

Project	Automatic Parcel Locker
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Abstract

This project on an automatic parcel locker was conducted to study and apply the principles of the Arduino board in creating an automatic parcel locker. In this project, the team studied the operational system of the automatic parcel locker to meet user needs for convenience and efficiency. The locker features various functions, including photographing parcels and notifying the owner of the locker about the date and time, alerting when the locker is full, storing parcels in the lower storage area, and securing the locker to prevent unauthorized access. The tools used in system development included programming in C language and hardware development through the Arduino IDE. The team utilized LINE Notify for sending information. The report is based on the Microsoft Windows operating system.

The overall efficiency of the parcel locker is averaged at 97.55, with performance ranked from highest to lowest as follows: Photographing parcels - average 100 Sensor measurement - average 100 LINE notification when a parcel arrives - average 100 LINE notification when the locker is full - average 100 Locker not operating when full - average 100 Storing small parcels - average 96 Opening and closing the hinge - average 95 Storing medium parcels - average 95 Storing large parcels - average 92 User satisfaction with the automatic parcel locker averaged 4.72, which is considered very good, with a standard deviation of 0.38.

Keywords Arduino notification parcel locker