



# UAS4STEM

**DRONE ENGINEERING CHALLENGE**



## 2026 BEGINNER DIVISION RULEBOOK

VERSION 2.2



SUPPORTED BY



# UAS4STEM



## ADVANCED AWARDS\*

(per team)

1st place: \$2500  
2nd place: \$2000  
3rd place: \$1500

## BEGINNER AWARDS\*

(per team)

1st place: \$1250  
2nd place: \$1000  
3rd place: \$750

**The Dewey O. Broberg Jr. award** is presented by competition judges to recognize a student who shows dedication to their team, determination, and adherence to the rules and purpose of the competition. \$500

**The Gardner Chambliss award\*** is presented to a team manager who exemplifies the spirit of mentorship, dedication, and care. The award is based on nominations from students, parents, and co-managers via an online form. Nominations are due by August 7, 2026. Visit this QR code for more information!



### BEGINNER DIVISION:

Basic search mission  
No payload pickup or delivery

### ALL DIVISIONS:

Ground school completion  
Student video creation  
Flight readiness review  
Virtual preliminaries  
International competition

### ADVANCED DIVISION:

Advanced search mission  
Design and fabrication of  
mission-specific mechanism

### How to choose a competition division:

All new UAS4STEM teams are highly encouraged to choose the beginner division. UAS4STEM teams who have placed first, second, or third at finals within the past two years must select the advanced division.

*If a team feels that there are extenuating circumstances in regard to preferred division, reach out to the UAS4STEM competition staff.*

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**SIMNET**



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**UAS4STEM.ORG**

If you have questions about the UAS4STEM program, please contact the Education Department at [education@modelaircraft.org](mailto:education@modelaircraft.org), or (765) 287-1256

*\*Award amounts may be adjusted.*

# TEAM RULEBOOK

## 1. CONCEPT OF OPERATIONS (CONOPS)

Your team has been contracted to conduct an aerial inspection of a construction site, identifying points of interest (POI) and any potential defects within. Your drone must conduct a waypoint navigation mission while complying with special instructions (SPINS) that are provided prior to the start of the mission. Your drone must remain within the assigned operational area. Upon close inspection of individual POIs, you may identify and report any potential defect. Your inspection report will help ensure workplace safety and cost efficiency for your employer.

## 2. INTRODUCTION

UAS4STEM provides participants with the knowledge and practical experience to conduct safe, efficient, and effective drone operations. The competition develops professional skills such as teamwork, time management, critical thinking, and so much more.

### 2.1 COMPETITION DIVISIONS

UAS4STEM teams who have competed in the previous two seasons of UAS4STEM and have placed in the top three are required to compete in the advanced division. *If a team feels that there are extenuating circumstances in regard to the preferred division, reach out to the UAS4STEM competition staff.*

### 2.2. OPPORTUNITIES AND RECOGNITION

Student teams are judged based on their performance and that of their system. Awards and recognition are given for top performances. Opportunities for interaction with aviation professionals and industry leadership are provided.

### 2.3. RULES

The competition is based upon the rules outlined within this document containing administrative and performance objectives. UAS4STEM staff reserves the right to make changes to these rules and issue clarifications, updates or addendums at any time.

## 3. SCHEDULE

See [www.uas4stem.org](http://www.uas4stem.org) or refer to UAS4STEM communications for updated scheduling information.

## 4. MAJOR ELEMENTS OF THE COMPETITION

### 4.1. REGISTRATION PROCESS

Once the team manager sends all requested team information and pays the registration fee, memberships are distributed for one team manager, one assistant manager, and up to ten (10) student team members aged 11-19. Credentials for the virtual ground school will then be created.

4.1.1. Only registered UAS4STEM participants (not to exceed ten students per team) are


allowed to compete or participate in scored competition activities.

4.1.2. It is required that all student members of the team who are competing successfully complete the virtual UAS4STEM Ground School course. Failing to do so will result in team disqualification.

4.1.3. All participants should comply with any national and local regulations regarding model aircraft and the national airspace.

4.1.4. By participating in the competition, the team, advisors, and all support members, as well as judges and volunteers, agree to have any pictures of persons, vehicles, or equipment photographed and released to the public.

4.1.5. Once a team has officially entered ten students on their roster, any changes to the roster that result in new members may be assessed an additional fee.

4.1.6. Use of AI to develop SPINS Mission Planner commands during judged competition activities is prohibited. 

### 4.2. VIRTUAL PRELIMINARY COMPETITION

The virtual preliminary competition occurs in the spring. Each team will have the opportunity to schedule an appointment slot with the judges; UAS4STEM communications will contain information about this process. Appointments are in Eastern Time, with flexibility offered to accommodate other time zones. These last approximately 50 minutes total. Presentations should be conducted in the order provided in the Competition Scoring Guide.

