AeroDesign MX

Official Rules 2026

Rev 01

By the Technical Committee

January 16, 2025

Revision Table

REV	Description	Date
00	Initial Release	27/08/2025
01	Changes in following sections: 1.1.1 5.2 6.2 8.6.2.1 8.6.8.1 9.2.3 9.4.1 9.5.2.1 Changes in Appendix D: Watt Meter	16/01/2026

Changes can be identified in color brown.

Welcome to our 2026 edition!

Regular Class

A different challenge! We are updating our dimensional rules and adding a few surprises, while keeping traditional concepts such as Structural Efficiency, Empty Weight, and Payload Capacity. Now more than ever, designing an aircraft capable of flying with and without payload defines the ambitions of the teams. Advancing to the next round will only be possible with a successful no-payload flight. It is all up to you!

Micro Class

Are you a team interested in joining our event? Do not miss the opportunity. Our Micro Class is designed to be easily accessible for teams that are new to us, as well as for those that wish to compete in both classes. The focus is on designing a versatile aircraft that delivers maximum energy efficiency in operation.

Website

Be sure to visit our website to find a clear, visual overview of all relevant information about each stage of the competition.

Finally, **AeroDesign MX** is the result of volunteers who devote many hours, driven by the rewarding satisfaction of helping young people learn techniques that continue to inspire us today. We wish each of you the very best throughout the competition, and we are confident you will respect, enjoy, and truly experience another **Aero Design**, just as every member of the Technical Committee has in each of our events.

Technical Committee
AeroDesign MX

Contents

1. Registration

Any team wishing to participate in **AeroDesign MX** must comply with the following requirements.

1.1 Eligibility

Any person is eligible to participate under the following guidelines.

1.1.1 Student / Member

Any undergraduate student currently enrolled in a higher education institution (legal age, +18 years) during the competition, or any student who graduated from their institution after June 2025 and is properly registered in the event (Payment and Registration Documents).

1.1.2 Advisor / Faculty Advisor

Any non-student listed on the registration form who will act as advisor and university representative. They are not allowed to design, build, or repair the prototype.

1.1.3 Volunteer Pilot

Any person with prior experience in radio-controlled flight and/or prototypes of this type. Their experience must be demonstrated with membership to a flying field or photographic evidence. If a team does not have a pilot, one may be requested at the registration desk on Day 1.

1.2 Participant Definition

It is a mandatory requirement for any participant to have fully completed the registration process before taking part in any stage of the event. Registration will be considered valid once all required documentation (see Section 1.5) has been submitted and approved by the Technical Committee.

Failure or omission to comply will result in sanctions to the team, including but not limited to:

1. Deduction or cancellation of points in the stage where the participant intervened.
2. Sanction for Code of Conduct, see Section 2.14.

1.3 Registration Fee

Each team must cover the registration fee as follows:

Registration – Phase 1

Base Fee:	$10,000.00 MXN	Covers 1 Advisor and 5 Members
Additional Member:	$750.00 MXN	
Dates:	from Sep/15/2025 to **Oct/31/2025**	

Registration – Phase 2

Base Fee:	$11,000.00 MXN	Covers 1 Advisor and 5 Members
Additional Member:	$850.00 MXN	
Dates:	from Nov/01/2025 to **Dec/31/2025**	

Registration – Phase 3

Base Fee:	$13,000.00 MXN	Covers 1 Advisor and 5 Members
Additional Member:	$900.00 MXN	
Dates:	from Jan/01/2026 to **Jan/31/2026**	

Notes:

I. If a team requires of a second advisor, it must be registered (payment and documentation) as an additional member.
II. An additional member will pay the amount corresponding to the date when notified to the Technical Committee, regardless of the original registration phase of the team.

1.4 Payment Method

Payment options are listed on our official website:
AeroDesign MX – Registration.

For PayPal payments, the commission fee of the platform will be added to the payment section.

1.5 Registration Documents

Team registration is completed by submitting a .zip file containing the following:

- Proof of Payment: One or more PDFs with the corresponding payment evidence.
- Registration Form: a PDF listing team member information.
- Statement: PDF with signed compliance declaration, see Appendix A.
- Student ID: the PDF verifying the enrollment status of the student.
- Logo (wordmark): the logotype of the team in PNG or JPEG format.

Documents can be downloaded from our official website.

Notes:

I. If additional members are added after initial registration, an updated .zip file must be sent within the timeframe of the 3 registration phases.

II. If the .zip file size prevents email submission, individual file sizes must be reduced, or the Technical Committee must be notified.

1.6 Withdrawal Policy

The withdrawal policy disqualifies a team if they fail to submit registration or competition documents on time and in proper form.

A team will be disqualified if they submit the following after the deadline:

I. Design Report: 5 days late or not submitted.
I. Registration Documents: **Final deadline - Jan 31.**

Registration fees are non-refundable.

1.7 Awards

The 2026 edition will grant the following awards to the winners of each class:

Regular Class
$13,000MXN 1st Overall

Micro Class
$7,000MXN 1st Overall

Disclaimer: Prizes will only be awarded if at least 15 teams register for the event, regardless of class.

2. General Requirements

The **AeroDesign MX** competition aims to provide engineering students with a real-world engineering exercise. The competition rules have been developed by industry professionals to give participants exposure to the various types of situations engineers encounter in real work environments.

2.1 General Authority

The competition organizers reserve the right to revise the competition schedule and/or interpret or modify the rules at any time and in any manner, that is, in their sole judgment, required for efficient and safe operation of the event

2.1.1 Official Rules

The rules are the responsibility of the Technical Committee. Official announcements made by the Technical Committee are considered part of and have the same validity as these rules.

Any ambiguities or questions about the meaning or intent of these rules will be resolved by the Technical Committee staff.

2.1.2 Rules Validity

The regulations published on the **AeroDesign MX** website, along with the competition schedule, are the official rules for the competition. Dated for the academic year of the competition are the rules in effect. Rule sets dated for prior competition years are invalid

2.1.3 Statement of Compliance

By entering **AeroDesign MX**, the team members, Faculty Advisors and other personnel of the registered university agree to comply with, and be bound by, the rules and all the interpretations of the rules or procedures issued or announced by the Technical Committee and the Organizing Committee.

2.1.4 Loopholes

It is practically impossible for a set of rules to be so comprehensive that it covers every possible question regarding aircraft design parameters or competition development. Any perceived loopholes will be resolved in the direction of increased safety

2.1.5 Competition Participants

Teams, team members as individuals, faculty advisors, and other representatives of a registered university participating in the competition shall be considered PARTICIPANTS from the moment they register in accordance with Section 1.1 until they leave the venue upon conclusion of the competition or by withdrawal.

2.1.6 The attempt to violate a rule

A violation of the intent of a rule will be considered a violation of the rule itself. Questions about the intent or meaning of a rule may be addressed to the Technical Committee.

2.2 Measurement System

The only permitted measurement system is the International System (SI). The use of the Imperial System or any other system different from the official one will not receive points in deliverables.

2.3 Universities with Multiple Teams

A university may have more than one team; however, the members of each team must only belong to one team, even if a team is participating in two classes of the event.

2.4 Liability Waiver and Medical Insurance

All Participants must sign a liability waiver and show proof of individual medical insurance on the registration form.

2.5 Ringers

To maintain the integrity of the competition, the Faculty Advisor must prohibit the involvement of ringers. A ringer is someone with exceptional skills related to the competition or model aircraft building who does not meet eligibility requirements.

2.6 Design and Manufacturing – External Advise

The aircraft must be designed and manufactured exclusively by the students. The direct involvement of external individuals in both stages is prohibited. Only their advisory role is permitted. Reference to Appendix A.

2.7 Original Design

Any aircraft presented at the competition must be an original design conceived by the team members. Photographic scaling of an existing model is not permitted. Use of existing model aircraft kits components in major parts such as wing, fuselage, or empennage is prohibited.

2.8 Official Languages

The official languages of **AeroDesign MX** are English and Spanish. Documents, presentations, or any other resources submitted in different languages will not be scored.

2.9 Unique Design

If a university has two or more teams in the same event class, each design must be significantly different from the others. If, in the opinion of the Technical Committee,

the aircraft are not significantly different, only one project will be allowed to compete, and one team will be disqualified. For questions, contact the Technical Committee.

2.10 Duplicate Aircraft

When a team has an identical backup aircraft, both the primary and backup aircraft must undergo technical inspection. See Technical Inspection section.

2.11 Aircraft Eligibility

Aircraft are only eligible to compete during a single academic year. An aircraft is considered entered once the required documentation has been submitted as per the rules. If the aircraft does not fly at the event, it will still be ineligible for future competitions.

2.12 Rule Changes

The Technical Committee reserves the right to change deliverable deadlines or event dates, publishing a revised set of rules seeking to improve the information contained in this rulebook, and make any other change to ensure the safety of the participants.

2.13 Appeals and Questions

This section explains the procedures for addressing and resolving questions and appeals.

2.13.1 Questions

Prior to the event, any questions or comments about the rules must be directed to the Technical Committee via the official email: comisiontecnica@aerodesign.mx

During the event, any questions may be asked directly to the Technical Committee judges.

2.13.2 Appeal

A team can only appeal issues related to scoring, judging, venue policies, and/or any official actions regarding their own team. Teams may not appeal rule interpretations or actions that have not caused the team any substantive damage

An Appeal Committee will handle appeals, consisting of at least three members: a witness, the Organizer, the Chief Judge, and/or the Flight Boss. The decision of the Appeal Committee is final.

The appeal process will follow these steps:

1. The Team Captain and/or Faculty Advisor will first raise the situation informally with the Appeal Committee before submitting a formal appeal.

