## **ABSTRACT**

PT. Eksonindo Multi Product Industry (EMPI) is one of the companies that produce the bags. Overall, there are number of productions that have not yet reached the production target of companies. The problem is examined further by using lean six sigma approach to identify the causes of the production targets are not reached. Stages on this research use are define, measure, analyze and improve (DMAI). In the define phase, there are seven types of waste in the production process, i.e. waiting, defects, overproduction, unnecessary inventory, transportation, EHS, and unnecessary motion. From seven types of waste, there are four of the most influential of waste that happened, they're defects (23.62%), transportation waste (21.32%), inventory waste (19.54%), and unnecessary motion waste (17.76%).

The research only focused on discussing unnecessary motion waste. Waste identified in cutting and sewing workstations, namely in the area of cutting pon, sewing workstation area distributor and sewing workstation area tailoring. Unnecessary motion waste was identified through the movement of the non value added (NVA) that happened on the floor production. Recommendations to reduce unnecessary motion waste is by application of the 5S in the cutting pon area, making the storage of tools, and setting the table component on tailoring table through the identification of left hand and right hand map. Based on recommendations to reduce motion waste, the expected activities of the production process can be run effectively and cycle time needed to be more optimal.

**Keywords**: 5S, DMAI, lean six sigma, non value added activity, unnecessary motion waste.