4.2.1. Prior to the competition, a proof-of-flight video shall be submitted to verify that the team's aircraft can fly in a safe manner. This is a pre-requisite for possible advancement to the championship. The aircraft should be in full autonomous configuration and perform the following: 1) Take off. 2) Fly to at least one waypoint a minimum distance of 75 feet from launch. 3) Return to launch for landing.

The proof-of-flight video shall be less than 3 minutes in length, identify the school and the team name, shall show the ground control station screen, and aircraft flight. A link to this video posted as a private video on the internet (YouTube is preferred) shall be submitted to the UAS4STEM staff prior to the virtual preliminary competition.

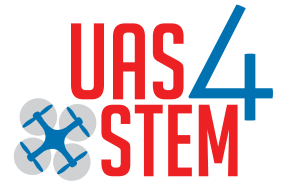
4.2.2. The team will present a Flight Readiness Review (FRR). Teams may provide visual aids (slide deck) as a part of the FRR. Scoring is based upon the scoring guide.

4.2.2.1. The FRR is a primarily live presentation

# UAS4STEM PRELIMINARY COMPETITION

## SCORING GUIDE

Beginner Division (100 points\* available)



### FRR Presentation (maximum of 20 minutes)

A judge will time this portion of the challenge, may provide a 2-minute warning, and will stop presentations as needed.

PARAMETER	OBJECTIVE (Points are based on depth of content provided.)	POINTS
TEAM MEMBER INTRODUCTIONS	Introduction of all team members. Including flight mission roles and experience. All team members present are encouraged to fully participate.	Mission roles = 0-2 pts Experience = 0-2 pts Participation = 0-1 pts
VIDEO	A student-produced video that promotes the UAS4STEM competition should be shown during the FRR. Video should display technical prowess, quality of content, and creativity. Video shall not exceed 2 minutes in length and must be shown during FRR presentation for points. Please send a link to the team's video (YouTube is preferred) to UAS4STEM staff via email.	Technical = 0-3 points Content = 0-4 points Creativity = 0-3 points
SYSTEM OVERVIEW	Identify flight tasks planned, expected performance, and risk evaluation.	Tasks = 0-3 pts Performance = 0-3 pts Risk eval. = 0-4 pts
SYSTEM SAFETY	Identify design and operational strategies based around safety.	Design = 0-5 pts Operational = 0-5 pts
DEVELOPMENTAL TEST RESULTS	Include test plan schedule (include ground testing, flight testing, and mission performance testing), results of testing, and any corrective action taken to improve the effectiveness of mission completion.	Plan = 0-3 pts* Results = 0-3 pts* Corrective = 0-4 pts*
EVIDENCE OF MISSION ACCOMPLISHMENTS	Show the judges what the team has achieved. <b>This evidence should be focused on the requirements delineated in section 1. These may include charts, graphs, images, short video clips, flight logs, etc.</b>	0-10 points *
PRE-MISSION BRIEFING	Include personnel resourcing for the flight mission, communication procedures, and go/no-go criteria.	Personnel = 0-3pts* Comms. = 0-3 pts* Go / No-Go = 0-4 pts*

### Other Components (maximum of 20 minutes)

PARAMETER	OBJECTIVE	POINTS
QUESTION AND ANSWER	Teams have no more than 5 minutes to answer five selected questions from the virtual ground school. Students may confer as a team prior to answering. Q&A scoring is based upon whether the answers are correct or incorrect. Judges may also pose a non-scored hypothetical question to gauge the team's knowledge of safety plans and procedures should a technical issue arise during a flight mission.	0-5 points
MISSION PLANNER SOFTWARE ASSESSMENT	Teams will be presented with a mock mission. Teams must have Ardupilot Mission Planner software loaded onto the computer they are using for the virtual FRR presentation and must share their screen with the judges. Teams have 15 minutes to program the mission planning software to achieve the mission objective. Failure to correctly execute command(s) will nullify the current and subsequent commands and the scoring will stop. Teams must set a realistic home point and take off as a part of the SPINS. A judge will time this assessment, may provide a 2-minute warning, and will stop assessment when time is up.	0-25 points *

PARAMETER	OBJECTIVE	POINTS
CONDUCT	Aspects such as professionalism, teamwork, and communication will be factored into the score. This applies to the entire session.	0-5 points *

\*Indicates these values are adjusted for the final competition.

