Sri Lanka Institute of Advanced Technological Education (SLIATE)

DEPARTMENT OF HIGHER NATIONAL DIPLOMA IN INFORMATION TECHNOLOGY

ADVANCED TECHNOLOGICAL INSTITUTE BATTICALOA

INDIVIDUAL PROJECT PROPOSAL

ARDUINO BASED MAIL NOTIFIER SYSTEM

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1. INTRODUCTION

Mail is part of a postal system wherein written documents, typically enclosed in envelopes, and letters, are delivered to destinations around the world. Anything sent through the postal system is called post, cheap for users to communicate through the world, Most of our important and official documents are sent by the conventional way.

Have you ever been bothered to check your mailbox daily when you having important letters coming in? How do you feel when you open the box but there are no expected letters? This is the idea behind this Mail Box Notification Project. With the support of this project, you can access the status of your mailbox from your office, on the way home or even when you are overseas. In this project, it will automatically filter away the flyers and count the number of letters and upload the data online.

Getting letters and parcels is awesome, what's not so awesome though is when you miss the postman and you don't know if that important bit of mail arrived or not. Such a frustrating, yet problem can be solved by creating an Internet of Things mailbox (IoT).

The project is being developed on the open sourced Arduino Platform. The Internet of Things (IoT) function is being enabled by an Arduino. The hardware circuit detects the weight in a letterbox. Based the number of increasing above the threshold in the reading, we will be able to know the number of letters present in the mailbox.

2. BACKGROUND AND MOTIVATION

Mail Box is a smart, affordable device that helps you manage your physical mailbox via smartphone. The Mail Box is designed to save your time, effort, and maintain excellent mail security. You'll receive notifications when letters are added to your box, and you'll be able to keep track of your whole mail history.

3. PROBLEM IN BRIEF

A post is a method of receiving documents, cards, and letters in the mailbox, most users do not get notified of this fact. They have to periodically check their mailbox contents. In most events, the users are neglectful on checking their mailbox. This at times may lead towards the ignorance of important letters in most of the multi-story buildings such as apartments; office buildings etc. in order to minimize the frequent visit to check the mailbox, we should make the proposed system.

