

Flight at IITDAD

Regulations, precedents and the case for ARC's Aero programme · Research brief, October 2026

1. Summary

Aero work at a UAE university is legally possible, but not as casual hobby flying. Every university in the UAE that flies drones does it the same way: indoor or enclosed flight first, the institution (not students) holding the authorisations, and licensed pilots trained through a GCAA-accredited training organisation. ARC's proposal should follow that pattern.

ARC has one extra constraint: IITDAD is a guest on Zayed University's campus. Any on-campus flying is ZU's decision, and it is unlikely to be approved. The most realistic route to real flight testing is therefore a partner institution's approved site, with bench and simulation work on campus in the meantime. A netted rooftop is the most promising on-campus option legally, subject to the campus's position relative to Zayed International Airport's controlled airspace and the nearby Sas Al Nakheel Air Base (section 7).

Three facts shape the whole argument:

- **Indoor flight is treated differently.** GCAA's drone regulations do not require an airspace approval for flights inside a building or within the interior of a closed stadium or facility. This gives indoor and enclosed flight the strongest legal footing, wherever such a space can be found.
- **There is a dedicated legal route for research.** GCAA's experimentation regulation (CAR-UAEX) explicitly covers scientific and academic research. It requires an organisation-level authorisation, which the university would hold.
- **2026 changed the climate.** GCAA suspended all drone operations nationwide from 28 February 2026. Commercial operations reportedly resumed on 30 June 2026, but the current status for recreational and experimental flights must be confirmed directly with GCAA before any flight, indoor plans included.

2. The legal framework

Drone activity in the UAE is governed federally, with GCAA as the central authority. Abu Dhabi follows GCAA rules directly; Dubai adds its own authority (DCAA) on top.

Instrument	What it covers	Why it matters to ARC
Federal Decree-Law No. 26 of 2022	Civil use of drones and "related activities" across the UAE, including free zones. GCAA keeps a unified register and sets permit conditions.	Covers operation <i>and</i> related activities such as design, manufacture and testing. Penalties are severe: AED 50,000 to 500,000 for operating without registration, and AED 100,000 to 2,000,000 for design, manufacture, testing or trading without the required licence.
CAR-UAR (Recreational Flights)	Individuals flying for fun.	Built for personal hobbyists, not clubs or research. Summarised in section 4.
CAR-UAEX (Experimentation Operations)	Research and development, new technology, and scientific and academic research.	The correct route for university flight work. Summarised in section 5.
CAR-UAEV (Event Operations)	Organised UA events, including competitions.	Applies if ARC or IITDAD ever hosts a flying competition.
Cabinet Resolution No. 110 of 2023	Import, distribution and manufacture of drone systems; certificate of conformity.	Parts and kits should be bought from compliant UAE suppliers.

Instrument	What it covers	Why it matters to ARC
GCAA Safety Decision 2026-03	Temporary nationwide suspension of drone operations (Feb 2026).	Any operation needs written GCAA exemption while it is in force. Status must be checked.

3. The 2026 suspension

On 28 February 2026, GCAA issued Safety Decision 2026-03, suspending all commercial and recreational drone operations and light sport aircraft in UAE airspace in response to the regional security situation. Issue 02 on 27 March 2026 widened it to balloons and specialised operations, and allowed exceptions only through a specific written GCAA authorisation. GCAA publicly reaffirmed the suspension in March.

An industry source reports that GCAA and DCAA lifted the suspension for commercial operations on 30 June 2026, with an extra airspace review step for sensitive zones. We did not find an official GCAA notice confirming the status of recreational or research flights after that date. **Before proposing any flight date, ARC or the university should get written confirmation from GCAA (drones@gcaa.gov.ae) of what currently applies.**

This is also an argument in ARC's favour: it shows exactly why flight should run through the university and official channels rather than individual students.

4. Why the recreational route does not fit a club

The recreational rules are written for individuals flying their own drones. Under them, a pilot must:

- be at least 18 and a UAE resident, and hold a licence based on training from a GCAA-accredited training organisation;
- register the drone on the UAE Drones platform before flying;
- keep the aircraft at or under 5 kg, below 400 ft and in daylight;
- fly only in the approved zones shown in GCAA's flying zone map;
- follow additional restrictions for drones over 5 kg and for fixed-wing aircraft (UAR.040).

These rules attach to individuals, not to a club, and they assume off-the-shelf drones flown for enjoyment. They do not fit custom flight controllers, experimental builds, or structured club sessions. Fixed-wing work is the most restricted of all.

