



SpaceProjects.uk

Matching Students and Industry

SCHEME HANDBOOK

SpaceProjects.uk matches students and
space companies for degree projects

SpaceProjects.uk is a scheme by

UKSEDS
UK STUDENTS FOR THE EXPLORATION AND DEVELOPMENT OF SPACE



Space
Universities
Network

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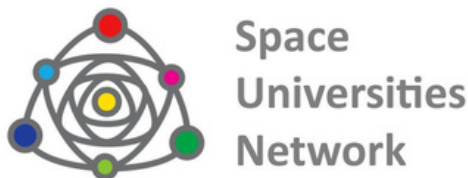
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ABOUT THE ORGANISERS



UK Students for the Exploration and Development of Space (UKSEDS) is the UK's national student space society. For over 30 years they have been supporting students and young professionals across the country by running events, providing resources, and teaching new skills.



SUN aims to enhance the quality of learning and teaching by providing support and resources to the UK Higher and Further Education space community. We wish to help create a skilled workforce who can meet the challenges of future space exploration and exploitation.

SUPPORTED BY



INTRODUCTION

In the final or penultimate year of their degree, students have to complete a lengthy individual project, and space-related topics are rarely available.

We provide the framework for students to do their project with a space organisation, and advertise projects proposed by space organisations to students nationwide.

The space sector is one of the fastest growing sectors in the UK. Employers, however, often highlight a lack of skilled graduates, and students, a lack of opportunities to get experience.

This scheme has been created to give students this crucial experience, and has been designed upon feedback from several academics, space industry professionals, and students.

We encourage interested students, industry professionals, and academics to read all of this guide to gain an appreciation of each other's interests and responsibilities before applying.



“It is becoming more challenging to allocate the time to recruitment and selection of students with matching talents and passion. SpaceProjects.uk did an excellent job in recruiting and pre-selecting several ambitious and passionate students, resulting in a very good match for our project.”

Dr. Egbert Edelbroek
Founder & CEO, SpaceBorn United

BENEFITS FOR HOSTS

Bringing theoretical and methodological knowledge from university, students can assist with work ranging from conducting analyses, to preparing strategies, to developing new products.

Benefits to the host extend beyond the time of the project itself, from improved awareness, recruitment, and ties with universities.

FASTER PROGRESS

Get projects done you don't have the time or resources for.

NEW TIES

Form links with a universities' teaching and research environments for future opportunities.

BETTER RECRUITMENT

Introduce students to your organisation with a view to potential future employment, and improve recruitment from a new insight into the knowledge of students from various degree programmes.

BENEFITS FOR STUDENTS

Projects are available in a variety of disciplines on a rolling basis throughout the year. Through a collaboration, you have a lot more to gain compared to a standard project, and will draw on the benefits during and after your degree.

PRACTICAL EXPERIENCE

Try out your ideas and knowledge in a real life project.

NEW SKILLS

Learn how to do work alongside a professional organisation.

PROFESSIONAL EXPERIENCE

Gain experience that will strengthen your professional profile.

JOB INSIGHTS

Discover what you might want to work in after graduation and improve your job prospects.

RESPONSIBILITIES

HOST ORGANISATION

The host organisation is responsible for coming up with a suitable project (following the provided template) and conducting the final selection process to choose the student(s) they want to carry out the project. The host must assign a fixed supervisor for the student, who will provide:

- An online meeting with the student at least once every month, with more frequent meetings recommended depending on the project.
- Responsive email support between meetings on matters related to the contents of the project.
- The data, information, and resources that are required by the student.

Other responsibilities of the host may include:

- Completing the template Project Agreement and gathering the required signatures.
- Working out how the student will use/access any required resources such as software and files.
- Reimbursing any expenses incurred by the student.
- Providing an NDA if desired (both for students and academics).

UNIVERSITY: ACADEMIC SUPERVISOR

The academic supervisor is there to make sure the student is on track during the project and that their learning objectives are being achieved, and to provide guidance on the project process and write-up. They are also responsible for ensuring the project is assessed.

