



ROBOTICS EDUCATION &
COMPETITION FOUNDATION

SUMMIT

AERIAL DRONE PROGRAM

WELCOME

ADC Pro

Presented by Shelli Brasher

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RECF **DRONE** COMPETITIONS





AGENDA



ADC PRO

Season Timeline & Competition

Competition Fields & Equipment



INTRODUCING AERIAL *DRONE* COMPETITION *PRO* >>>



Where Drones, Robots, and Makers Take Flight:

The Next Level in Educational Drone Competitions





AERIAL *DRONE* COMPETITION *PRO*



MISSION 2024 - 2027

OFF GRID

The Highlights



SKILL DEVELOPMENT FOCUS AREAS:

- Drone technology and precision flight principles
- **Engineering design and mechanical integration**
- Communication, collaboration, and strategy
- Real-world workforce skills related to drone industries

WHAT MAKES THIS PROGRAM DIFFERENT?

- **Integrated Multi-Vehicle Strategy:**
- Teams will use multiple drones and a land-based robot
- **Higher-level competition (2v2)**
- **Opportunities for mechanical design & 3D printing**
- Advanced coding and autonomous programming, **including Machine Learning**
- Multi-vehicle coordination: aerial + land
- **Fall & Spring Championships**
- **Industry Theme**

THE WHY BEHIND ADC PRO

From Industry Inspiration to Educator Input

Educators asked for

- Advanced skill progression
- Real-world relevance
- Opportunities for experienced and older students
- 3D printing design opportunities
- Semester-based Competition Timeline

ADC Pro delivers

- Structured progression from entry-level to advanced operations
- Integrates **air & ground** robotics through mission-based challenges
- Supports multiple pathways:
 - STEM
 - CTE - FFA
 - JROTC
 - Workforce readiness

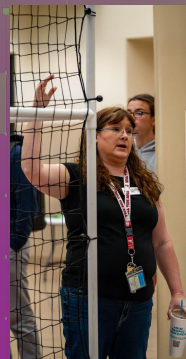
ADC Pro bridges competition, classroom learning, and real-world application

ADC PRO ADVANCES BEYOND THE ORIGINAL PROGRAMS; IT DOESN'T REPLACE IT.

THE WHY BEHIND ADC PRO

RECF's motivation to create ADC Pro

- Vision sparked by **BELL AVR** and real-world autonomous systems
- Shaped by:
 - Educational trends (project-based, systems learning)
 - Industry needs (air & ground coordination, problem solving)
 - Competitive evolution (meaningful advancement beyond basics)
- Teachers and coaches were clear: students were ready for more





AERIAL *DRONE* COMPETITION **PRO** >>>



Season Timeline

February 2026

Team Registration Opens & Game Reveal

March - July 2026

Promote, Recruit, Award Grants, & Order Equipment

August - December 2026

Fall Qualifying Events & Fall Regional Championship

January - May 2027

Spring Qualifying Events & Spring Regional Championship

New

ADC Pro will offer a Fall and Spring Season using the 2026-2027 game to provide additional flexibility. Teams that register for the ADC Pro 2026-2027 season are eligible to compete in one or both seasons.

Competition Vehicles & Missions



Teamwork Mission

Two Alliances composed of **two Teams** each, compete to attain a higher score than the opposing Alliance in matches on a divided field **using the MINDS-i Competition Drone and Land Vehicle.**



Autonomous Flight Skills Mission

The **CoDrone EDU drone** and the **Land Vehicle** are programmed by students to operate entirely autonomously. Each team competes alone to score as many points as possible.



Piloting Skills Mission

The **CoDrone EDU drone** is piloted by students to fly through an **obstacle course in coordination with the Land Vehicle.** Each team competes alone to score as many points as possible.

