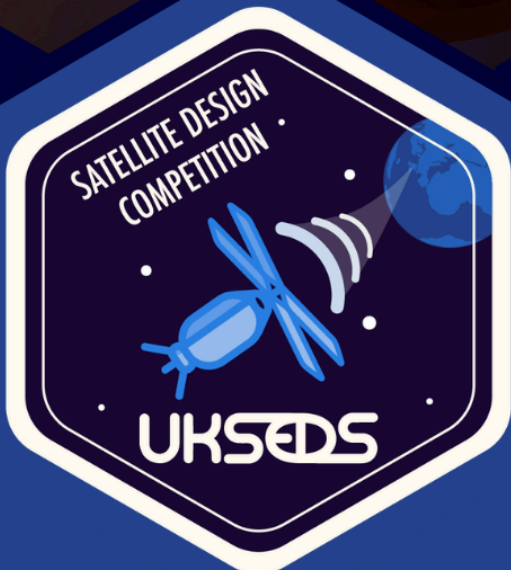


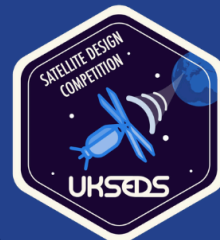


# **SATELLITE DESIGN COMPETITION 2026-27**

## **STATEMENT OF WORK**



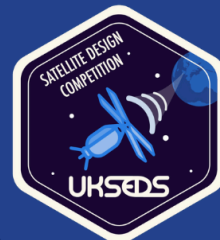
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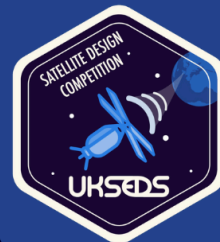


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| Version     | Changes         | Date       |
|-------------|-----------------|------------|
| SDC-SOW-001 | Initial Release | 01/10/2026 |





## 1. ACRONYMS & REFERENCE DOCUMENTS

### 1.1. Acronyms

| Acronym | Description                                    |
|---------|------------------------------------------------|
| ECSS    | European Cooperation for Space Standardisation |
| SOW     | Statement of Work                              |
| SOH     | State of Health                                |
| TVAC    | Thermal Vacuum Chamber                         |
| TT&C    | Telemetry Tracking & Communication             |
| ADCS    | Attitude Determination Control System          |
| PDR     | Preliminary Design Report                      |
| CDR     | Critical Design Report                         |
| TRR     | Test Readiness Review                          |
| MRC     | Mystery Room Coordinator                       |

### 1.2. Reference Documents

#### 1.2.1. Competition Documents

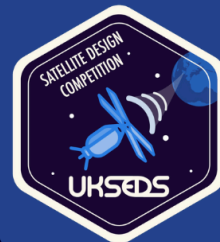
There are two other documents related to the competition to make a total of **three regulatory documents**. The three documents are as follows:

| ID             | Document                   | Description                                                                                               |
|----------------|----------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>SDC-RB</b>  | Rulebook                   | Outlines the overall competition rules, funding, team structures and so on - the competition logistics.   |
| <b>SDC-SOW</b> | Statement of Work          | Outlines the main deliverables teams shall be expected to deliver - the competition project requirements. |
| <b>SDC-RS</b>  | Requirements Specification | Outlines the technical requirements the CubeSat must be designed to meet                                  |

#### 1.2.2. Useful Reference Documents

| No. | Document             | Description                                                                |
|-----|----------------------|----------------------------------------------------------------------------|
| 1   | ECSS-M-ST-10C Rev. 1 | <b>Space project management</b> - Project planning and implementation      |
| 2   | ECSS-S-ST-00-01C     | <b>Glossary of Terms</b> - A list of commonly used terms in ECSS documents |





## 2. INTRODUCTION

The Satellite Design Competition (SDC) challenges student teams to design, construct and operate a satellite for an analogue space mission. Students create a satellite concept, trade off performance parameters and pass through a rigorous review process with panels of engineers from the space sector. The competition aims to:

1. Challenge students to perform a complex, systems engineering task of the development of a vehicle to a set of real space mission requirements;
2. Enable students to apply taught technical skills and learn new ones relevant to a job in the space industry, through a practical project;
3. Provide students with an opportunity to develop and practise other important and transferable skills, such as teamwork, leadership and project management;
4. Foster interest in the activities of the space sector, especially in space engineering and robotics.

### 2.1. Scope

This document reports expected activities and deliverables within the scope of the Satellite Design Competition for 2026-2027. This document captures the mission, which teams are expected to focus on throughout the year, with context provided behind the mission.

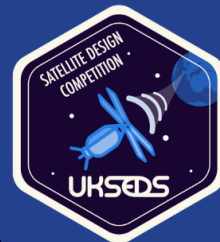
### 2.2. Organisations Involved

#### 2.2.1. UK Students for the Exploration and Development of Space (UKSEDS)

UKSEDS is the UK's national student and early professional space charity, founded in 1988. As a registered charity with 4,600+ current members, 40+ university branches, and 20,000+ followers across social media platforms, UKSEDS provides a nationwide platform for skills development, networking, and career advancement in the space sector. As a dedicated team of 100+ student and early-career volunteers, UKSEDS delivers national and regional events and projects, including conferences such as the National Student Space Conference (NSSC), skills workshops, outreach programs, five annual national competitions spanning rocketry, rovers, satellites and ISAM, and more. Through these initiatives, UKSEDS works to inspire, upskill and enable the next generation of the UK space workforce.

Our partner organisation, [www.SpaceCareers.uk](http://www.SpaceCareers.uk) showcases students and recent graduates with opportunities within the space sector, and has been hailed as "a crucial service to thousands of people across the country" by the former Prime Minister, Theresa May.





