



**Aha Education, LLC**

Welcome and Thank you



# Joe Paneitz

- 18 year educator
- Founder and owner of Aha Education, LLC
- President of Aha Developers 501c3
- Founder of Iconic Drone Education
- 2020 R4 Texas Teacher of the Year
- Humble ISD Teacher of the Year
- Channelview ISD Teacher of the Year
- ATPE Humble Teacher of the Year
- Gulf Coast Educator Teacher of the Year
- Honor Medal Crossed Palms
- Finalist Civilian Congressional Medal of Honor
- All Earth Ecobot Challenge Lead Teacher and Program Director
- FAA FFAST Team Drone Pro
- Recent hire: Houston Community College Drone Educator
- Father, Husband, Dogs, Horse
- Eagle Scout, Vigil Honor





# Purpose

The goal of today's presentation is to learn critical information about the drone industry and identify your resources.



## In this meeting...

- The industry (58% growth rate across countless industry).
- Part 107 commercial drone pilot license (earning money).
- FAA minimum requirements to get your license.
- TRUST recreational certificate (flying for fun).
- Remote Identification (Mandatory for MOST DRONES BY September 16, 2023).
- Registering your drone (Recreational vs. Commercial).
- Acquiring instant/easy ATC (Air Traffic Control) permission to fly your drone.
- Flying over people and flying at night.
- Types of drones and their uses.
- How to access the education your organization.
- Breakouts: Education, Law Enforcement/First Resp, Industry, Individuals, etc..

# Why drones..



Click Pick - Open on Seperate Tab

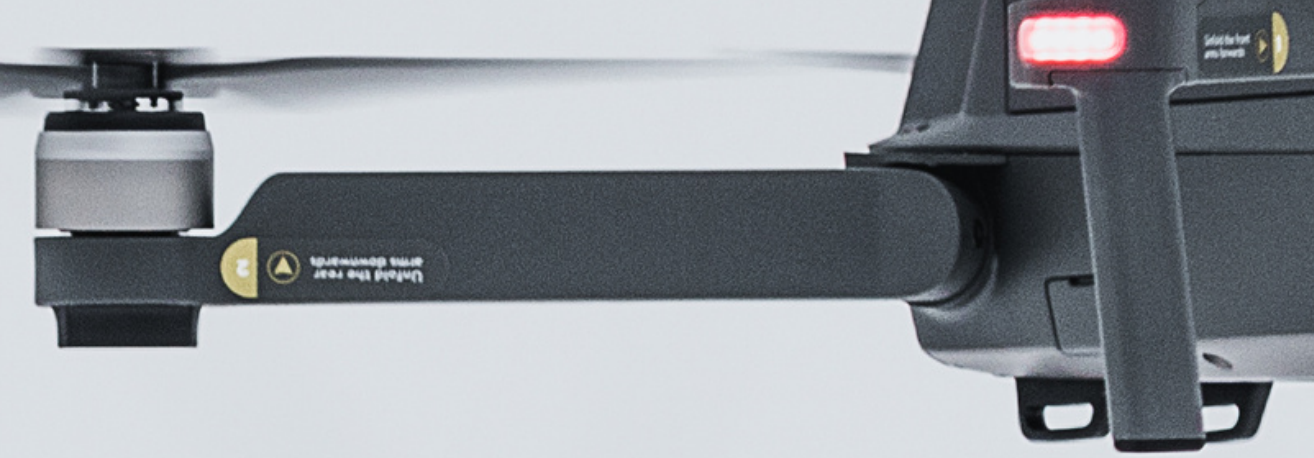
# But wait, theres more..