2. The Appeal Committee will identify representatives and assess the submitted appeal. If the situation requires it, the team will be asked to file a formal appeal form, properly filled and signed – see Appendix B – with 20 points as collateral.
3. The Appeal Committee will begin resolving the appeal. If necessary, competition officials who witnessed the situation will be called.
4. Once reviewed, a Committee Official will communicate the resolution to the Team Captain and/or Faculty Advisor affirming, reversing, or modifying the appeal.
5. Necessary actions will then be taken for the ruling to take place. This includes but is not limited to modifying the scoring of the team in the overall standings. It will lead to the loss of the 20 points as collateral, as well as any other actions as required

Appeals will be judged based on whether the official action was fair and consistent with the intent of the rules. The Technical Committee can modify the rules, including those regarding flight rounds, for the benefit of the competition and extraordinary reasons if there is not any partial harm to a given team.

The Appeal Committee will handle appeals immediately and will communicate resolutions at any point during the competition.

2.14 Code of Conduct

The Technical Committee condemns any unethical or unsportsmanlike conduct during the event. Unsportsmanlike conduct is defined as any behavior that undermines the integrity of the competition or harms participants, organizers, or activities. No such conduct will be overlooked.

2.14.1 Alcohol and Illegal Materials

Bringing alcoholic beverages, weapons, drugs, or any illegal material to the event is prohibited. Violation will result in the immediate expulsion of the participant and their team. This also applies to public spectators.

2.14.2 Arguments with the Technical Committee

Participants must maintain respectful communication with the Technical Committee. If participants disagree, they must use the appeal tools. Arguments may result in warnings or direct expulsion.

2.14.3 Unsportsmanlike Conduct

If unsportsmanlike conduct occurs, the Technical Committee will issue a first warning to the individual and team personnel. A second offense will result in expulsion of the team from the competition and forfeiture of all accumulated points.

2.14.4 Personal Protective Measures

Teams must comply with all personal protective equipment requirements:

1. Open-toe footwear is prohibited.
    a. All participants, including advisors and pilots, must wear closed-toe shoes during flight competition.
2. Smoking is prohibited at all stages of the event.
3. Safety glasses are required for all participants involved in flight operations.
4. The use of lasers is prohibited.

3. General Aircraft Requirements

These general requirements must be met regardless of the class in which the team participates.

3.1 Aircraft Identification

The aircraft must be properly identified and meet the following requirements:

1. The team number assigned by the Technical Committee must be visible on the upper and lower surface of the wing, as well as on both sides of the vertical stabilizer. The number must have a minimum height of **100 mm (Regular Class)** and **50 mm (Micro Class)**.
2. The name of the educational institution must be displayed inside or outside the aircraft. University initials or acronyms may substitute the full name. They must be recognizable.

3.2 Aircraft Type

Designs must be limited to fixed-wing aircraft only.

3.3 Center of Gravity

The aircraft must display a CG symbol on both sides of the fuselage at the position indicating the empty CG. The symbol must have a minimum diameter of 25 mm. For flying wing configurations, the symbol must be located under the wing.

Figure. Center of gravity symbol.

3.4 Maximum Take Off Weight (MTOW)

The aircraft must not exceed eighteen (18) kilograms of MTOW.

3.5 Control

The aircraft must be controllable in flight.

3.6 Radio Control

Each aircraft must use a 2.4 GHz radio control system. The system must include a safety function that reduces the throttle to zero immediately upon loss of the radio.

3.7 Metal Propellers

All aircraft shall not use metal propellers

3.8 Lead Prohibition

The use of lead in any part of the aircraft (including the payload bay) is prohibited.

3.9 Spinners and Safety Nuts

Only a spinner is permitted as a securing device for the propeller. The use of double nuts, nylon-insert locknuts, or 3D-printed devices is prohibited.

Figure. Permitted and prohibited devices to secure the propeller.

3.10 Payload Bay

The payload bay must not contribute to the structural integrity of the aircraft. Meaning, the aircraft must be capable of flying without the payload bay installed.

3.11 Static Payload in the Payload Bay

All solid payload components must be secured with fasteners or hardware that penetrate and fix them within the bay as a single load, as defined for each class.

3.12 Ballast in Aircraft

The use of ballast in the aircraft is allowed. However, ballast cannot be placed inside the payload bay and must be mechanically secured in place.

3.13 Control Surfaces

Aircraft control surfaces and linkages must not feature excessive looseness or backlash within the movement of the mechanism.

3.14 Servo Sizing

Servos must be adequately sized to handle the expected aerodynamic loads during flight. Analyses and testing must be documented in the Design Report.

3.15 Clevis Keepers

All control clevises must have additional mechanical keepers to prevent accidental control clevis opening in flight.

3.16 External Propulsion Restriction

The aircraft must be powered only by the motor installed on the aircraft. No other internal or external sources such as rubber bands or CO^2 are permitted.

3.17 Battery Restriction

I. All batteries must be commercial. Homemade batteries are not allowed.
II. All batteries must be secured so they cannot move during flight.
III. The battery compartment must be free of hardware or elements that could cut, damage, or penetrate the battery in case of an accident.

3.18 Use of Lasers

The use of lasers to mark landing zone or guide aircraft during approach is prohibited.

3.19 Power Limiter

Use of a power limiter is optional. A limiter is a commercial device that restricts the amount of power a propulsion system can draw. Teams could obtain it from Neumotors.com; however, there will not be a commercial limiter configured to the power limit of each class.

AeroDesign MX is not responsible for stock availability or functionality of this device.

If used, the following apply:

1. Repairs or modifications to the limiter are prohibited.
2. The limiter must be fully visible and easy to inspect.

Note:

Use the limiter in accordance with the Operations Manual of the supplier.

3.20 Arming Switches

The aircraft must include an arming switch, hereafter referred to as an Arm Plug or Shunt Plug.

1. The Arm Plug must be located and accessible according to the configuration of the aircraft (see examples).

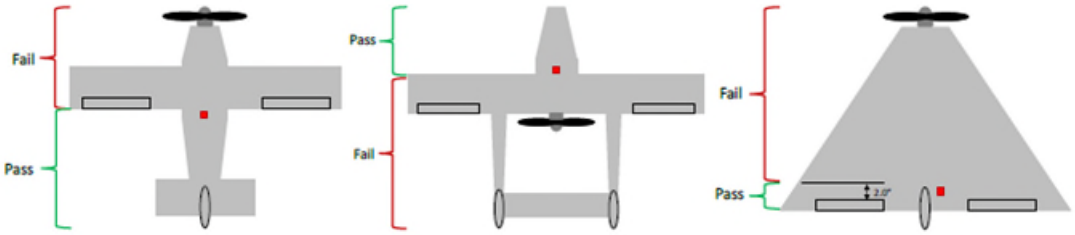


Figure. Arm plug localization diagram.

2. The Arm Plug must be external to the fuselage or wing.
3. The Arm Plug must be integrated into the circuit between the Battery and the Electronic Speed Controller (ESC).
4. Disconnecting wiring harnesses to arm and disarm a system is prohibited; the Arm Plug must be used.
5. The fixed portion of the Arm Plug must not have more than one male connection and must be mechanically secured to the aircraft structure.

Figure. Example of connector with mechanical screw attachment.

Note:

Homemade switches must be approved by the Technical Committee via email.

3.21 Landing Gear Wheels

Landing gear wheels must ensure the aircraft remains on the runway while taxi and allow the pilot to steer effectively. They must maintain integrity throughout the flight round (taxi, takeoff, landing). Any failure affecting airworthiness will invalidate the flight.

3.22 Repairs During Flight Competition

In case of damage, the aircraft could be repaired but must adhere to the original design. Any deviation or repair of critical components must be reported via an Engineering Change Request (see Appendix C).

3.23 Alterations During Flight Competition

Any alteration to the original design at any time must be reported to the Technical Committee via an Engineering Change Request (see Appendix C).

4. Mission Requirements

This section describes all mission characteristics and participation roles.

4.1 Flight Boss

The Flight Boss is a qualified official who will manage the flight competition process. This person will be introduced during the pre-flight briefing. Their responsibilities are as follows:

1. Promote safety on the flight line, maintaining orderly and controlled operations.
2. Be responsible for recording successful and unsuccessful flights, interpreting takeoff and landing rules.
3. Declare the termination of a flight attempt if the time limit is exceeded.
4. Assess extreme wind conditions or other extraordinary factors and pause or resume flights.
5. Make any necessary decisions towards the safety of the event.

4.2 Pilot Zone

The pilot zone will be defined during the pre-flight briefing. Pilots must fly the aircraft from the designated area.

4.3 Flight Attempts

Teams may perform one (1) flight per round. The number of rounds flown is not guaranteed and will depend on local conditions.

1. Without violating other take-off restrictions, a team can have multiple attempts to become airborne within the prescribed time limit for the team.
2. Once the aircraft is airborne, that attempt is considered as the actual flight.

4.4 Motor Runup

For all event classes, the aircraft may be throttled up before takeoff subject to the following conditions:

1. One (1) team member must hold the aircraft in place prior to take-off roll
2. The holder must not push the aircraft on release.
3. The main landing gear must remain on the take offline prior to release.

4.5 Aircraft Configuration – Takeoff and Landing

The aircraft must remain intact throughout the flight circuit in order to receive flight round points. A flight circuit is defined as the sequence of the following activities:

1. Positioning the aircraft on the takeoff line

2. Taxi
3. Takeoff
4. Flight pattern
5. Landing
6. Valid post-flight inspection

4.6 Flight Circuit Requirements

Considerations for the flight circuit:

1. During takeoff and landing, the pilot shall not fly the aircraft in a pattern that will allow the aircraft to enter any of the no-fly zones.
2. Aerobatic maneuvers are always prohibited during flight competition. This includes, but is not limited to, loops, 360´s, or inverted flight.

4.7 Time Limits

Time management considerations for the round of each team:

1. The time of the team will begin once the aircraft is positioned on the takeoff starting line.
2. Multiple takeoff attempts are allowed within the class time limit, provided the aircraft has not lift off the ground.
3. If the aircraft returns to the ground after liftoff and touches down beyond the takeoff distance limit, the flight attempt will be disqualified.

