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

iii