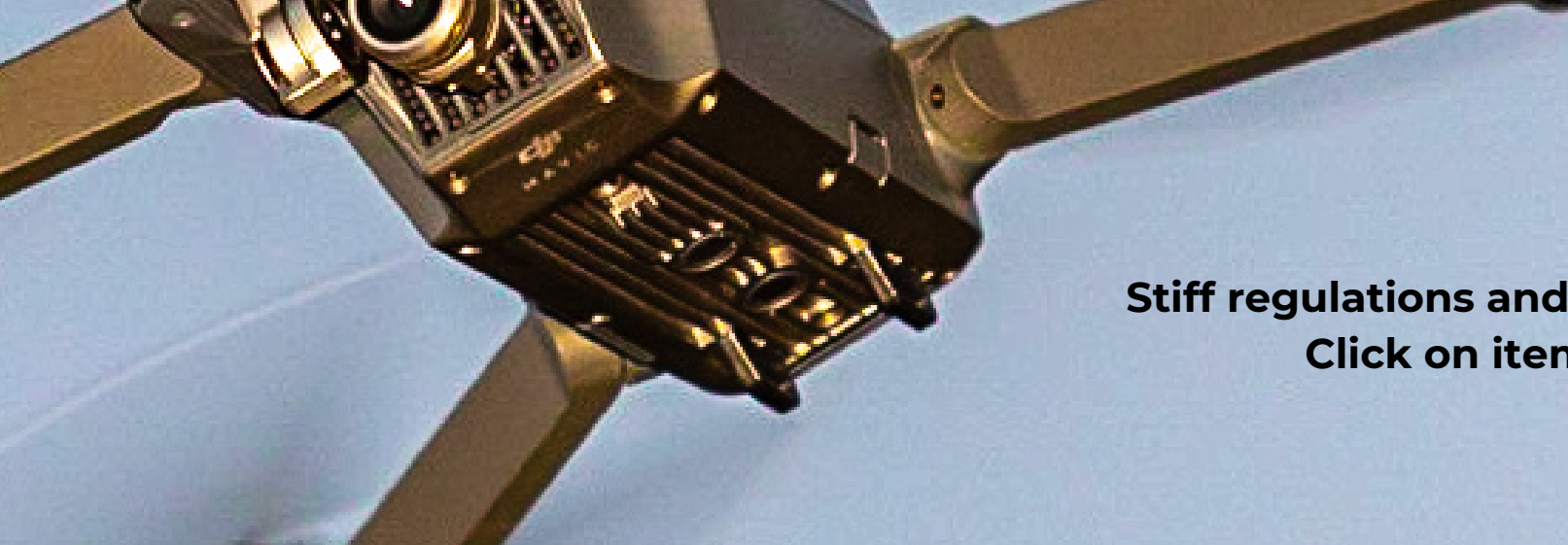
## Penalties related to flying a drone

Penalties related to drones can vary significantly depending on the country and its specific regulations. Drone regulations are primarily in place to ensure the safe operation of drones and to protect the privacy and security of individuals. Here are some common penalties and consequences associated with drone-related violations in many countries:

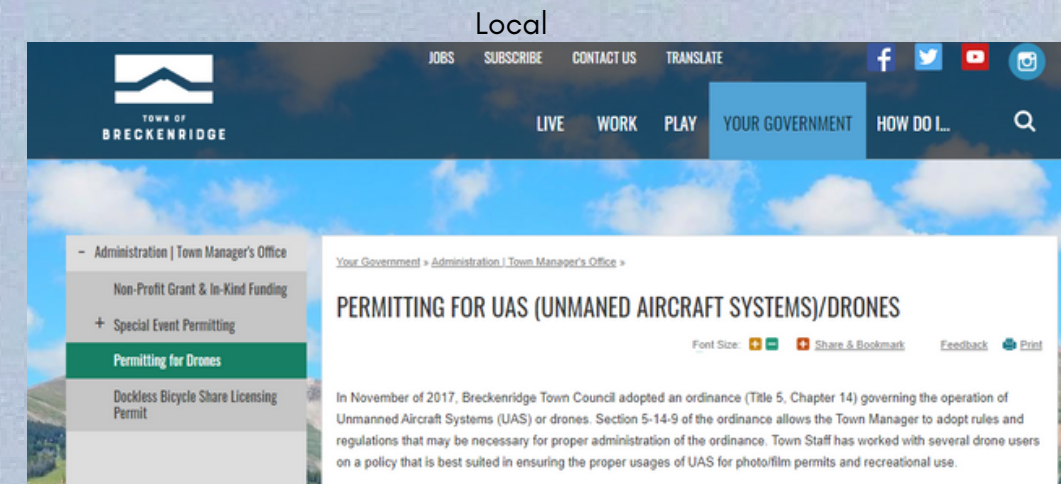
1. **Flying in Restricted Areas:** Operating a drone in areas where it's prohibited, such as near airports, military bases, government buildings, or critical infrastructure, can result in fines and legal action. Penalties can range from fines to imprisonment, depending on the severity of the violation.
2. **Flying Beyond Line of Sight:** In some countries, flying a drone beyond the pilot's visual line of sight without proper authorization can lead to fines and the confiscation of the drone.
3. **Flying Over People:** Flying a drone over people without the necessary permissions can result in fines and legal consequences if it poses a safety risk.
4. **Flying at Night:** Operating a drone at night may require special authorization in many places. Violating these rules can lead to fines and penalties.
5. **Failure to Register:** Many countries require drone owners to register their drones. Failure to do so may result in fines or restrictions on drone use.
6. **Privacy Violations:** Using a drone to invade someone's privacy, such as by capturing images or video on private property without consent, can lead to civil lawsuits, fines, or even criminal charges.
7. **Reckless Flying:** Reckless flying, which includes flying too close to people, animals, or buildings, can result in fines and legal consequences.
8. **Commercial Drone Operations:** Operating a drone for commercial purposes without the necessary licenses and permits can lead to fines and legal action.
9. **Licensing and Certification Violations:** Pilots may be required to obtain specific licenses or certifications to operate drones, especially for commercial or professional use. Operating without the proper credentials can lead to penalties.
10. **Interfering with Emergency Services:** Flying a drone near emergency situations (e.g., wildfires, search and rescue operations) can interfere with first responders and may result in significant penalties.
11. **Smuggling and Illicit Activities:** Using drones for illegal activities, such as smuggling contraband or drugs, can lead to severe criminal penalties, including imprisonment.
12. **Unauthorized Surveillance:** Unauthorized surveillance using drones, such as spying on individuals or sensitive facilities, can result in criminal charges and penalties.