5. The research route: CAR-UAEX

CAR-UAEX defines an experimental operation as one conducted for UA research and development, or for scientific and academic research. That is what ARC's flight controller and UAV work is. The key requirements:

- **Operator authorisation.** No experimental operation without a UA Operator Authorisation (UOA) issued by GCAA. The UOA is valid for one year and renewable. The operator would be the university, not ARC.
- **Organisation process.** GCAA's earlier unified UAS regulation set out the steps for R&D: security clearance for the organisation, an application letter to drones@gcaa.gov.ae, and a GCAA e-publication subscription.
- **Licensed pilots.** Pilots need a GCAA licence based on training from an approved training organisation.
- **Visual line of sight** only, with occurrence reporting and GCAA access to the operator's facility and equipment.
- **Airspace approval** before each operation, *unless* the flight is inside a building or within the interior of a closed stadium or facility. The regulation also describes a zone around

buildings (within 10 m of the facade or 5 m above the roof) with its own conditions, including staying outside airport boundaries.

- **Long-term approval for a designated area.** GCAA's guidance to this regulation says an operator may apply for long-term operational approval for a designated area, and gives a university as its example. The regulator has already anticipated universities holding standing approval for a fixed flying area.

6. Indoor and netted flight

The interior-building rule is the clearest legal footing for any flight. Flights inside a hall, a closed sports facility or a dedicated indoor arena do not need a GCAA airspace approval. GCAA's earlier regulation added that indoor flight still needs prior approval from the building owner and relevant local authorities. Because IITDAD's temporary campus is hosted by Zayed University, ZU's approval as building owner would be needed. As guests on the campus, ARC should expect this to be difficult, and should not build the proposal around it.

Internationally, outdoor netted enclosures are often treated as indoor facilities. The University at Buffalo's large netted complex is one example, where the university states it is not subject to US federal aviation rules for flights inside it. **However, the GCAA text does not explicitly mention outdoor netted cages.** If ARC proposes an outdoor netted enclosure rather than an indoor space, the university should confirm with GCAA that it counts as the interior of a facility before relying on it.

7. Netted rooftops and the campus location

Netted rooftops

GCAA's rules do not sort flights into "indoor" and "outdoor". They name specific zones where no airspace approval is needed, and a rooftop has its own. Under the experimentation regulation (UAEX.025), the exempt zones are interior building space, and exterior building airspace: within 10 metres of a building's facade or 5 metres above its roof, provided the building is outside airport boundaries and fences "and further boundaries". If the building has a heliport, the heliport operator's approval is also required. The same wording appears in the demonstration and commercial regulations.

A netted rooftop is unlikely to count as interior space, since that category covers the inside of a building or a closed facility. It does not need to: a flight kept within 5 metres of the roof falls into the exterior building airspace category, which is also exempt. The net's legal role is to make it physically impossible to leave that 5-metre envelope. This makes a netted rooftop a better legal fit than a netted cage on open ground, which falls into neither category.

The exemption only removes the need for an airspace approval. The university would still need an operator authorisation, licensed pilots and registered aircraft, and the recreational rules contain no equivalent exemption. On campus, the roof belongs to Zayed University, whose approval would be needed and who would weigh fall risk, wind load on the netting and objects dropping over the edge.

What "further boundaries" means

Every available copy of the regulation ends the airport condition at "and further boundaries" without defining it. The most likely meaning is the buffer zones on GCAA's registration page, which bar flights within 5 km of airports' outer fences, heliports, helicopter landing sites and airfields, and in controlled zones. Those rules are written for recreational pilots, so they are a reasonable guide but not a confirmed match for research operations.

Distances from campus

Straight-line distances, calculated from Zayed University's published campus coordinates (24.3937, 54.5659):

Airfield	Distance from ZU campus	Notes
Zayed International Airport, nearest runway threshold	About 9.0 km	Distance to the runway, not the outer fence, which may sit a kilometre or more closer.
Zayed International Airport, reference point	About 9.7 km	
Sas Al Nakheel Air Base (military)	About 7.3 km from its reference point	The closest airfield to campus.

The campus is very likely outside the 5 km airport buffer, but this cannot be proven from coordinates alone. Two other factors are more likely to matter:

- **Controlled airspace.** GCAA's buffer rules also bar flights in controlled zones. Zayed International's controlled airspace very likely extends well past 9 km, which would put the campus inside it. If "further boundaries" includes controlled zones, the rooftop exemption may not apply on campus at all. This is the most important question to settle.
- **Sas Al Nakheel Air Base.** As a military airfield, its security sensitivity may matter more than the distance itself.
- **Heliports.** The 5 km rule also covers heliports and helicopter landing sites, such as those at hospitals, police stations and palaces. No complete list for the area was found.

