Mission Overview
- Develop and launch a 2U CubeSat into Low Earth Orbit (LEO)
- Execute research experiments in LEO for the payload: Variable Emissivity Device (VED)

COMMUNICATIONS
- Programming and installing an on-board transceiver system
- The transceiver consolidates all on-board data and packages for transmission.
- Ground station receives data and transmits commands to the satellite via a Software Defined Radio (SDR)

AVIONICS
- Utilizes a magnetorquer for attitude control
- Onboard computer runs with FreeRTOS on STM32 chip

PAYLOAD
- VED is a device that changes color and emissivity in response to varying voltage
- We want to test its performance in response to direct solar radiation

CONCLUSION
Future Improvement
- Begin work on plans to integrate VED into satellite
- Develop testbeds to demo software
- Improve deployment systems and conduct further testing

Impact
- VED experiment will hopefully lead to accessible methods of thermal management on future spacecraft
- Future generations of students to gain experience developing space systems