It's essential to check the specific regulations in your country or region, as well as any local laws, to understand the penalties and consequences associated with drone operations. Keep in mind that drone regulations are continually evolving, so it's crucial to stay up-to-date with the latest rules and guidelines to ensure responsible and legal drone use.





**Stiff regulations and penalties: Fed, State, and Local**  
**Click on items below to learn more.**



federal



**Federal Aviation  
Administration**

[About](#) [Jobs](#) [News](#)

[Aircraft](#) [Air Traffic](#) [Airports](#) [Pilots & Airmen](#) [Data & Research](#) [Regulations](#) [Space](#) [Drones](#)

[Home](#)

## Is there a penalty for failing to register?

Failure to register an unmanned aircraft that is required to be registered may result in regulatory and criminal penalties. The FAA may assess civil penalties up to \$27,500. Criminal penalties include fines of up to \$250,000 and/or imprisonment for up to three years.

state

### What Are the Potential Civil Consequences of Improper Drone Use in Texas?

Owners and tenants of private property can file lawsuits to recover civil penalties and attorney's fees from individuals who illegally use drones to make recordings. They can also file an action to stop an existing violation or prevent an imminent violation. Civil penalties of \$5,000 for all materials from a single recording episode, and \$10,000 for disclosure, display, distribution or other of all materials from a single recording episode apply. Additionally, if it is shown that the recording were disclosed, displayed or distributed with malice, the owner or tenant may recover actual damages.

state

GOVERNMENT CODE

TITLE 4. EXECUTIVE BRANCH

SUBTITLE B. LAW ENFORCEMENT AND PUBLIC PROTECTION

CHAPTER 423. USE OF UNMANNED AIRCRAFT

[Click here for in depth research on drone laws/penalties.](#)

## Part 107 'Commercial' License

- 'Commercially' means flying for your job or any sort of compensation for flying your drone
- Need the Part 107
  - Pass the 107 test \$175
    - Study 20 hours
    - Read, speak, understand English
    - At least 16 in good physical/mental cond.

# Which License Do I Need



## Trust Certificate

- Flying for fun (recreational)
- Not earning money
- Free online test
- Complete in less than an hour
- No age limits

[Click to Earn Your Free TRUST Cert](#)







