

# **FABRICATION OF BOX TRANSPORT MECHANISM**

A Project report submitted

In partial fulfillment of the requirements for the award of the degree of

**BACHELOR OF TECHNOLOGY**

**IN**

**MECHANICAL ENGINEERING**

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## DEPARTMENT OF MECHANICAL ENGINEERING

### CERTIFICATE

This is to certify that project work is entitled "FABRICATION OF BOX TRANSPORT MECHANISM" is a bonafide record done by S.JAYAKRISHNA (15811A03CO), M.P.C.SEKHAR (15811A0376), P.SAIKUMAR (15811A03A5), R.DILIPVAMSI (15811A03B4) students of final year B.Tech in the Department of Mechanical Engineering, Avanti Institute of Engineering and Technology, Visakhapatnam. This work was done for the fulfillment of the requirements of the award of Bachelor of Technology during the 2015-2019.

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## ABSTRACT

There has been a serious demand for intermittent movement of packages in the industries right from the start. Though the continuous movement is more or less important in the same field of the sporadic motion has become essential. The objective of this study is to design a mechanism that delivers this stop and move motion using the mechanical linkages. The advantage of this system over the conveyor system is that the system has a time delay between moving packages and this delay can be used to introduce any alterations in the package or move the package for any other purpose and likewise. While in the normal conveyor mechanism such actions cannot be performed unless programmed module is used to produce intermittent stopping of the belt which is basically costly. The prototype design requires an electric motor, shafts and the frame of which, the frame and platform on which the packages are moved is fabricated. All the links are made up of normal MS (mild steel) including the head which has a direct contact with the boxes that are to be moved. The system is expected to move as heavy packages as 2 KGs approximately. The aim of the project work is to design and fabricate a box moving mechanism that makes much easier to move with the so called quad staying machines by means of which a box blank is folded or set-up into box like form. These set-up boxes are transferred by means of a conveyor to an operator, who picks up the boxes and places and centers them on wrappers with which the boxes are to be covered. The boxes and wrappers are then conveyed to a box wrapping machine where the wrapper is folded around and glued to the box. Usually, the operation of the wrapping machine is controlled by means of a switch actuated by the box forming machine so that their operating speeds are related to each other.