

INTRODUCTION

The power of the drones for law enforcement comes from gathering information for a sticky situation without risking lives.

Our application is called “K-9 UAVs”. This application uses a team of UAVs to help police work in operations and patrol like K-9 dogs. Of course since we can equip different types of drones with many tools according to the situation, area of utilization is limitless. For instance with the drug sensor we developed drones can distinguish vehicles which carries narcotic.



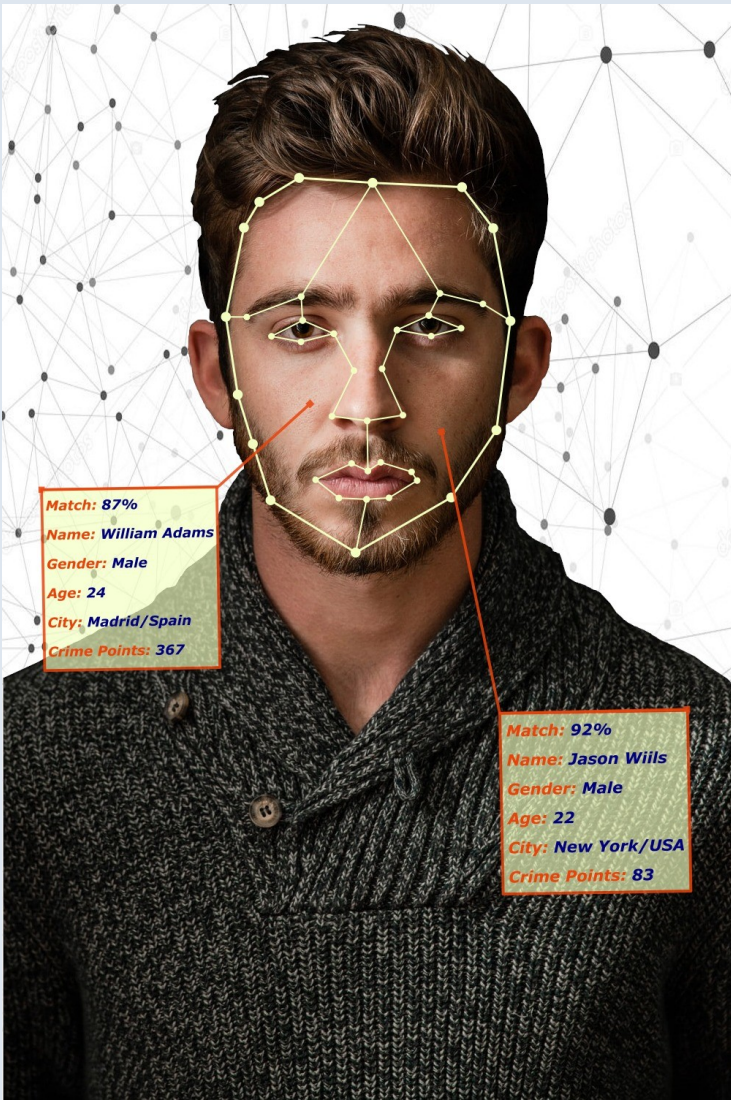
Another example is that tiny drones can track high values targets without being noticed and neutralize them easily.

- Areas we plan to use K-9 UAVs :
- Surveillance
  - Inspect Traffic Flow
  - Narcotic Operations
  - Hostage Situations
  - Hot Pursuit

EQUIPMENT - TECHNOLOGY

Getting accurate detection is a major problem. Our solution was scoring each individual according to their criminal past by feeding our algorithms with those datas, we were able to get more accurate results.

Battery technology is not advanced enough to keep drones in flight for hours. In addition to using more durable and lighter batteries, The idea is to make police cars mobile stations, where a low battery drone will find the closest police automobile, autonomously. The officers is to replace the batteries and let it fly again !



When thinking about use of these drones one question arise: how can these feeble rotors keep up with windy and rainy weather? We can use landing gear type equipments to attach our drones to high above ground surfaces.

