

## ABSTRACT

Technological advancements are now increasingly developed, the problem then arises where people are required to increasingly master new technologies in order to compete, even now has a lot of simple goods that are now developed into a technology-based equipment, especially in the field of freight services where the box Storage of its goods from the past until now has not changed and untapped technology. The field of freight forwarding services is now a promising service, busy making people choose to send their goods through courier services.

In this final project has been realized automatic goods storage box using ultrasonic sensors and heavy sensors, ultrasonic sensor HC SR-04 serves as a sensor that controls the distance, weight sensor load cell is a sensor that can measure the weight, the LCD is used as a component that displays the weight of goods, Servo as a modified drive component so that it can move goods to the left and right also arduino microcontroller that can controll electronic circuit and generally can save the program.

The result of the design of this tool can make an open box automatic opening system using ultrasonic sensor that works optimally at a distance of 2 cm up to a distance of 14 cm and can make a system of measurement of weight and placement of goods based on the weight of goods where if the measured weight  $> 50$  grams then the servo Will put the goods to the left while if the weight of the item is measured  $< 50$  grams then the servo will put the item to the right.

**Keywords:** *HC SR-04, Microcontroller, Load Cell, LCD*