# Part 107 is just the beginning

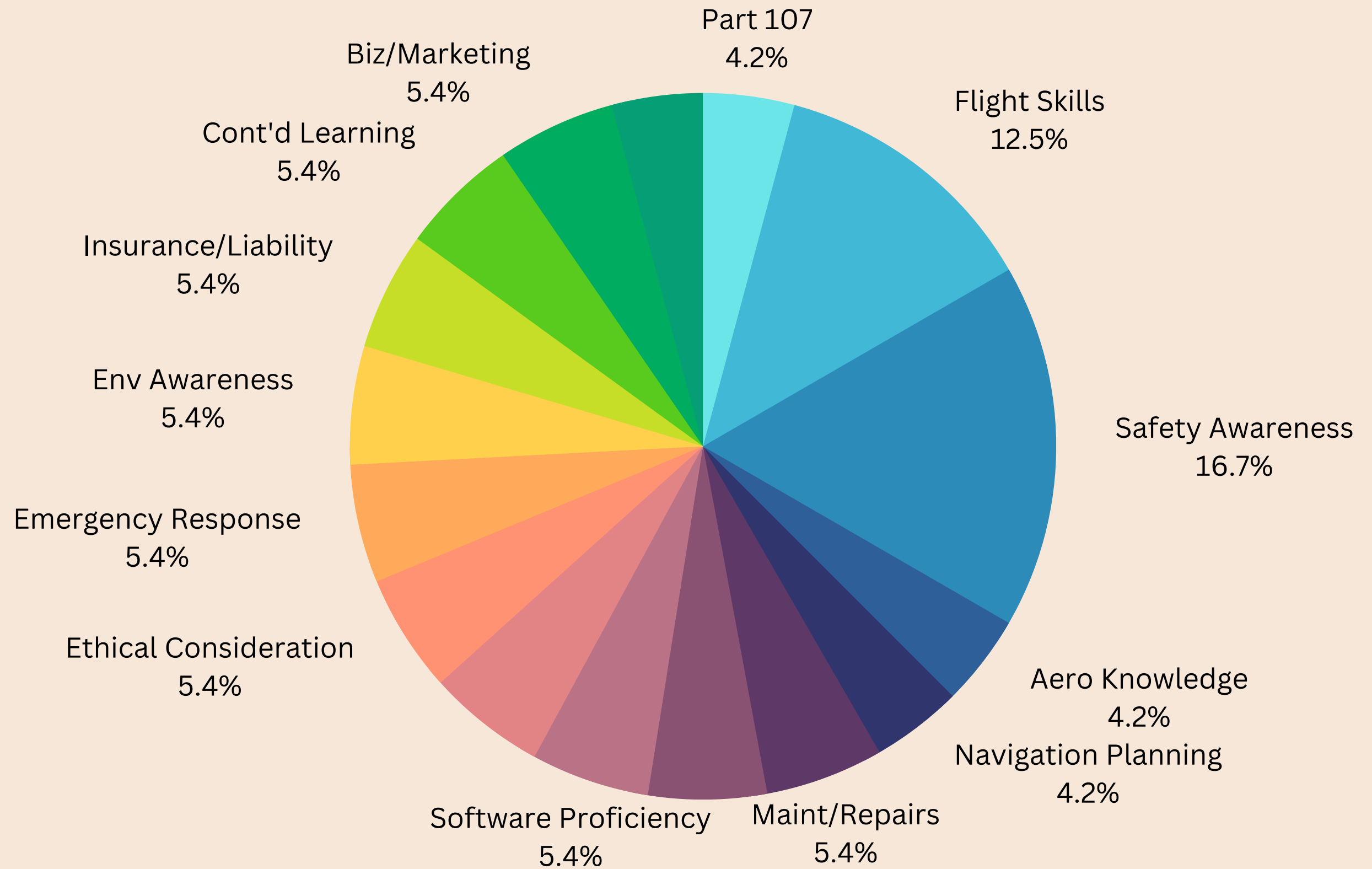


Did you know you can be an FAA certified drone pilot and have NEVER touched a drone in your life? Wow!!

These numbers are debatable, however flight practice and safety awareness are an ongoing absolutely essential. But, what about emergency response or planning.