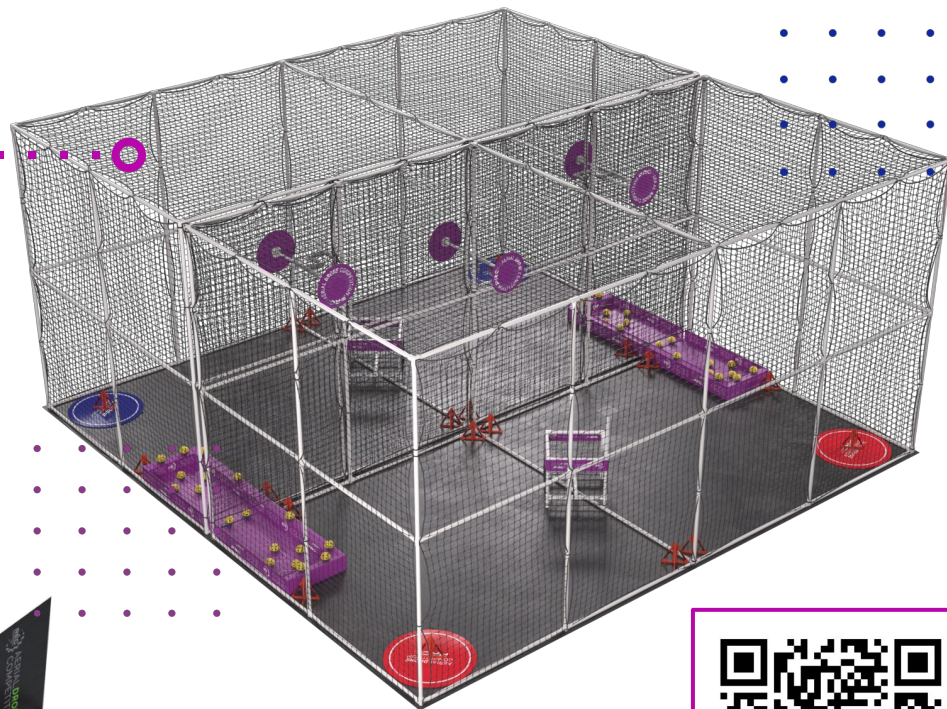
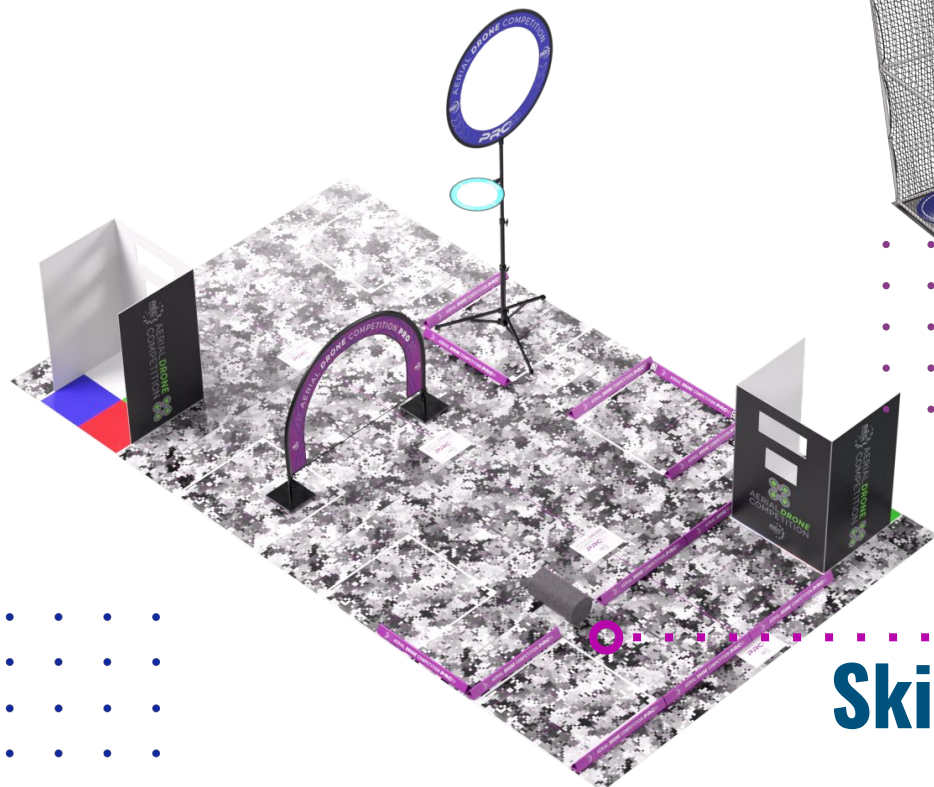


Communications Mission

Teams interview with Judges about their Drones, Programming, Design, Strategy, Careers. and Competition Notebook.



Teamwork Field Layout



Skills Field Layout



COMPETITION
MANUAL

AWARDS

Team Recognition



PERFORMANCE AWARDS

These awards are based on team performance, rankings and scores earned during Teamwork and Skills Missions.