4.8 On-Deck Area

When a team is awaiting its flight turn and has passed technical inspection, it will be placed in a specific on-deck area. In that zone, the following must be observed:

1. The on-deck area is the only place where the propeller must be installed after technical inspection.
2. Control surfaces may be checked if the team so wishes.
3. Plugging in the arming plug or energizing the motor of the aircraft is prohibited.
4. No testing or modifications of any kind are permitted once in the on-deck area.

4.9 Takeoff

Takeoff is defined as the moment when the main landing gear wheels leave the ground (Regular/Micro Class).

Requirements:

1. The aircraft must begin its takeoff roll at rest on the takeoff line.
2. The aircraft must remain on the runway during the takeoff attempt.
3. Bouncing is permitted as long as it occurs within the takeoff distance.

4. The aircraft must remain intact during takeoff; no parts may fall off.
5. Takeoff distances:

Class	Take Off Distance	Turn Distance	Description
Regular	60 m	120 m	The aircraft must be airborne within takeoff distance.
Micro	10 m	120 m	The aircraft must be airborne within takeoff distance and clear the obstacle (see Section 9.4.3).

Table. Takeoff Information.

4.10 Landing

Landing is defined as the safe and controlled return of the aircraft to the ground. The area assigned for this activity is the runway (Regular/Micro Class).

1. The aircraft may bounce during landing, provided it lands within the limits of the landing zone. Otherwise, it will be a failed attempt.
2. Landing zone will be marked, and it is the responsibility of the pilot to identify them.
3. The aircraft must land on a condition that allows it to perform the mission again without adjustments of any kind. No parts may have fallen off or broken
    a. Detachment of tape is allowed if airworthiness is not compromised.
4. The landing distance is 120 meters. Beyond this limit, rolling without bouncing is permitted. The aircraft may also roll laterally without bouncing.

Class	Landing Distance	Description
Regular	120 m	Aircraft must land in the same direction as takeoff, unless the Flight Boss indicates otherwise.
Micro	120 m	

Table. Landing information.

4.11 Grounding Non-Compliant Aircraft

An aircraft will be grounded if the Flight Boss deems it non-airworthy or non-compliant with flight rules. It may not participate in the flight competition until its non-conformity has been corrected in accordance with this document.

4.12 No-Fly Zones

Any area that, for safety reasons, cannot be entered by the aircraft is defined as a no-fly zone.

1. The first infraction for crossing into the no-fly zone shall result in a disqualified flight attempt and zero points will be awarded for that flight

2. A second infraction shall result in disqualification from the entire event and a loss of all points.

The Flight Boss may order the pilot to intentionally crash the aircraft to prevent it from endangering people or property. It is strictly forbidden to fly over the spectators.

4.13 Flight Rules

These are the rules that define flight round procedures. They will be announced during the flight briefing. The Flying Club may have unique requirements that conflict with the rules herein; any resolution will be communicated to the teams.

4.14 Rule Violations

Violation of the flight rules will result in penalties, warnings, or elimination as applicable.

4.15 Additional Rules

In addition to competition rules, the local Flying Club may have additional rules.

1. Teams must comply with the additional rules of the club.
2. If the rules of the club conflict with the competition rules, it is the responsibility of the Team Captain or Faculty Advisor to bring the matter to the Technical Committee for resolution and announcement to all teams.

4.16 Competition Scoring

The final score of a team is composed of the scores from the following categories:

1. Design Report
2. Technical Presentation
3. Flight Competition
4. Total Penalties

4.17 Aircraft Empty Weight

The empty weight of an aircraft is defined as the total weight of all the components of the aircraft in its final configuration, excluding the cargo bay. The use of ballast is considered part of the empty weight.

The empty weight will be recorded during the empty flight round as defined in the flight order.

5. Design Report

The team must explain its processes, philosophy, and conclusions through the Design Report.

5.1 Areas

The Design Report must include the following areas of analysis:

Systems Integration	**20 points**
Aerodynamics	**20 points**
Performance	**20 points**
Stability and Control	**20 points**
Structures	**20 points**
Manufacture	**20 points**
Electrical Project	**20 points**
2D Drawings	**20 points**

The report is not limited to the topics above.

5.2 PDF Submission

The team must submit **one (1) single PDF document** before **February 13, 2026 – 23:59 hours (Mexico City, UTC−06:00).**

I. Cover Page
II. Statement of Compliance
III. Design Report
IV. 2D Drawings
V. Payload Prediction – Regular Class

The Technical Committee is not responsible for delays or misdirected documents.

Penalties

- A penalty of 5 points per late day will apply. Submissions will be accepted up to 5 days later; otherwise, the Withdrawal Policy will apply (see section 1.6).
- A penalty of 5 points will apply for submitting separate files. All documents must be combined into a single file.

5.3 Original Work

The Design Report must be the original work of the team. Any plagiarism or use of content from external sources without proper citation will result in disqualification and sanction of the team.

5.4 Format and Organization

The design report must comply with each of the following points:

1. It must include a cover page with the name of the team, number, and university.
2. It must contain the signed Statement of Compliance attached on page 2.
3. It must be digitally typewritten.
4. It must use a 12-point font or 10 characters per inch.
5. It must meet the required margins:
   a. Left: 2.50 cm
   b. Right: 1.25 cm
   c. Top / Bottom: 2.50 cm
6. All pages must be numbered.
7. It must be sectioned, according to the class, as follows:

Section	Pages	Regular	Micro
Cover Page	1	Applies	Applies
Statement of Compliance	1	Applies	Applies
Design Report	≤40	Applies	Applies
2D Drawings	2	Applies	Applies
Payload Prediction	1	Applies	Not Applicable
Total	45		

Table. Sections of the design report.

8. It must be in Letter / ANSI A size.
9. Tables, figures, and acronyms should be referenced whenever possible.
10. It must be single-column format. Multi-column layouts are not allowed.

5.5 Drawings

Consist of two separate drawings detailing the Aircraft (Regular/Micro) and the Payload Bay (Regular) or Transport Container (Micro).

5.5.1 Aircraft Drawing (Regular / Micro)

Drawing of the prototype with 3 standard aeronautical views:

I. Left side view located at the lower left corner.
II. Top view or plan view, located above and aligned with the left side view.
III. Front view located at the lower right corner.

The drawing must include the following information:

a. Wingspan, root chord, and tip chord of all lifting surfaces.
b. Aircraft datum and empty weight of the aircraft.
c. Indicated tolerances must be bilateral with a value less than or equal to 10 millimeters.
d. Weight and balance table with at least: motor, battery, payload, ballast, and electronics.
e. Location of the center of gravity with payload and empty. Forward/aft limits.

5.5.2 Payload Bay Drawing (Regular) or Transport Container Drawing (Micro)

Drawing of the payload bay (Regular) or transport container (Micro).

Regular Class

I. General view and detail views of the interface with the aircraft.
II. Detailed view of the overall dimensions and frontal area of the payload bay.
III. Indicated tolerances must be bilateral with a value less than or equal to 10 millimeters.
IV. Location of the payload bay center of gravity relative to the payload prediction.
V. If applicable, location of ballast required to balance the aircraft when empty.

Micro Class

I. Detailed view of the selected figure in compliance with the dimensional rule.
II. Detailed view of the internal arrangement of the aircraft within the transport cylinder.
III. Indicated tolerances must be bilateral with a value less than or equal to 10 millimeters.

5.5.3 Format

Each drawing must be in International System units, PDF format, ANSI B size or similar. In addition, they must be labeled with the name of the team, team number, and university name.

5.6 Payload Prediction – Regular Class

The payload prediction is an engineering estimate of the payload capacity of the aircraft.

5.6.1 Solid Load Prediction

General guidelines for solid load prediction:

I. Linear graph with slope.

$$y = mx + b$$

Where:

- y = Payload (kg)
- x = Density Altitude (m)
- m = Linear slope
- b = Y-intercept

II. Only one line and one equation may be presented. If the line and the equation values do not match, the equation value will be assumed. The graph axes must be in International System units.

III. A brief explanation of the load prediction must be included in the design report.

5.6.2 Examples

Below is an example of the load prediction equation and graph.

5.6.3 Equation

$$Y=-0.0025x+12$$

Example. Load prediction equation.

5.6.4 Graph

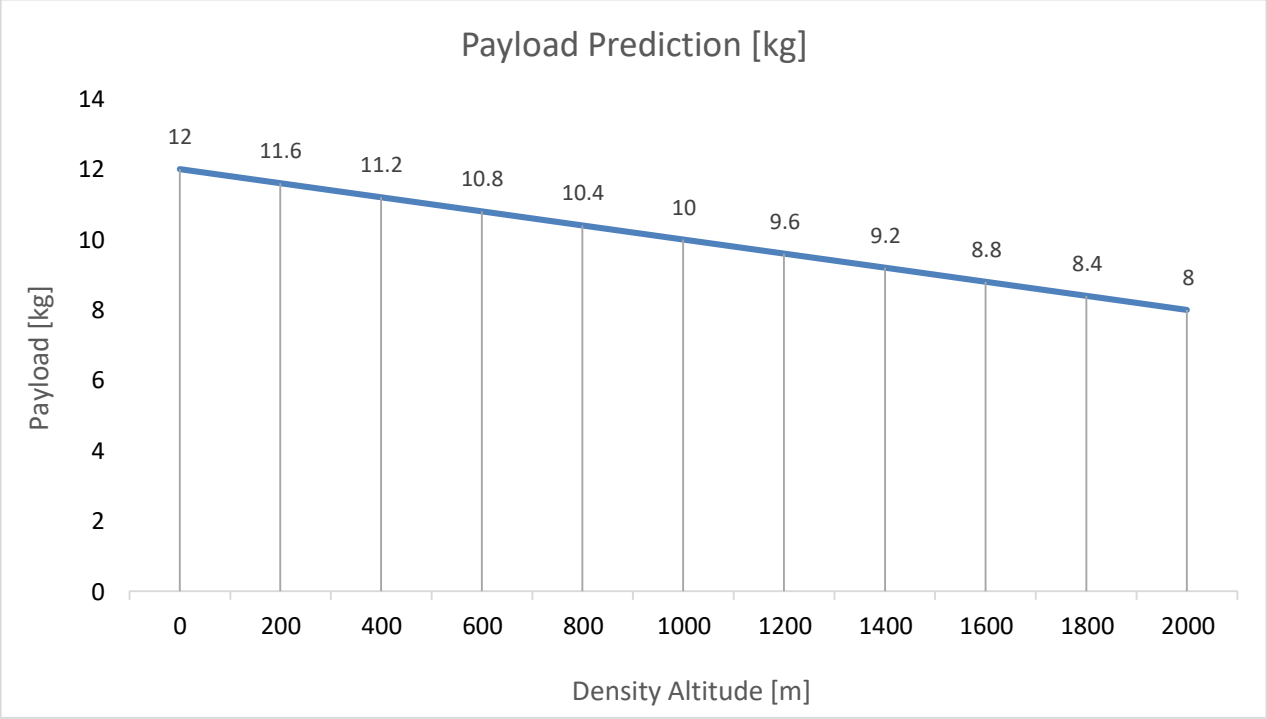


Figure. Example of payload prediction.