In order to compete, each team member must successfully pass UAS4STEM ground school. In the case of a tie, team average ground school scores will be utilized to determine placement. Allowances for technical difficulties that may arise during virtual competitions will be at the discretion of the judges.

during which teams substantiate, with data, what they have learned and how they plan to safely accomplish the mission. Ensure all technical information is easy for non-UAS professionals to understand.

4.2.2.2. The FRR shall not exceed 20 minutes in duration.

4.2.2.3. After the FRR, judges may ask unscored questions related to the FRR.

4.2.3. Other scored components: After the FRR a scored 5 minute question and answer (Q&A) is conducted.

4.2.4. A 15 minute ArduPilot Mission Planner software assessment to program the UAS mission based on provided SPINS. The points available are referenced in the scoring guide.

### 4.3. CHAMPIONSHIP COMPETITION (FINALS)

This competition is in-person and attendance is by invitation only, extended to the highest scoring teams from the virtual preliminary competition. There is no advancement fee to participate in the finals to teams who are invited. Teams are responsible for all associated travel costs. Any changes from the preliminary competition requirements are outlined below. The finals consist of two separately scored elements, the FRR presentation and the flight mission. A competition schedule will be made available.

### 4.4. FRR PRESENTATION

The FRR is a scored element worth 30% of the competition score. Scoring is based upon the scoring guide with the following adjustments.

4.4.1. Teams may use their aircraft or ground control station for the FRR. Teams will have access to digital displays to present slides/video. Teams may not power on the aircraft. Only one electronic device, laptop, or tablet may be used for FRR.

4.4.2. Developmental Test Results parameter now worth (25 points)

4.3.1.3. Evidence of Mission Accomplishments now worth (15 points)

4.4.4. Pre-Mission Briefing now worth (15 points)

4.4.5. Conduct now worth (10 points)

4.4.6. Representatives from other competing teams are not allowed to view presentations of competitors during the event.

4.4.7. Presentations may be recorded and made available for public viewing after the competition.

### 4.5. PRE-FLIGHT SAFETY INSPECTIONS

All UAS are subject to a safety inspection by designated officials. Safety inspections may include a physical inspection, a fail-safe check, and flight termination check.

4.5.1. The safety inspections are not a scored element. All decisions of the safety inspector(s) shall be final.

4.5.2. Physical inspection of the aircraft may include:

4.5.2.1. Verify all components are adequately secured to vehicle.

4.5.2.2. Verify rotor structural attachment integrity.

4.5.2.3. Visual inspection of all electronic wiring.

4.5.2.4. Verification of fail-safe mode operation covered by manual override and pilot-commanded flight termination.

4.5.3. If teams make any hardware changes to their UAS, a new proof-of-flight video is required prior to final competition.

4.5.4. The GCS shall provide sufficient information to operators on a continuous basis to ensure that it is operating within no-fly/altitude boundaries.

4.5.4.1. The aircraft shall be capable of manual override by the safety pilot during all flight operations.

4.5.4.2. The flight termination system (kill switch), activated by a single switch, shall be capable of overriding all flight modes to terminate the flight.

4.5.4.3. The aircraft shall automatically Return-to-Launch (RTL) then land after loss of primary communications link signal within 5 seconds.

### 4.6. FLIGHT MISSION REQUIREMENTS

The flight mission evaluates the teams' ability to conduct a mission with their vehicle. This is a scored element worth 70% of the competition score.

Scoring is based upon the scoring guide.

4.6.1. Team must attend the daily safety brief on the day of their scheduled flight operations. Anyone conducting flight operations on this day must be present and on time. **Failure to do so may incur up to a 20% penalty to the team's overall score.**

4.6.2. A lead judge is assigned to each team at the flight line. It is important that all team members follow the instructions of the judges. There may be additional judges assigned who are focused on different aspects of the competition (imagery, autonomy, safety, teamwork, maintaining visual line of site, etc.) Depending on which tasks the team is planning to accomplish.

4.6.3. Only systems presented in the FRR, available for inspection by designated official(s), and included in the proof of flight video are permitted to fly.

4.6.3.1 In order to compete, each team

member must successfully pass UAS4STEM ground school.

4.6.3.2 In the case of a tie, team average ground school scores are utilized to determine placement.

#### 4.7. OPERATIONAL TIMELINE

4.7.1. Setup Time = 15 minutes maximum. Setup time begins when the team arrives at the flight line. A judge is assigned to each team and will start a timer after communicating with the team. After the fifteen setup minutes have elapsed, the flight timer will start regardless of the team's readiness to launch the mission.