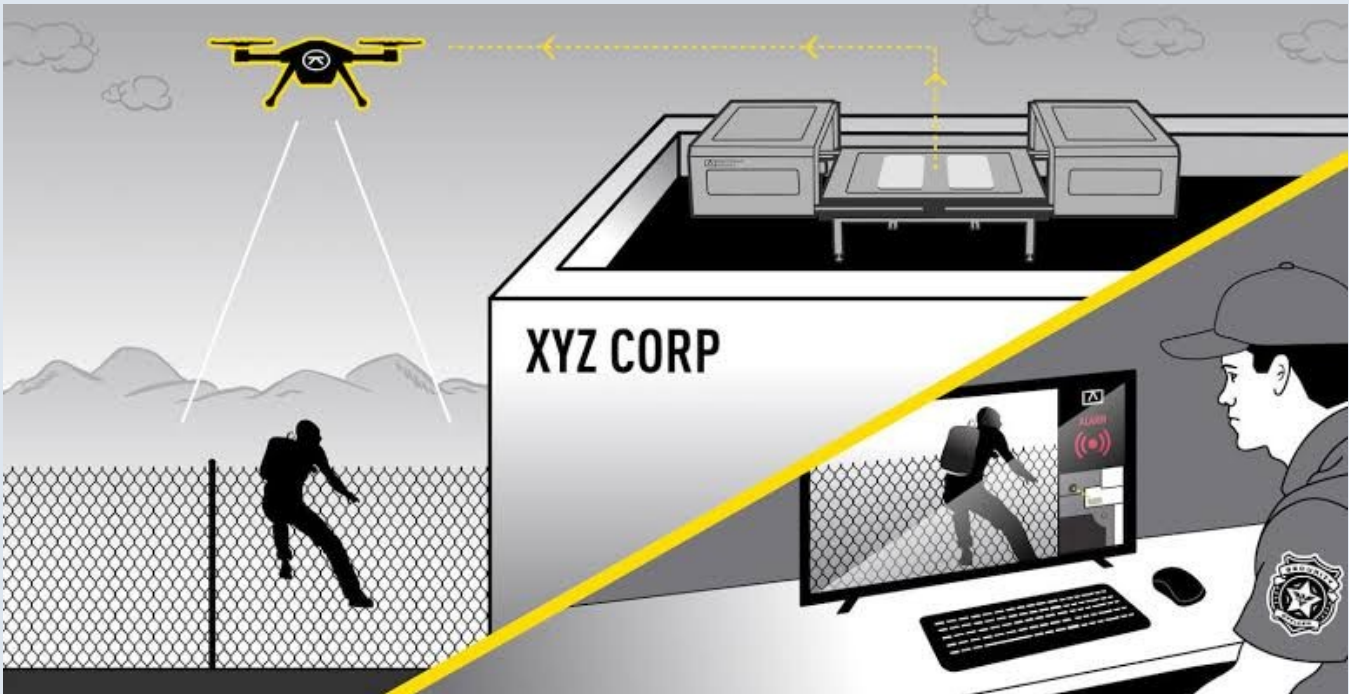
Since drones have a small size, putting needed sensors to just one drone is a hard task. We solved this problem by establishing drone teams with different sensors so that they can communicate and act like they all have the sensors.



K-9 UAVs

SECURITY

“K-9 UAVs” provide security in smart cities. Nowadays, smart systems can capture what people have missed. Drones can see the whole city under control thanks to a bird's eye view. Drones never miss a thing at night with night vision cameras and thermal cameras. Therefore patrolling with drones will be more effective than patrolling with people. Low costs will also be another advantage. They are also very useful for emergencies other than standard procedures. Now “K-9 UAVs” will be used instead of bomb disposal experts.



It may take weeks or even months before the police find a criminal. In this process criminal can commit even greater crimes. However, “K-9 UAVs” can scan an entire city in hours and find the matching face in less than one day. The real good part is that the wanted ones don't realize they're wanted. Finally, apart from all these, “K-9 UAVs” will have very important roles in border and customs controls. Cargoes from abroad can be seen in a very easy way without opening. So, anything that does not comply with the rules will not be able to enter the country and threaten security.

ETHICS

First of all, it seems wrong observing and classifying people with K-9 Drones. But the reason of its utilization is consisting security of people. This is a fact that, while it is recognizing faces it learns a lot of information about people but if information is not necessary or important it will be immediately deleted. In brief if it is used properly and if enough privacy is provided, it can be used ethically.



**TECHBOIZ**

**Group Members:**

Ahmet Furkan Kavraz	İrfan Burak Özer	Emre Sinat
Gökalep Akartepe	Yağız Vural	Yunus Emre Yiğit
Utku Uyar	Mehmet Olçar Kürk	Atakan Kurses
Yüksel Erin		

**Sources:**

<https://encrypted-tbn0.gstatic.com/images?q=tbn%3AAnB9GcTt1aJy6pXNwCsD9bA0aybdlCGihc49002vN1t2gg2k8r2tX>

[https://wall.alphacoders.com/for\\_sub\\_category.php?id=220961&name=Person+Of+Interest+Wallpapers](https://wall.alphacoders.com/for_sub_category.php?id=220961&name=Person+Of+Interest+Wallpapers)

<https://www.hepsiburada.com/dji-phantom-4-kamerali-multikopter-drone-pm-oyuntopdjl4401>

<https://tr.pinterest.com/pin/387802217913956501/>

<https://unsplash.com/photos/Lp77SbmOE>

<https://globaldroneuav.com/Product/High-quality-police-drone-professional-professional-drone-uav-multiple-payload-drone-wih-camera.html>

<https://www.everypixel.com/free/vector/technology>

<https://www.dreamstime.com/policemugshot-background-vector-police-lineup-template-add-photo-mugshot-illustration-table-eps-police-mug-image107084009>