6. Technical Presentation

This is a virtual event through which the design, construction, and testing process is presented. The presentation will award up to fifty (50) points and will evaluate both technical content and visual content.

6.1 Generalities

The team must comply without exception with each of the following points:

1. Ten (10) minute limit. Afterwards, there will be a Q&A session.
2. Two team members may act as presenters.
3. Any team member may answer during the Q&A session.
4. All questions must be answered; omission is not permitted.
5. The presentation may be delivered in any of the official competition languages: Spanish or English.
6. Only team members may participate.
7. Videos must not exceed one (1) minute in length and must not include pre-recorded narration.
8. If team facilities allow, it is highly recommended that the aircraft be present.

6.2 Procedure

Each virtual presentation room will have a lead judge responsible for ensuring proper flow and compliance with presentation rules.

2 Minutes:	Presentation setup
10 Minutes:	Technical presentation
10 Minutes:	Questions and answers

I. The lead judge will notify the presenter when one (1) minute remains.
II. If the presentation exceeds ten (10) minutes, a five (5)-point penalty will be applied.
III. The presentation will be stopped once eleven (11) minutes are reached.

The team is responsible for bringing its own materials and computer equipment.

6.3 Dates

Technical presentations will take place on Saturday, February 28, 2026.

- The itinerary, links, and relevant information will be sent via email to each team.

7. Technical Inspection

The purpose of the technical and safety inspection is to verify that the aircraft complies with all general design and airworthiness requirements specified in this rulebook. All aircraft must pass inspection to access flight rounds. At any extraordinary time, a committee judge may request a re-inspection.

7.1 Conformity

The aircraft will be inspected in accordance with the 'Aircraft Drawing' and 'Payload Bay Drawing' or 'Transport Container Drawing.'

I. At minimum, wingspan, length, height, and aircraft CG location will be verified. In addition, electronic components must match the documentation.
II. The team must provide a **printed copy** of its drawings during inspection.
III. Any dimension or design change must be reported using an *Engineering Change Request (ECR).* A copy must be submitted at technical inspection. One change per ECR form. See Appendix C.
    a. The penalty will be defined by the Technical Committee depending on the reported change.
    b. Unreported changes will result in an additional 3-point penalty.

7.2 Deviation from 2D Drawings

Any deviation between the built aircraft and the 2D drawing must be reported in writing. In the Regular Class, no report is required if the following applies:

$$|L_{actual} - L_{drawing}| + |W_{actual} - W_{drawing}| + |H_{actual} - H_{drawing}| \leq 3 \text{ centimeters}$$

7.3 Safety and Airworthiness Criteria

Aspects ensuring safety and airworthiness during the mission will be inspected. Inspection will include, but is not limited to:

I. Alignment of control surfaces
II. Unintentional wing wraps
III. Correct response of control surfaces to radio transmitter input
IV. Structural and mechanical soundness of the prototype

7.4 Spare Components

A spare component is any part of the aircraft available to replace an original part in case of irreparable damage. Therefore, it must pass its own technical inspection to be valid.

I. Any spare component must undergo inspection along with the primary aircraft.

II. If there is a spare aircraft, it will be treated as a component under the same rules.

7.5 Compliance Throughout the Event

The aircraft must always comply with Technical Inspection requirements.

Any Technical Committee official can request a re-inspection if any issue or anomaly is perceived in the aircraft at any moment of the event. This includes errors or omissions made by a Technical Committee official during inspection.

7.6 Penalties

Penalties are consequences of errors or non-conformities found during the technical inspection process:

- Deviations from the reported aircraft dimensions as per Design Report/2D drawing
- Changes reported through an Engineering Change Request.
- Failure to meet the requirements of the load/unload demonstration.

7.7 Inspection Failure

If the aircraft does not pass technical inspection, the team must proceed as follows:

- The team will wait for the next available slot for inspection, no priority will be given.
- If the day ends without re-inspection, inspection to the missing teams will be carried out early on the flight day.

7.8 Load Demonstration

This is a timed activity in which teams must perform the loading and unloading of payload in accordance with the following:

I. Payload loading within one (1) minute.
   a. The aircraft must be in *ready-to-fly* configuration.
   b. The payload bay must be separated from the aircraft.
   c. The activity ends when the bay is secured inside the aircraft.

II. Payload unloading within one (1) minute.
   a. This starts immediately after the loading test with the bay installed inside the aircraft.
   b. The activity ends when the bay is removed from the aircraft and placed back in its original position. The aircraft must return to *ready-to-fly* configuration.

Failure to comply will result in a **5-point penalty for each demonstration.**

The load demonstration is mandatory, with only one attempt allowed, regardless of whether the aircraft passes the technical inspection.

7.8.1 Regular Class

Regular Class aircraft must perform the demonstration with 3.000 kilograms of payload.

7.8.2 Micro Class

Micro Class aircraft must perform the demonstration with 0.300 kilograms of payload.

8. Regular Class

In this edition, the Regular Class will require performing two types of flights: empty and solid payload. The aircraft design must focus on Structural Efficiency, Empty Weight, and Payload Capacity to maximize success in flight rounds.

8.1 Sizing

The ready-to-fly aircraft must comply with the following rules:

- The height of the aircraft must be less than or equal to 0.48 meters.

$$h \leq 0.48 \text{ m}$$

Where:

h: Maximum aircraft height.

Exclusions:

- Propellers are excluded from this dimensional rule.

If:

a. The aircraft exceeds the dimensional rule by more than **1 linear centimeter**, it will be disqualified from the event.
b. The aircraft is between **0.1 and 1 linear centimeter** outside the dimensional rule, a **30-point penalty** will be applied.

8.2 Restrictions

Restrictions applicable to *Regular Class*.

8.2.1 Rubber Bands or Elastic Material

The use of elastic material to attach the wing or solid payload plates to the fuselage is prohibited.

8.2.2 Gyroscopic Stabilizers

The use of gyroscopes or any type of flight stabilizer is prohibited.

8.2.3 Wing Section Assembly

Wing sections must be mechanically joined. Tape is not allowed as the sole method of attachment.

8.3 Requirements

The aircraft must be powered by one (1) electric motor and one (1) non-metallic propeller. There are no restrictions on brand or model.

8.3.1 Battery

The propulsion system must use one (1) commercially available Lithium-Polymer battery.

a) Homemade batteries are not allowed.
b) Swollen batteries are not allowed.
c) Battery must have 4 or more cells.
d) Minimum requirements: 3000 mAh, 20C.

8.3.2 Power Limit

The propulsion system will be limited to an electrical power of up to **850 watts**.

1. The aircraft must have an **AeroDesign MX Watt Meter** (Appendix D) installed in its electrical circuit.
    a. The Watt Meter must be visible during aircraft operation.
    b. Alterations or modifications to the Watt Meter are prohibited.
        i. If there are signs of tampering with the Watt Meter or violation of its integrity, the Committee will require the aircraft to remain grounded until the situation is clarified.
    c. The electronic circuit must install the Watt Meter according to the following figure.

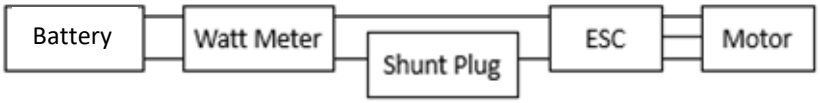


FIgure. Power Circuit Diagram.

2. Any value exceeding **850 watts** will be penalized according to Appendix E.
    a. Any value above *1000 watts will not score* in the flight round.

8.4 Payload

The payload of the Regular Class will consist of solid payload and its payload bay.

1. The total weight (kg) of the solid payload plus the payload bay are the recordable values for calculating the score per round.
    a. The maximum payload limit is either the payload prediction (see Section 5.6) or the MTOW (see Section 3.4), whichever occurs first.

8.4.1 Solid Payload

Solid payload is the load contained inside the bay.

1. It consists of plates or bars of solid material and the support elements to hold them in place during the mission.
2. The choice of solid payload material is free.

3. The mechanical joint shall be used to hold the payload. Use of tape, Velcro, rubber bands, or similar is **not allowed.**
4. The team is responsible for bringing its own payload.

8.4.2 Payload Bay

Consists of a single structurally enclosed payload bay inside the aircraft capable of carrying the solid payload in each flight round.

1. The payload bay must be sized such that:
    a. It is a rectangular prism.
    b. It has a volume achieving a density equal to or less than $5{,}000\ \frac{kg}{m^3}$ with the chosen payload prediction (see Appendix F).
2. It must be constructed of materials that maintain its geometric shape.
3. It must not be a structural component of the fuselage or any other aircraft part.
4. It must be shown in detail through the 2D drawings.
5. It must not contribute to aircraft balance.

