Slushosphere

Making slushies in the stratosphere

Project Code

Arduino sketch

Recorded several data points from MKR boards including temperature, altitude, location, and more

Jupyter notebook

Used to process the recorded data points from CSV to a human-readable visualization

Resource files

List of resources used and files to be able to reproduce the project along with useful research

RyanLua/slushosphere

Materials List

Arduino MKR WIFI 1010

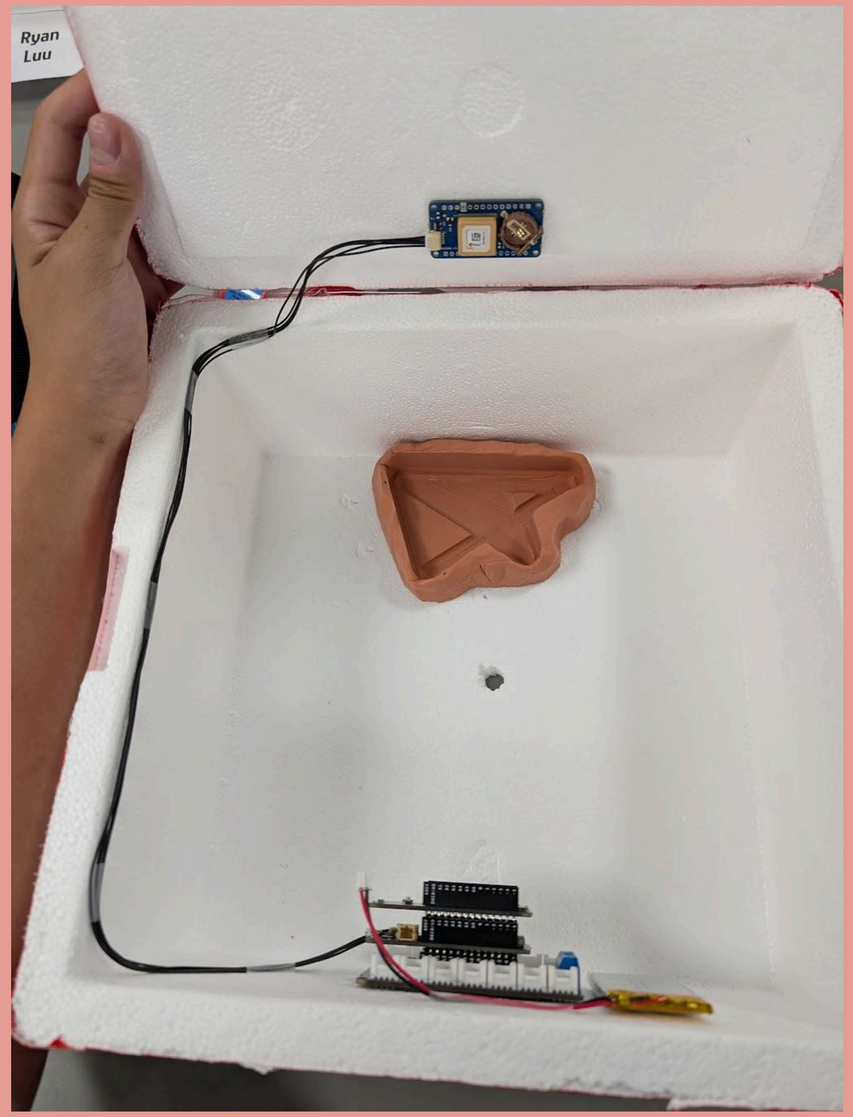
Manages calculations and communications

Arduino MKR GPS Shield

Provides exact coordinates (latitude and longitude) as well as altitude data

ARDUINO MKR Enviromental Shield rev2

Provides environmental sensors to measure temperature, humidity, light/ UV levels, and pressure



Contributors

Ryan Luu

- Primary programmer for Arduino and data analysis
- Created and documented project in GitHub
- Lead for team members and organized tasks and materials

Chioma Ononuju

- Secondary programmer for Arduino and data analysis
- Researched information about pressure/temperature's affects on liquids
- Created the special higher-density Koolaid mixture

Armaan Bal

- Learned Fritzing and created some circuitry models
- Researched and applied pressure/temperature equations with PVnRT and Clausius Clapeyron
- Created a mold based on the APEX master mold and sealed it