

# Would you like to use a spacecraft orbiting the earth for anything you like for a day?

## What is OpenSpace365?

The opportunity for anyone to develop a spacecraft virtual payload (software program) and run it on a satellite orbiting the Earth for a day - free of charge. Your virtual payload could take photographs of Earth and/or space, make measurements of the space environment or do whatever you can think of - the choice is yours! How would you use your spacecraft for a day?

## Getting started

OpenSpace365 is a payload on the UKSEDS (United Kingdom Students for the Exploration and Development of Space) pocket spacecraft myPocketQub 442 which is being launched piggybacked on the UK Space Agency CubeSat UKube-1 in 2012 – see [ukseds.org/projects/ukube](http://ukseds.org/projects/ukube) for more details.

The project will open to all at [openspace365.org](http://openspace365.org) approximately three months before the scheduled launch of UKube-1, however we are looking for enthusiastic schools, students or private individuals who would like to have early access to the beta version of our open source open access virtual payload development kit to make sure that it is easy to understand and use. If you are interested in helping with this, please email [beta@openspace365.org](mailto:beta@openspace365.org) to volunteer. Members of the beta test program that develop payloads will be among the first OpenSpace365 payloads to fly in space.

## Technical details

Virtual payloads are written for the open source Arduino platform. You can learn more about the Arduino and learn how to write software for it at [www.arduino.cc](http://www.arduino.cc). The Arduino and OpenSpace365 development tools are open source and free of charge.

OpenSpace365 hardware is based on the 8MHz Arduino Pro Mini design and has accelerometers, magnetometers, temperature sensors, a camera, 2GB memory card, voltage and current sensors, vibration sensors and will know the time and where it is in orbit. Your virtual payload must be open source and can be up to 32KB in size, run for up to twenty four hours and can return 1MB of data.

You will submit your virtual payload via the OpenSpace365 website or the Open Mission Control application. It will be reviewed and, if cleared for flight, given a mission number and flight date. Once it has flown, you will be able to download the results from the website and you will be able to see the status and results of all the other virtual payloads that have flown or are due to fly.

## Who are UKSEDS?

We're an independent, student-based organisation which promotes the exploration and development of space with more than 150 members from more than a dozen British universities. Visit our website [ukseds.org](http://ukseds.org) find out more.