STUDENT

The student is of course responsible for carrying out the project - a major component of their degree. Prior to applying to do the project, students must get the support of an academic who will act as their academic supervisor to support the student alongside the host supervisor should the student be selected to do the project.

As it is part of their degree, students are encouraged to discuss the scope of the project with the host to make it best fit their ideas and interests. Once the project starts, students should plan tasks and inform their host supervisor of progress at regular meetings.

To finish the project, students typically submit a written report to their university, and, in most cases, also give an assessed presentation to a panel of academics.

SPACEPROJECTS.UK TEAM

Our website provides a central location for students and academics to view available projects, and through our networks we can ensure a wide distribution of the projects to students and academics across the UK.

For host organisations, we've created this proposal form that helps to ensure projects will enable students to hit their required learning objectives. Once the advert is ready, we'll advertise it within a week.

If the host wants us to, we can conduct an initial selection process to narrow down their applicants to three or more. After this, the final selection is down to the hosts.

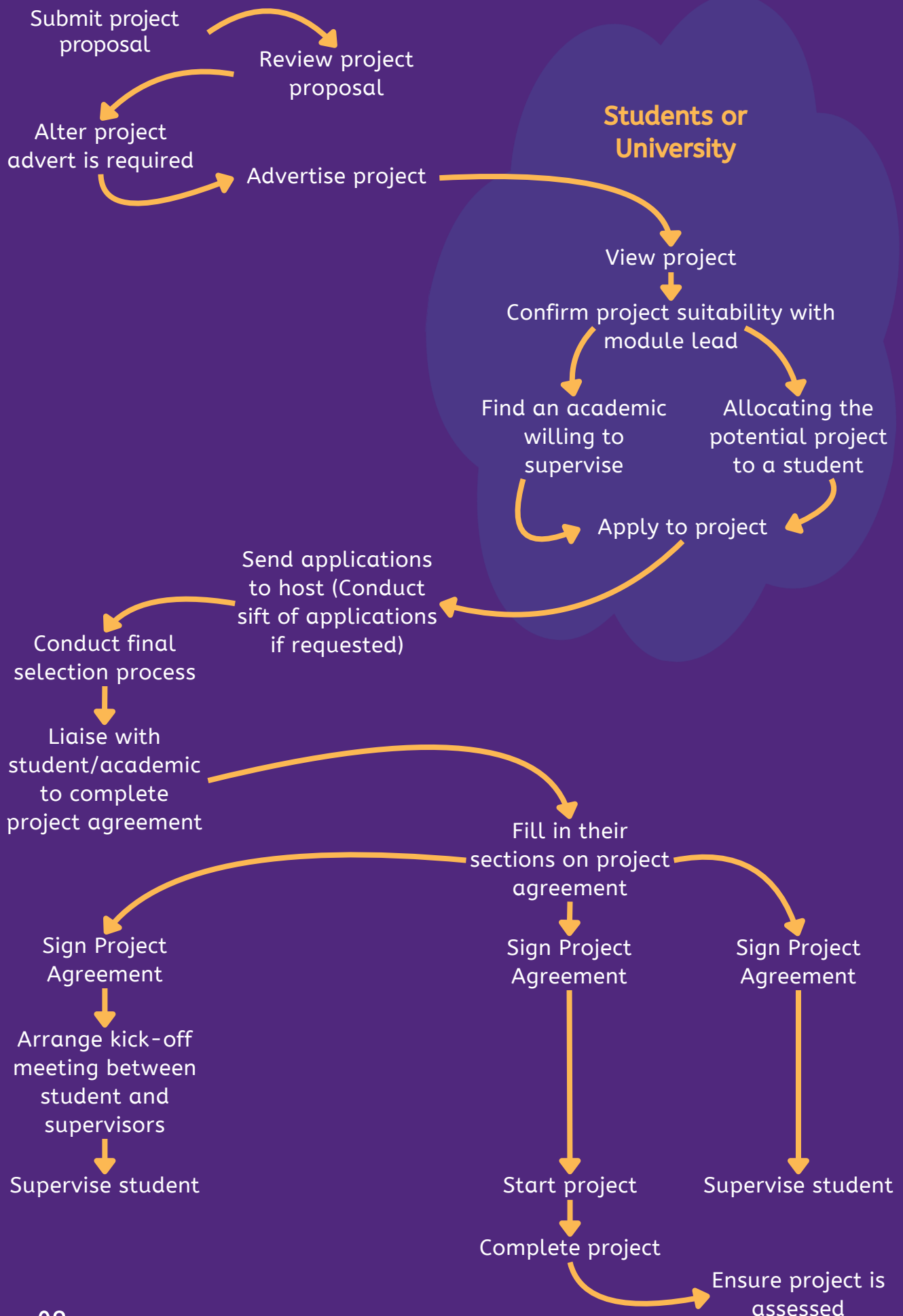
When the host has selected their student(s), we also provide a project agreement template which outlines the details of the project and responsibilities of the student, host, and university supervisor.

