

The UK Space Challenge 2009

Full Rules

1. Payload Specification

- 1.1. No part of the payload may consist of the following:
 - 1.1.1. Live animals.
 - 1.1.2. Explosive Materials
 - 1.1.3. Anything that contravenes national or international law.
 - 1.1.4. Anything that is considered to otherwise endanger the flight or interfere with other experiments or tracking.
- 1.2. No part of the payload may consist of any of the following without express permission from the CU Spaceflight team:
 - 1.2.1. Anything that emits radio or has wireless communications.
 - 1.2.2. Anything (bar one external master switch) that does not fit completely within the given payload box.
 - 1.2.3. Anything inflammable in nature.
 - 1.2.4. Any potentially hazardous materials.
- 1.3. Payloads must fit in their entirety within the given payload box (140x140x140mm internal, 25mm wall thickness expanded polystyrene, 90g), bar one external master switch that must be located on one 140x140mm face (not the lid). It is strongly recommended that this switch is sturdy in nature, is shielded and does not have bouncy contact.
- 1.4. An external master power LED must be provided next to the master power switch to show flight readiness.
- 1.5. Payloads must be built and assembled by the students in the teams themselves with only reasonable assistance from teachers and third parties. Any direct use of circuit designs gained from any source must be detailed as such in the appropriate reports. Use of standard circuit designs is acceptable but their source must be recorded.
- 1.6. Only one face of the payload box is guaranteed to be externally facing, so photographic equipment and sensors should be mounted on the same face as the power switch and LED. Where this is completely infeasible, express permission must be obtained from the CU Spaceflight team to contravene this rule.
- 1.7. Complete weight of the flight-ready payload, including payload box, batteries electronics etc. must not exceed 0.40kg.
- 1.8. Payloads must contain their own power source that is compatible with the flight environment at altitude.

2. Timescale

- 2.1. Teams must have formally entered the competition using the online entry form before midnight on December 1st 2008.
- 2.2. Team's first five page report must have been submitted and received by the Cambridge University Spaceflight team before midnight on January 15th 2009. No late entries will be accepted.
- 2.3. For those that reach the second stage of the competition, the second five page report must have been submitted and received by the Cambridge University Spaceflight team before midnight on March 1st 2009. No late entries will be accepted.





2.4. The preliminary launch time for payloads is in the Easter holidays, but is extremely weather dependent. Efforts will be made to allow teams to watch the launch, whether physically or remotely, however there is no guarantee of large notice time being provided before launch.

2.5. The final five teams must submit their final 5-page post-launch report that summarises their experimental results and subsequent analysis before midnight on the day one month after the flight date. This date will be specified once the flight date is finalised.

2.6. Several weeks after the final report submission date a finals day will be held in Cambridge to award prizes, certificates and display team's research results. Final teams may be asked to give a short presentation on their results on this day.

3. Decisions

3.1. All decisions are the sole responsibility of the Cambridge University Spaceflight team and appointed judges.

3.2. Once made, all decisions are final and there are no appeals.

3.3. The Cambridge University Spaceflight team and appointed judges reserve the right to disqualify or deduct marks from teams at ANY time if they are deemed to be in breach of the competition rules or for other deemed misconduct.

3.4. The Cambridge University Spaceflight team and appointed judges reserve the right to deny flight access to ANY payload at ANY time if it is deemed that the team concerned is in breach of the rules or is in danger of interfering with other payloads or the integrity of the flight.

3.5. The Cambridge University Spaceflight team reserve the right to make changes to the competition rules and dates at any point at their discretion. Care will be taken to give as much notice to teams of these changes as is reasonably possible.

3.6. All details pertaining to the launch of the winning payloads; such as location, time, date, payload attachment mechanism etc. are the sole responsibility of the Cambridge University Spaceflight team.

4. Reports

4.1. Reports will be marked largely on the following criteria:

4.1.1. Academic merit and ingenuity of experiment type.

4.1.2. Success and degree of background and prototype work that has been achieved.

4.1.3. Deemed chance of success and completion.

4.1.4. Degree of ingenuity of the designs; initiative and custom design will be granted preference over stock bought components and borrowed circuit designs.

4.1.5. Correct use of Harvard referencing (see wikipedia) for sources and presentation.

4.1.6. Proposed advancements and additions to the current payload within the remaining timescale, within the limits of 4.1.1., 4.1.3. and 4.1.4. .

4.1.7. Deemed degree of guidance by supervisors and third parties.

4.2. Any circuit, experiment or design that has been for the most part copied from an external source must be detailed and referenced as such within the reports. Use of standard circuit designs and their minor modification by teams is acceptable but they must be detailed as such. Failure to reference correctly could be construed as an attempt to receive undue credit and may result in loss of marks and disqualification.





- 4.3. 10 teams will be selected to continue after the first round of reports have been marked. From these, 5 teams will be selected for the flight after marking of the second round of reports. All 10 teams that enter the second round will be eligible for prizes.
- 4.4. Marks will be deducted for exceeding the page limits of 5 single printed sides per report.
- 4.5. Teams are strongly advised to show clear circuit diagrams and other technical evidence for their systems.
- 4.6. The final post-flight report will be marked with the additional criteria:
 - 4.6.1. Accuracy and validity of experimental results and analysis.
 - 4.6.2. Academic merit of results and degree of analysis.
 - 4.6.3. Suggested improvements or alterations to the payload.
- 4.7. In the event of flight failure or loss prizes will be awarded based on a final report of the condition and capability of the finished payloads and their deemed successes in addition to sections 4.6.3. and 4.1. .
- 4.8. Cambridge University Spaceflight is an equal opportunities provider.
- 4.9. Prizes will be awarded for the following categories, and more than one prize may be awarded to any team that reached the second stage:
 - 4.9.1. Best Overall Payload.
 - 4.9.2. Most Innovative Experiment.
 - 4.9.3. Quality and Analysis of Results
 - 4.9.4. Independence Award

5. Miscellaneous

- 5.1. Harassment or improper conduct towards other teams, Cambridge University Spaceflight members, appointed judges or sponsors in whatever form will not be tolerated.
- 5.2. Flight to such altitudes is hazardous and sometimes unpredictable and as such the Cambridge University Spaceflight team and its sponsors make no guarantee of flight success and accept no liability for loss or damage of flight payloads and any subsequent losses of revenue or consequences resulting from the flight failure.
- 5.3. Repeated failure to reply to communications from the Cambridge University Spaceflight team without due reason can be taken as a resignation from the competition and will lead to the competing team's loss of marks or disqualification at the decision of the Cambridge University Spaceflight team. It is strongly advised that if the team's lead contacts are to be absent for any appreciable length of time that notice and an alternative contact are volunteered by the competing team to avoid such circumstance.
- 5.4. Teams are required to have an adult signatory who will be one point of contact. This will in most cases be a teacher or youth leader but may be an external mentor or parent/legal guardian for non school affiliated teams. It is their duty to collect the permissions for all team members to enter the competition from their relevant parents/legal guardians.
- 5.5. Teams are welcome to publicise their entry into the competition. However, notice and wordings of all press releases must be submitted and agreed by the Cambridge University Spaceflight team prior to publication to maintain the integrity of the competition and its inherent connection with sponsors.
- 5.6. The Cambridge University Spaceflight team and sponsors reserve the right to use all results, photographs and materials resulting from the competition for their own publicity purposes. Where possible, effort will be taken to credit teams for their work.

For further information on the competition email enquiries to cuspacflight-competition@srcf.ucam.org.