### 2.2.2. Airbus

Airbus pioneers sustainable aerospace for a safe and united world. The Company constantly innovates to provide efficient and technologically-advanced solutions in aerospace, defence, and connected services. Airbus is the global leader for modern and fuel-efficient airliners and associated services. Airbus is a European leader in defence and security and one of the world's leading space businesses. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions and services worldwide. Airbus Defence and Space is the UK's largest space company with turnover in excess of £1 billion and is the third largest aerospace and defence employer in the UK with more than 3,500 highly skilled employees. Airbus Defence and Space makes up over 70 per cent of the UK's space industry, providing a vital national industrial capability; and leverages its capability as a system prime to develop SME supply chains, maintain links with UK and global academic institutions, and bring forward the next generation of talent for a future STEM-based workforce both in the space sector and beyond.





### 3. STATEMENT OF WORK OVERVIEW

This section provides a description of all the major components of the competition, and includes references to additional material where necessary.

#### 3.1. Mission Background and Scenario

As space missions become increasingly complicated, the demand for higher uplink/downlink capacity has grown accordingly, driving the development of space-based optical communication. Optical communications using laser-based payloads offer very high data rates and highly focused communication links, but require precise pointing and reliable spacecraft control to maintain a connection with a target.

This iteration of SDC will focus on a **3U CubeSat communications mission** equipped with an optical communications payload. The satellite is required to produce a laser with an on-board laser payload and keep it pointed at a designated target area. Missions success will be measured by measuring the length of time for which the laser is successfully maintained on the target. The mission will also introduce appropriate health and safety considerations associated with the operation of an optical payload.

The competition will simulate critical phases of a real communications mission, including spacecraft state-of-health checks, establishing and maintaining a communications link, accurate target pointing, and monitoring mission performance. As a new addition to this year's iteration of the competition, teams will also experience a planned disruption to remote access, requiring them to recover communications with the spacecraft and resume normal mission operations.

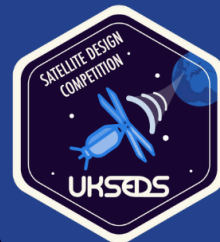


*NASA's Deep Space Optical Communications Tech Demo <sup>1</sup>*

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<sup>1</sup> [NASA's Laser Comms Demo Makes Deep Space Record, Completes First Phase | NASA Jet Propulsion Laboratory \(JPL\)](#)





### 3.2. Mission Objectives

Your team shall be tasked to design, build and test a CubeSat that shall be performing a test mission in a certain scenario. During the mission, the main tasks of the CubeSat shall be the following:

#### 1. Set Up & Start up:

The team will be given 10 minutes to set up their Cubesat. Once they have been set up, all interaction with the Cubesat will be performed remotely.

#### 2. System Health Check:

The team shall be able to request the CubeSat to respond to a health check, indicating system information like battery percentage.

#### 3. Target Acquisition & Tracking:

The CubeSat shall be required to acquire and maintain its optical communications payload within a designated target area. The length of time for which the target is successfully maintained shall be measured and recorded.

#### 4. Communications Recovery:

During the mission, the CubeSat will experience a planned manual disruption to remote access. Teams shall demonstrate the ability to recover communications with the CubeSat and regain remote access, allowing the mission to resume.

### 3.3. Team Requirements

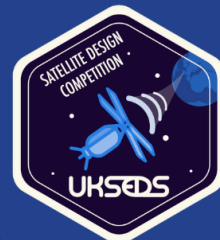
Each team may have a **maximum of 10 members and minimum of 2**. A maximum of **1 team is allowed to enter per UKSEDS branch** and **all members of the team must have a [UKSEDS membership](#)**. Changes to teams should be communicated to the UKSEDS through the **mandatory** monthly report documents (Discussed in [section 3.4.2](#)) and optionally to the UKSEDS point of contact. Please note that the last time to make changes/updates regarding your team and team members is **30 days<sup>2</sup> before the competition day**.

Teams must do a significant majority of the work submitted throughout the competition. Teams found reusing work from previous year entries or have members outside the registered team contribute to their designs will be considered plagiarising and will be penalised at the UKSEDS organisers discretion.

---

<sup>2</sup> Subject to change - Teams invited to competition day will need to register details of each individual. After registration, only members which have sent their details will be allowed





### 3.4. Description of Work

#### 3.4.1. Timeline

The project shall follow the **ESA Project Lifecycle structure** as shown in Figure SOW-1. It should be noted that phase A relates to analysing the feasibility of a mission, which has been omitted from this competition's requirements, and should be treated to be performed by the UKSEDS organisation team before competition launch.

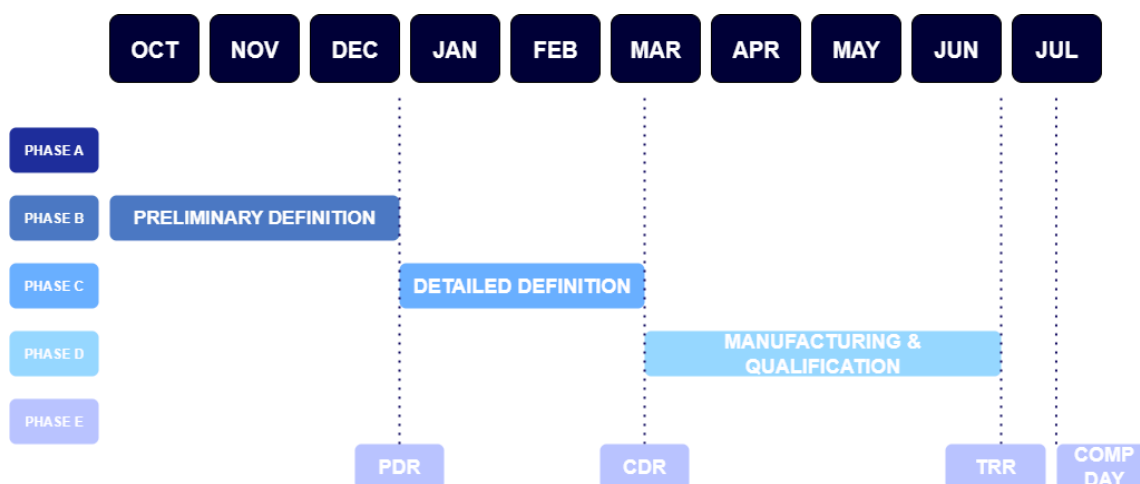


**Figure SOW-1: SDC 2026/27 Timeline**

Each Phase is completed through the submission of a document, detailing the design of your system. Further details of the deliverables can be found in the next submission with a summary shown in the table below. Templates for each deliverable will be made available on the competition website for guidance.