8.5 Mission

This section describes the mission of the Regular Class.

8.5.1 Generalities

The aircraft must attempt, without exception, two types of flights:

VEV Empty Flight

Disclaimer: The team cannot miss the Empty Flight.

VCS Solid Payload Flight

Disclaimer: The team cannot attempt a VCS until a VEV has been successfully completed.

8.5.2 Basic Rules

Basic rules for Regular Class circuits:

I. The 360 circuit for regular class aircraft shall comply with the aircraft flying all along the takeoff runway, the initial turning (180°) shall comply with the predefined distance from start before turn. The second turning (180°) must be done once the aircraft has passed the landing zone, then the aircraft can begin its approach for landing
II. During takeoff and landing approach, the pilot must not fly patterns that allow the aircraft to enter no-fly zones.
III. More than one circuit lap is allowed, provided it is completed within the 3-minute limit.

IV. Aerobatic maneuvers are not permitted in any flight round. This includes, but is not limited to, rolls, barrel rolls, figure eights, or inverted flight.

8.5.3 Distances

Distance limits must be observed.

	Meters
Take-Off	60
Landing	120

Table. Distance limits.

8.5.4 Flight Attempts

The team is allowed one (1) flight per round.

1. The team may have multiple takeoff attempts within the time limit.

8.5.5 Time Limit

Aircraft must comply with time limit rules.

I. Multiple takeoff attempts are allowed within a three-minute window, if the aircraft has not taken off in the aborted attempt.
II. Once airborne beyond the takeoff limit, the aircraft must complete the flight circuit in under 3 minutes.

8.5.6 Motor Acceleration

A holder is permitted to restrain the aircraft while the motor is throttled up prior to release for takeoff.

I. The holder must not push the aircraft at any time. Doing so invalidates the flight.
II. The wheels of the main landing gear of the aircraft must be placed on the takeoff line.
III. The aircraft must begin the takeoff roll from a static position on the takeoff line.

8.5.7 Competition Circuit

According to the selected flight, the specific circuit requirements must be followed.

The aircraft will complete a 360° circuit within runway and flight zone limits.

a. The aircraft will be weighed prior to the empty flight, and this will be considered for the structural efficiency calculation.

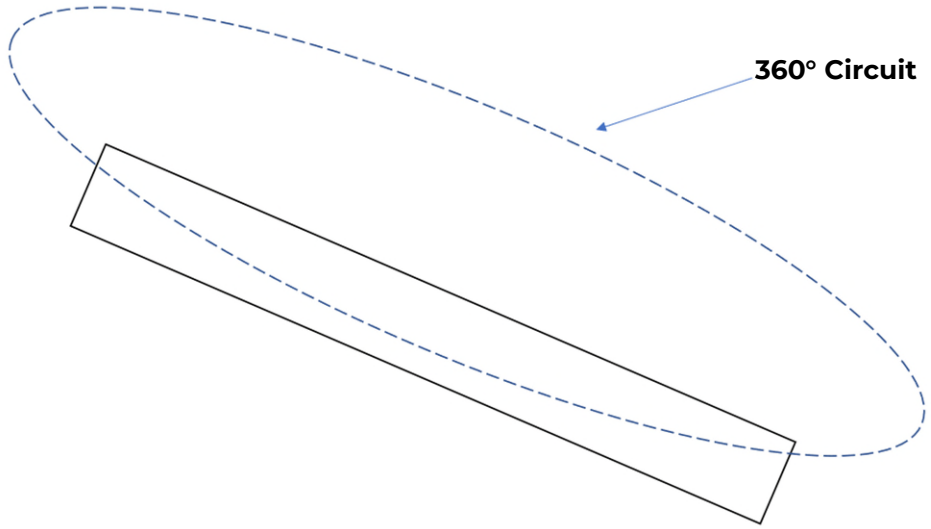


Figure. 360° Circuit.

8.6 Total Scoring

The formula for total scoring is:

$$\mathbf{PT = RD + PO + PRV + BV_V + BV_{MKT} + BV_{PCU} - \sum D}$$

Where:

PT	Total Score
RD	Design Report
PO	Oral Presentation
PRV	Flight Round Score
BV_v	Flight Video Bonus
BV_{MKT}	Marketing Video Bonus
B_{PCU}	Payload Prediction Bonus
∑D	Sum of Penalties

8.6.1 Flight Round Scoring (PRV)

This is the total sum of all round scores, bonuses, and penalties.

$$\mathbf{PRV = P_{VV} + \sum P_C + \sum B_D + \sum B_A + B_{PCU}}$$

Where:

PRV	Total Flight Round Score
P_{VV}	Empty Flight Score
$\sum P_C$	Sum of Payload Flights
$\sum B_D$	Takeoff Bonuses

$\sum B_A$	Landing Bonuses
B_{PCU}	Payload Prediction Bonus

8.6.2 Payload Flight Scoring (P_C)

The score per round will be calculated as follows:

$$P_C = \sum_{n=1}^{N} (100\ EE_n - 80\ EE_{n-1})$$

Where:

EE_n	Structural Efficiency of the Current Flight
EE_{n-1}	Structural Efficiency of the Previous Successful Flight
n	Current Flight Number
N	Number of Possible Payload Rounds

$$N = 7 - i - f$$

Where:

i	Number of Empty Flight Attempts
f	Number of Failed Payload Flights

Note:

The PC value can result in a negative score, which will be deducted from the total accumulated.

8.6.2.1 Structural Efficiency

1. Structural Efficiency is defined as the relation between the empty weight of the aircraft and the payload.

$$EE = \frac{Payload}{Empty\ Weight}$$

2. For the first payload round, EE_{n-1} is defined as:

$$EE_0 = 0$$

8.6.2.2 Example

See Appendix G for a numerical example.

8.6.3 Empty Flight Scoring (PVV)

It will be calculated by dividing 200 by the recorded Empty Weight during the VEV (Empty Flight) circuit.

$$P_{VV} = \frac{200}{W_{empty}}$$

Where:

$\mathbf{W_{empty}}$ Aircraft Empty Mass [kg]

It is a mandatory requirement to complete successfully the empty flight to continue scoring through the solid payload flights. The aircraft will be weighed prior to each flight attempt, and only the successful attempt will be recorded. This score is awarded only once; subsequent empty flights will not give points.

8.6.4 Takeoff Bonus

The aircraft may earn a bonus per flight if it successfully takes off according to Section 4.9 in a distance shorter than the limit stated in Section 8.5.3.

10 The aircraft took off before 50 meters.
0 The aircraft took off after 50 meters.

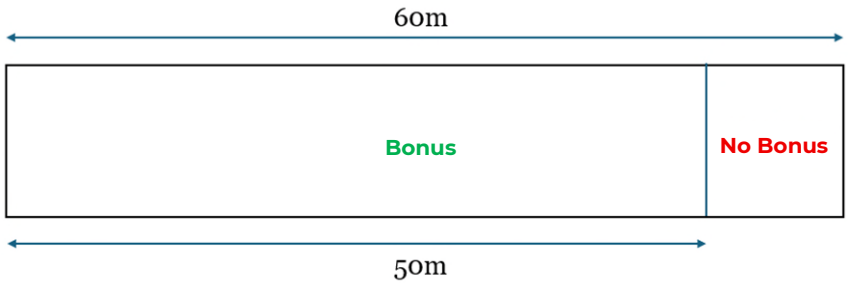


Figure. Example of takeoff bonus.

8.6.5 Landing Bonus

The aircraft may earn a bonus per round if it successfully lands according to Section 4.10 in a distance shorter than the limit stated in Section 8.5.3. Conversely, a penalty will be applied if landing is completed outside the declared zone.

The landing runway (120 meters) will be divided into two quadrants: S1 and S2, each 60 meters long.

10 The aircraft landed successfully and stopped in the first runway quadrant.
0 The aircraft landed successfully but used both quadrants.
10 The aircraft landed but veered off laterally or longitudinally.

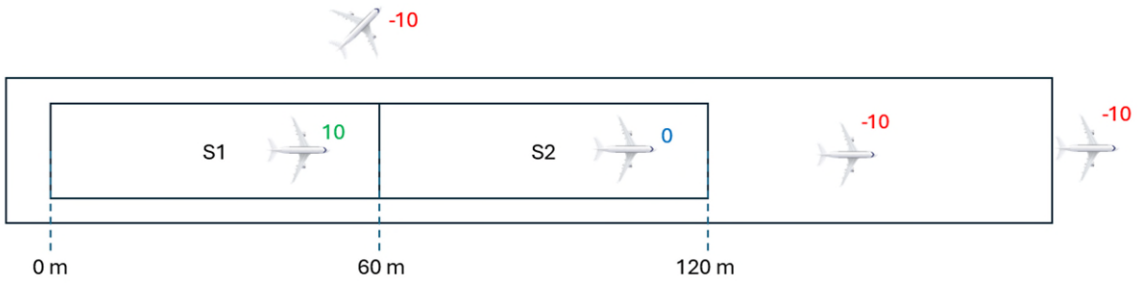


Figure. Landging zone.

8.6.6 Payload Prediction Bonus

Bonus formula:

$$B_{PCU} = 30 * \left\{1 - abs\left[\left(\frac{CU_{PRED} - CU_{MAX}}{CU_{PRED}}\right)^{0.35}\right]\right\}$$

Where:

B_{PCU}	Solid Payload Prediction Bonus
CU_{PRED}	Predicted Solid Payload (kg)
CU_{MAX}	Maximum Solid Payload in the last valid flight round

If the result is negative, the bonus will be 0.

8.6.7 Video Bonus

To qualify for the video bonus B_V, the team must comply with the following:

1. Record a single-shot video without interruptions or cuts, showing the competition prototype executing a 360° circuit within runway limits and in full compliance with all mission rules inside the takeoff boundaries.

