



Cube Your Enthusiasm

PROVES – Ember

Test Flight

November 29, 2021

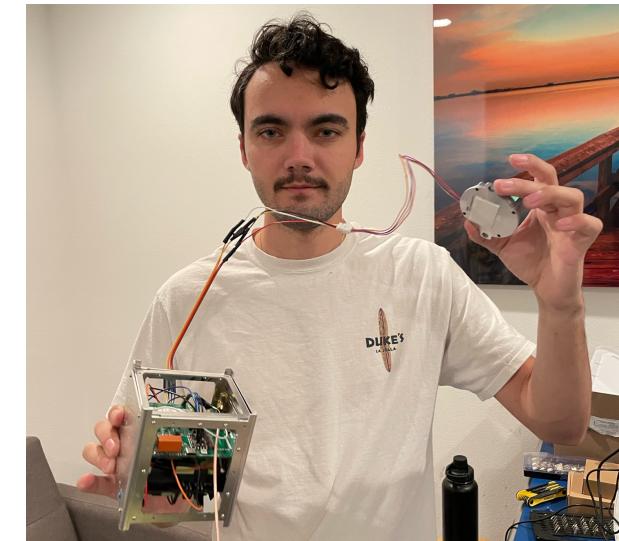
(6 Slides)

California State Polytechnic University, Pomona





Vehicle Configuration

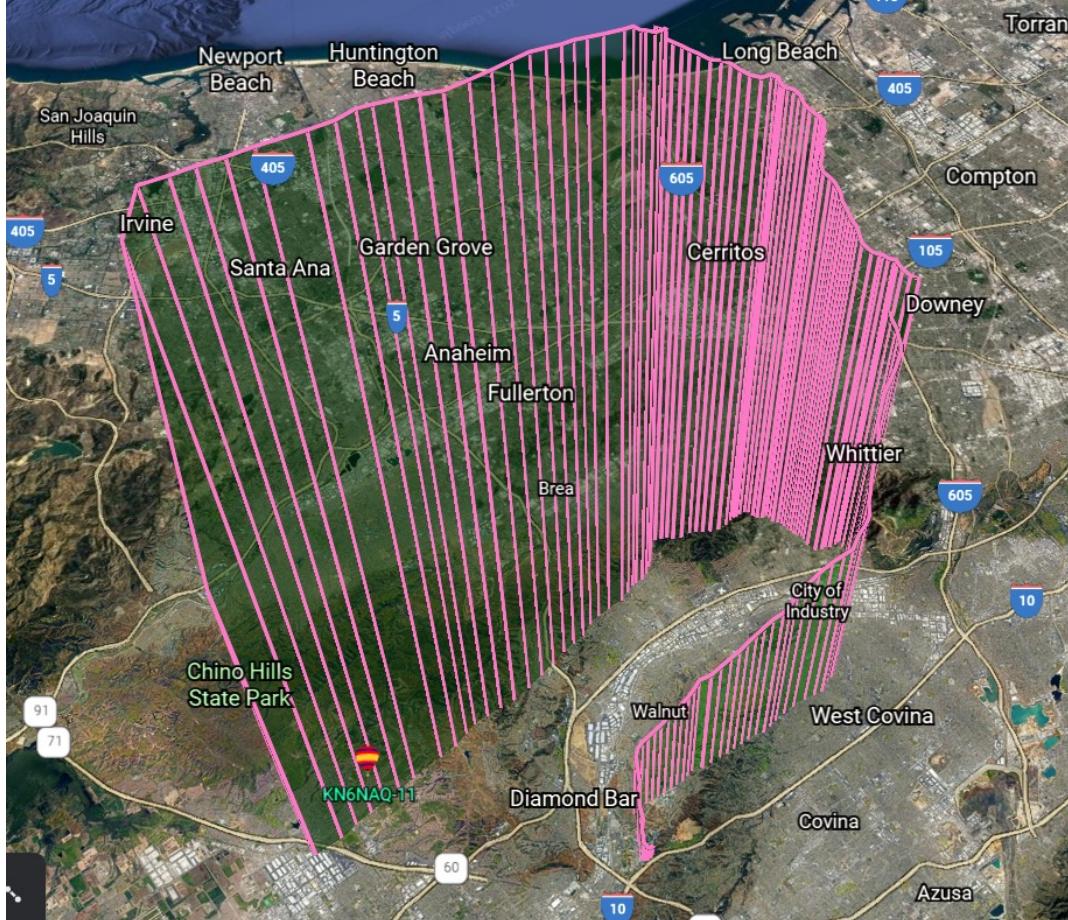


(Clockwise)