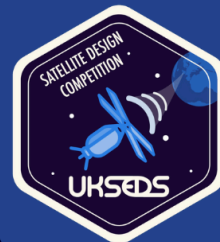
**Table SOW-1: Preliminary Competition Schedule**

| Deliverable                  | Due Date <sup>3</sup>                    |
|------------------------------|------------------------------------------|
| Monthly Report               | First Monday of every month              |
| PDR Submission               | 18th December 2026                       |
| PDR Feedback                 | 29th January 2027                        |
| CDR Submission               | 26th March 2027                          |
| CDR Feedback                 | 23rd April 2027                          |
| Technical Readiness Review   | 14th-28th June 2027                      |
| Public Engagement Submission | 2 weeks before Competition Day           |
| Competition Day              | In the month of July 2027 <sup>4</sup> . |

<sup>3</sup> Dates are subject to change and will be communicated accordingly to participants.

<sup>4</sup> Date will be confirmed and communicated to teams at a later date.





### 3.4.2. Monthly Reports

Teams will need to fill out a single page report and email the UKSEDS Point of Contact. Reports are to give updates on progress and highlight issues or concerns within the team (technical, management, etc) and are a mandatory submission. The report is due on **the first Monday of every month**. If a monthly report is not received, it will be assumed the team has dropped out of the competition. The template can be found [here](#), or on the website.

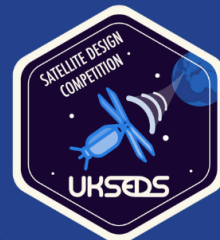
In the reports, teams will describe: work achieved in the previous month, work to be done in next month, and challenges/issues/concerns that the team would like to raise with UKSEDS organisers. The main purpose of this report is to enforce communication between teams and UKSEDS organisers. The template provided gives more detail, and teams are encouraged to email the UKSEDS organisers with any questions they may have.

### 3.4.3. Public Engagement Submission

Throughout the year, your team may take part in activities to showcase the work that has been done. Further, teams may also take part in education activities, such as workshops, lectures or school visits, to talk about Space, Engineering or STEM. Aligning with the European Space Agency, UKSEDS also believes [Space is for All](#) and actively encourages teams to spend some time engaging with the community around. The team determined to have the best public engagement will receive the Public Engagement Award on competition day. More information can be found in [Appendix SOW-1: Public Engagement Award](#).

**DUE DATE: 2 weeks before Competition Day**





### 3.4.4. Phase B – Feasibility & Preliminary Definition

During this stage you shall be expected to perform the initial organisation of your team, identify a suitable solution to the challenge at hand and perform an initial analysis and study to prove the suitability of your chosen concept. The main outcome from this stage is to identify the most suitable solution to the problem from a range of ideas that is feasible within time and budget constraints.

The work performed will be captured in a Preliminary Design Report (PDR) which will be submitted to UKSEDS for review, with **the maximum page limit for this being 20 pages**. A template will be provided. Teams are required to communicate the idea of the design they chose and highlight the main reasons why they believe it is the most optimal design going forward. The purpose of the PDR is to convince the organisers that the team will succeed in the competition through performing good engineering practices and management processes.

**DUE DATE:** 18th of December, 2026

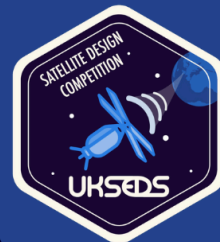
**Work teams can include<sup>5</sup> in the PDR are:**

- Initial Organisational Structure
- Concept of Operations (ConOps)
- Early Cost Breakdown Structure
- Work Breakdown Structure
- Gantt Chart
- Initial Risk/Severity Matrix
- Architectural diagram
- Early Mass Budget
- Requirements Verification and subsequent requirements derivation
- Technical Trade-offs

---

<sup>5</sup> List is to act as a rough guide of work teams could provide within the PDR. Should not be interpreted as a markscheme.





### 3.4.5. Phase C – Detailed Definition

The Detailed Definition Phase shall be where teams complete the design of their CubeSat, and perform more in-depth and complex analysis to get the design ready to be manufactured and assembled. The main focus should be to take their concept and add detail to formulate a final design, with analysis and small tests to indicate that it will be sufficient to meet the mission requirements. **Team performance in the CDR shall directly contribute to a team passing through to the TRR phase**, as only the highest scoring teams will be allowed to proceed to the TRR. The exact number of teams that will be allowed to proceed will depend on the size of the Competition Day venue.

The Critical Design Report (CDR) shall capture the progress of work, document the final design, and analysis performed behind it. This will then be submitted to UKSEDS as the primary deliverable of this phase. It shall give a complete understanding of the design itself to an elemental degree. Computer-Aided Design (CAD) images can be helpful as well as Unified Modeling Language (UML) and Systems Modelling Language (SysML) diagramming to ensure detailed information is shared. The CDR **shall be 20 pages long**, excluding cover page, references and appendices.

