor and change it using automated work system. This automated work system can be implemented in production of arm stay at material handling process that connects “three in one” work station and “centerless grinding” work stations using material handling machines, because material handling process of arm stay in the existing condition is carried by the operator. One of the material handling machine that can be implemented is conveyor machine. Conveyor is designed using generic product development framework at concept development phase using Nigel Cross method to make the final concept and systems level design phase to make product architecture of the machine conveyor.*

*Keywords : product design, concept developmenet, product architecture, conveyor*