   Payload: 3 kilograms between payload bay and solid payload.

2. The video content must show:
   a. Take-off roll, takeoff, circuit, landing, visual confirmation of aircraft integrity, visible/operational Watt Meter, removal and weighing of payload.

3. The video must be published on YouTube with public visibility (no privacy restrictions). Email the video URL to comisiontecnica@aerodesign.mx with the subject "Video_**TeamName**_AeroDesignMX26" before February 22, 2026, at 23:59 (Mexico City, UTC−06:00).

   If compliant, **20 points** will be awarded to the team.

8.6.8 Marketing Video Bonus

Objective:

Teams may earn up to 15 points by posting a short video (≤60 seconds) on TikTok or Instagram that creatively promotes their aircraft, highlighting:

- Technical innovation (e.g., quick-assembly system)
- Competitive advantages (e.g., low weight, structural efficiency)
- Team spirit and design process

8.6.8.1 Requirements

Duration: ≤60 seconds.
Content:

- Flight demonstration (simulated or using prior footage is acceptable)
- Mention at least two technical specifications (e.g., wingspan, maximum payload)
- Mandatory hashtag: **#AeroDesignMX2026**

Deadline: February 22, 2026, at 23:59 (Mexico City, UTC−06:00).
Format: Public link (TikTok/Instagram Reels) sent to comisiontecnica@aerodesign.mx

8.6.8.2 Content Criteria

Criterion	Points
Creativity | Originality	5
Technical note	4
Audiovisual Element	3
Engagement (likes)*	3

Table. Evaluation criteria.

*Minimum 300 likes to validate engagement.

8.6.8.3 Restrictions

Effects that distort the real capabilities of the aircraft are not allowed (e.g., filters simulating steady flight).

At least one team member must appear in the video.

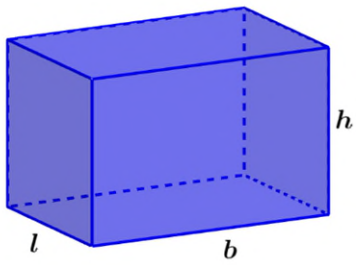
9. Micro Class

The Micro Class aims to design a versatile aircraft that delivers the highest energy efficiency. Its size is ideal for new teams, while the category is also disruptive for traditional teams. An entry-level mission with accessible manufacturing, access, and timelines.

9.1 Sizing

The disassembled aircraft must fit inside a control volume under the following conditions:

1. The control volume must be a rectangular prism, which will be considered the “Transport Container” of the aircraft.
2. The Transport Container must have a volume less than or equal to 0.036 cubic meters.
    a. “Internal volume” means the free volume inside the container, bounded by the inner faces of the rectangular prism shown below.
3. The dimensions of the Transport Container are free, provided the previous rule is respected.



$$V = l \times b \times h$$

Figure. Example of cylindrical-shaped control volume.

Conditions:

I. All aircraft components must fit inside the Transport Container, which is the control volume. The team is responsible for bringing the Transport Container. Otherwise, the aircraft will be disqualified.
II. The team must declare the dimensions and details of the control volume in the report and 2D drawing.
III. External accessories on the Transport Container are permitted, provided they do not affect the internal volume (e.g., handles, straps, reinforcements).

If:

a) The Transport Container exceeds the dimensional rule by more than 0.01 cubic meters, the aircraft will be disqualified.
b) If the Transport Container is between 0.001 and 0.01 cubic meters outside the dimensional rule, a 30-point penalty will apply.

9.2 Requirements

The aircraft must be powered by **one or more** electric motors and **one or more** propellers. There are no brand or model restrictions for these components.

9.2.1 Battery

The propulsion system must use one (1) commercially available Lithium-Polymer battery or a Li-Ion 18650 battery array.

Characteristics:

a) Swollen batteries are not allowed.
b) For Li-Po batteries, capacity up to 3000 mAh.
c) For Li-Ion arrays, interconnections must be spot-welded.

Conditions of Use:

I. The team must complete the flight competition with a single battery.
    a. If a battery change is required for any reason, the team may replace the battery with another of the same model and brand; however, points obtained with the previous battery(ies) will be erased.
II. After each flight round, the Technical Committee will secure the battery.
III. The team can opt for a second battery to power the aircraft during pre-flight inspection.
IV. The Technical Committee reserves the right to determine the condition of the battery and may require its immediate replacement, activating rule 1.

9.2.2 Power Limit

The propulsion system will be limited to electrical power of up to 400 watts.

1. The aircraft must have the **AeroDesign MX Watt Meter** installed in its electrical circuit.
    a. The Watt Meter must be able to record peak power.
    b. The Watt Meter must be visible during aircraft operation.
    c. Alterations or modifications to the Watt Meter are prohibited.
    d. The electronic circuit must install the Watt Meter according to the following figure.

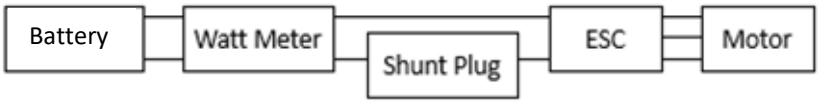


Figure. Power Circuit Diagram.

Any excess above 400 watts will score 0 points.

9.2.3 Assisted Stability Systems

The use of gyroscopic or attitude-hold (ATT-Hold) systems is permitted to improve in-flight stability.

Conditions (if used, the following apply):

1. The system must be commercially available; custom designs are not permitted.
2. The system must not replace pilot control during takeoff and/or landing.
3. The system must be switched ON/OFF from the radio control.
    a. In case of in-flight issues, the pilot must heed and comply with Flight Boss signals.
4. Failure to comply will result in flight disqualification.
5. Use of the system requires validation by the Technical Committee. The team must submit, before February 15, 2026, a video showing the system implementation on the aircraft.
    a. This means the system must be tested before the competition; first-time use during the competition is not allowed.

9.3 Payload

Micro Class payload will consist of a solid block.

9.3.1 Solid Payload

Solid payload is defined as a homogeneous-mass block or bar enclosed within the aircraft fuselage.

Conditions:

1. Payload material is unrestricted.
2. Payload blocks must be 300 g, 400 g, and 500 g.
    a. If the mass of the block exceeds the stated weight, the immediate lower multiple of 100 g will be used. For example, a 380 g block will score as a 300 g block.
3. The payload must be mechanically secured. Do not use tape, Velcro, rubber bands, etc.
4. The team is responsible for bringing its own payload.

9.4 Mission

The aircraft must attempt up to seven (7) flight rounds, and the team will participate in an assembly competition. Flight order will be as follows:

	1	2	3	4	5	6	7
Type	Assembly + Flight	Flight	Flight	Flight	Flight	Flight	Flight
Payload	Free	Free	Free	Free	Free	Free	Free

Table. Flight sequences.

9.4.1 Generalities

Basic rules for Micro Class circuits:

1. The aircraft will take off within the first 10 meters and must clear a 1-meter-high obstacle; it will then fly straight, make a 180° turn at the 120-meter mark, cruise, reach the opposite 120-meter mark, and begin another 180° turn. It must complete as many laps as possible within the time limit. **Laps are cumulative.**
2. Do not fly patterns that allow the aircraft to enter no-fly zones.
3. Aerobatic maneuvers are not permitted in any flight round. This includes, but is not limited to rolls, barrel rolls, figure eights, or inverted flight.

9.4.2 Distances

Regulatory distances will be marked by lines on the runway. See details in Section 9.4.5.

9.4.3 Flight Attempts

The team is allowed three (3) flight attempts per round.

Conditions

A failed attempt is counted each time the aircraft:

1. Begins its takeoff roll and does not take off.
2. Rolls and takes off within the limits but fails to clear the height obstacle, whether it touches it with any part of the aircraft or flies under it.

9.4.4 Time Limit

Once airborne, the aircraft has **180** seconds to complete as many laps as possible, covering at least the 120 meters indicated at each runway end.

9.4.5 Takeoff

The takeoff zone will be delineated on the runway as follows:

1. A length of 10 meters.

2. A 1-meter-high obstacle located at the far end of the takeoff distance, at 10 meters.

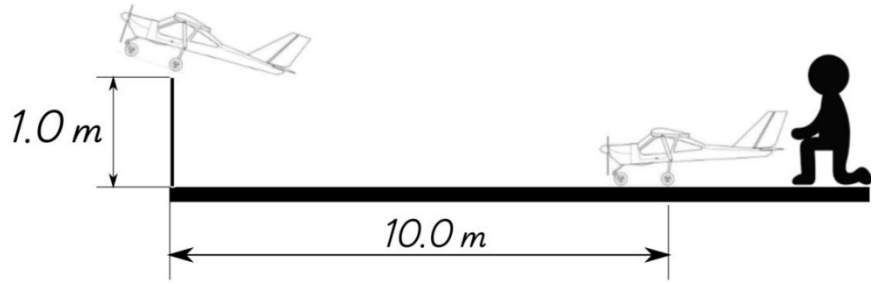


Figure. Representative ilustration on takeoff distance and obstacle.

9.4.6 Competition Circuit

The aircraft must fly the following circuit.

