

CubeSat Design Contest

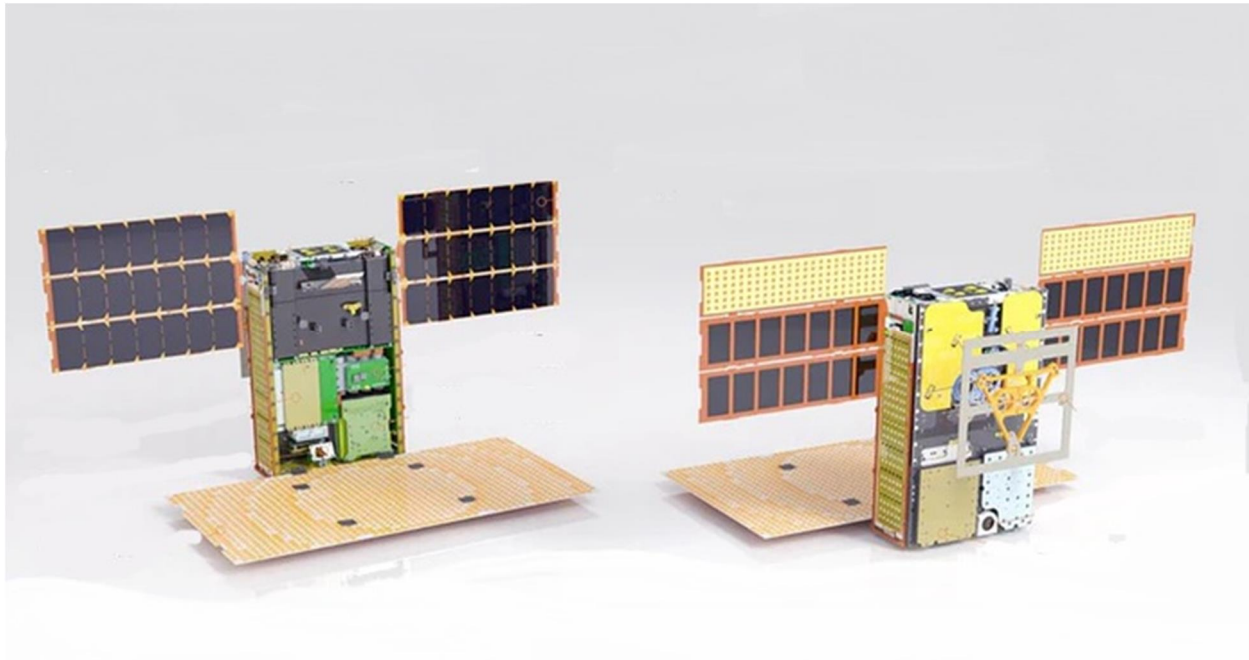


Image Courtesy: NASA Mars Cube One for reference

Challenge:

To design a CubeSat (standard 1U or less) to capture an image through command

What are CubeSats?

CubeSats are miniature satellites that are commonly used in low Earth orbit, have been used for educational purposes, and recently for applications such as remote sensing, scientific experimentation, or communications. As engineers become more familiar with the technology, CubeSats are also being considered for flights outside of Earth orbit - to locations such as the Moon, Mars, or Jupiter.

What is essentially needed to make your CubeSat?

Only essential components are listed below:

- Solar Cells/Panels
- A Battery Pack/ Power
- Transceiver
- Microprocessor
- Camera

