



HOW DOES IT WORK?

- 4 pre-calibrated electrochemical sensors
- Sensors feed data to a Metro microcontroller board
- Each sensor outputs one reading every 60 seconds for PH₃, O₃, light, humidity, pressure, temperature, & NH₃/H₂S levels
- Information is processed by the Metro M4 and stored on a microSD card until retrieval and analysis

Above: mockup of the B.L.U.E.P.R.I.N.T.S. flight box circuit wiring

BIOSIGNATURE LEVELS: UNDERSTANDING EARTH PHOSPHINE RESEARCH IN THE NEARBY TROPOSPHERE AND STRATOSPHERE (B.L.U.E.P.R.I.N.T.S)



- SCHOOL: ASTRA NOVA SCHOOL
- LOCATION: RANCHO PALOS VERDES, CA
- FLIGHT PROVIDER: WORLD VIEW
- GRADES: MIDDLE SCHOOL

STUDENT EXPERIMENT DESCRIPTION

Our experiment collects data on phosphine levels in the stratosphere to better understand phosphine gas on Earth. Our experiment will detect 3 additional trace gases and include a pressure sensor (barometer), a temperature sensor, and a light intensity detector. This will enable us to compare the measurements gleaned from these components with our trace gas measurements to determine whether any relationships can be found between these variables.