HOST

OUR TEAM

STUDENTS

UNIVERSITY





“Individual and group projects are one of the most important opportunities for learning skills that will be invaluable in the workplace, and this is even more powerful linked to a real industry problem. We are excited to work with SpaceProjects.uk to support students in preparing for employment and answering the biggest challenges facing the industry today.”

Andrew Bacon
Co-Founder and Chief Designer, Space Forge

PLANNING TIPS FOR HOSTS

As a host supervisor, there are several things you should know and do to ensure the project will run smoothly. The following advice has been gathered from people in academia and industry who have experience of joint projects.

TIMING

Projects can be proposed on a rolling basis throughout the year, with any application deadline and start date. However, for you to have the best chance of finding a suitable student, we recommend following the typical university semester and project timelines, roughly outlined below. Exact deadlines and rules for students for selecting projects vary slightly between universities.

	Undergraduate			Postgraduate Masters
	Semester 1 only	Semester 2 only	Semester 1 and 2	Semester 2
Propose project	February to April	June to August	February to April	September to November
Application deadline (students/academics)	May	September	May	December
Students/academics selected	June	October	June	January
Project start	September/October	January/February	September/October	March/April

When you submit a project proposal, the proposed start by date, project duration, and application deadline must be included. Students will then only apply if the dates are in line with the timings at their university.

SCOPING THE PROJECT

Scoping the project correctly is very important, so we recommend that you start planning at an early stage. Try to describe the project in as much detail as possible, so you can create the best match between you and the student.

At the end of the project, students have to be able to “tell a story” of the work they have done and how they have done it. Projects need a clear goal, and the complexity and difficulty of the tasks must match what can be expected of a student within the agreed period. The project should offer enough challenge to be rewarding, and enable the student to apply knowledge acquired from their studies.

Because the project is part of the students degree, it needs to meet the academic standards of their programme. There are different types of learning objectives in the various degree programmes, however, most learning objectives will be flexible enough to allow the student and the host to make specific agreements regarding the tasks involved that suit both parties.

It is up to the students or academics to ensure that it is suitable, but note that the selected student(s)/academic(s) could make adjustments to your initial proposal.

Since there is no guarantee on a project being selected or completed successfully, mission-critical or time-sensitive projects are not recommended.

PROPOSING A PROJECT

Our project proposal form has been designed to help you outline the project in the level of detail that typical academic projects are described. Following it should make for a quick process of acceptance, but we can work with you to help get all the details in.

If you wish, and have the resources, you can propose multiple projects, or select multiple students/academics for the same project.

In the majority of cases, projects are performed entirely remotely. Whether remote or in-person, there are various resources the student may need. When proposing a project, you need to have a plan in place for how the student will access any files, data, or computer software they will require (and have these when they begin) - for example, will you provide a laptop, can they remote in to your system? Note that students cannot use software provided by their university for commercial purposes, and may not be able to download certain software on their personal laptop.