4.7.2. Flying Time = 30 minutes maximum.

4.7.2.1. Flying time shall start at the declaration of the judge with a dedicated timer. TEAMS MUST KEEP THEIR OWN TIME. ONCE ON THE CLOCK, A TEAM MAY NOT ASK NON-STUDENT TEAM MEMBERS FOR REMAINING TIME. If flight is still being conducted past the 30 minute mark, judges will announce the termination of the mission and direct the team as to the correct landing procedure.

4.7.2.2. A team may elect to cycle through the takeoff and landing sequence during the flying time more than once (change batteries etc). No points are lost, but flying time continues to be used.

4.7.2.3. Flying time stops when the vehicle has completed flight (landed, crashed, or terminated) and the team has disconnected flight battery. Judge will confirm with the team that the flying time period has stopped.

4.7.3. Post processing time = 10 minutes maximum.

4.7.3.1 Post processing time begins immediately after the flying time stops. This time is for data processing. No Radio Frequency (RF) transmission shall be performed during post processing time.

4.7.3.2 The system shall be swiftly disassembled and transported off of the flight line to the post processing area at the beginning of the post processing time.

4.7.3.3 Post processing time stops when the team hands in the scoring sheet(s), or after 10 minutes.

#### 4.8. MISSION LIMITATIONS

Aircraft shall remain in controlled flight and within the no-fly-zone boundary. A specific no-fly-zone boundary definition is provided to teams prior to conducting the flight mission. Any vehicle appearing uncontrolled or moving beyond the no-fly-zone boundary during autonomous flight is subject to immediate manual override. Failure of manual override will result in flight termination. A maximum flight altitude of 200 ft. AGL is standard unless otherwise specified.

4.8.1. Takeoff shall take place within the designated takeoff/ landing area.

4.8.1.1. Takeoff under manual control with transition to autonomous flight is permitted but does not count as an autonomous takeoff.

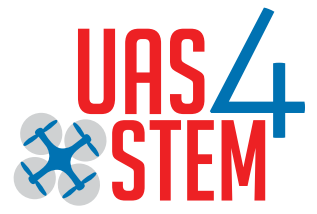
4.8.1.2. Only a successful autonomous takeoff attempt on the first takeoff will earn points for that component.

4.8.3. Landing shall take place within the designated takeoff/landing area.

4.8.3.1. Landing under manual control is permitted.



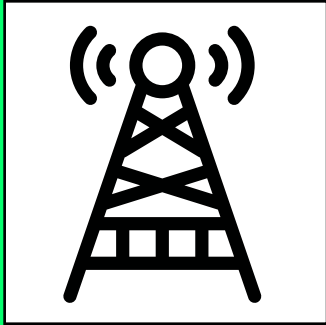
# FLIGHT OPERATIONS SCORING GUIDE



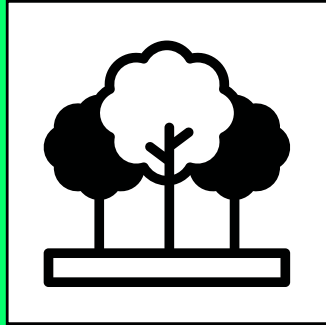
PARAMETER	OBJECTIVE	POINTS
GCS DISPLAY ITEMS	Accurately display current aircraft position. GCS must also display airspeed and altitude to operators and judges. <b>This is a minimum requirement for flight approval.</b>	N/A
INITIAL AUTONOMOUS TAKEOFF	On first takeoff attempt, teams must achieve a controlled autonomous takeoff. Takeoff is complete when drone reaches an altitude $> = 100$ ft. and hovers for a minimum of 5 seconds. Team must initiate the takeoff. Takeoff must take place within the designated takeoff and landing area.	Failure to meet objective = 0 points Autonomous takeoff = 4 points  Maximum 4 points
WAYPOINT NAVIGATION MISSION	SPINS will be provided to teams at the beginning of the flight operations. Teams must execute waypoints and commands in sequence based on the SPINS. Waypoints and commands will not be within 30 ft. of any "no-fly-zone" boundary. While in autopilot control waypoints must be accurate to within 25 ft. and maintain navigation within 25 ft. along the planned flight path. Any Mission Planner command may be utilized. Failure to complete previous command will nullify subsequent commands. Team must announce to the judges which waypoint and command is being attempted. Flight operations outside of takeoff, POI identification, and landing must maintain an altitude of $\geq 50$ feet.	Each successful command = 2 points  Maximum 10 points
SEARCH MISSION	Six Points Of Interest (POIs) will be in the flight area. The UAS shall search for and identify these POI along with their GPS coordinates. Points are given based on identification of graphic and accuracy of location. Each POI will be a 3'x3' white vinyl banner with black printing laid on a horizontal surface depicting one of ten possible POI graphics as shown in rulebook. Flight operations outside of takeoff and landing must maintain an altitude of $\geq 30$ feet.	Each correct POI graphic ID = 1 point  Each GPS coordinate may provide: 0-5 ft. = 5 points 5-10 ft. = 4 points 10-15 ft. = 3 points 15-20 ft. = 2 points 20-25 ft. = 1 point  Maximum 36 points
INSPECTION MISSION	Identify and report the defect icon as shown in rulebook (page 6) located on one POI. Correctly identify the POI that contains a defect icon and what the defect is. A scoreable GPS coordinate is a prerequisite for these points.	Failure to meet objective = 0 points Correct POI graphic ID = 1 points Correct defect icon ID = 4 points  Maximum 5 points
AUTONOMOUS LANDING	Team must achieve a successful controlled autonomous landing. Team must initiate the landing. Landing must take place within the designated takeoff and landing area.	Failure to meet objective = 0 points Autonomous takeoff = 4 points  Maximum 4 points
OVERALL SAFETY SCORE	Between zero and ten points are awarded at judge's discretion as to the safety considerations incorporated by teams.	Maximum of 10 points



