

CanSat Kit

Project-based Educational Engineering System

The CanSat Kit (“CSK”) is an exciting and challenging project-based educational engineering system for students to acquire hands-on training in the life cycle development of a basic satellite project at an affordable price. Critical skills learned, include mission planning and design, building and testing satellite subsystems, systems engineering, project management, remote sensing and data analytics, and many other competences required for the development and management of new technologies.

Electrical Power Subsystem (EPS)



Command and Data Handling Subsystem (CDH)



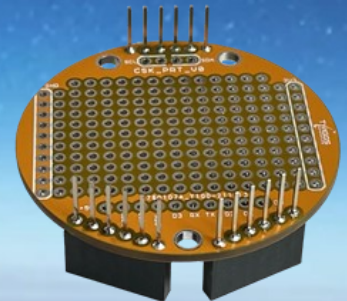
Communications Subsystem (COM)



Attitude Determination Subsystem (ADS)



Project Integration Team—Testing the CanSat



Pro to Board (PRT)

Students solder all of the components on each board. The CSK includes: all the boards, parts, and electronic components required to build a CanSat; a detailed User’s Manual for assembly, testing and operations; and software libraries. The Project Manager can create teams to build, test, and integrate each five subsystems: (1) CDH; (2) EPS; (3) ADS; (4) COM; and (5) PRT. The CSK includes an OLED Display that can be attached to the COM Module and with the proper code, data will be displayed on the screen.

“The CSK provides a great opportunity for students to work in a team environment to complete an aerospace engineering project. Student teams can be comprised of a project manager, quality and testing managers, and five subsystem teams. Students come together for the integration of the subsystems and testing of the CSK. I hope that the CSK will inspire future generations of engineers and scientist to pursue space innovation and exploration.”

Professor Bob Twiggs
Stanford University (retired)

“Students love the hands-on experience of building CanSats and their faces light up when data starts streaming on the LED panel and computer terminal. Incremental success builds their confidence and inspires them to tackle the next difficult challenge.”

Professor Garcia
Morehead State University

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