ABSTRACT

Racing pigeons is a culture as well as a hobby and profession in Indonesia which is growing rapidly and the prices of racing pigeons themselves now average from hundreds of thousands to billions of rupiah. Considering that the price of kolong pigeons is increasing and the need for good security, it is necessary to develop a monitoring system for racing pigeons that is useful for minimizing the risk of losing pigeons. Therefore, this tool was made to determine the performance of a racing pigeon (Columba livia domestica) monitoring tool in determining coordinates, using GPS Tracking connected to SMS as a notification output. Then, to find out the battery life used by the tool, an 8.4 V Lithium polymer type battery is used. The use of this type of battery aims to make the tool not too heavy when used. With the notification sent via SMS, it can be seen how the delay received to obtain the information sent by the device. In this study the testing method used is point location testing, battery life testing, delay testing. Judging from the results of the error in the location of the coordinates of the GPS tracker, it shows a good error, as evidenced by the results of the average difference value of 5.826424 meters. The battery endurance test shows that the device can last for just 10 minutes, as evidenced by the results of a decrease in voltage where in testing the first data set obtains a final voltage value of 7.48 V and the second data set obtains a final voltage value of 7.55 V, where the voltage is close to the point the battery is weak, namely 7.4 V. The delay test shows that the average delay on the system is 5.24 seconds.

***Keyword**:* GPS-*Tracker, Racing Pigeons, SMS.*