- Teamwork Mission Champions
- Skills Missions Champion

JUDGED AWARDS

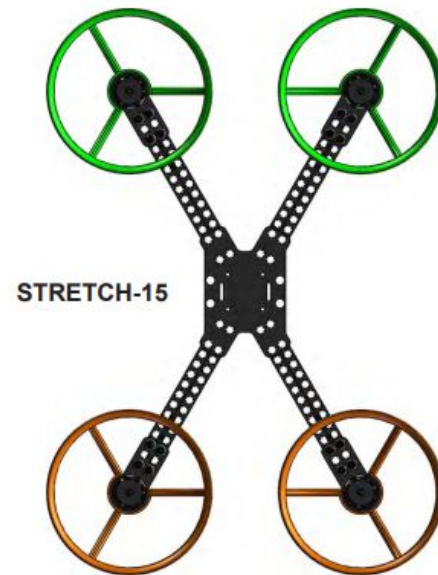
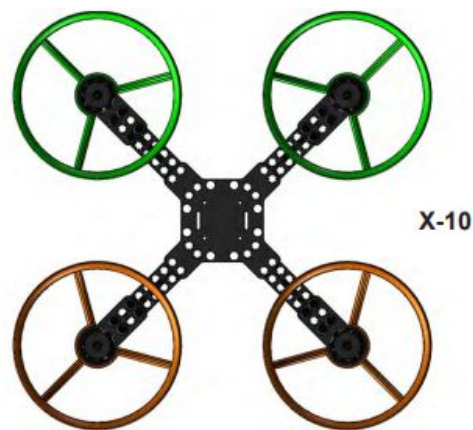
These awards are based on a combination of interviews, team competition logbooks, project presentation, and overall team conduct and performance.

- All-Around Champion
- Engineering Design Award
- Coding Systems Award
- Airmanship Award
- Industry Insights Award



\$1350

- **Section 889 compliance**
- 1 UAV MultiRotor Kit
- 1 Flight Controller
 - 3 axis gyro
 - 3 axis accelerometer
 - 3 axis compass
 - Barometer
- 2 LiPoly batteries
- LiPoly Battery Charger and charging bag
- 1 RC Transmitter with Receiver
- Safety Glasses - 3
- 1 set of extra propellers (2 clockwise, 2 counter-clockwise)
- MINDS-i tool



ROBOLINK★

\$249

- 1 CoDrone EDU (JROTC Edition)
- 1 Smart Controller (2x AA batteries not included)
- 2 rechargeable batteries
- 1 two-battery charger
- 1 micro USB cable
- 1 propeller removal tool
- 1 set of extra propellers (2 clockwise, 2 counter-clockwise)
- 1 screwdriver, extra screws and bolts
- 1 Quickstart Guide
- 1 set of drone and controller labels
- 8 color landing pads



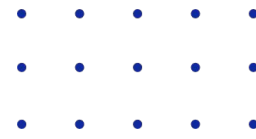
MORE INFORMATION

Note: The JROTC edition was created to meet funding requirements for the JROTC programs. It's the same drone as the CoDrone EDU, but with specific components sourced from different manufacturers to meet those requirements.

Ground Vehicle

\$ VARIES

- Must fit in a 15" cube when fully expanded
- Use what you have or create your own



\$400

Field Element Kit* 1/2

- 10' X 20' X10' Cage
- Netting
- Bungees
- Canvas bags
- Does not include PVC*
- *Contains items for ½ of a Field
- One time purchase that can be used year after year.



DRONE

COMPETITION GATES

\$400

Teamwork ½ Game Element Kit*

- Cooling Pools - 2
- Pumps - 2
- Comms Tower - 1
- Power Cells -10
- Fuel - 18
- Recovery Pads - 2
- *Contains items for ½ of a Teamwork Field
- These items are only for Mission 2026-27