4. AIMS AND OBJECTIVES

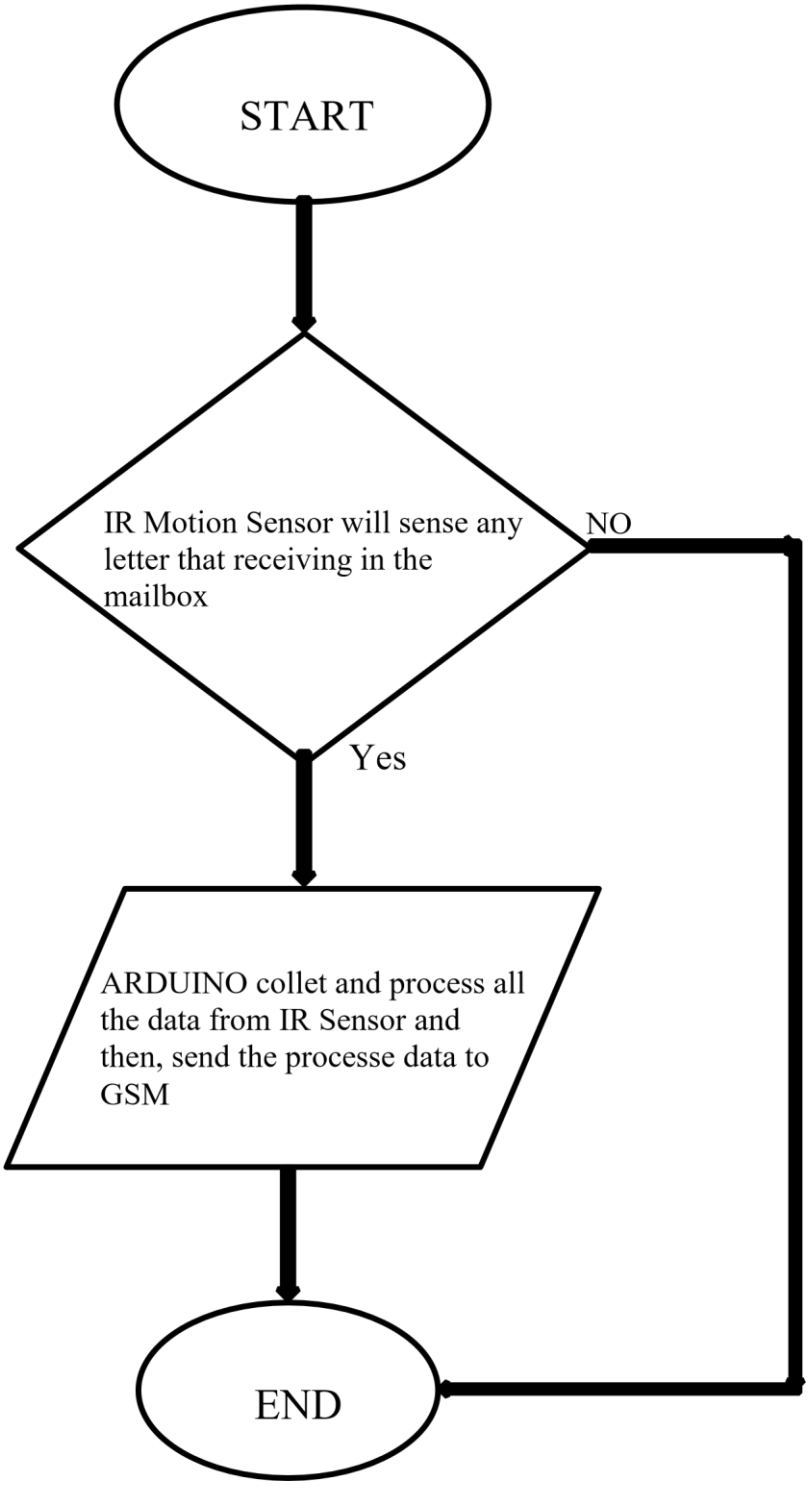
The real-time system is an effective and efficient method whereby immediate alerts of new letters delivered via SMS. The users are capable of checking their mailbox status by receiving SMS from the system.

- We can get the impotent letters and documents without losing them.
- We can take the letters before anything happens to them like heavy rain.
- In the apartments, owners can easily identify whenever they receive the letters in their inbox.

5. PROPOSED SOLUTION

The programmable logic controller, interface module and the GSM modem can be incorporated by linking the user's mailbox with a short messaging system (SMS) and this enables the users to be notified whenever a new mail is delivered. Mails delivered into the user's mailbox, the system will automatically generate an alert which is sent in the form of an SMS or CALL ALERT that typically details the real time of mail delivery. The system is designed to easy human life by sending SMS or Call Alert to notify the users about important new letters or documents reaching their mailbox. This is likely to be a fast-growing and popular application for short messaging.

5.1. PROJECT DIAGRAM



5.2. PROJECT PLAN

WEEK 1	Select project and title
WEEK 2-3	Finalize the project idea
WEEK 3	Analyzing the project requirements
WEEK 4-5	Project management
WEEK 6-7	System design
WEEK 8-9	Implementation of the system and testing
WEEK 11-12	Submit Final project report and do the Presentation

5.3. GANT CHART

	W 1	W 2-3	W 3	W 4-5	W 6-7	W 8-9	W 11-12
Select project and title							
Finalize the project idea							
Analyzing the Project requirements							
project management							
System Design							
Implementation of the project							
Submit Final project report and do the presentation							

6. RESOURCE REQUIREMENTS

To develop this system I found some requirements first of all

6.1. HARDWARE REQUIREMENTS

 This project requires common electrical tools

- ARDUINO Board
- GSM Module
- SIM Card
- IR Motion Sensor
- Power supply
- Connecting wires

6.2. SOFTWARE REQUIREMENTS

- ARDUINO Software
- Documentation :Microsoft Word 2010

7. REFERENCES

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