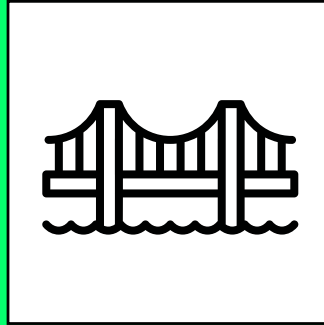
## POINT OF INTEREST GRAPHICS (printed at 3'x3')



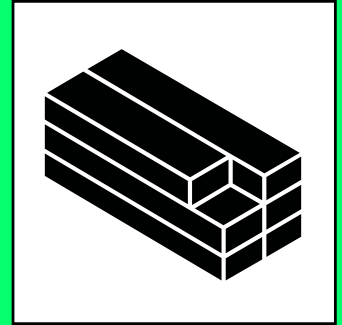
Graphic ID: **Tower**



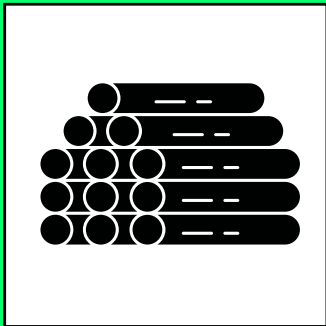
Graphic ID: **Tree**



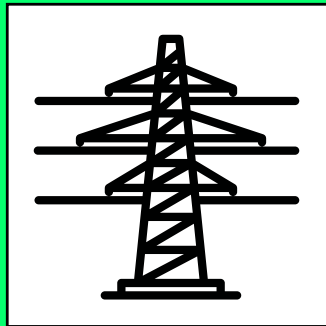
Graphic ID: **Bridge**



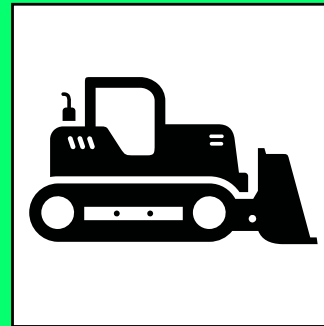
Graphic ID: **Lumber**



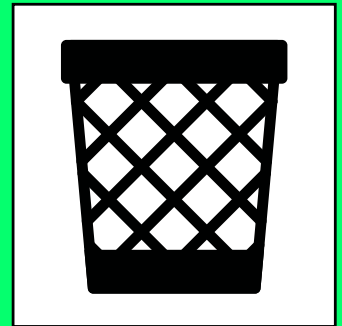
Graphic ID: **Pipes**



Graphic ID: **Power Lines**



Graphic ID: **Equipment**

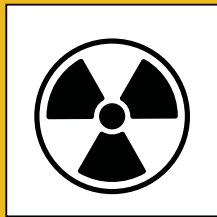


Graphic ID: **Trash**

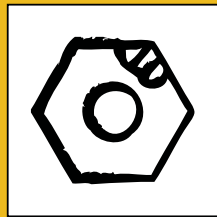
## DEFECT ICONS (printed at 11"x11")



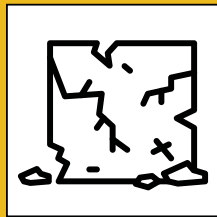
ID: **Broken Part**



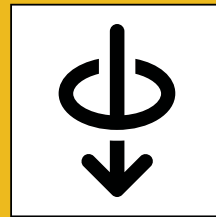
ID: **Radiation**



ID: **Rust**



ID: **Surface Cracks**



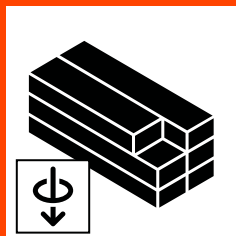
ID: **Hole**



ID: **Twist or Warp**

## SAMPLE POI WITH DEFECT ICONS

One defect icon will be randomly placed onto a single POI.