SELECTING STUDENTS AND ACADEMICS

Students or academic supervisors apply to the projects through the form on our website. They have to answer standard questions (students also upload their CV). Once the deadline has passed, we can either send you all the applications for your project, and then the selection process is entirely down to you, or we can conduct a pre-selection and send you who we feel are the best applicants, for you then to make the final selection. When submitting projects, we ask you to tell us how many you would like to be sent (the minimum is three), and if you have any specific criteria for the initial selection process.

Once you have selected your student(s)/academic(s), it is then your responsibility to gather the information to complete the Project Agreement (another template we provide) and ensure it is signed by all parties.

HOW TO BE A GOOD SUPERVISOR

Students will share their experiences – good or bad – with their peers, so you want to paint your company in a good light. Here are some tips for being a good host supervisor!

- Provide regular feedback to help the student feel valued and increase the standard of their work.
- Be responsive to emails so the student can stay on track.
- Be flexible with the direction of the project depending on the student's skills, progress, and interests.

INTELLECTUAL PROPERTY AND CONFIDENTIALITY

In a normal student degree project, the copyright and other intellectual property rights are vested in the student. When a third-party is involved, that third party (i.e. your organisation) may acquire the IP rights.

The Project Agreement defines the rights being vested in the student as the default. However, you may wish to set up your own IP arrangements with the student/university.

There may also be some information that you want kept confidential. Clauses exist in the Project Agreement to protect confidential information, and again, any additional restrictions you require will be your responsibility to organise with the student and university, for example, through a non-disclosure agreement.

FIVE KEY THINGS TO REMEMBER

1. The more you put in the more you get out.
2. Students have to be able to tell a story at the end of the project.
3. The project forms a large part of the student's degree so is important.
4. Project timing should align with the university semesters.
5. Students learn a lot from the project process – they won't have all the skills at the start and there is no guarantee the project will be successful.

PLANNING TIPS FOR STUDENTS

PREPARING TO APPLY

The key to making this a success is you being proactive and thorough when communicating with your university. Start preparing early, and find out all the information you need to apply.

YOUR REQUIREMENTS

Familiarise yourself with the academic requirements for an individual project. These are usually stated in the module description. You need to have knowledge of learning objectives, examination requirements, the project report, rules for approval by the university, deadlines, and intellectual property rules. We recommend talking to your project module lead as soon as possible. Your department may already have specific rules in place for this sort of collaboration so it's worth researching these beforehand.

YOUR GOALS

Work out what you want to get out of the project, and be clear on your expectations for it. Often, projects based around practical problems need a practical solution that can live on after the end of the project. Simplicity is often better than technical complexity in these cases.

YOUR SUPERVISORS

Before you apply, you need to get the support of an academic who would act as your academic supervisor if you were to be selected by the host organisation to carry out the project. They don't need to be experts in the technical content of the project - they are there to guide you through the process of conducting and writing up the project.

They will also be able to help you make sure that the scope of the project fulfils the intended learning outcomes for the project module at your university.

Your supervisor at the host organisation will guide you through the technical completion of the project and answer any specific questions related to its content.

PREPARING FOR YOUR PROJECT

Everyone involved in the project is keen to see it executed to the best of your abilities. Before you start your project, your host organisation will arrange a meeting with you and your academic supervisor to make sure everyone is on the same page and make initial plans for the project.

Your host supervisor may roughly know what outcome they expect, but not exactly how you will get there. The goal is for you to get to an answer that is fit for purpose, but it need not be perfect. This is a different approach to problem solving than you may be used to.

As with any project, you should be ready for a long process with ups and downs. You need a positive attitude, support, persistence, and self-management. Before you start, think about any projects you have done in the past. What did you learn during those projects and what kinds of actions led to positive results? Also think how you can use what you've learnt in your taught modules, but common sense goes a long way too!

