

## **ABSTRACT**

*PT. Perkebunan Nusantara VIII Kebun Ciater is a black tea processing company located in Bandung regency. In the orthodox black tea processing PT Perkebunan Nusantara VIII Kebun Ciater have 8 workstations in the execution phase of the production process. For packing workstation there are still processes that involve the operator to hold the paper sack in any one-time charge. So that it poses a risk on activity of charging and removal of sack paper, it can be seen from the value of REBA scores high enough that 7 for holding paper sack activity by operators and 10 for the removal of the paper sack activity by the operator to be weighed. Both of these will cause MSDs risk perceived by the operator while performing the activity of filling and removal of the paper sack of tea.*

*By using a Mechanical Design Framework and Tools are adopted from Ulrich-Eppinger expected with this product development process steps could reduce the risk of MSDs on the operator and can reduce the time of filling tea process.*

*The output results of phase Mechanical Design Framework was the specification of design tools that would be created. The tool was designed with a filling mechanism and weighing tea powder paper sack in the same time. Which is expected to reduce the risk of MSDs and could make more efficient production process.*

*Keywords: Mechanical Design Framework, technical specifications, Ulrich-Eppinger, REBA, Rapid Entire Body Assessment*