JAKE NOT FOUND

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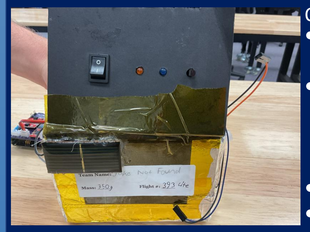
Introduction

Our Mission:

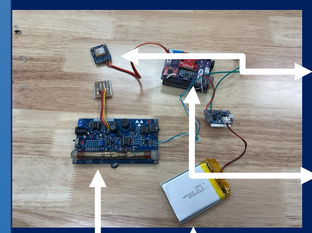
- *Jake Not Found* worked on the past innovations of the groups before them to build towards a new and improved goal.
- In previous years other groups from our have just worked with the base payload kit that was provided to everyone.
- Our team members worked on our own PCB that ran most of the sensors in the main kit. We also added a geiger counter to our project. The only thing outside of the Arduino/PCB was the Geiger counter.
- The data from all of the sensors was collected by the SD card for the entire flight.

Structure of the Payload



Outside of the Payload

- The lid contains the ON/OFF switch for the entire box.
- It also has the LEDS, the blue led is linked to the Geiger counter's output, the orange LED is link to the GPS and the start of the Arduino.
- The tube is for the flight string.
- The final thing on the lid was the outside Temp sensor.

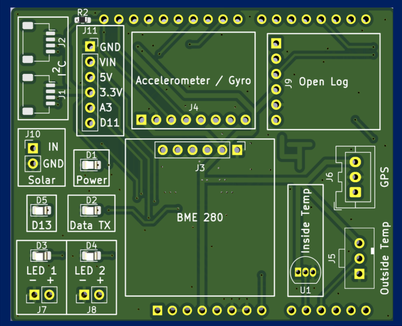


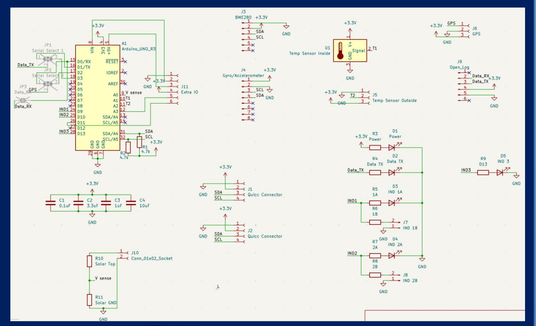
Inside the Box

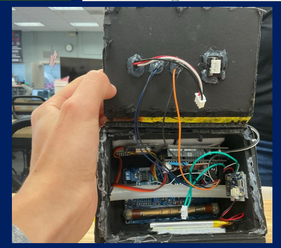
- On the left side of the payload it contains the GPS and under the GPS it's the capacitors for the Geiger counter.
- On the right it's the Arduino PCB board. On the board it contains the inside temp sensor, Temp sensor board (BME280) which has temp, pressure, and humidity. Next to the Temp Board is the LED connection points. Under the temp sensor board is the OPEN LOG, and the connection to the Geiger counter and the power.
- The battery we used was a LIPO battery which is on the west wall.
- On the bottom of the payload is the Geiger counter, filled with resistors and capacitors. The orange tube is the radiation sensor.

[Title]

These photos are of the PCB schematic and design.



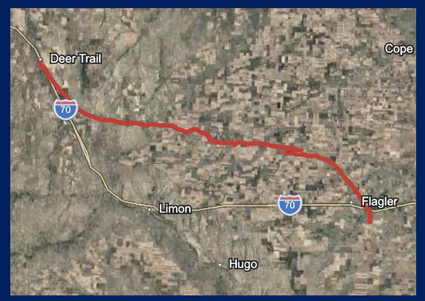


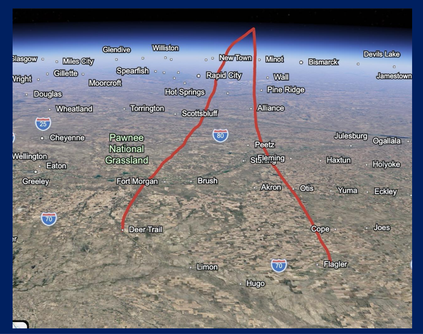


Our payload post launch

MAP

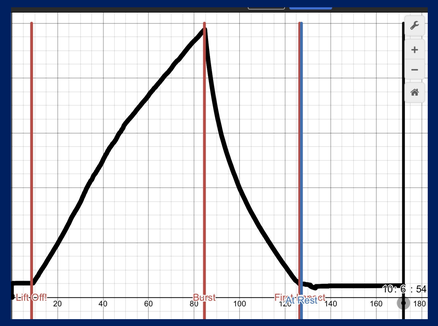
This is the map – on google earth- of the entire trip of the payload.





DATA

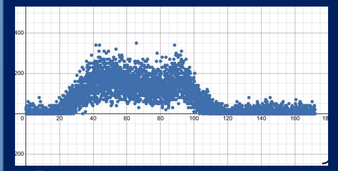
Altitude Graft



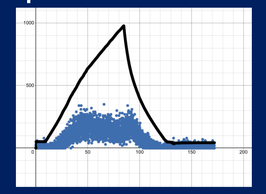
- This is the graph of the entire flight
- Each colored line is an important point on the flight.

DATA

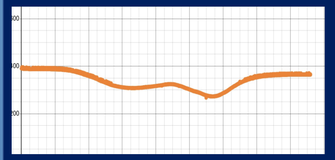
Radiation

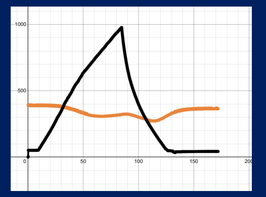


Compared to Altitude

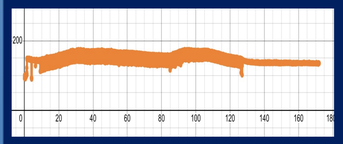


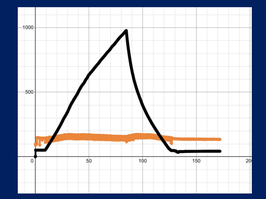
Battery



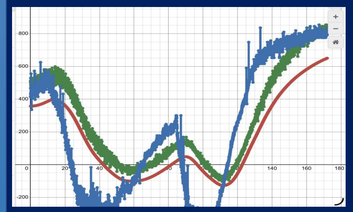


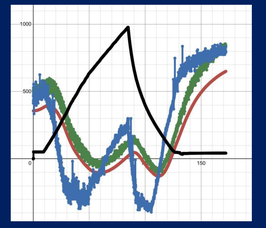
Solar



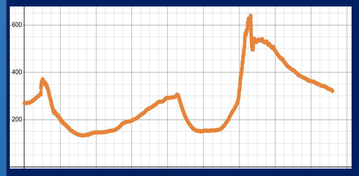


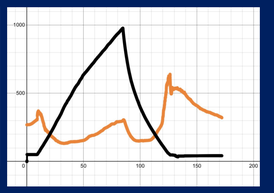
Temperatures(in/out)





Humidity





Pressure