**DUE DATE:** 26th of March, 2027.

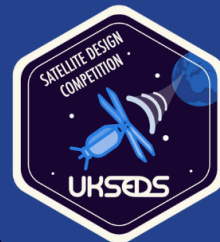
Work teams can include<sup>6</sup> in the CDR are:

- Team organisational Structure, with any updates to team
- Complete Cost Breakdown
- Updated Gantt Chart
- Updated CONOPS
- Final design and changes from PDR design
- Complete Mass Budget
- Complete System Architecture
- Analysis & Simulation Results
- Prototype and testing performed
- Manufacturing process for design
- Requirement Verification Matrix
- Test Plan

---

<sup>6</sup> List is to act as a rough guide of work teams could provide within the PDR. Should not be interpreted as a markscheme.





### 3.4.6. Phase D – Manufacturing & Qualification

The Manufacturing & Qualification stage shall be the main period where teams build their designs. **The Manufacturing process is often underestimated in the amount of time it can take and therefore should be planned accordingly by the team to maximise their efficiency, given the deadline.** Teams should carry out incremental testing followed by design iterations to build up to their final design. Teams are encouraged to take photographs and videos throughout the duration of this stage, in order to have something to refer to if needed. The main focus of this stage is to build a final product<sup>7</sup> that can perform at the competition.

At the end of the phase, teams will present their final products in a Test Readiness Review (TRR). This will consist of arranging a live call with the UKSEDS organisers and demonstrating their product to the organisers. In the call, teams will run through features to show that their product can communicate remotely to a laptop, perform the mission, and contain the necessary safety features as noted within the requirements document. Teams will be given feedback / advice at the end of the call – enabling teams to still make changes to their design after the TRR. Teams can arrange a TRR meeting call between 15th June and 21st June.

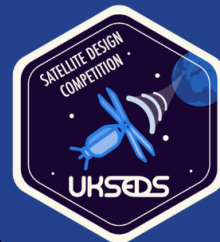
Teams will not be given a grade in the TRR, but a ‘pass’ or ‘fail’ decision. In order to proceed to Competition Day, the team must first pass the TRR. If the CubeSat upon review is considered to pose a threat to safety, or shows significant technical deficiencies, the team will not be permitted to participate on the competition day.

**DUE DATE:** 14th–28th of June, 2027.

---

<sup>7</sup> The final product may be different to the design in the CDR if issues arise from testing.





### 3.4.7. Phase E – Competition Day

Teams that passed all the previous phases will be invited to Competition Day, taking place in July 2027. Competition Day includes 3 sections – CubeSat ‘Mystery Room’ Testing, Vibration Testing and a Presentation. In each section, teams will receive a mark that will determine the award winners.

#### 3.4.7.1. CubeSat Testing: Mystery Room [30 mins]

CubeSat Testing will take place on Competition Day in a simulated mission environment, the ‘Mystery Room’. During the 45 minutes timeframe, the CubeSat will demonstrate its capabilities by completing the mission described by the following section. Each CubeSat will be given a score in each phase of the mission, and the CubeSat with the highest final score after including the score from Vibration Testing will win the Best Satellite Award for the year.

**The testing operation will be divided into the following phases:**

- **Initial Set-up (10 minutes)**
  - Up to 3 students can be present in the set up of the CubeSat in the Mystery Room. The teams will have 10 minutes to set up their CubeSats. During this time, the Mystery Room Coordinator (MRC) will detail safety measurements in place and assist with the interfacing of the CubeSat with the mounting structure to the position shown in **Figure SOW-2**. The MRC will also check for the CubeSats kill switch. If the MRC cannot mount the satellite, or is not satisfied with the reliability of the kill switch, testing will not continue and the team will score 0 points in this phase of the competition.
  - Once the 10 minutes time limit is over, all team members must leave the room and may only operate the satellite remotely from the control room (a room next to the ‘Mystery Room’ where they may set up their laptops and devices)
  - Teams are not allowed to record any data with their satellite, nor operate the payload during this phase of the operation.



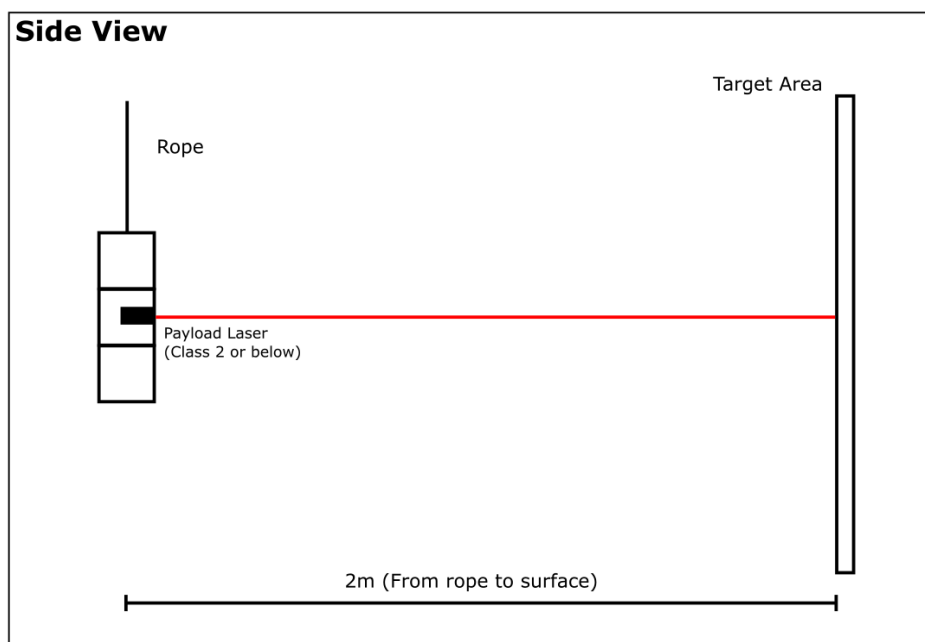


**Figure SOW-2: View of the General Mystery Room Set up**

- **State of Health (5 minutes)**

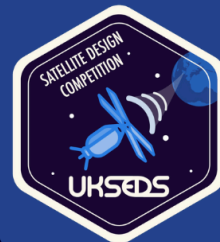
- In this stage, teams will be asked to check that the CubeSat is operational and ready for the next challenges. The following information should be presented:

**Table SOW-2: State of Health Check Required Information**

| Information        | Points |
|--------------------|--------|
| Mission Time       | 50     |
| Battery Level      | 50     |
| System Temperature | 50     |

- The information should be contained within a .txt file and sent to a designated email address. Teams are free to structure the .txt file as preferred, however UKSEDS volunteers must be able to understand what the information represents in an intuitive manner. Teams are also required to be able to show this information in real time to UKSEDS volunteers accompanying them in the control room.





- **Main Operation (15 minutes)**

- The teams will be asked to use their optical communication payload (the laser) to acquire a designated target within the test environment. **IMPORTANT: Please refer to the Requirements Specification for requirements on the laser's specifications.**
- Once the target has been acquired, teams will need to maintain the payload within the defined target area for as long as possible while maintaining safe operation<sup>8</sup>, shown in **Figure SOW-3**. UKSEDS volunteers will observe the operation and record the duration for which the laser is successfully pointed at the target.
- Detail of the setup:
  - The target area will be a circle with 30cm radius. This circle will be separated into sections, with higher scores towards the centre. Teams are given a score for every second they manage to keep the laser in each scoring area.
  - A QR code will be provided next to the target area as a fiducial marker to assist tracking. Teams are not required to use it, and no marks will be given or penalised for using the QR code.
- At announced intervals, the target area will be moved to simulate movement during orbit. Teams are required to adjust the pointing of their satellite to keep the laser payload on the target area.
- In addition to the target area, additional items of interest will be presented to the satellite during the mission at unannounced intervals<sup>9</sup>. Successfully identifying or recording such items will give extra points.
- During the mission, UKSEDS volunteers will ask the team to **disconnect from the satellite** from the control room<sup>10</sup>, simulating a loss of access to the satellite. The team will then be asked to reconnect to the satellite to resume the mission.

---

<sup>8</sup> Teams may be asked to temporarily cease the operation of the satellite partially or entirely if it is deemed not safe to continue the mission in that state, e.g. overheating.

<sup>9</sup> Additional items of interest will appear at the same time into the mission for all teams, but they will not be notified when it happens.

<sup>10</sup> This must be done immediately by disconnecting the laptop from the network. Teams will not be given any warning or notice before they are told to disconnect the satellite, but this will happen at the same time into the mission for all teams.



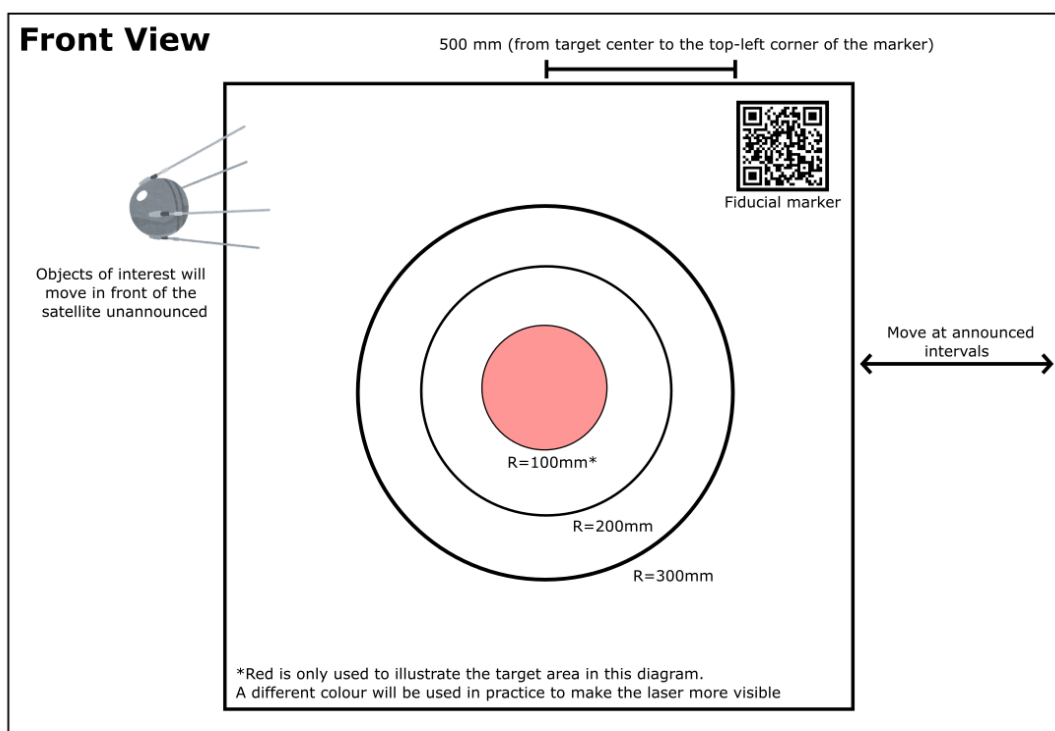


**Figure SOW-3:** View of the target area from the satellite and illustration of events that will happen during the mission

### 3.4.7.2. Vibration Testing

Following the test run, the CubeSat will undergo vibration testing. This means the CubeSat should be built to withstand a vibration test on a shaker table, as with any qualified spacecraft hardware.

Vibration tables are used to simulate the conditions of a rocket launch. Teams shall build their CubeSats to withstand the mission vibration environment described here. It is recommended that teams take into account both the mechanical and electrical/electronic problems associated with vibration. The vibration test bench, as shown in Figure SOW-6, will be used to perform the test. The test profile will consist of at least a 60-second random test shown in **Table SOW-3**. The CubeSat will be accelerated in an unknown axis, but will only be accelerated on one axis for the entire test.

