**Plan And Progress**

Nowadays, people tend to stay at home to order things online, however, they have to wait for very long time because the delivery depends on postal delivery. Even in the weekdays could take about 2 days to deliver in local areas, or more than 1 weeks to deliver oversea. Moreover, postal delivery by human does not works during weekends and holidays. In order to reduce human labor and the time taken to ship things, our group (FoxHound) came out with an idea of replacing with robot labor. At first, we thought of something like a truck that programmed to be automatically delivery things by using google map. So the truck doesn’t need human to control, just for maintenance and programming codes for it. However, it seems to be very expensive to do this and more likely to cause accident on the road. Therefore, we have decided to choose some sorts of flying things to deliver items, and the drone could be the best options with the lowest risks and price when it is partially small and it can fly in the air.

To do this, we plan for the future with these front-end use:

* User application: This is for tracking the drone, know where to pick up item, set time, send feedback… So these are just some basic functions we could think of for the app/website and in the future we will add more.
* Business application: register to use service, maintenance, tracking drone, set location, path… Basically, for business user, application/website is to register to use Transport Drone service, they can transfer money monthly, annually to third party to use it.

As well as the back-end: So there will be Drones which specially support delivery, and a team to maintain it to run, control all of the risks. There will be technical and programming team to run this.

We are also looking forward to use this system worldwide. Currently, a drone can only fly within a small area on average due to its limited power. There could be two options for this:

* Make the drone bigger, which include bigger battery, or can use fuel or gas to fly as a real transport.
* As a battery, there are some specific charging stations everywhere so the drone can stop somewhere and recharge its power supply.

There are also some problems must be concerned when making the drone transportable. First importance thing is navigation system; our group idea is using google map system. Basically, before delivery, there will be path set up in the google map, and the drone will be programmed to know exactly the direction it should follow. And navigation system needs to have some sort of scanner, detection in order to avoid obstacles, risks, hazards when flying. Second thing is security and stable operation, which is very important for one delivery system to work well. The reason for this is the drone transport all alone and there will be more likely to become a target to thief, robbery. We think of attach the drone with camera, to track everything surrounding and report problems to the operate station which is held by the business. In addition, we also want to make the drone to be able to withstand bad weather conditions such as rain, windy, or even a storm. But it seems like very difficult so electrical insulation, waterproof would be enough for now. Last but not least, safety must be the most important thing to work on, problems like how to avoid crashing and cause injury to pedestrian is very vital. But even human delivery is far more dangerous when there is an accident, to individual himself or to someone else.

So far so good, until now, we come up with clear plan ahead with what to do and what job for everyone. The only thing we need to achieve is knowledge and time. Therefore, nothing is impossible, we can successfully finish our project and make it be practical in some days.

**Roles**

There are 2 main position for this project idea: programmer and technician.

Bach Truong Dao, Yongqian Huang: Programmer

Jingbin Yin: User Interface Designer

QingKai Yi, Shuyuan ZHANG, HouGuang REN: Technician

We can also hire someone for positions in order to finish this project.