Now you know the difference between certified and qualified. Huge difference. Now, you know how its possible median income for a drone pilot is

[\\$99,000.](#)

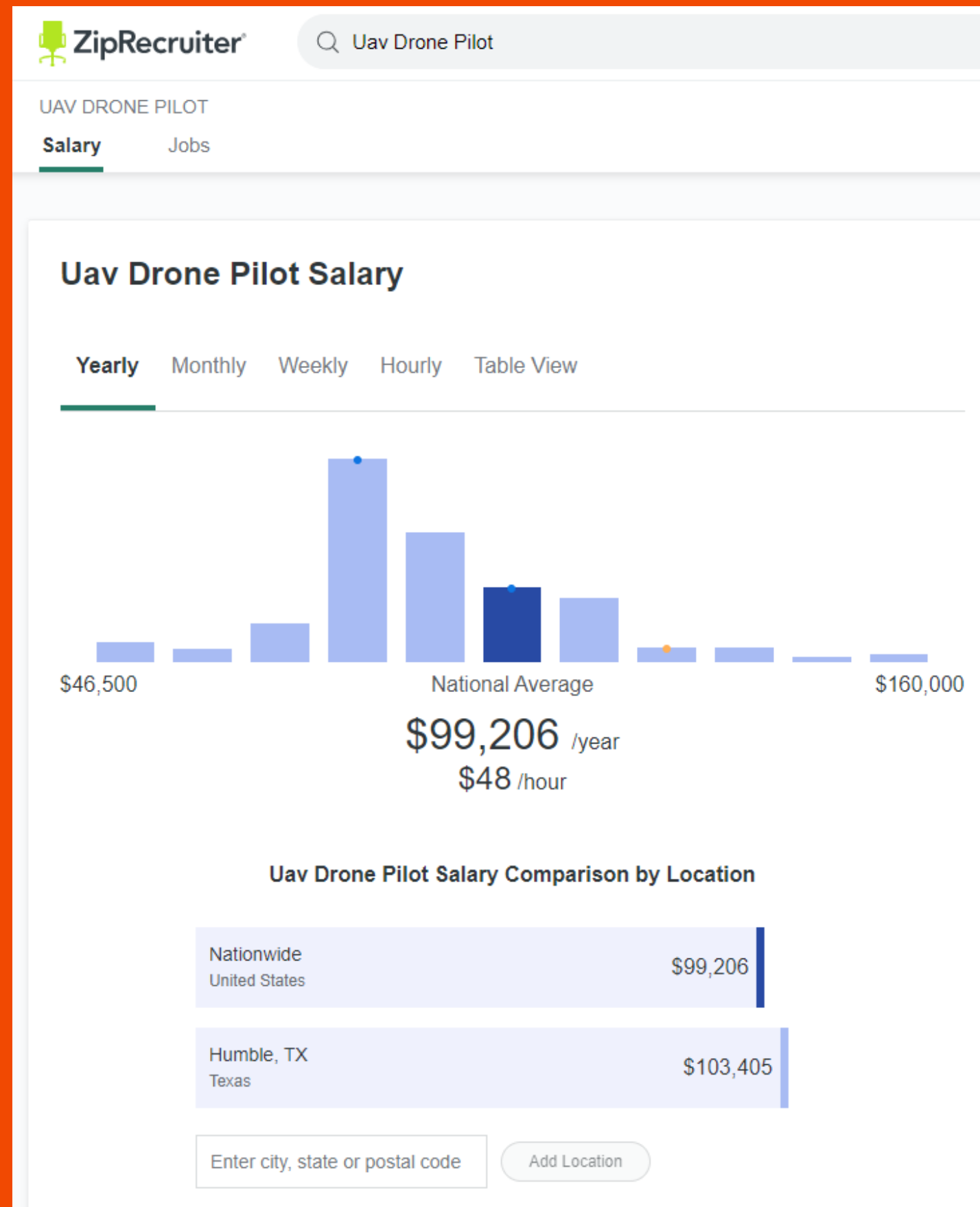




**Did you just say \$99k median? Prove it..**



**Click the pic to be  
re-routed to  
ZipRecruiters live site.**





## \*September 16, 2023, ALL drones over .55 pounds must

- Have remote ID operating in the drone
- Have a remote ID module added to your drone
- Operate in a FRIA (FAA-Recognized Identification Areas)

\*If Part 107 (commercial) drone, ALL drones no matter size, must be Remote ID compliant by Sept 16, 2023

Click to Learn More  
About Remote ID



Click to Find a FRIA



# REGISTER YOUR DRONE

[FaaDroneZone-Access.FAA.gov](https://faa.gov/uaa)

- Seperate registrations for:
  - Recreational Flight
  - Commercial Flight
- Tips:
  - Label with UAS number AND 'Reward if found' = JohnDoe@gmail.com



## How to Label Your sUAS

<https://drone-registration.net>



### Find your registration number

In the FAA confirmation email or Account page.