If unforeseen events lead to unavailability of vibration facilities, an alternative environmental test will be performed. The alternative test apparatus features the same interface as the vibration test bench.



**Table SOW-3: Details for Random Test 60 seconds**

| Frequency      | Amplitude Spectral Density $g^2/Hz$ |
|----------------|-------------------------------------|
| 20 - 80 Hz     | +6 dB/octave                        |
| 80 - 500 Hz    | 0.025                               |
| 500 - 2000 Hz  | -6 dB/octave                        |
| <b>Overall</b> | <b>4.5 <math>G_{RMS}</math></b>     |

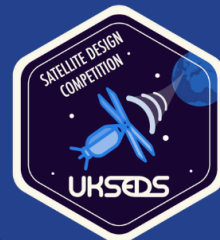


**Figure SOW-4:** Vibration Testbench Setup

### 3.4.7.3. Presentation [30 mins]

Teams will conduct a 15 minute presentation that will be judged by a panel of experts. The presentation will be followed by a 5 minute Q&A where the judges will ask questions to further assess the project. A 5 minute buffer will be allocated either side to allow teams to set up and wrap up.

The team given the highest score for their presentation will receive the Best Presentation Award.



### 3.4.8. Scoring

#### 3.4.8.1. CubeSat Testing: Mystery Room

Points will be awarded to each team for the duration in which the laser payload is kept on the target area. This will be timed by a UKSEDS volunteer in the Mystery Room, and is not required to be recorded by the satellite. Scores will not overlap, i.e. scoring in the  $R = 100\text{mm}$  area will not provide the points from the  $R = 200\text{mm}$  and  $R = 300\text{mm}$  area.

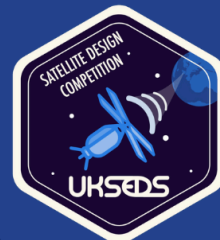
There are also extra points for completing the State of Health Check (Section 3.4.7.1, P.g. 15) and identifying additional items of interest. This can be done by reporting to the UKSEDS Volunteer within the control room, or providing a record of the items after the mission ended.

**Table SOW-4: Points available during the Mystery Room mission**

| Area               | Points every second |
|--------------------|---------------------|
| $R = 100\text{mm}$ | 3                   |
| $R = 200\text{mm}$ | 2                   |
| $R = 300\text{mm}$ | 1                   |

| Other sources                                   | Points      |
|-------------------------------------------------|-------------|
| State of Health Check (See <b>Table SOW-2</b> ) | 150         |
| Additional items of interest                    | 50 per item |





### 3.4.8.2. Vibration

A team can earn a maximum of 400 points for vibration testing if the CubeSat remains operational, from which points will be subtracted depending on the level of damage as described below.

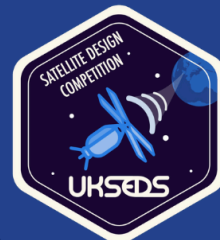
|                                                                                                 |      |
|-------------------------------------------------------------------------------------------------|------|
| <b>No damage</b>                                                                                | -0   |
| <b>Minor/No impact on performance<br/>(i.e. loss of fasteners of non-mission critical part)</b> | -50  |
| <b>Loss of one function<br/>(i.e. sensors, communication, etc)</b>                              | -100 |
| <b>Loss of multiple functions<br/>(i.e. at least 2 of sensors, communication, etc)</b>          | -200 |
| <b>Catastrophic Loss of mission (i.e. CubeSat non operational)</b>                              | -300 |

Vibration plate Interface Penalties:

|                                                                                                                                                                                                    |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| <b>Securing of appendages through external means, or adaptation vibration plate interface to allow a safe run<br/>(e.g. tie-down of moving parts, cloth under one unsecured corner of CubeSat)</b> | -100 |
| <b>Test Engineer deems CubeSat unsuitable for environmental test<br/>(e.g. test engineer deems structure too flimsy, or impossible to adapt to interface with the vibration table)</b>             | -400 |

The vibration test is intended to represent the conditions experienced during a launch vehicle ascent. Hence the CubeSat shall be expected to remotely unstow itself from the configuration it is in during the vibration test e.g. being able to unstow a camera from a folded configuration. **If a functionality cannot be demonstrated, it shall be taken as a loss of function of the associated components.**





### 3.4.8.3. Prizes

There are 5 prizes in the Satellite Design Competition – the Best Satellite Award, Best Public Engagement Award, Best Innovation Award, Best Report Award and Best Presentation Award. Table SOW-5 provides a full description of the prizes available for this year’s competition. All teams who made it into Competition Day will also receive an electronic certificate for their participation, in addition to a trophy for each award won.

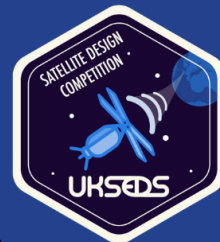
**Table SOW-5 : Full List of Prizes**

| Prize                         | Description                                                                                                                                           |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Best Satellite</b>         | For the best CubeSat based on the successful completion of the mission objectives and testing performance (awarded to the team with the most points). |
| <b>Best Public Engagement</b> | For the team with the best public engagement programme connected to their CubeSat.                                                                    |
| <b>Best Innovation Award</b>  | To the team with the best innovative engineering solution (decided by the judges).                                                                    |
| <b>Best Report</b>            | The highest scoring CDR shall receive this award.                                                                                                     |
| <b>Best Presentation</b>      | For the team with the best presentation on the day of the competition (assessed by the judges).                                                       |

### 3.5. Extensions

If your team requires an extension, contact your competition point of contact. Please state clearly the reason for your request for an extension, at least 7 days before the submissions deadline. Note that extensions are considered on a case-by-case basis and submitting a request does not automatically guarantee an extension, so it is advised to continue working towards the original submission until you have received a verdict. Please be aware that providing an extension is at the discretion of UKSEDS. Unless explicitly stated, please assume that if the extension has been granted, it is an extension of 7 days from the original submission date.