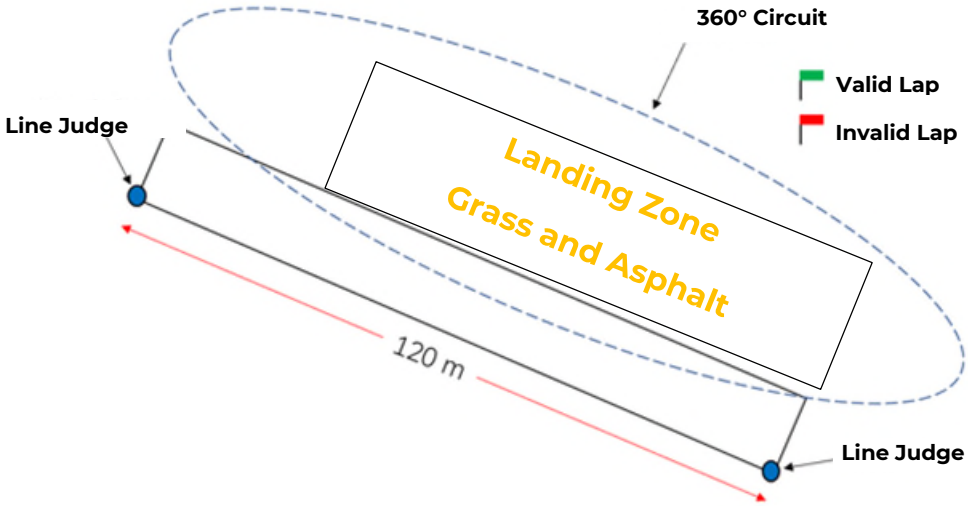


Figure. Micro 360° Circuit.

9.4.7 Assembly Competition

This is a timed competition. Two team members must assemble the micro aircraft in the shortest possible time using limited tools.

Conditions:

Eligibility	Only two team members can participate in the activity.
Verification	A pre-flight inspection will be carried out once the aircraft is assembled.
Tools	Power tools are not allowed; only manual tools are permitted.

Steps:

1. Team members will position themselves on their respective lines, as shown in the figure. The transport container with the aircraft inside will be placed on line 2, and the tools belonging to the team on line 3.

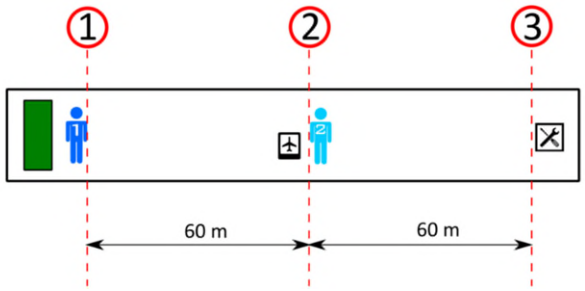


Figure. Step 1.

2. Once positioned, the judge will wave the flag and blow the whistle to indicate the start. The member at line 1 will run to line 2 to high-five the member at line 2 and pick up the transport container.

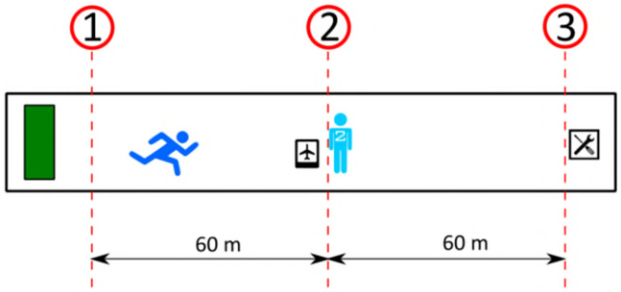


Figure. Step 2.

3. Immediately, member 1 will move with the transport container to line 1. Meanwhile, member 2 will move to line 3 to pick up the tools belonging to the team. If the team does not require tools, they may skip this step and step 4, proceeding directly to line 1. At this point, members may not carry tools on their person at any stage of the activity.

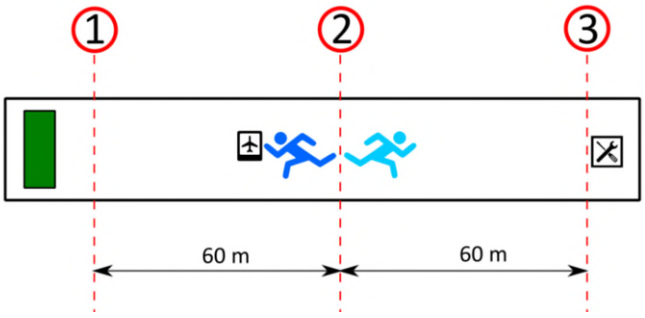


Figure. Step 3.

4. Once the tools are collected, member 2 will move with them to line 1 to meet member 1 at the assembly table.

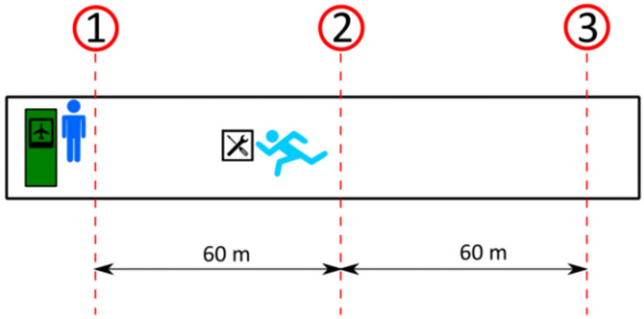


Figure. Step 4.

5. Once both members are at the assembly table, they will assemble the aircraft into its ready-to-fly configuration.
6. When finished, they will notify their table judge, who will be inspecting in real time. If approved, the judge will signal completion and stop the timer.
    a. If the judge detects that assembly is incomplete, they will inform the team and resume the timer for the team to finish.
7. The aircraft will be safeguarded until the rest of the team is finish. After the assembly competition, a flight circuit per Section 9.4.6 will begin, in the order of team completion.

9.4.7.1 Time Limit

The activity will end five (5) minutes after it begins.

9.4.7.2 Scoring

Teams will receive two scores: Assembly and Flight Circuit.

Assembly Score

Only the first six teams will receive points, distributed as follows:

Order	1	2	3	4	5	6
Points	60	50	40	30	20	10

Table. Points by order of completion.

Flight Circuit Score

The team will receive 50 points for completing one valid lap according to the flight mission.

9.5 Total Scoring

Total scoring formula that will determine the overall ranking:

$$\mathbf{PT = RD + PO + BV + BV_{MKT} + PRV - \sum D}$$

Where:

PT	Total Score
RD	Design Report
PO	Oral Presentation
PRV	Flight Round Score
BV	Video Bonus
BV_{MKT}	Marketing Video Bonus
∑D	Sum of Penalties

9.5.1 Video Bonus

To qualify for the Video Bonus (B_V), the team must comply with the following:

1. Record a single-shot video without interruptions or cuts, showing the competition prototype executing a 360° circuit within runway limits and in full compliance with all mission rules inside the takeoff boundaries.
   Payload: 300 grams of solid payload.
2. The video content must show:
   a. Startup, takeoff, circuit, landing, visual confirmation of aircraft integrity, visible/operational Watt Meter, removal and weighing of payload.
3. The video must be published on YouTube with public visibility (no privacy restrictions). Email the video URL to comisiontecnica@aerodesign.mx with the subject "Video_Micro_**TeamName**_AeroDesignMX26" before February 22, 2026, at 23:59 (Mexico City, UTC−06:00).

If compliant, **20 points** will be awarded to the team.

9.5.2 Marketing Video Bonus

Teams may earn up to 15 points by posting a short video (≤60 seconds) on TikTok or Instagram that creatively promotes their aircraft, highlighting:

- Technical innovation (e.g., quick-assembly system)
- Competitive advantages (e.g., low weight, structural efficiency)
- Team spirit and design process

9.5.2.1 Requirements

Duration: ≤60 seconds.

Content:

- Flight demonstration (simulated or with prior footage).
- At least one team member must appear in the video.
- Mention at least two technical specifications (e.g., wingspan, maximum payload).
- No visual effects that distort the real capability of the aircraft.
- Mandatory hashtag: #AeroDesignMX2026

Deadline: February 22, 2026, at 23:59 (Mexico City, UTC−06:00).
Format: Public link (TikTok/Instagram Reels) sent to comisiontecnica@aerodesign.mx

9.5.2.2 Content Criteria

Concept	Points
Creativity/Originality	5
Technical Note	4
Audiovisual Element	3
Engagement (likes)*	3

Table. Evaluation criteria.

*Minimum of 300 likes required to validate engagement.

9.5.2.3 Flight Round Scoring

The score for flight rounds will be based on the total number of laps completed. In addition, it will include the score from the assembly relay competition minus any deductions or penalties.

$$\mathbf{PRV} = \left[\sum_{n=2}^{7}(\mathbf{CP_n} \times \mathrm{V_n} \times \mathbf{20})\right] + \mathbf{P_{ASSEMBLY}}$$

Where:

PRV	Flight Round Score
$\mathrm{CP_n}$	Payload (g) of round *n*
$\mathrm{V_n}$	Total valid laps in round *n*
$\mathrm{P_{ASSEMBLY}}$	Score from relay and assembly competition

Appendix

Appendix A

Statement of Compliance

Team: _____
University: _____
Faculty Advisor: _____
Faculty Advisor - Mail: _____

As Advisor:

_____ (Initials) I certify that the registered members are currently enrolled in collegiate courses

_____ (Initials) I certify that the team has designed and built a radio-controlled aircraft exclusively with the intention of meeting the requirements of the 2026 AeroDesign MX regulations, without the assistance of experts, ringers, or aeromodelers.

_____ (Initials) I certify that the Design Report submitted by the team contains original content written by the active members of this team.

_____ (Initials) I certify that any reused content is in compliance with the reuse policies.

_____ _____
Signature of Faculty Advisor Date

_____ _____
Signature of Captain Date

Appendix B

Appeal Form

# Team	
Team Name	
Team Captain	

Warranty Points	This appeal will require the team to place twenty (20) points as a collateral. If the appeal is upheld and the action is reversed, the team will keep its collateral points. If the appeal is denied, the team forfeits the collateral points. Collateral Points: 20 _____ **Signature**
Appeal Reason	Provide a detailed justification for your appeal, using competition terminology
Rule Reference	List the section(s) of the Aero Design MX regulations that are in conflict with the actions taken by the competition judge
Desire Outcome	Briefly summarize the expected resolution.

Appeal # _____ **-**

Row filled by Technical Comission

Appendix C

Engineering Change Request

# Team	
Team´s Name	
Team´s Captain	

Affected Area

- ☐ Structures
- ☐ Aerodynamics
- ☐ Stability & Control
- ☐ Electronics
- ☐ Propulsion
- ☐ Performance

Where was the change detected?