4.8.3.2. Any autonomous landing inside of mission time can be scored. This can be as part of a mission or as a Return to Launch mode landing.

## 5. APPROVED COMPONENTS

The only off-the-shelf sUAS allowed to be flown for scored UAS4STEM elements are related to the pre-recorded video presentation element. As a training aid, pre-manufactured aircraft may be utilized.

Laptop guidelines

- Each team must provide a laptop computer to serve as the Ground Control Station (GCS).
- Only a single laptop is allowed on the flight line and with the team during the FRR presentation.
- One additional monitor may be used on the flight line. This monitor may only display information from the computer. Example. You may duplicate a display on a laptop, or this can be the primary display for a desktop. It may not display video from the aircraft.

**5.1.** Teams will need to purchase UAS components that comply with provided specifications (see appendix for additional detail).

**5.2.** Teams are provided shade, a folding table, chairs and a single electrical power extension cord. Teams should plan to provide their own power strip, if required.

## 6. ADDITIONAL FLIGHT OPERATIONS DETAIL

The flight mission has been divided into a series of parameters. Teams do not need to complete every parameter. The available parameters are listed in the flight operations scoring guide.

## 7. SAFETY REQUIREMENTS

### 7.1. FLIGHT OPERATIONS

7.1.1. Flight operations of any type involve some level of risk to personnel and property. It is the responsibility of all personnel involved in and around flight operations to identify, evaluate, and mitigate risks to the maximum extent possible.

7.1.2. When teams are conducting flight tests, extra precautions must be in place to protect team members and others.

7.1.3. It is recommended that teams use an experienced RC pilot to act as their safety pilot for test flights. The safety pilot for competition flights must be a student team member.

### 7.2. OTHER

7.2.1. Up to 10 student team members are allowed in the mission area. Team managers shall not participate. Anyone may observe from designated area.

7.2.2. Closed toe shoes are required to be worn during safety inspections, flight line operations, or when rotors are powered. Anyone wearing

open-toed shoes will not be allowed to participate in any activity on the flight line.

7.2.3. Officials have the right to disqualify an individual or a team for any reason.

# APPENDIX

## AIRFRAME SPECIFICATIONS

- Quadcopter configuration (4 motors)
- 650mm maximum frame size (measured from one side of an arm to the other)
- Additional processors are allowed, but must cost less than \$315 USD.
- Autopilot system must cost less than \$750 USD Manufacture Suggested Retail Price (MSRP), including the Global Positioning System (GPS)
  - o This is a retail cost, meaning that even if a more expensive autopilot is donated, it is not allowed.
  - o It does not have to be a Pixhawk variant, but still recommended
- Maximum of 8 channels
  - o These include 4 for the motors, leaving four open to be utilized as the team sees fit
- Maximum 4S 5200 battery size (any "C" rating) Batteries may be changed as often as necessary during the competition
- Recommended propeller size 11"
- Up to a 1080p video camera
  - o MSRP must be less than \$125 USD
- Digital video is allowed
  - o Camera and receiver MSRP must be less than \$400 USD combined
- Up to a 250mw video transmitter
- Any antenna may be used for the video feed system
- 2.4 Ghz RC control system. Any brand legal in the US
- One primary GCS – Meaning only 1 laptop allowed on the flight line
- Maximum of 2 video receivers allowed during the competition
  - o One can attach directly to the GCS
- Recommended telemetry radio RFD 900+
- One additional sensor may be utilized. Sensor must be less than \$70 USD MSRP.

## DRONE COMPONENT SOLUTIONS

You may purchase any component that meets the requirements of the specifications within this rulebook. To purchase pre-packaged compliant drone components for UAS4STEM, visit [www.quadzilladrone.com](http://www.quadzilladrone.com) or [www.readymaderc.com](http://www.readymaderc.com)