FIVE KEY THINGS TO REMEMBER

1. Your main goal is your examined deliverables.
2. You and the company do not necessarily share the same interests.
3. You are representing yourself as a student and a (future) professional, the SpaceProjects.uk programme, and your University as a whole.
4. Voice any concerns you have, and if in doubt, ask your supervisor.
5. Be inquisitive and committed.

PLANNING TIPS FOR ACADEMICS

Academic supervisors can apply to take on industry projects that can later be offered or allocated to students within their own degree programme. This route is useful where projects need to fit into an existing module or dissertation process.

The key to making this work well is early planning, clear communication with the host organisation, and making sure the project can meet the academic requirements of the students who may later take it on.

SECURING PROJECTS FOR STUDENTS

When applying for industry projects, you should be clear about the type of students who may take on the project, including their degree level, subject area, expected skills, project timeframe, and assessment requirements.

You may also wish to explain how projects are normally allocated at your university, for example through student preference, supervisor matching, or departmental allocation.

CHECKING PROJECT SUITABILITY

Before taking on an industry project, check that it is suitable for the relevant module, education level, timetable, and assessment format. The project should have a clear aim, realistic scope, enough challenge to be valuable, and enough flexibility for the student to shape their own contribution.

ALLOCATING PROJECTS TO A STUDENT

Once a project has been agreed with the host organisation, the academic should allocate it to a suitable student through the university's normal procedures.

Students do not need to have all the required skills at the start, but should have enough background knowledge, time, and support to make meaningful progress. Allocation should be fair, transparent, and consistent with the university's project selection process. Students should understand what is expected of them and the level of involvement with industry collaboration

WORKING WITH HOSTS

Before the project starts, agree the scope, outputs, communication, responsibilities, resources, confidentiality, IP, expenses, and assessment requirements with the host and student.

Students may be working with an external organisation for the first time, so you must attend every meeting between the student and the host. This is essential to ensure that students manage expectations appropriately, communicate professionally, deal with uncertainty, and remain focused on their examined deliverables. It also ensures that concerns are identified and escalated early, especially if the scope changes, resources are delayed, or expectations differ between the university and the host.

FIVE KEY THINGS TO REMEMBER

1. You can secure industry projects before knowing exactly which students will take them on.
2. Projects must be at an appropriate level of academic and technical challenge for the students.
3. Be clear with hosts about the type and level of students who may be allocated to the project.
4. Student allocation should be fair, transparent, and consistent with university procedures.
5. Academics should support students working with hosts and keep expectations clear.

OUR COMMITMENT TO EDI

No student should be at any disadvantage compared to others when taking part in this scheme. Several measures have been put in place that aim to prevent this from happening:

- Projects can be proposed on a rolling basis.
- It is the host's responsibility to provide students with any resources they require, e.g. software licences.
- The student's affiliation will be removed from their application to remove the risk of hosts showing bias towards students who study at universities they have worked with in the past.
- Completing the template Project Agreement and gathering the required signatures.
- The student's name will also be removed from their application to avoid unconscious bias.
- If a host wants no pre-sifting, we will pass them all their applications after the closing date rather than giving them access to view them as they come in.
- This will remove the possibility of them choosing one of the first that is submitted without looking at the later applicants. Similarly, in any sifting that we do, we will not look at any applications until the deadline has passed.
- Hosts will also be advised of inclusive recruitment practices.

CONTACT US

If you have any questions or are interested in being involved, we'd love to hear from you.

You can reach our team at: spaceprojects@ukseds.org and sun.ac.uk@gmail.com

Please kindly include both emails on your recipient list.

The Space Sector Skills Survey 2020 (UKSA, BMG) highlighted the need for more collaboration between universities and industry.

“[University] courses lag behind rapidly advancing technologies or lack specificity to the space industry’s particular needs.”

“Participants noted the need for academia and industry to work together in order to offer a better understanding of what to expect in the space sector.”

SpaceProjects.uk is dedicated to improving this link.

Contribute to growing the sector and students’ skills by taking part.