Registration Number: FA-000-001



### Mark all aircraft

with your registration number before flight.

You can use:

- PERMANENT LABEL
- ENGRAVING



### Number must be visible

(You may mark inside the battery compartment if it does not require a tool to open.)

<https://drone-registration.net>



## Getting ATC Approval to Fly a Drone aka..

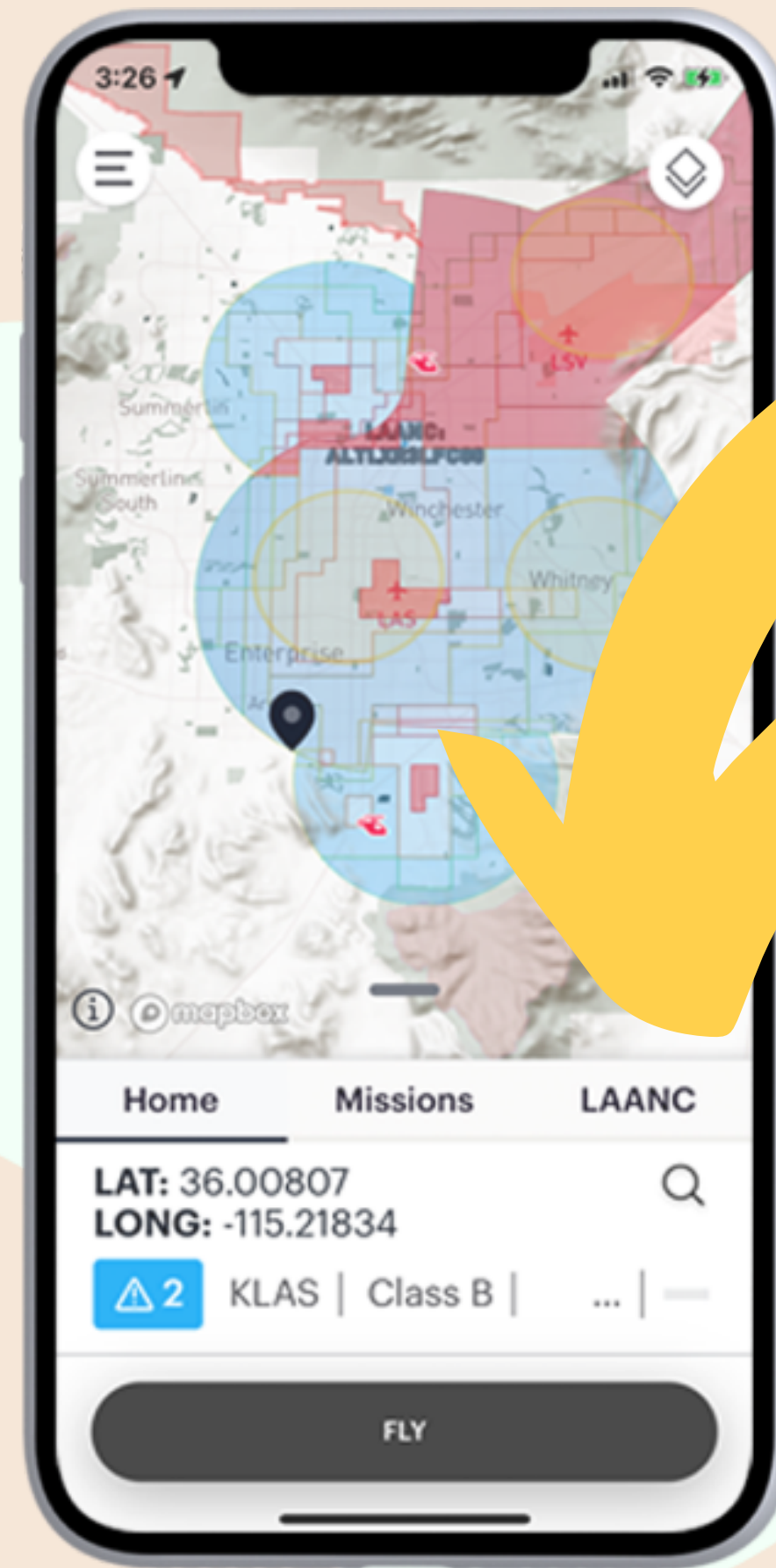
# LAANC

Low Altitude Authorization and Notification Capabilities.. what a mouthful! What does this mean?