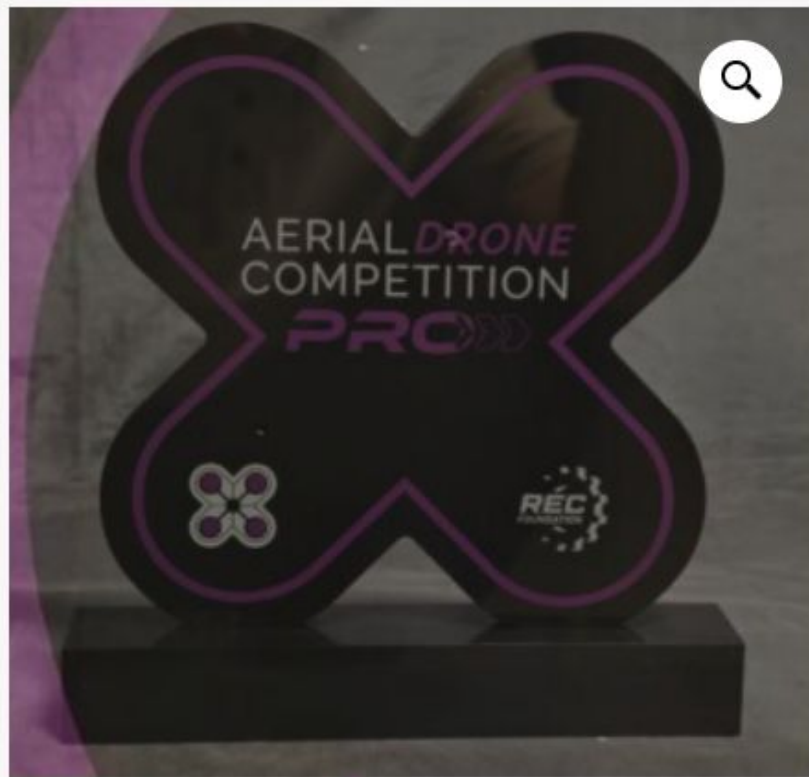
Skills Full Game Element Kit*

- Fly Through Panels - 2
- Multi-color Pads - 2
- Barriers - 12
- Mini Arch - 1
- Coding Mats - 4
- Canister - 1
- Keyhole Gates - 2
- April Tags - 1 sheet
- * Contains all items to set up 1 Skills Field
- These items are only for Mission 2026-27

\$230

Trophy Pack - 8 Pack

- 1 All Around Champion
- 2 Teamwork Mission Champions
- 1 Skills Mission Champion
- 1 Engineering Design Award
- 1 Airmanship Award
- 1 Coding Systems Award
- 1 Industry Insights Award



ORDER NOW

Program costs

Competition Vehicles & Field Equipment	Cost
MINDS-i Competition Drone	\$1,350 *
CoDrone EDU Drone	\$249 *
MINDS-i Competition Robot (or equivalent)	\$950 *
Teamwork Field Perimeter Kit - 10'x20' Half Field (netting, bungees, tote bags)	\$400 (without PVC)
Teamwork Game Element Kit (half-field)	\$400
Skills Game Elements Kit (full-field)	\$400
<i>Note: Prices are estimates only and subject to change. Shipping charges are extra.</i>	

*Note: Teams may also want to budget additional funds for spare parts, 3D Printing supplies, and event registrations.



Budget Calculator

ADC Pro team start-up budget calculator



Enter numbers to estimate your annual budget

# of Team(s)	2
# of competitions team(s) will attend	3
Average cost of event registration in my region*	\$75
Transportation, snacks, etc	\$100

Equipment Costs as of 2025-2026 season

MINDS-i Competition Drone Kit	\$1,350
CoDrone EDU Drone Kit	\$249
MINDS-i Competition Robot Kit	\$900
Teamwork Game Element Kit (half-field)	\$400
Skills Game Element Kit (full field)	\$400
Teamwork 10'x20' Field Perimeter Kit (includes PVC Frame, netting, bungees, tote bags)	\$1,000
Season Registration (Per team)	\$200

First year cost

MINDS-i Competition Drone Kit	\$2,700
CoDrone EDU Drone Kit	\$498
MINDS-i Competition Robot Kit	\$1,800
Teamwork Game Element Kit Half-Field	\$400
Skills Game Element Kit Full Field	\$400
Shipping Cost & Taxes (est)**	\$500

Teamwork Field Perimeter Kit Half Field	\$1,000
RECF ADC Pro Season Registration	\$400
ADC Event Registration	\$450
Transportation, snacks, etc	\$100

First season total **\$8,248**

Following year costs

MINDS-i Competition Drone Replacement Parts	\$200
CoDrone EDU Kit Replacement Parts	\$50
MINDS-i Competition Robot Replacement Parts	\$200
Teamwork Game Element Kit Half-Field	\$400
Skills Game Element Kit Full Field***	\$400
Shipping Cost & Taxes (est)**	\$200

