

## **ABSTRACT**

*The current users of logistics services is increasing due to practical use of sending goods without consument having to deliver goods themselves. However, logistics companies currently need a good security system because of the high crime rate in Indonesia.*

*Therefore, in this final project, a security system for logistics cargo box doors is designed. Using this system, the owner/company can lock and unlock doors remotely. They can also monitor the key integrity on the cargo box door so that the owner / company can feel safe and can take action quickly when theft occurs.*

*On the cargo box door, a microcontroller, servo motor, reed switch sensor and sim GPRS module 900a will be installed. The servo motor serves to drive the key slot that will lock and unlock the cargo box door that can be controlled and monitored by the owner through IoT communication which will later be displayed on the android of the owner of the company.*

*Switch and magnet placement on the sensor reed switch must be less than 2,2 cm so that this sensor can work properly, The sensor will send monitoring data to the android application with a success rate of 86,6% in open space and 73,3% in close space, while at the initial initiation of this system to search for signals requires an average time of 21,9 s in open space and 32,8 s in close space, then this system also requires a delay time to control the door lock on average 8,6 s for open space and 14,6 s for Close space.*

**Keywords :** *Security system, IoT, sensor, logistic*