There is an app you should use before each time you fly to see if you need LAANC to fly. You might be in a controlled airspace that requires ATC approval, however ATC does not want you to call them or radio them. They want you to use the automatic approval app thats super easy.

**Alert!!**

Forgot to get LAANC, possibly another \$250,000 criminal, \$32,667 civil, and 3 years fed prison for each occurrence.



# Flying Over People



## 0 to 55 Pound Drones

- Category 1
  - .55 pounds or less
  - No exposed rotating parts
    - Propeller guards
    - If adding prop guards pushes your drone over .55 pounds, cant fly over people
- Category 2
  - Over .55 pounds w/ air worthiness certificate AND remote ID

# Flying at Night



## Short answer: "Yes" if:

- Add a 3 statute mile visible strobe to your drone

# Which drone to buy? 4 Types of drones



## Single Rotor



## Fixed Wing



## Multi-Rotor



## VTOL (Hybrid)



# Who is the Mercedes of drones... DJI



DRONE INDUSTRY INSIGHTS

## TOP 5 CIVIL DRONE MANUFACTURERS

Company	Country	Logo	Ranking	Δ2021 <sup>1</sup>
1 DJI			100%	-
2 Parrot			22%	-
3 Skydio			18%	+2
4 XAG			18%	-1
5 JOUAV			16%	+1

## TOP 5 DUAL-USE DRONE MANUFACTURERS

Company	Country	Logo	Ranking	Δ2021 <sup>1</sup>
1 AeroVironment			100%	-
2 INSITU			97%	-
3 Anduril			84%	new
4 Aeronautics			66%	-1
5 Schiebel			61%	-

© 2022 all rights reserved | DRONE INDUSTRY INSIGHTS | Hamburg, Germany | www.droneii.com

source: DRONEII.com

November 22<sup>nd</sup>, 2022





**TOP  
RATED  
PICKS**

# Aha Education: Mavic 3



- 28x Zoom
- 360 safety sensors
- Battery life, camera, quiet, etc...



**Autel Robotics Evo Lite+**  
Best for Long Flights



**Autel Robotics Evo Nano+**  
Best 249g Drone Without Geofence



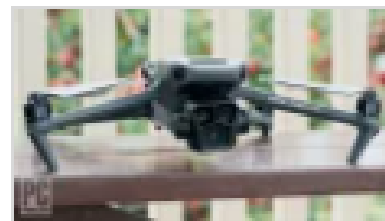
**DJI Avata**  
Best for Adrenaline Junkies



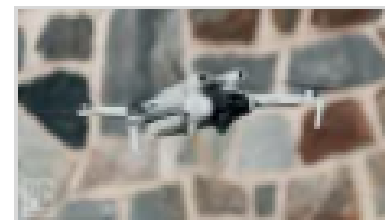
**Ryze Tello**  
Best for Kids Learning to Code



**DJI Air 3**  
Best Obstacle Avoidance System



**DJI Mavic 3 Pro**  
Best Drone for Pro Video and Cinema



**DJI Mini 3**  
Best for Creators on a Budget



**DJI Mini 2 SE**  
Best Entry-Level Drone



**DJI Mini 3 Pro**  
Best Drone for Most Creators



**DJI Air 2S**  
Best for Photographers



Before we breakout into groups,

please call us or email if you need help taking the next steps towards becoming a drone pilot or launching a drone program in your organization.

