

### **Abstract**

*Indonesia is the third-largest country in the world that consumes and produces rice every year, many rice production factories throughout Indonesia and many of these factories still use a plastic dustpan to fill a rice sack, and therefore rice production in Indonesia is still relatively slow. The loading process can be accelerated using a rice loading tool, this design uses the concept of a lever to lift rice, intending to speed up the loading process and increase the volume of rice filled in the sack, so it is expected that production efficiency can increase. The design of the shovel model that will be made has a total length of 1.8m with the distance from the axis point to the base body is 0.5m, the distance to the secondary handle is 1m and the distance to the primary grip is 1.3m. The simulation process is carried out through Autodesk Fusion 360 by giving a test to the bucket in the form of a distributed load of 58.8N and a load on the handle of 233.48N with an angle of the force of 30 degrees because it assumes that this object will be pulled by a person placing the force on the handle that will be placed at 3 points, namely the main handle, the secondary handle, as well as pull from an extreme point in tension.*

**Keywords :** *Rice loading tool, lever, deflection, Autodesk Fusion 360*