



DRONE CADETS

Fall & Spring 2021-22 STEM Programs



Tap into the global movement to bring drones, and all the world-changing possibilities they inspire, into the classroom with Drone Cadets; a program powered by DroneTech UAS. We've helped teach more than a thousand students worldwide—especially those in underserved communities—to open their minds, develop their skills and become safe, responsible drone pilots.

DRONE CADETS ONLINE



Self-Paced Learning with Live Support

Drone Cadets reaches anyone, anywhere with high-quality, proven effective, drone STEM education in easily understood lessons.

DRONE CADETS LIVE DRONE FLIGHT SCHOOL



10 or 20-Hour Live Course: Our Drone Instructors Come to You!

Drone Cadets brings **Drone Flight School** to you. Even if your students have never touched a drone in their life, DRONE CADETS will help them learn the skills and techniques necessary to fly with safety and confidence.

DRONE RACING CLUB



10 or 20-Hour Live Course: Our Drone Instructors Come to You!

Drone Racing In Real Life (IRL) is Back! Drone Cadets brings all the fun, challenge and excitement of competitive drone racing to your students. Pre-Requisite: Drone Flight School.

ASSEMBLIES & DRONE DEMO DAYS



1-Hour to 1-Day

Drone Cadets offers Assemblies, Events & Real-World Training for Schools & Organizations Everywhere.

\$129 – \$169/head
Site License:
\$3,000

\$179 - \$199/head
Add Coding:
\$20/head

\$179 - \$199/head
Add Coding:
\$20/head

\$450 - \$1,200

See our pricing sheet for more options and details.

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Drone Cadets Online

Virtual Learning with Live Support

Students can progress at their own pace with 60-Day Access to this Virtual Learning Management System (LMS). Drone Cadets Online is a robust, fun and challenging interactive learning environment that effectively teaches drone flight, even without a drone!

Emphasis is placed on best practices and keeping safety first along with developing a basic understanding of FAA rules pertaining to the operation of Unmanned Aerial Vehicles (UAVs), or drones. A typical class consists of video instruction, several illustrated lessons or articles; and an interactive puzzle or a quiz. In addition, several lessons are followed by a hands-on coding or free flight, challenge, or mission.

Course Learning Outcomes

- 1) Communicate a high comfort-level with basic drone flight.
- 2) Use safety and flight procedures including the role of the team, navigational directional terminology, a Pre-Flight Checklist, and a post flight log.
- 3) Report the basic FAA rules for drone pilots.
- 4) Identify basic parts of a drone, their purpose, and how to use the major systems of a drone correctly.
- 5) Report key principles to aerodynamics necessary to achieve successful liftoff and flight.
- 6) Use observational skills including testing, observation, troubleshooting, critical thinking, order of operations to complete a drone mission.
- 7) Identify careers in technology and pioneers of aviation.
- 8) Select code sequences for autonomous flight.

Add Drone Coding

As a drone pilot, learning to code autonomous drone flight is necessary to perform many drone missions in the real world. Drone Cadets teaches students to use block-based coding, where learning can be evaluated simply by achieving a successful flight. If a student does not have a drone, coded missions can easily be flown in a drone simulator. Students who show interest and aptitude are guided to dive deeper into coding with JavaScript, Python, and other advanced languages by taking advantage of the many additional coding courses available to them in the DroneBlocks Community.

Live Help Sessions Included

Virtual learning is supported by two live Help Sessions on Zoom or similar platform. Individuals or small groups can join public Help Sessions by registering on the Drone-Cadets.com website. Groups of 10 – 29 students can schedule their own private Help Sessions with an instructor.

LMS Site License Available

A Site License is available for groups of 30 Students or more at one site. A site is defined as one school or center; not one district or agency. The institution will receive digital files to load onto their own Learning Management System (LMS) Platform. Access will be granted, subject to the terms of the agreement, in perpetuity.



Drone Cadets Live

10 or 20-Hour Live Course: Our Drone Instructors Come to You!

Our certified drone instructors bring **Drone Cadets Drone Flight School** to you, with all the energy, enthusiasm and excitement our clients have come to expect. **Drone Cadets Drone Flight School** can be taught as a 10 or 20-hour course.