### More info:

Aha Support Liason Line

210-850-7230

support@myahamoments.org

www.ahaedu.net

### Click on the Resource You Need:

Book A Meeting

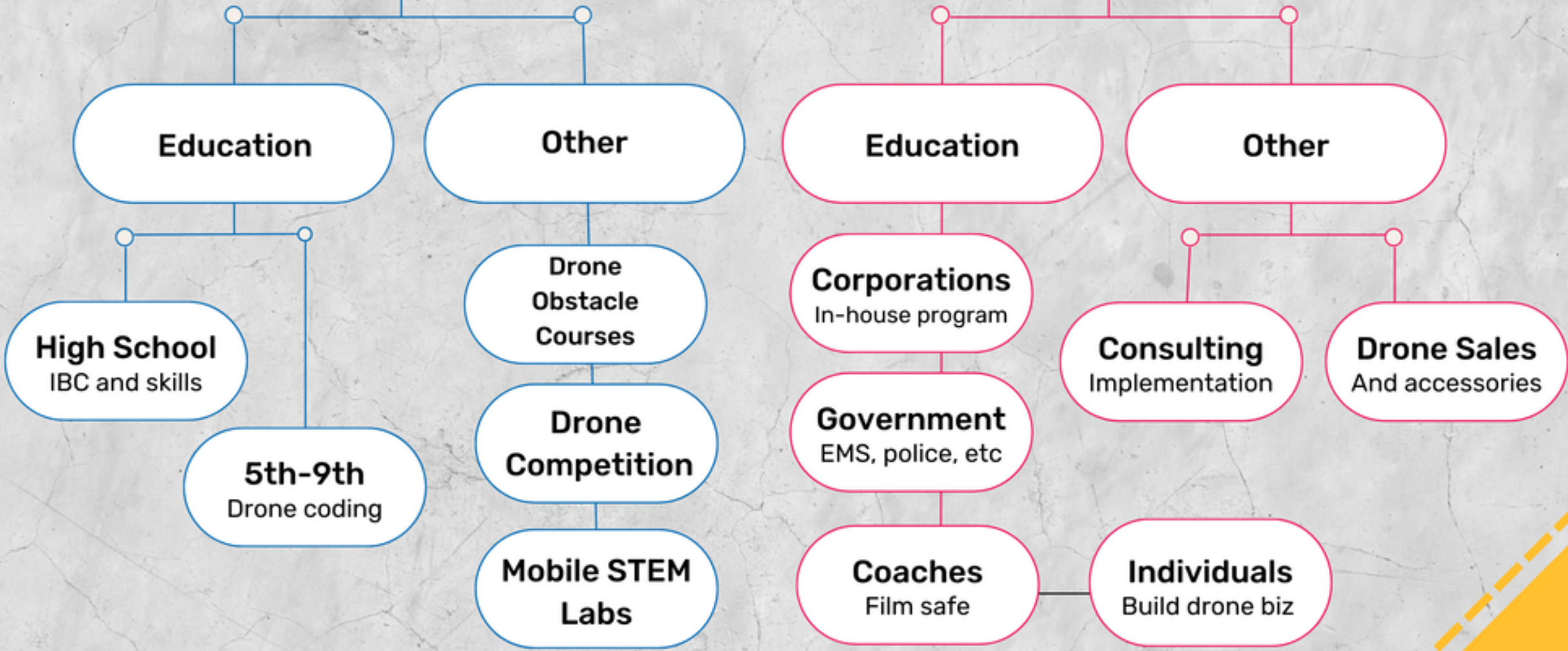
Learn More About Iconic Drone Edu

Learn More About Pre-Commercial Iconic Plus

TEA Information - Drone Program of Study

Industry-Based Certification List





# 5th - 12th Drone Education



**U.S. #1 IBC/CCMR  
Drone Education**

**U.S. #1 Coding  
Drone Education**

HIGH SCHOOL IBC DRONE EDUCATION

The logo for Iconic Drone Education features a blue and white drone flying above the text "i**conic**DRONE" in a bold, blue, sans-serif font. Below this, the word "EDUCATION" is written in white, uppercase letters inside a dark blue rounded rectangle.

[CLICK TO LEARN MORE](#)

DRONE PROGRAMMING EDUCATION

The logo for Iconic Drone Education features a blue and white drone flying above the text "i**conic**DRONE" in a bold, blue, sans-serif font. Below this, the word "EDUCATION" is written in white, uppercase letters inside a dark blue rounded rectangle.

**PLUS**  
**DRONEBLOCKS**

[CLICK TO LEARN MORE](#)

**'We focus on the whole student. That is what makes us different. We have ALL the tools to make that happen.'**

# Custom Mobile Labs

Businesses / Schools / Government / Law  
Classrooms - Training - Field Operations

Custom Built, A/C, A/V, High Tech, Storage, Comfortable  
High Ceilings, Custom Flooring, LCD, LED, Sound System, etc

'Nobody comes close to beating Aha's prices!'  
'Bang for the buck!'



# Breakouts



**Josh Beatty**

**Aha - COO**

**Schools**

**Districts**

**Education**

**Joe Paneitz**

**Aha - Owner/CEO**

**Individuals**

**Businesses**

**Government**

**All Others**