- ☐ Design Analyses
- ☐ Fight tests
- ☐ Technical Inspections
- ☐ Flight Rounds
- ☐ Other: _____

Description	
Change substantiation	

Aero Design MX Technical Comission	
Change #	**SCI - -**
Penalty	

Appendix D

Use of the Aero Design Watt Meter V1

General Information

To ensure fairness and transparency in power measurement across all categories, the Aero Design MX Technical Committee will provide each registered team with one (1) official Watt Meter as part of their registration. This device will be the only one authorized to validate compliance with the power limits set forth in Sections 8.3.2 (Regular) and 9.2.3 (Micro).

Watt Meter Specifications

Model: AeroDesign Watt Meter V1
Capacity: 75 A
Features:

I. Peak power recording (Hold Function).
II. Digital interface with LCD display.
III. Tamper-evident sealing (official holographic label).

Connection: It must be installed in series between the battery and the ESC, as shown in the diagram in Section 8.3.2.

Delivery and Verification Procedure

Delivery
Each team will receive its official Watt Meter after successfully completing the registration process.

Verification
The device will be inspected during technical inspection by the Technical Committee to prevent any modifications. Any attempt to alter the seal will result in immediate disqualification.

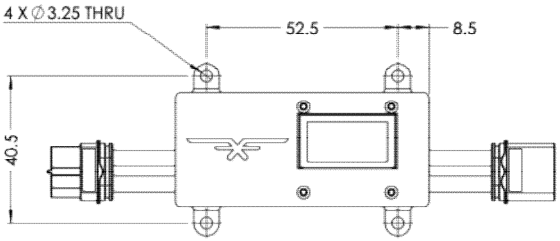
Purchase of Additional Units

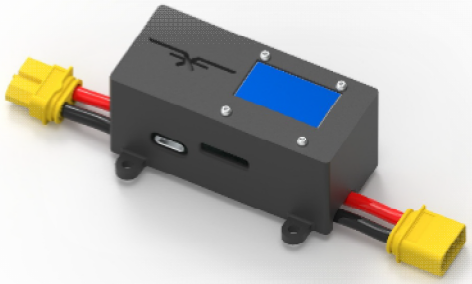
Teams may request additional Watt Meters via mail for MXN $800.

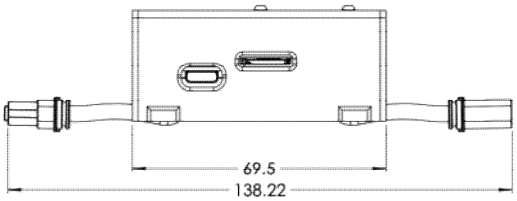
Equipment Failures

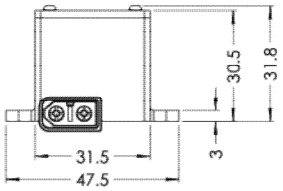
If the AeroDesign Watt Meter fails during team testing, please notify us by email at **comisiontecnica@aerodesign.mx**. Technical support will be provided there to address the issue.

WATTMETER - AERODESIGN MX 2026









AeroDesign MX

FEATURES:
Connector Type: XT60
Weight: 65 grs ± 5.0 grs
Display: OLED Screen 0.96" 128x64
Data Storage: Micro SD

Dimensions shown in **mm.**
Scale: 1:1 | Tolerance: ±0.15
Rev. 1.0

Appendix E

Penalty – Exceeding Power Watts (850)

One of the following statements will apply, as appropriate:

a) For every watt (1) exceeded, a **0.66%** penalty will be applied to the flight score of the round.

$$PEN_{PWR} : [.6\overline{6} * \ (POT_{EXC} - 850)]\%$$

Dónde:

PEN_{PWR} *Penalty for exceeding power.*

POT_{EXC} *Recorded excess power (values greater than 850 and less than 1000).*

b) Any power used and recorded on the Watt Meter **equal to or greater than 1000 watts** will result in **0 points** for the flight score of the round.

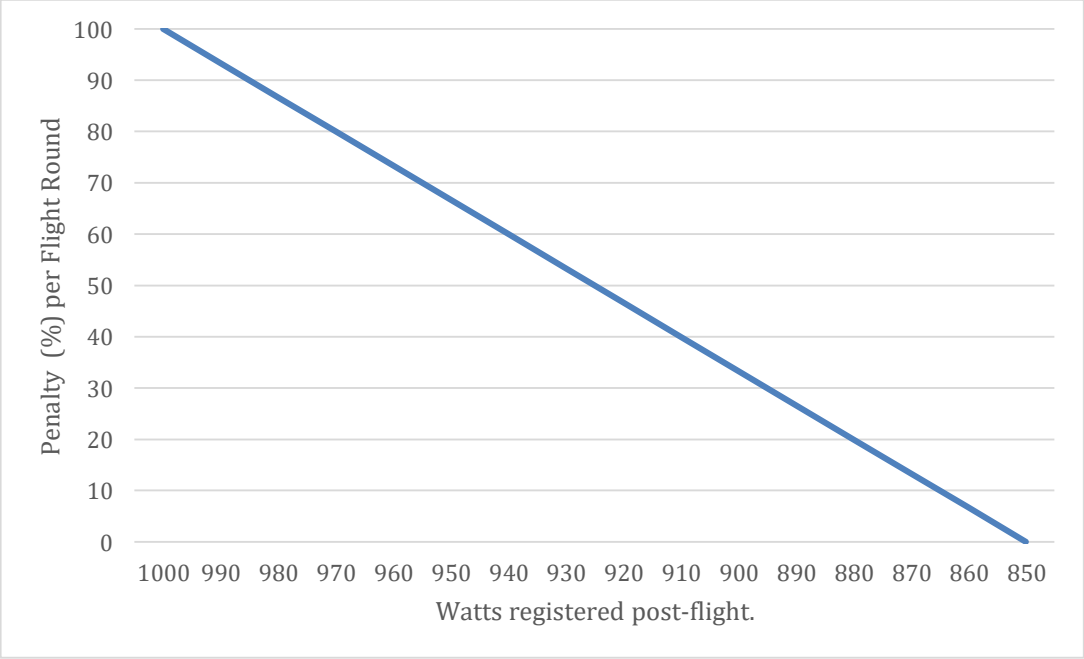


Figure. Excess Watts Penalty Diagram.

Appendix F

Payload Bay Volume

The payload bay is defined as a rectangular prism that could contain the payload prediction.

The volume of the Payload Bay depends on the required density and the mass of the payload prediction:

$$\boldsymbol{V_{min} = \frac{PCU}{\rho}}$$

Where:

V_{min}	Minimum Volume (m^3)
PCU	Payload Carrying Prediction (kg)
ρ	Required Design Density: 3,000 kg/m^3 (defined in Section 8.4.2)

Example

The aircraft will have a PCU of 12 kilograms and the design density must be 3,000 $\frac{kg}{m^3}$:

$$V_{min} = \frac{12\ kg}{3{,}000\frac{kg}{m^3}}$$

$$V_{min} = .004m^3$$

Dimensional Options (meters)

1)	Length: 0.1	Width: 0.2	Height: 0.2	V: $0.004m^3$
2)	Length: 0.4	Width: 0.15	Height: 0.1	V: $0.006m^3$

Note: Any payload bay volume that exceeds the minimum requirement stated above is compliant with the regulations of this competition.

Appendix G

Numerical Example of P_C

Scenario 1		Scenario 2		Scenario 3	
Empty Weight	3.5 KG	Empty Weight	8 KG	Empty Weight	5 KG
Empty Flight Rounds	1	Empty Flight Rounds	1	Empty Flight Rounds	1
Solid Payload Rounds	6	Solid Payload Rounds	4	Solid Payload Rounds	4
EE_1	1.0	EE_1	0.5	EE_1	2.0
EE_2	1.5	EE_2	0.8	EE_2	1.8
EE_3	2.5	EE_3	1.0	EE_3	1.5
EE_4	2.5	EE_4	1.2	EE_4	1.2
EE_5	3.0				
EE_6	3.0				

$$\mathbf{P_{VV} = \frac{200}{3.5} \approx 57.14}$$

$$\mathbf{P_{VV} = \frac{200}{8} \approx 25}$$

$$\mathbf{P_{VV} = \frac{200}{5} \approx 40}$$

(n)	EE_n	P_{Cn}
1	1.0	$100 \cdot 1{,}0 - 80 \cdot 0 = 100$
2	1.5	$100 \cdot 1{,}5 - 80 \cdot 1{,}0 = 70$
3	2.0	$100 \cdot 2{,}0 - 80 \cdot 1{,}5 = 80$
4	2.5	$100 \cdot 2{,}5 - 80 \cdot 2{,}0 = 90$
5	3.0	$100 \cdot 3{,}0 - 80 \cdot 2{,}5 = 100$
6	3.0	$100 \cdot 3{,}0 - 80 \cdot 3{,}0 = 60$

(n)	EE_n	P_{Cn}
1	0.5	$100 \cdot 0{,}5 - 80 \cdot 0 = 50$
2	0.8	$100 \cdot 0{,}8 - 80 \cdot 0{,}5 = 40$
3	1.0	$100 \cdot 1{,}0 - 80 \cdot 0{,}8 = 36$
4	1.2	$100 \cdot 1{,}2 - 80 \cdot 1{,}0 = 40$

(n)	EE_n	P_{Cn}
1	2.0	$100 \cdot 2{,}0 - 80 \cdot 0 = 200$
2	1.8	$100 \cdot 1{,}8 - 80 \cdot 2{,}0 = 20$
3	1.5	$100 \cdot 1{,}5 - 80 \cdot 1{,}8 = 6$
4	1.2	$100 \cdot 1{,}2 - 80 \cdot 1{,}5 = 0$