Memo Proposal

Project Summary: This project will be delivering an app and a system that utilizes a drone delivery service for organ transportation between hospitals. To ensure safe transport of these organs the data communication signals will be backed up by a firewall encrypted network.

Introduction: Our project is an emergency drone app. Our project is centered around emergency services like transporting organs needed for transplants, using the app, from one hospital to another in a short amount of time while preserving them and keeping them in good condition based on organ availability.

Rationale and Significance: To provide a new transportation method to deliver organs from one organ laboratory to another. It's significance is that it is safe, secure, and quick compared to currently used methods.

Plan of the work: We will start off by researching complications regarding organ transportation and learning about that to come up with interview questions in which we will ask different people to learn from their experience and look for ways in which we could be better. After collecting data from the interviews, we will start working on the initial app layout that will make the app easy to use and make the delivery go smoothly. To ensure that it is indeed secure, a security encrypted system will be installed into the drone to avoid getting hacked. The organs would be kept in a very small fridge that will help keep it preserved.

Facilities and Equipment: A prototype drone will be designed. Specially designed box that can hold organs. The firewall encrypted network will be backed by a company called palo alto supporting us with a layer 7 firewall.

Personnel:
Dr. Boutros, Dr. Yasser, and a former group of students who did a similar senior design project

Budget:
Drone: ~ $2,000.
Cybersecurity Firewall: ~$1,000
Specialized medical climate controlled box: ~$600
App: ~$25,000
Appendix:
Drone:https://www.theverge.com/circuitbreaker/2017/4/13/15289356/dji-phantom-4-advanced-drone-cheaper-budget-price