System Specs

Project: Mail Gobbler 9000 (MG9K - Smart Mailbox/Dropbox)

Document: System Specifications

Team members: Luan Vo, Adam Cytrynowski, Jackie Chan, Brendan Truong

The MG9K is a smart drop box that provides postal security through means of package barcode authorization. Users store expected package barcodes in an AWS backend through a mobile application, for which incoming packages need to match and verify with. Along with this means of security, the MG9K provides various quality of life features such as multiple unlocking mechanisms (mobile and physical backdoor), and display of historic logs. Compared with other competitive smart drop boxes on the market, the MG9K highlights in providing a power efficient and low cost means to fortify postal security.

The MG9K will meet or exceed the following system specifications:

- Product will be able to quickly wake up from sleep, upon pressing a button.
- Product will have a reliably LED that indicates on/sleep states, that also provides illumination for night time usage.
- Product will have a dedicated and stable mobile user application.
- Product will be able to communicate with the user via the mobile application, to unlock itself on user demand.
- Product will be able to store a database of barcodes for expected packages, as uploaded by the user.
- Product will have both the automated scanner means to unlock the dropbox, along with taking input from the mobile application to unlock the dropbox.
- Product will have a backdoor with a physical key, in case the system fails.
- Product will be able to provide services around the clock 24/7, and handle night time operation.
- Product will be powered by rechargeable batteries to allow easy set up as compared to commercial means of wiring.