

# **Ergonomic Risk Assessment of Bamboo Weaving Craftsmen Using the RULA (Rapid Upper Limb Assessment) Method and Designing Ergonomic Workstation Designs (Case Study: UMKM Pringgondani Art)**

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## **ABSTRACT**

*Crafts made of bamboo can be found in almost all corners of the island of Java and still exist today even though they are being hit by the storm of the plastic era or plastic-based crafts. Most of the handicraft industries only pay attention to the factors of improving the quality of production, management and marketing without paying attention to ergonomics and worker comfort factors. In doing their job, workers work more by sitting cross-legged on the floor and bending over. Working conditions like this force workers to always be in an unnatural working attitude and position which lasts for about 8-9 hours a day and is static. The purpose of this study was to determine the ergonomics risk assessment using the RULA method on woven bamboo craftsmen at Pringgondani Art SMEs. The results of the calculation of work posture based on the Rapid Upper Limb Assessment (RULA) method on the bamboo thinning process obtained a final score of 4 which indicates a moderate level of risk and the action that must be taken is further investigation and changes may be needed. While the bamboo weaving process obtained a final score of 6 which indicates a high level of risk and the action that must be taken is an investigation and changes are needed immediately. The suggestion of the right tool so that the woven bamboo craftsmen can work comfortably is to make a proposal in the form of a work desk and work chair design.*

**Keywords:** *Work position, Ergonomic Risk, RULA (Rapid Upper Limb Assessment) Method*