

# Moscow High School – Near Space Engineering Class



## What is Near Space Engineering?

We are students that are part of a dual enrollment class offered at Moscow High School through a partnership at the University of Idaho. We design experimental modules to collect data on a variety of interest and send them up to near space conditions (~90,000 ft) on a weather balloon.

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**University of Idaho**  
College of Engineering





## What operations do we perform?

- We design, fabricate, and perform experiments over a variety of fields of scientific study in near space conditions above 99.9% of the atmosphere.
- We track the experiments using gps and ham radio equipment.
- We normally conduct two launches a year.

## Previous Experiments have been;

Comparison of visible and IR ground photos  
O2 levels vs altitude  
CO2 levels vs altitude  
Solar cell performance vs altitude  
Protein Denaturing due to radiation vs altitude  
Cancer cell viability due to radiation vs altitude  
Air sampling vs altitude (microbial comparison)  
Electric heating of module  
Cut down system  
Green Bean Viability after near space exposure  
Effect of cosmic radiation on high speed film  
Magnetic field variation with altitude  
Effect of Near-Space Conditions on *Saccharomyces cerevisiae*  
Roachonauts  
Polymer material science

