

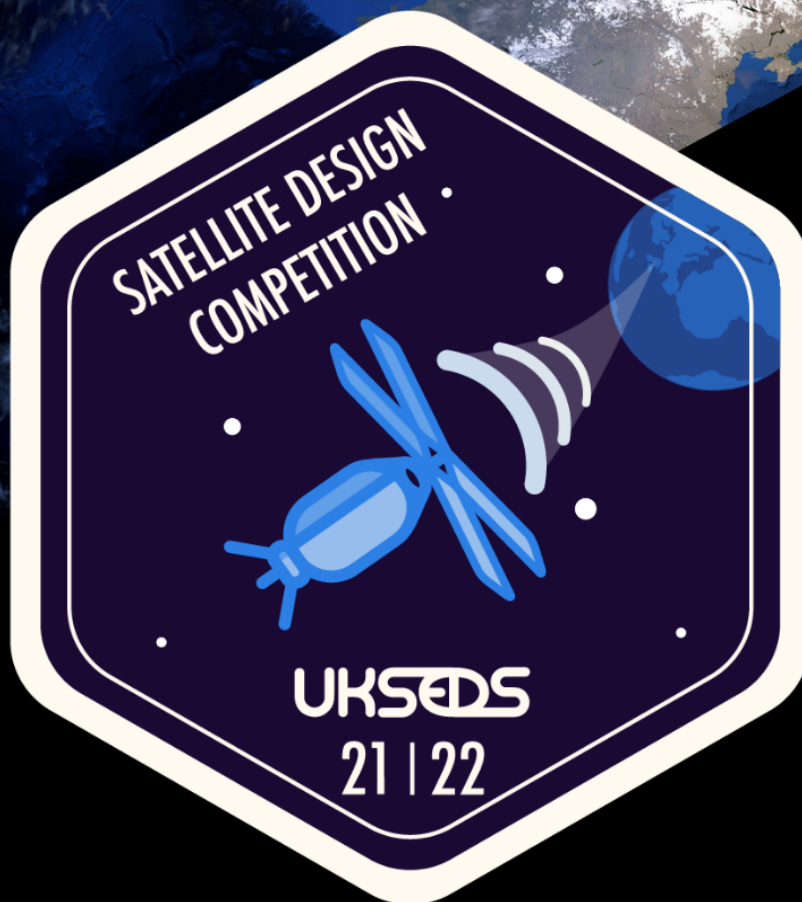
UKSEDS

UK STUDENTS FOR THE EXPLORATION AND DEVELOPMENT OF SPACE

AIRBUS

SSPI

UNITED KINGDOM CHAPTER



PDR Template

2021-2022

Satellite Design Competition

<Team Name>

Guidance

The body of the Preliminary Design Review (PDR) document should be no longer than 12 pages, excluding acknowledgements, references, and appendices. You can use this template as a guide, but feel free to change the structure or layout. For more details on the content expected in the PDR, please refer to section E.1 of the Satellite Design Competition Rules and Requirements document, and the referenced ECSS standard. This document will be reviewed by industry systems engineers, who will provide one A4 page of paper of feedback on your design concept, documentation and project management arrangement.

We advise teams to use a Google document to gather information from different members within your team, before amalgamating the information in this template.

Please contact satellites@ukseds.org if you have any further questions. The deadline for the submission is 19th December 2021; please submit as a .pdf to satellites@ukseds.org.

Best of luck, we look forward to seeing your designs!

Issued by (Project Lead):
University:

2021

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1 INTRODUCTION

Use this section to introduce your project, team and concept. Mission patches are welcomed! Feel free to include further information in the appendices to avoid exceeding the page limit.

1.1 Mission Statement

The mission statement is a short statement that describes the overall goal of the team.

2 PROJECT MANAGEMENT

2.1 Assigned Roles and Team Roster

Include a table of team members and their assigned roles.

Name	Role	Year/Course	Email

2.2 Preliminary Schedule

Include your proposed schedule for the project, from inception to competition date. Include a work breakdown structure and a proposed test plan.

2.3 Preliminary Budget

Include your proposed budget for the project, covering the rough build costs of the satellite.

2.4 Project Risks and Mitigations

Identify the major risks associated with your project and satellite design, and how you expect to manage these throughout the development process.

3 PRELIMINARY CONCEPT

This is where you can detail your preliminary mission and satellite design. This will be built on through the year so it does not need a high-level of detail at this stage.

3.1 Mission design

Here give a description of your first design iteration for how to put a cubesat into orbit around a piece of space debris. This focus should be on the orbital design. The Rules and

Requirements document details more about what is expected from an astrodynamics perspective.

3.2 Payload Design

Provide a summary of the provided and derived requirements for the payload and the satellite bus. The satellite bus encompasses all subsystems excluding the payload. Identify and summarise any trade-offs you have performed during this process. Again, if you have any lengthy requirements or data sheets, these can be included in the appendices.

3.2.1 Requirements

3.2.2 Trade-Off

3.2.3 Selection

3.3 Satellite Bus Design

3.3.1 Requirements

3.3.2 Trade-Off

3.3.3 Selection

4 DESIGN BASELINE

Use this section to conclude the report and summarise the overall design baseline of the satellite. Describe how your concept addresses the requirements. Include images and diagrams where appropriate.

5 ACKNOWLEDGEMENTS

Use this section to recognise anyone who assisted with or contributed to the project, but was not part of the team.

6 REFERENCES

No particular reference style is preferred. Include citations in the text.

7 APPENDICES

Any supplementary material, which is not essential to the project, but will provide a more comprehensive overview of the project, can be included as appendices.