The quickest check is GCAA's official flying zone map, available in the My Drone Hub app, as a downloadable KMZ file, or online. A pin at the campus coordinates, with a screenshot of the zone it falls in, would settle the location question and is useful evidence for management.

8. How other UAE institutions do it

Institution	What they have	Takeaway for ARC
Khalifa University (Abu Dhabi)	KU's robotics centre runs two indoor UAV flight-test labs with motion capture, one with a 216 m ³ flight volume, plus an outdoor area and a low-speed wind tunnel.	The leading Abu Dhabi research university builds on indoor arenas first.
American University of Sharjah	Opened the UAE's first university-based drone academy with a partner company, alongside an R&D drone lab. Its training certificate is endorsed by DCAA. Its piloting academy works with multicopter and fixed-wing drones.	Pairing a university with a licensed training partner solves the pilot-licence problem.
Abu Dhabi University	Signed an MoU in 2026 with FEDS Drone Academy, a GCAA- and DCAA-authorized training centre. ADU's campus becomes an approved site for drone training and testing, and students get certified courses at special rates.	The closest model for IITDAD: an Abu Dhabi university making its campus an approved site through a partner.
Technology Innovation Institute (Abu Dhabi)	Built a motion capture facility for testing drones and unmanned systems.	Abu Dhabi's own research ecosystem invests in indoor drone testing.
IIT Delhi (parent campus)	Runs an AeroClub (Aerial Systems Club) among its technical clubs.	Aero is already a normal part of IIT Delhi student life; ARC extends that to Abu Dhabi.

The pattern is consistent: indoor flight first, the institution holds responsibility, and licensed training comes through an authorised partner.

9. Competitions

The UAE hosts some of the most visible drone competitions in the world. The Abu Dhabi Autonomous Racing League (A2RL) held its first autonomous drone race on 11 and 12 April 2025 indoors at ADNEC Marina Hall, with a USD 1 million prize pool. Hundreds of teams entered the qualifying rounds, and the 14 finalists came from universities, research institutions and companies in countries including the UAE. TU Delft's MAVLab won the AI Grand Challenge. Alongside it, the Drone Champions League ran a drone STEM programme for UAE school students with UNICEF and A2RL.

A2RL returned in January 2026 with a drone challenge at UMEX, the unmanned systems exhibition at ADNEC, on a compact indoor track measuring 27 by 35 metres, with autonomous teams racing against human FPV pilots.

Closer to ARC's level, Abu Dhabi Polytechnic placed third at the Autonomous Unmanned Systems Universities Innovation Challenge (AUSIUC) 2026 in Al Ain. In AUSIUC, university teams design, build and fly their own unmanned aircraft under real flight mission conditions. This is direct evidence that UAE universities already run student UAV projects of exactly the kind ARC is proposing.

[Add the netted aerial robotics competition here: name, organiser, date, format.]

Its value to the argument is that it shows enclosed, netted aerial robotics is an established and accepted competition format in the UAE, which is exactly the environment ARC is asking the university to provide.

Competitions run as organised events fall under GCAA's events regulation (CAR-UAEV), which requires an operator authorisation held by the organising body, with the same indoor

exemption from airspace approval.

10. Where ARC could fly

ARC looked at every realistic way to get flight time, from renting its own space to borrowing someone else's. No venue in Abu Dhabi was found that rents out space specifically for drone flying by the session.

Option	Cost	Assessment
Renting a small warehouse (about 200 m ² , Mussafah or ICAD)	Listings of AED 125,000 to 165,000 a year. With agency fee, netting, air conditioning and insurance, an estimated AED 170,000 to 260,000 in the first year.	Rejected. Seven to ten times ARC's semester budget. The lease would have to be in the university's name, the landlord would have to allow drone flight, and it is far from campus.
Netted rooftop on campus	Netting and framing only	Best on-campus legal fit (section 7). Depends on the campus's airspace position and Zayed University's approval as building owner.
Zayed University sports complex	Unknown	Unlikely. IITDAD is a guest on ZU's campus; worth asking, but expected to be refused.
Hourly hire of indoor sports courts	About AED 150 to 190 per hour (municipal Malaib centre, Zayed Sports City)	Possible but uncertain. About AED 6,000 to 10,000 per semester for weekly sessions, but venues are built for sport and would need to permit drones explicitly.
ADNEC exhibition halls	Event-level pricing	Events only. Too expensive for practice, but proof that indoor drone flight is accepted in Abu Dhabi.
Abu Dhabi RC Club (ADRCC), Al Samha	To be confirmed	Best outdoor lead. A 4 km ² site with a 300 m UAV runway, used for competition trials under an MoU with Tawazun. Suits fixed-wing. Current activity unconfirmed; contact: +971 55 954 0927, Adrcclub@gmail.com.
A partner university's approved site	Usually free or nominal under an agreement	Most realistic route. See below.

