



**Department of Electrical and Computer Engineering
North South University**

**Senior Design Project
Medicine Delivery Drone**

Submitted By:

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Faculty Advisor:

Md. Shahriar Hussain

Senior Lecturer

Department of Electrical and Computer Engineering (ECE)

North South University, Dhaka

Date of Submission:

12 December, 2023

LETTER OF TRANSMITTAL

12 December 2023,

To

Dr. Rajesh Palit

Chairman,

Department of Electrical and Computer Engineering

North South University, Dhaka

Subject: Submission of Capstone Project Report on “Medicine Delivery Drone”

Dear Sir,

With due respect, we would like to submit our **Capstone Project Report on “Medicine Delivery Drone”** as a part of our BSc program. The report deals with Multi Level Based medication delivery system and management for easing traffic obstacles. This project was very much valuable to us as it helped us gain experience from practical field and apply in real life. We tried to the maximum competence to meet all the dimensions required from this report.

We will be highly obliged if you kindly receive this report and provide your valuable judgment. It would be our immense pleasure if you find this report useful and informative to have an apparent perspective on the issue.

Sincerely Yours,

.....

Sadia Islam

ECE Department

North South University, Bangladesh

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Firoz Maisha Rimi

ECE Department

North South University, Bangladesh

APPROVAL

Sadia Islam (ID # 1821938042) and Firoz Maisha Rimi (ID # 1911340042) from Electrical and Computer Engineering Department of North South University, have worked on the Senior Design Project titled “**Medicine delivery Drone**” under the supervision of Md. Shahriar Hussain partial fulfillment of the requirement for the degree of Bachelors of Science in Engineering and has been accepted as satisfactory.

Supervisor’s Signature

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Md. Shahriar Hussain

Senior Lecturer

Department of Electrical and Computer Engineering

North South University

Dhaka, Bangladesh.

Chairman’s Signature

.....

Dr. Rajesh Palit

Professor

Department of Electrical and Computer Engineering

North South University

Dhaka, Bangladesh.

DECLARATION

This is to certify that this project is our original work. No part of this work has been submitted elsewhere partially or fully for awarding any other degree or diploma. Any material reproduced in this project has been properly acknowledged. We, the undersigned, solemnly declare that the project report “Medicine Delivery Drone”- A multipurpose drone for easing Traffic management obstacles—is based on our work carried out during our studies.

Students’ names & Signatures

1. Sadia Islam

2. Firoz Maisha Rimi

ACKNOWLEDGEMENTS

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Furthermore, the authors would like to thank the Department of Electrical and Computer Engineering, North South University, Bangladesh for facilitating the research. We would also like to thank my friends where integral for helping us in this project. The authors would also like to thank their loved ones for their countless sacrifices and continual support.

ABSTRACT

Medicine Delivery Drone

Unmanned Aerial Vehicle (UAV) is becoming new generation revolution system in modern World. This is considered as 'Drone' technology using in various kind of work. In this report we are going to propose this sort of technology titled as 'Medicine Delivery Drone' for using multipurpose progress and development in helping regards to traffic management system. The motivation for this project is to reduce operational cost of any sort of short distance distribution of medical equipment. Also addressing the emergencies in disaster time, this project is going to be an essential and integral part in remote area where medicine responses are more likely a important things. Moreover, this technology will make the delivery of medicine more efficient and precise in short distance place where it needed the most. This project has been decorated with Hardware and Software Part. In Hardware part we construct this Drone by APM flight controller, DJI 2212 motors, DJI self-lock propeller, APM flight controller GPS etc. This project will illustrate to the solution of light weight medicine distribution to those places where reaching is very difficult. Undermining some future prospect, this project will further help us to reduce traffic jam related problem and this will be another well-being for the patients and people who frequently need medication in shorter period of time in place of unavailability of those medicine.

In the software part, we made a website named "Medi-fly". The user of this website can use it for selecting their required medicine and share their location. After that, we may deliver their required medicine via our customized drone. In addition, the drone has a censored box that is used to keep the medicine and eject after arrival to the customer. For location we are using "Mission Planner" software.