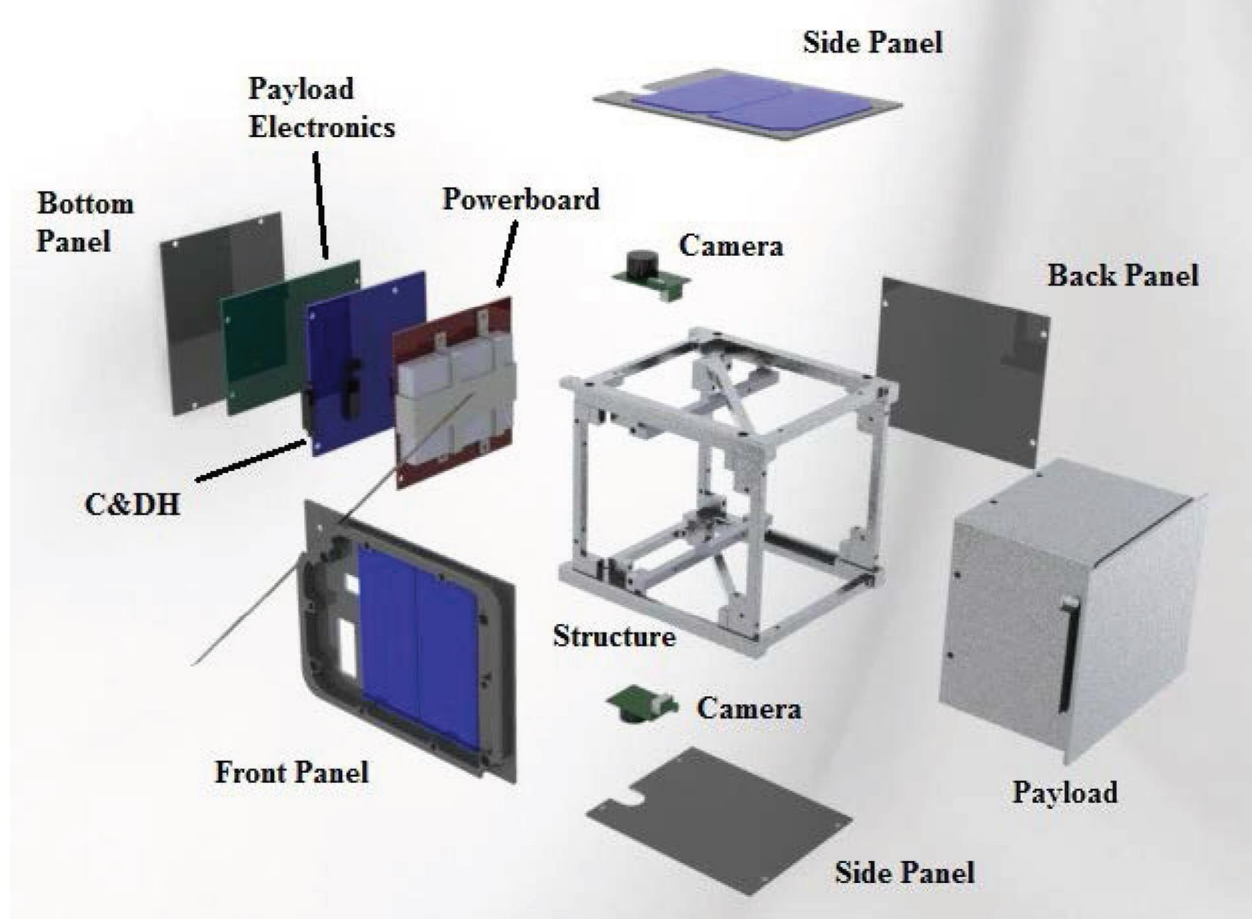


Image Courtesy: [Google image for reference only](#)

Rules & Guidelines:

- Competition is open for university students only
- Interested students may participate in the competition as individual or team of maximum five students
- The designed CubeSat must fulfill the given challenge of taking image through command and sending back to control/ computer
- The Cubesat will be qualitatively judged on the basis of design report submitted as per given format
- Logos of SUPARCO and WSW must be displayed and clearly visible on the CubeSat
- One picture of participant(s) with CubeSat is mandatory
- One minute video of working mechanism of CubeSat is also mandatory
- Last date to submit design report for CubeSat Design Contest is **10 Dec 2020**

How do I win?

Think of some great out-of-the-box ideas, focus on the challenge! Meet the above mentioned requirements and submit your design report before deadline.

Judging Scorecard

The judging panel will rank the submitted entries using the following Judging Scorecard:

Metric	Weightage
Challenge fulfillment	15%
Novelty and Innovativeness	25%
Submission of Technical Report	40%
Submission of support media (Pictures/ Videos etc)	20%

Report Requirements

Participation Details *(Add details of all team members)*

- a. Name of Participant(s): _____
- b. Name of University: _____
- c. Department: _____
- d. Year/ Semester: _____
- e. Contact No: _____
- f. Contact Email: _____
- g. Contact Address: _____

1. Project Details

- a. Objective/ Challenge Description
- b. List and specifications of hardware
- c. List and specifications of software
- d. Flow diagram of operation/ working
- e. Circuit diagram *(optional)*
- f. Schematic diagram/ CAD 3D diagram
- g. Software simulation *(optional)*
- h. Programming Code *(optional)*

2. Project Supporting Media

- a. Video of working Cubesat
- b. Picture of Cubesat (Logos of SUPARCO & WSW are mandatory)
- c. Picture of Cubesat with participant(s)
- d. HD 3D software model pic