

# Team 18: Initial Project Description

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## Project Name

Drone traffic management system

## Project Synopsis

Our software can automatically analyze and identify vehicle information by transmitting images through drones and process them accordingly.

## Project Description (150-250 words)

- Why is the project being undertaken?

The project was inspired by everyday life. Conducive to drones to deal with complex traffic environments and unexpected situations, saving manpower and improving efficiency.

- Describe an opportunity or problem that the project is to address.

In our daily life, our software is very practical. For example, the school has a lot of parking lots, but there are restrictions on the permit. Every day, the school's management vehicles must travel throughout the campus to inquire about illegal vehicles. This work can be perfectly replaced by our software. Conducive to the identification of the license plate for the drone and return to the database for comparison, reducing a work that may take hours to a few minutes

- What will be the end result of the project?

This system will be a combination with the drone. In addition to the license plate check, our software can also dredge traffic through the speaker and laser

## Project Milestones

### first semester

- focus on software

- Estimated completion date: whole semester
- design a software which can find out car plate number from a picture
  - Estimated completion date: 12/1/2019
- test and make sure this software is worked and user friendly
  - Estimated completion date: 12/31/2019

### second semester

- related our software to drone
  - Estimated completion date: 1/31/2020
- test our drone with software
  - Estimated completion date: 2/29/2020
- figure out the issue from test
  - Estimated completion date: 3/31/2020

## Project Budget

- Hardware, software, and/or computing resources

A drone with a high-resolution camera and a certain load capacity, and software for the drone (depending on which brand of drone is used)

- Estimated cost

\$500-2000

- Vendor

DJI

- Special training (e.g., VR)

Machine learning training.

- When they will be required

In the spring semester, 2020.

## Work Plan

- Who will do what

Fan Ye, Guanyu Li will focus on the development of mobile software.

Hanwen Jia, Hidalgo Danie, Xingjian Ding will focus on the development and design of the PC software and database management.

Everyone has to do researching and working on the image recognition and machine learning.