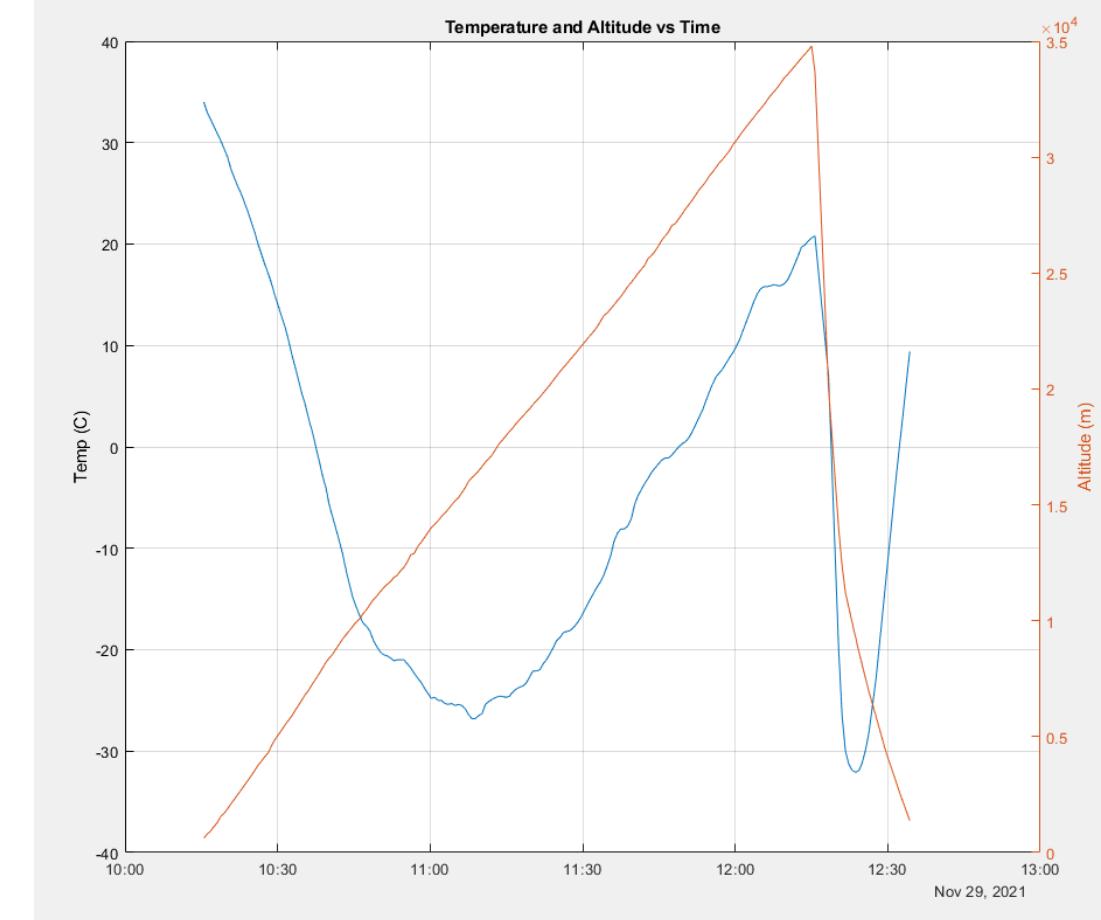
1. Cube Your Enthusiasm
2. PHAB
3. Ember Stepper
4. Yearling + Ember Stepper



Flight Profile



- Peak Alt: ~114,000ft
- Time of Flight ~2.5 Hours





Experiments

Experiment Name	Description	Result
Ember Stepper	Demonstration to validate the ability of the stepper motor selected for Bronco Ember to operate at high altitude.	Success
Wall-E	Probing of Co2 & TOVC concentrations at high altitudes. – Payload from ARO2311 class	Success
Cube	Collection of IMU meta data for the BLV. - Payload from ARO2311 class	Partial Failure (No data collected)
PROVES - Spresense	Demonstration of imaging capabilities using Sony Spresense.	Success
PROVES – Structure	Demonstration of PROVES developed structure.	Success
BLV LoRa Data Link	Test of data passthrough and tracking via LoRa for BLV.	Partial Failure (LoS After Launch)

