

## **ABSTRACT**

Due to the rising trend of cycling during the “Pembatasan Sosial Berskala Besar”, bicycle companies also experienced an increase in demand, one of which was PT XYZ. The whole process for making bicycles at PT XYZ does not all use tools, there are several processes that are carried out in the absence of tools such as the fitting process. Due to the absence of assistive devices, the position of the workers must be bending and squatting. If calculated using the RULA method, the score generated from the position of the worker is 6 who have a risk of developing Musculoskeletal Disorders (MSDs). To produce an ergonomic tool, this study uses the Ergonomic Function Deployment (EFD) method to produce a jig proposal specification based on ergonomic aspects. From these specifications, several jig proposal concepts have been developed that can improve the position of the fitting work process. The results of the proposed jig concept using the EFD method can improve the posture of workers who previously had a RULA value of 6 to 3 after using the proposed jig.

Keyword: Product Development, Jig, RULA, Ergonomic Function Deployment (EFD), MSDs