

ABSTRACT

Developments in the economic field of the marketplace industry are increasingly advanced and are increasingly used by the public to buy and sell their merchandise on the internet. developments in this industry can be seen from the many e-commerce platforms available. The e-commerce platform provides buying and selling services with a virtual transaction process. This transaction involves various services, especially expedition services. This causes expedition service companies to complete a lot of work. Driven by advances in automation technology, some industries use sensor-based automation systems to increase production. From this case, a tool for measuring the dimensions of package goods automatically using ultrasonic sensors was created and designed. This research uses an Arduino Mega 2560 microcontroller with the support of ultrasonic sensor technology and a stepper motor as a sensor drive medium. In the test, a comparison was made between tool measurements and manual measurements with the aim of determining the level of object measurement accuracy. The results of the test on the average length measurement accuracy reached 98.30%, on the average width measurement accuracy reached 98.16%, on the average height measurement accuracy reached 87.5%, and the average accuracy after calculation into dimensions reached 94.53%.

Keywords: Ultrasonik Sensor, Measuring Dimensions, Motor Stepper