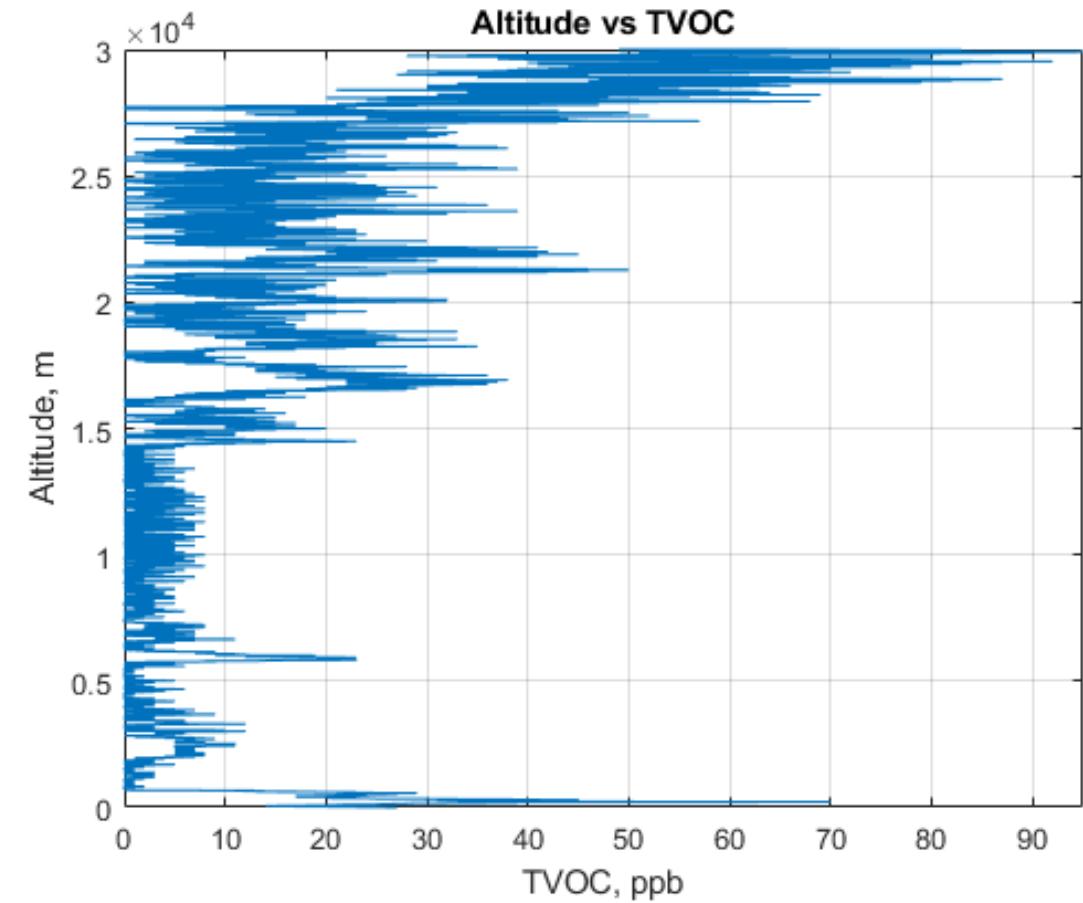
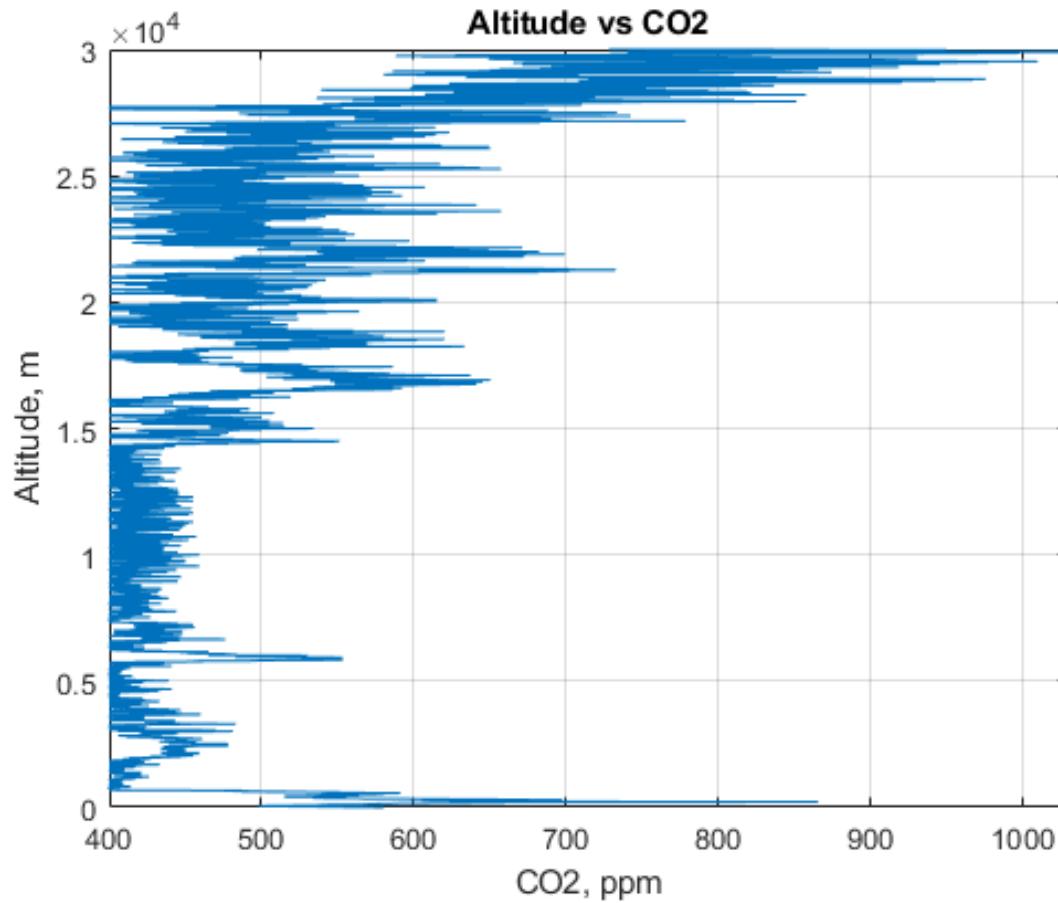


Ember Stepper Video





Wall-E





Sony Spresense Images





Sony Spresense Images





Sony Spresense Images

