



StagWorks

TillySat

Design and produce an educational 1U CubeSat to demonstrate and operate fundamental aspects of satellite design. We will produce an educational model to provide hands-on experience in satellite design, software development, sensor measurements and integration with power production and management.

The final CubeSat will be based around the Raspberry Pi Zero 2W and will be fully solar powered and left to remotely operate from Tillingbourne ground station with a separate ground station in the EARS Radio Shack for real time telemetry and communications and data processing.

There will be payloads designed to operate onboard TillySat with the ability to add expansions boards and additional payloads over time.

This project is open to any student from any discipline and is an introduction to electronics and satellites and no previous experience is required.

Additional Information: Project Documentation throughout design and test phasing and the opportunity to keep a track of progression through a website blog for the project. All files will be open sourced and uploaded to our GitHub and made available on our website. We will also make posts on our social media accounts documenting progression and showcasing the final project.

Key roles: Mechanical Structures, Electronics Design, Power Management, Solar Cell Applications, PCB Design, Ground Station Operating, Satellite Communications, Documentation.

Skills: Teamwork, Communications, Delegation, Systems Engineering, Technical Writing, Software Development.