## 4. CODE OF CONDUCT

In the code of conduct, participants refers to individuals or teams that are participating in a UKSEDS organised competition. By doing so, participants accept to follow the code of conduct as outlined below. Teams or individuals who are found to not follow the code of conduct, will be removed from participation with the potential penalty to be removed from further competition cycles.

### 1. Plagiarism through Artificial Intelligence

Participants agree to not use Large Language Models (LLMs) or equivalent AI to determine design decisions or determine the design process a team uses. LLMs may be used to help edit and improve existing text but must not be used to generate 'original' text. The use of AI to generate diagrams/images is strongly discouraged. All content produced by an LLM must be reviewed and should not just be copy-pasted. Any use of generative AI in the production of deliverables must be declared within the acknowledgements of your deliverable. Additionally, a log must be kept of all AI prompts used and provided within the appendix of the submission. If UKSEDS challenges the use of generative AI in any submission, this prompt log from your team will form part of the review process.

Poor quality submissions and plagiarism which occur from the use of generative AI will incur the same penalties as those occurring without its use. Please ensure it is used as a tool to improve and refine written work, and fully understand its limitations across all applications before using it.

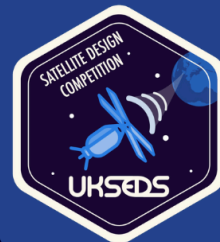
Teams may use Artificial Intelligence as part of their design, i.e. a computer based vision detection system which uses Artificial Intelligence for object tracking.

Participants should reach out to UKSEDS organisers to address any questions or concerns over Artificial Intelligence use.

### 2. Plagiarism through Reuse of Previous Work

The purpose of the competition is to give students the opportunity to develop their technical, team working, and project management skills. Participants agree to not reuse material from previous competitions and correctly reference and credit work. Teams are allowed to take inspiration from previous years, but must ultimately produce work that is their own. Work which is considered plagiarised will be investigated and a decision will be made by UKSEDS. Plagiarism could result in heavy penalisation or disqualification, and the decision is at the discretion of UKSEDS.





Participants agree that a significant majority of the work submitted was produced from members registered in the UKSEDS competition. Members not registered within the team are allowed to provide feedback and reviews to designs, but play no active role in the decision making being the design or analysis performed. Participants agree to contact UKSEDS organisers if they have any questions or concerns about what is allowed.

### 3. Conflict of Interest

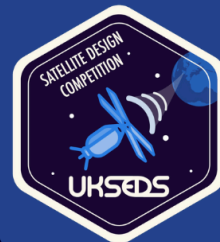
Participants agree to not compete while being an active member of the UKSEDS Competitions team. Participants which are involved in UKSEDS in any capacity, even if not within the UKSEDS Competitions Team, , shall notify UKSEDS prior to competing, and a decision will be made regarding the conflict of interest. Any participant which is found to be a UKSEDS volunteer who has not declared the conflict of interest will be removed from both the competition and UKSEDS. The team they participated in will also be disqualified from the competition, with the potential to be disqualified for further competitions at the discretion of UKSEDS.

Participants should avoid engaging in any activities or relationships that could create a conflict of interest with their role within the competition. This includes personal or financial relationships that may compromise their objectivity, impartiality, or decision-making processes related to the organisation. Any conflict of interest should be notified to UKSEDS and clearly disclosed in the conflict of interest declaration within the competition registration form.

### 4. Unfair Advantage

UKSEDS organisers agree to share any information with all teams at the same time, or within acceptable margin, such that not one team or group of teams get an unfair advantage. Participants agree to not seek information from UKSEDS unofficially, and participants that are found to do so can be subject to the same consequences laid out in **point 3**.





### 5. **Respectful and Inclusive Behavior:**

All participants are expected to be friendly, kind, and respectful at all times, and to help create a welcoming and inclusive environment for everyone involved. Discrimination, harassment, bullying, exclusionary, or disrespectful behaviour will not be tolerated. This includes, but is not limited to: threats of violence, insubordination, discriminatory, excessive, or inappropriate jokes or language, sharing sexually explicit or violent material, personal insults (especially those using racist, sexist, or otherwise offensive terms), unwelcome sexual attention, posting others' personal information, or encouraging any of these behaviours. Any complaints or concerns raised by UKSEDS, participants, or external parties will be handled in accordance with UKSEDS policies, which may include removal.

### 6. **Social Media and Public Communications:**

When discussing or representing UKSEDS on social media platforms or in public communications, please remember to maintain a positive and respectful tone. This includes being mindful of the content posted, respecting the privacy and confidentiality of others, and promoting a positive image of the organisation. Avoid sharing confidential, personal or sensitive information.

### 7. **Social Events and Gatherings:**

During in-person events hosted by UKSEDS (e.g. competition day), participants are expected to conduct themselves in a respectful and responsible manner, adhering to UKSEDS guidelines.

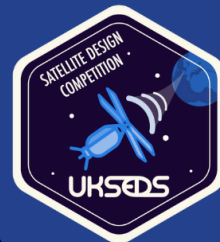
### 8. **Professionalism and Dress Code:**

Participants are expected to adhere to a professional and appropriate dress code for in-person UKSEDS organised events. Dress neatly and modestly, maintaining cleanliness and good personal hygiene. Dress codes may vary depending on the nature of the activity.

### 9. **Safety and Security:**

Your safety and the safety of others are of utmost importance to us. Follow all safety guidelines, procedures, and instructions provided by UKSEDS or designated safety officer. If you notice any potential hazards or unsafe conditions, please report them immediately.





