

# MINDS-i CERTIFICATION

## FAA 107 Preparation Course

MCK-107P-001



### MINDS-i STEM INTEGRATED ROBOTICS: FAA 107 PREPARATION COURSE

The MINDS-i FAA 107 Preparation Course is designed to get students up to speed with the required materials for taking the 107 Certification. Prepare your students for the future of UAV's (Unmanned Aerial Vehicles) in the workplace, including industries such as photography, inspection, search and rescue, and farming.

### SPARK AND SUSTAIN STUDENTS' INTEREST IN STEM

MINDS-i Robotics engages students in an energizing STEM learning environment with easy to build, program, and modify robots. Technologically advanced rovers and drones perform impressive real-world tasks that build excitement for STEM careers. The curriculum encourages collaborative problem-solving and the open-source Arduino® C++ programming language fosters endless creativity. With outstanding technical support, teachers are empowered and students are inspired to build whatever they envision in their "mind's eye."

### I 107 CERTIFICATION

The 107 Certification allows you to use a UAV for business purposes. This could include delivering goods or providing services, etc. Open a world of possibilities where the sky is the limit.



SAFETY DUCT

POWER MODULE

DRONE MODULE

RC CONTROL

BRUSHLESS MOTORS

FIND YOUR MINDS-i SALES REPRESENTATIVE AT:

[mindsieducation.com](http://mindsieducation.com) »

[info@my minds i.com](mailto:info@my minds i.com) »



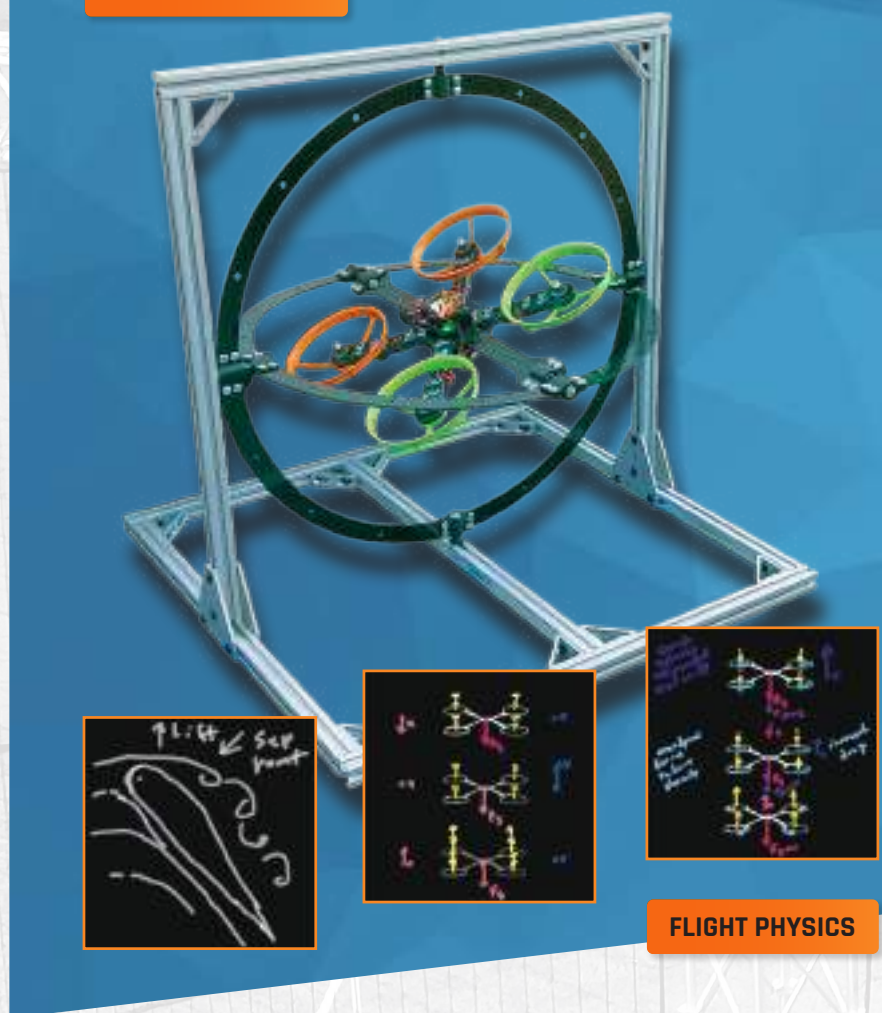
## I FAA 107 PREPARATION COURSE

1. **Applicable Regulations**
2. **Airspace Classifications, Operating Requirements & Flight Restrictions**
  - a. Airspace: Controlled / Uncontrolled / Special Use / Other
  - b. Designations of Airspace: A-G
  - c. Air Traffic Control
  - d. VFR & NOTAMs
  - e. Lots of MAPS & MAPS Later on Test
3. **Weather**
  - a. Aviation Weather Sources
  - b. Effect of Weather on Small UAVs
4. **Small Unmanned Aircraft Loading**
  - a. Weight, Load Factors, Balance & Stability
5. **Emergency Procedures**
  - a. Inflight Emergency
6. **Crew Resource Management**
7. **Radio Communication Procedures**
  - a. Understanding Proper Radio Procedures
  - b. Traffic Advisory Practices at Airports Without Towers
8. **Determining the Performance of Small UAVS**
  - a. Effect of Temperature on Density
  - b. Effect of Humidity on Density
9. **Physiological Factors Affecting Pilots (Drugs and Alcohol)**
  - a. Phys / Medical Factors Affecting Pilots
  - b. Vision & Flight
10. **Aeronautical Decision Making & Judgment**
  - a. History of ADM
  - b. Risk Management, Hazard & Risk, & Human Factors
  - c. Crew Resource Management, Decision Making, & Situational Awareness
11. **Airport Operations**
  - a. Types of Airports
  - b. Sources of Airport Data
  - c. Latitude and Longitude
12. **Maintenance & Preflight Inspection Procedure**

## I GOING BEYOND 107 CERTIFICATION

MINDS-i's Preparation Course covers the standard FAA regulations for fixed wing flight, as well as translates and applies all of the required FAA materials to the current world of MultiRotor Drones.

### DRONE GIMBAL RIG



### FLIGHT PHYSICS

## CONNECT TO THE MINDS-i DASHBOARD TO VIEW FLIGHT DATA AND TELEMETRY LIVE

- » Open Source Software / Windows 10, OS X & Linux Ready
- » Easy to use Graphical Interface
- » Drag and Drop Installation (w/Radio Driver)
- » Save and Load GPS Paths
- » Live Location Tracking
- » Wirelessly Adjust Settings
- » Capable of Navigating to 100 Waypoints
- » Customizable Graphs: Latitude, Longitude, Yaw/Direction, Pitch, Roll, Ground Speed, Voltage, Amperage and Altitude
- » Full Telemetry Logging
- » Inclinator Gauges