Teamwork Field Perimeter Kit Half Field	--
RECF ADC Pro Season Registration	\$400
ADC Event Registration	\$450
Transportation, snacks, etc	\$100

Following season total **\$2,400**

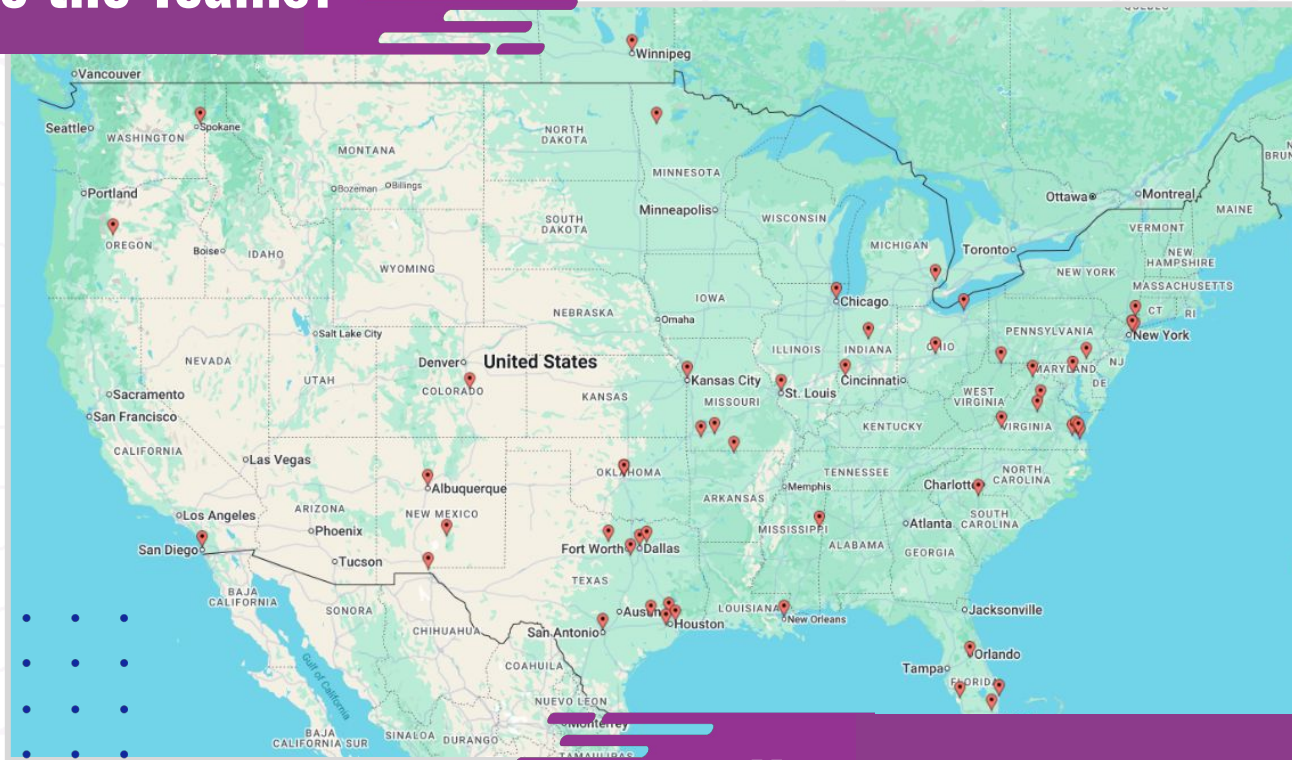
*To find the approximate event registration fee, go to RECFEvents.org's event listings.

**Prices do not include shipping or taxes. Please contact the suppliers for a quote.

*** Skills Game Element Kits may be less for future seasons - TBD.

Replacement part estimates only and may vary based upon the needed modifications to complete that year's mission tasks. Competition vehicles can be used from season to season.

Where are the Teams?



How far are you willing to travel?

Contact

We are here for you

If you need any further information about our drone program, one of our staff members will be able to assist you. You can contact us via email or phone, and our team will be happy to help. Additionally, you can visit our website for more details.

Address

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Greenville, Texas 75402

Phone & Email

903 401 8010
drones@recf.org

Website

drones.recf.org

Resources



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THANK YOU!

