EE202C Project Description

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### Title of the Project:

Smart Drone design with IOT.

### Briefly describe the specific goal(s) of the project.

Control the plane's flight route and automatically avoid obstacles by using sensors. (ultrasound)

Detect and convey information with smart drone platform.

### Describe Three EE202C Mission Concepts.

1. The drone can be directed manually by cellphone.
2. The drone can fly without collisions and optimize its routes by some algorithms.
3. The drone can fly using smart phone's GPS.
4. The drone can communicate and interactive with each other through Intel cloud drive
5. The drone would adapt SSH security code for safety and privacy issues.

### Why is the preceding project goal important?

The drone can be used in many areas, such as recording video in dangerous areas.

Also the drone can be used for mail delivery which increases the delivery efficiency.

### What are the risks in successfully completing this project?

1. To ensure the drone being able to fly flatly. (This procedure is the most challenging step.)
2. Being able to make the plane avoid obstacles.
3. Learning how to use the wifi and bluetooth blocks for data transmission.

### What will be the metrics for evaluating success in the project?

1. The drone can fly with our control.
2. Camera Shooting and image transmission.

### What hardware and software resources would you need to complete the project?

We find some links in Amazon

gyroscope:

<http://www.amazon.com/Kootek-MPU-6050-MPU6050-sensors-Accelerometer/dp/B008BOPN40/ref=sr_1_1?ie=UTF8&qid=1443663538&sr=8-1&keywords=gyroscope+arduino>

drone frame:

<http://www.amazon.com/Docooler-X-Mode-Alien-Multicopter-Quadcopter/dp/B00JIL4K3A/ref=pd_sim_sbs_21_15?ie=UTF8&refRID=1Q9FE98WSS9S6C982V8D>

Motor

<http://www.amazon.com/RioRand-A2212-1000KV-Outrunner-Quad-Rotor/dp/B00M3UONLM/ref=pd_sim_sbs_21_3?ie=UTF8&refRID=064Y10VBG0ABXTEVRKW1&dpID=51E5tfN9aKL&dpSrc=sims&preST=_AC_UL160_SR160%2C160_>