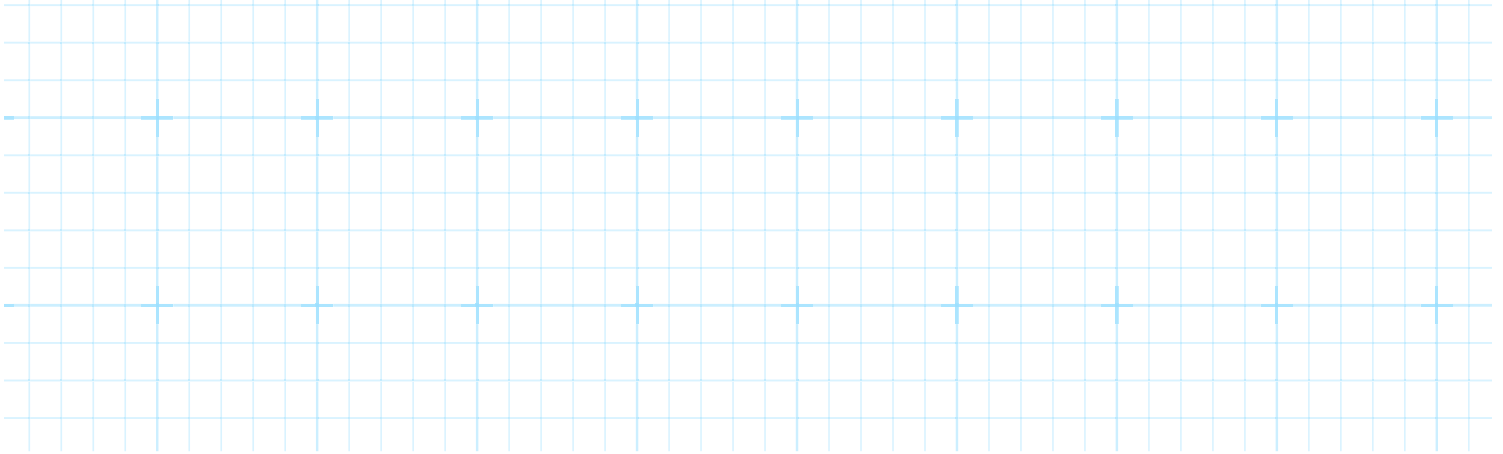
If there are any questions about an airframe or components, please contact UAS4STEM Technical Director Archie Stafford at [archie@modelaircraft.org](mailto:archie@modelaircraft.org)

### SAMPLE MISSION SET:

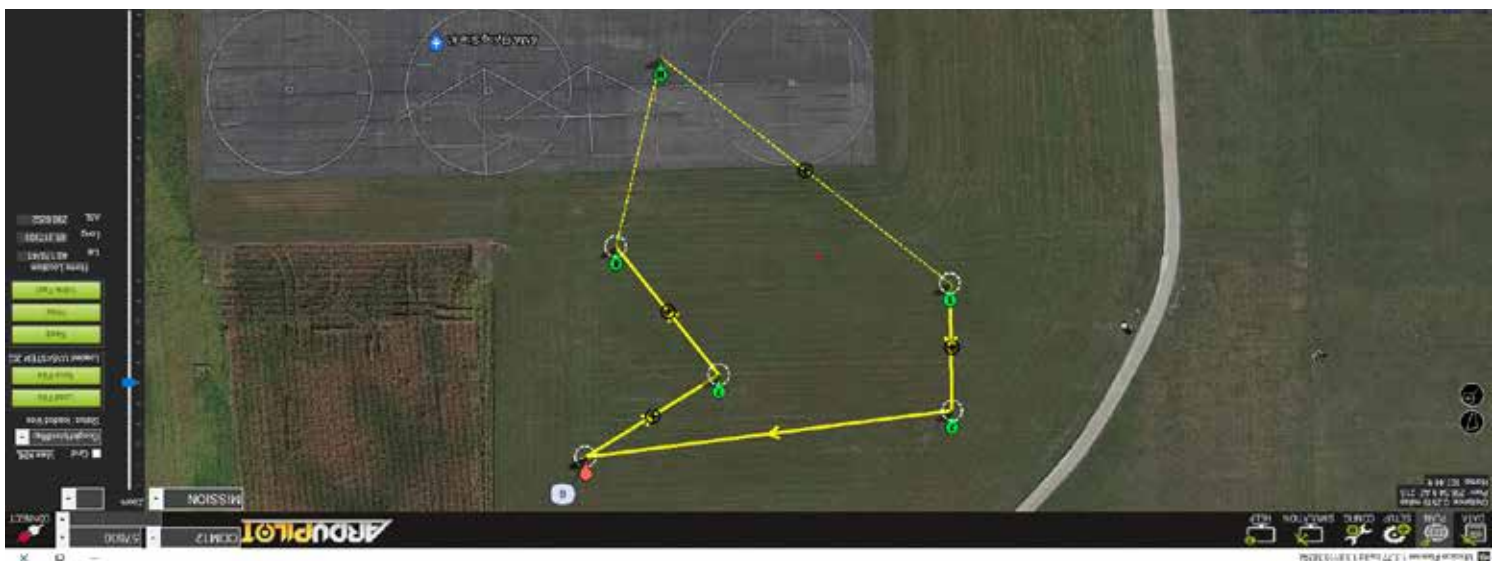
1. Fly to Waypoint 40.171337°, -85.318303° at 90' and hold for 3 seconds
2. Fly to Waypoint 40.171674°, -85.318312° while climbing to 175' and make the aircraft rotate to face due north upon arrival at waypoint
3. Fly to Waypoint 40.171797°, -85.317044° while descending to 100' and perform 2 circles around the point in either direction
4. Fly to Waypoint 40.171580°, -85.317505° descending to 75' while pointing the nose at the previous waypoint
5. Fly to Waypoint 40.171242°, -85.317147° while climbing to 100' and stop for 15 seconds