Nearby institutions with drone facilities

Institution	Distance from ZU	What they have	Fit for ARC
Abu Dhabi University	Very close, also in Khalifa City	Campus is becoming an approved site for drone training and testing under its 2026 MoU with FEDS Drone Academy, a GCAA- and DCAA-authorized training centre.	Best fit. Approved site next door, plus a training partner that could handle pilot licences.
Khalifa University	About 15 to 25 minutes, depending on campus	Two indoor UAV flight-test labs with motion capture, plus an outdoor area.	Best facility, but research labs are hard to borrow. Realistic only through a faculty connection or joint project.
Technology Innovation Institute, Masdar City	About 16 minutes	Motion capture drone testing facility.	Research institute; would need a formal collaboration.
Abu Dhabi Polytechnic	Mohamed Bin Zayed City, nearby	Active student UAV team (AUSIUC 2026, third place) and faculty with UAV expertise.	Good student-to-student contact; may know which test sites they use.

How borrowing works

A student club cannot simply ask to use another university's lab. Access almost always goes through a faculty-to-faculty contact or an institutional agreement, with insurance arranged. The strongest approach is for an IITDAD faculty member to contact Abu Dhabi University first, framed as a joint workshop or collaboration rather than a request for space.

11. What ARC should propose

A proposal built on this research should ask for a phased programme, where each phase is legally sound on its own:

Phase	Activity	Legal basis and requirements
1. Bench work (start now)	Design, flight controller development, bench testing with props removed, hardware-in-the-loop and simulation, on campus.	No flight, so no airspace approval. Confirm with university legal whether custom FC building counts as a "related activity" needing a licence.
2. Flight at a partner site	Scheduled test days at a partner's approved site, starting with Abu Dhabi University. Fixed-wing at an approved outdoor field such as ADRCC.	Flights under the partner's approvals and supervision. Licensed pilots through a GCAA-accredited training partner. Confirm current Safety Decision status.
3. ARC's own flight space (longer term)	A netted rooftop, indoor space or netted cage, if a suitable space is ever allocated.	Exterior building airspace or interior-building exemption, building owner approval, long-term designated-area approval, and later a university UOA under CAR-UAEX for outdoor research flights.

Specific requests to management:

- A designated workstation for the combined Aero and Robotics club, with ventilation for soldering and a fire-safe LiPo charging and storage area.
- A faculty supervisor responsible for flight activity, who can also make the first contact with Abu Dhabi University and other partners.

- Support for a partnership with a nearby institution or a GCAA-accredited training organisation, following the Abu Dhabi University model, for licensed pilots and an approved testing site.
- Clarification from Zayed University on what its own students do for drone projects, and whether any indoor space could ever be considered.
- University engagement with GCAA on the current suspension status and, later, a UOA for research flights.
- A written ARC flight safety procedure: weight limits, prop guards, a kill switch, a pre-flight checklist, a flight log and an incident reporting step.

12. Questions to settle

- What is the current status of Safety Decision 2026-03 for recreational and research flights, including indoor flights?
- Does an outdoor netted enclosure qualify as the interior of a facility?
- Does the exterior building airspace exemption under UAEX.025 apply to a netted rooftop on the ZU campus, given its position relative to Zayed International Airport's controlled airspace and Sas Al Nakheel Air Base? What does "further boundaries" cover?
- Could the university apply for long-term operational approval for a designated campus area, as the guidance to UAEX.025 allows?
- What zone does the campus fall in on GCAA's official flying zone map?
- Does building custom flight controllers and airframes count as a "related activity" (design, manufacture, testing) under Decree-Law 26 of 2022, even when non-commercial?
- Are there heliports or helicopter landing sites within 5 km of the campus?
- Can IITDAD hold a UOA directly, or should it partner with a licensed operator or training centre?
- What do Zayed University students currently do for drone projects, and where do they fly?
- Is the Abu Dhabi RC Club still active, and would it host university test days?

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This brief summarises public sources for planning purposes and is not legal advice. Regulations and the 2026 suspension status should be confirmed with GCAA and the university's legal office.