

## **ABSTRACT**

Parcel delivery is growing in popularity along with the rapid growth of e-commerce. One of the main challenges in package delivery is the accuracy of dimensional measurement, which is currently often done manually with time-consuming methods. In this research, the design and implementation of a package dimension measurement system that utilizes the Lidar sensor and microcontroller technology. The Lidar sensor is used to measure package dimensions with precision, it is hoped that this system can increase the efficiency of measuring package dimensions and reduce potential errors in the process of shipping goods. From the results of measuring the dimensions of goods with the aim of knowing the value of the level of accuracy and precision in a tool measuring the dimensions of goods, the most stable error value of measuring the dimensions of goods in testing the 3rd item is 5.88% each.

Keywords: Lidar, Microcontroller, package dimension measurement.