Our STEM.org Accredited Curriculum includes everything in Mini STEM Camp, but in more depth and detail.

Additionally, we teach about aerodynamics and how drones achieve lift. This teaching helps students avoid frustration, by overcoming one of the most common reasons a drone pilot might experience a “Failure to Launch.”

Lesson Topics

- Aerodynamic Buoyancy
- Airflow around an airfoil
- Buoyancy
- Numbering Rotors
- Motor Directions
- Clockwise vs. Counterclockwise
- Propellers Have Partners
- Propeller Direction
- Physics of Lift
- Propeller Identification
- Quadcopter, Hexacopter, Octocopter
- Removing & Replacing Propeller Activity
- More Vocabulary; Terms, Abbreviations & Acronyms
- Vocabulary Fun
- Take-off and Landing Mission
- Flight Drills and Skills Challenges



Add Coding for the Complete Course including Autonomous Drone Flight

- Getting Connected in DroneBlocks
- Coding with DroneBlocks
- Accessing DroneBlocks Community with More Coding
- Troubleshooting Connection Issues with DroneBlocks
- Flipping for TELLO Coded Mission
- Coded Windows & Doors Mission
- Coded Take-off and Landing Mission



Drone Racing Club

10 or 20-Hour Live Course: Our Drone Instructors Come to You!

DRONE RACING IRL (IN REAL LIFE) IS BACK!

- Drone Cadets is Bringing Drone Racing to the Hudson Valley and the Greater New York Area.
- Teams are Forming now and Training for Spring '22 Competitions.
- We are looking for instructors, schools and organizations who want to participate.

Drone Racing is a sport in which pilots wear First Person View (FPV) goggles that stream a live feed from a tiny camera on a drone. Since the pilot sees what the drone sees, the experience is like sitting in the cockpit of a drone as it races around the track. It's an incredibly fun and exciting sport for pilots and spectators alike.

Learning how to control an FPV drone requires practice. A drone racing track will include many obstacles, usually equipped with lighted hoops, turns, tunnels, ladders, and gates that the pilot must navigate swiftly. It takes practice to develop the control, reflexes, and hand-eye coordination required to fly the course. Pilots test their skills in heart-pounding competitive races where a mere tenth-of-a-second can mean victory or defeat.

Drone Racing Club also teaches the technical elements of setting up, arming, calibrating a drone for flight. There is an art and science to creating just the right conditions for each drone and pilot to reach optimum speed. Since crashes are inevitable, so are repairs. Students are taught how to replace damaged parts in the classroom, and make quick repairs in the field.

Drone Cadets Drone Flight School is a pre-requisite to Drone Racing because a pilot needs to learn the basics of drone aviation before they can develop their racing skills.

All Drone Cadets Drone Racing Clubs fly micro-quads in the Youth Drone Sports Camps (YDSC) League. Membership in the YDSC League allows pilots and teams to compete in events and tournaments world-wide. Drone racing is a fast-growing sport with different drone classifications that make it fun and challenging for all ages.

Drone Racing Helps Develop:

- Discipline
- Flight Skills
- Team Building Skills
- Leadership Skills
- STEM Technology Training
- Self Esteem



Events, Assemblies & Demo Days

General Assembly (Up to 1-Hour) \$450

Host a high-energy multi-media event that includes a drone demonstration, audience participation and, of course lots of learning and fun.

Half-Day (3 Hours) \$850

Now we have time to make a huge impact. Host multiple assemblies or allow us to deliver a hands-on drone flight experience to two classrooms of students. Drone Cadets can hold

a career talk, coding workshop or drone build workshop. We can provide a real-world training workshop by conducting a roof inspection or a drone delivery. You can even allow us to help spice-up a family engagement event.

Full-Day (6 Hours) \$1,200

The Drone Cadets team is yours all day. Just imagine what we can accomplish. We can hold a mock Search & Rescue event or teach a Part 107 Test Prep Review. License our curriculum and we can help your teachers get started or conduct a professional development program. Tell us what your emphasis is so we can help you achieve your goals.