(Solution located below)

### NOTES



Command	Delay	Lat	Long	Alt	Frame	Delete	Grad	Angle	Dist	AZ
WAYPOINT	3	40.171337	-85.318303	90	Relative	X	25.5	14.3	364.8	308
WAYPOINT	0	40.171674	-85.318312	175	Relative	X	69.1	34.7	149.5	359
CONDITION_YAW	0	0	0	0	Relative	X	0	0	0	0
WAYPOINT	0	40.171797	-85.317044	100	Relative	X	-21.0	-11.9	364.1	83
LOITER_TURNS	2	0	0	5	Relative	X	0	0	0	0
DO_SET_ROI	0	0	0	0	Relative	X	0	0	0	0
WAYPOINT	0	40.171797	-85.317044	0	Relative	X	0	0	0	0
WAYPOINT	0	40.17158	-85.317505	75	Relative	X	49.7	26.4	168.5	238
WAYPOINT	15	40.171242	-85.317147	100	Relative	X	15.8	9.0	160.6	141




## UAS4STEM CODE OF CONDUCT

The UAS4STEM Code of Conduct is designed to ensure that all participants contribute to a safe, respectful, and productive environment during all UAS4STEM activities. By participating in UAS4STEM, you acknowledge your understanding of these expectations and agree to follow the rules outlined below. Failure to follow the Code of Conduct may result in disciplinary or legal action to include removal from the event and/or future competitions.

1. UAS4STEM is a safe and respectful environment. Participants should act as positive role models, demonstrating leadership, and teamwork. Treat everyone with kindness and respect.
2. UAS4STEM has a zero-tolerance policy for any harassment or abuse. If you see something inappropriate or concerning, it is your responsibility to report it to UAS4STEM leadership and/or a trusted adult.
3. All participants should dress safely for the event. This includes, but is not limited to, wearing closed-toe shoes and other safety gear as required.
4. Treat all property, equipment, and personal belongings with care and respect.
5. The use of alcohol, drugs, e-cigarettes, or tobacco products is prohibited at any official UAS4STEM event activity.

## UAS4STEM EVENT GUIDELINES

1. UAS4STEM is a safe and respectful environment. All participants shall model appropriate behavior and lead by example. UAS4STEM has a zero-tolerance policy for any harassment or abuse.
2. If you witness or are the victim of harassment or abuse, immediately report it to a trusted adult and/or UAS4STEM staff. If you believe anyone is in immediate danger, contact law enforcement immediately.
3. Drugs, alcohol, e-cigarettes, and tobacco products are prohibited during official UAS4STEM event activities.
4. During official event activities, you consent to the use of any photographs, videos, or audio recordings of your participation for promotional or educational purposes by UAS4STEM staff.


**BEGINNER DIVISION  
WAYPOINT NAVIGATION  
AND POST PROCESSING**

DATE \_\_\_\_\_  
MISSION START TIME \_\_\_\_\_  
TEAM NAME \_\_\_\_\_

	OBJECTIVE
COMMAND 1	_____
COMMAND 2	_____
COMMAND 3	_____
COMMAND 4	_____
COMMAND 5	_____

POST PROCESSING START TIME \_\_\_\_\_ FINISH TIME: \_\_\_\_\_

POI GRAPHIC ID	GPS COORDINATES

WHAT POI CONTAINS A DEFECT ICON? \_\_\_\_\_  
WHAT DEFECT ICON IS PRESENT? \_\_\_\_\_



Awards presentations occur on the flightline at AirVenture



The kickoff party is typically held on Sunday evening.



# UAS4STEM

DRONE ENGINEERING CHALLENGE

NOT YOUR TYPICAL  
FLIGHT CLUB



WATCH A VIDEO



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