

2026 MS Drone

Overview

The mission of your team is to document and test-fly an Unmanned Aerial Vehicle (UAV) drone capable of completing landing and completing tasks of varying difficulty. The competition course is designed to test the handling, maneuverability, and piloting skills of your drone. The event will include a pre-inspection and check-in of the team members, drone, and all equipment used for flight operations (e.g., controllers, etc.).

The Drone Challenge requires competitors to learn how to work as a team to complete a flight challenge. Drones may differ in their capabilities. All drones must fly through given obstacles to have a successful mission.

The Flight Mission

- Mission – Three (3) attempts. Each attempt will be one (1) minute (running clock).
- Pilots create their own obstacle paths, each containing a combination of the following: ladders, reverse hurdles, and floating squares. Obstacles must be fully completed within the given time limit to receive credit.
- Flight Sequence:
 - Start from the launch station (pilot area)
 - Choose a path of the chosen obstacles
- Spotters are encouraged to communicate the drone's location and any observed obstacles
- The judging team will score:
 - Obstacle path completions
 - Time to complete all obstacles

Overview / Procedures

- When the UAV drone is outside the competition tent area, all propellers must be removed. No exceptions. Violations will result in automatic disqualification.
- The Event Coordinator will assign each team a designated pit area for preparation and repair of drones.
- Course Obstacles location will be determined at the conference and a layout will be given at the time of check in/signup for team planning.
- Points will be awarded for:
 - Path selection and obstacle completion
- Obstacle Points:
 - Can only be earned once per run
- Drones must return to the start zone between each run.
- In the event of a tie, the team with the faster mission time will advance.

Regulations

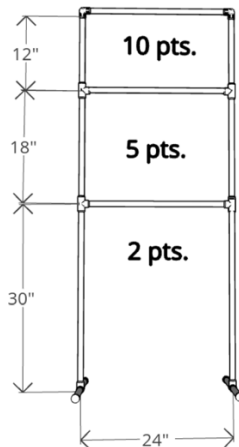
1. Safety is the top priority. Violations of safety guidelines may result in a warning or disqualification, depending on severity.
2. All drone operators must wear:
 - Safety glasses
 - High-visibility safety vests
3. Upon entering the competition tent field, teams may only connect their drone's battery and power on with permission from the event coordinator or other authorized personnel.

4. When a drone is outside the competition tent, all batteries must be disconnected from the drone stack (including the flight controller, receiver, and ESCs), unless they are instructed to do so at the Hot Table.
5. During flight sessions, all drones in the pit area or outside the flight area must be powered off.
6. UAV drones must only fly within the designated competition or practice fields.
7. Violation of any rule above may result in disqualification.

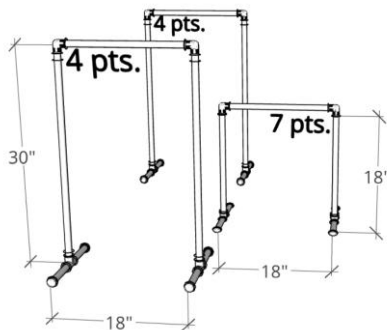
Course Obstacles:

Course Obstacles location will be determined at the conference and a layout will be given at the time of check in/signup for team planning.

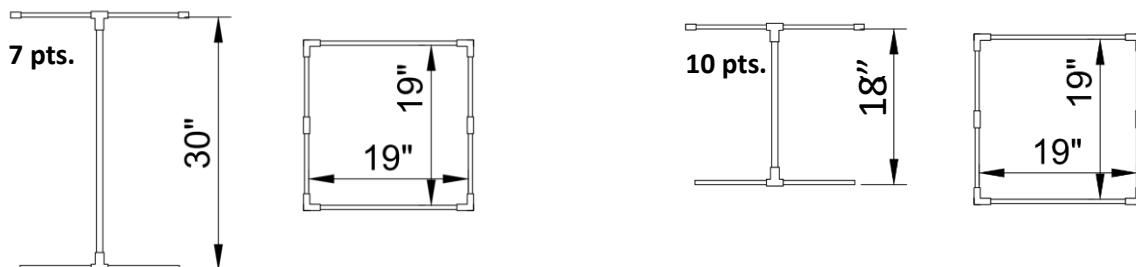
Obstacle 1– The ladders – made of $\frac{1}{2}$ " PVC Pipe and measurements are the opening size.



Obstacle 2– The reverse hurdles – made of $\frac{1}{2}$ " PVC Pipe and measurements are the opening size.



Obstacle 3 – The Floating Squares- made of $\frac{1}{2}$ " PVC Pipe and measurements are the opening size.



Team Number				Attempt Points Possible	
Mission	Obstacles Completed	Obstacles Points Received	Time taken to complete all obstacles	(Points Completed/Points Possible) x 60 = Attempt Score	Attempt Score Dropped (X)
Attempt #1					
Attempt #2					
Attempt #3					

Starting Point

Obstacles for Mission

Obstacle arrangement will be given/shown during check in