### **10. Compliance with Laws and Regulations:**

Participants are expected to comply with all applicable laws, regulations, and policies. This includes but is not limited to health and safety regulations, privacy laws,

### **11. Integrity**

Participants must avoid placing themselves under any obligation to people or organisations that might try inappropriately to influence them in their work. They should not act or take decisions in order to gain financial or other material benefits for themselves, their family, or their friends. They must declare and resolve any interests and relationships.

### **12. Accountability**

Participants are accountable for their decisions and actions and must submit themselves if any negative impacts occur towards any stakeholder of UKSEDS competitions.

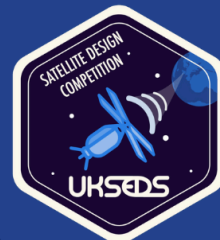
### **13. Openness**

Participants should be open about any situations or decisions which could have an impact on the competition, other participants, or UKSEDS volunteer members. This can range from engineering risks to public engagement relating to the competitions. UKSEDS organisers shall communicate information in a fair manner across all teams so that no single team gains an unfair advantage. Further, any information which could impact the teams ability to compete in competitions shall be communicated in a timely manner.

### **14. Honesty**

Participants should be truthful and exhibit these principles in their own behaviour and treat others with respect. They should actively promote and robustly support the principles and challenge poor behaviour wherever it occurs.





## Appendix SOW-1: Public Engagement Award

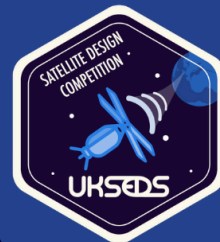
One of the most important parts of our roles in this industry is public engagement. Whether that's inspiring future generations to look at STEM areas for career opportunities or to inform the general public on the importance of STEM. Therefore, we want to encourage teams to perform public engagement through their entry into the competition. Each team has a **mandatory** submission alongside their TRR outlining a summary of their public engagement activities with examples. This shall take the form of a video up to 5 minutes in length, along with an evidence table with any relevant links. Teams shall **not** be penalised for having made no efforts towards the public engagement prize, however a submission stating this is still required.

### What should be in the video:

Teams should describe their public engagement goal - whether that's gaining funding, promoting their society, or maybe educating people about space. Teams should then state who their intended audience(s) is. Teams should also explain any content they've produced and how it aligns with their goal, as well as any activities that have been carried out. **Assessment for the public engagement prize shall then be based on the following criteria based on the evidence provided in teams' submission:**

| Criteria                      | Description                                                                                                                                                                                                                             | Scored out of |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Activity Breadth & frequency. | How many different avenues have been taken? e.g. running an Instagram page, hosting in person events at university, going into schools to do talks. How often has an activity been done? e.g. hosting multiple events, frequent posting | 5             |
| Quality of activities         | Information provided and clarity of communication. How appropriate is it for the intended audience? How engaging is the content? How directly relevant is it to the team? Are activities directly driven by the team?                   | 10            |
| Quality of submission         | How well have the team presented their engagement efforts and how clearly have they summarised what they have done? Does the evidence table provide useful links to back up what they have done?                                        | 3             |





### What counts as an 'activity'?

Anything! As long as teams can justify how it is relevant to their goal anything goes - anything from Instagram posts and TikToks to hosting society talks and going into schools. Below are examples of two teams' submission for the Public Engagement Award and how they would be marked:

1. *Team A is aiming to promote their university space society to fellow students. They have an Instagram page with photos of their CubeSat and project updates to show off the work they've done to encourage people to check out the society. In their submission they show example posts from their Instagram and describe generally how the posts are primarily to show off the work they've done. In their evidence table they link to their Instagram page.*

*Breadth and frequency of activities: 2/5 - they only have an Instagram page but have evidenced a range of posts from the design updates of the CubeSat, how they do project management to showing off CubeSat testing .*

*Quality of activities: 4/10 - information in Instagram posts is clearly presented and clearly intended for university students. An appropriate level of detail is provided in posts. Content is limited in how engaging it is. Directly relevant to the team with them showing off their own journey, and the team clearly run the Instagram page themselves and make all the content.*

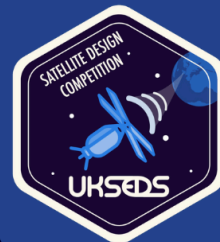
*Quality of submission: 3/3*

2. *Team B is aiming to promote working in the space industry and working in STEM in general. Their intended audiences are primary school children and university students.*

*They have registered with STEM UK and have hosted two events in their local primary school. Firstly, they had a talk on space as well as showing off their CubeSat and how it works. They then had an interactive workshop where they got the children to make a model car. At their university, they have hosted similar events such as talking about their CubeSat and collaborating with other societies to host an Arduino coding workshop. Their Instagram is managed by a wider space society.*

*In their submission, they present Instagram posts, pictures of talks and marketing of said events. They also show pictures from the primary school workshop with evidence of presentation slides, instructions, and the model cars that were made. They briefly describe their engagement approach, events they've hosted throughout the year, how they planned and catered their events and also describe feedback and comments from the schools. In their evidence table they provide all relevant links to back up what they've done.*





Breadth and frequency of activities: 5/5 - they have done multiple events for different audiences as well as promoting their events and team on Instagram.

They have produced a range of content from workshops to marketing material.

Quality of activities: 10/10 - All content is well thought out, appropriate for intended audiences and they have taken steps to make content engaging (in person events, Instagram votes to influence their CubeSat appearance, etc) Content ranges from being directly relevant to the team to also having a wider scope of the space industry. Although their Instagram was handled by people not in the team, it is clear that the team must have been involved from the detail provided of their CubeSat - the team is also clearly at hosted events, as well as having organised and planned the events.

Quality of submission: 3/3

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