

**Hobart High School**

**PLTW High Altitude Balloon Project**



**Instructor:**  
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**Class:**  
**Engineering Design and Development**

**Press Release:**  
**For Immediate Release**

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**High Altitude Balloon Project**

***Hobart, Indiana, United States - November 16th, 2015*** - Senior high school students, attending Hobart High School, will be undertaking a high altitude balloon project. The high altitude balloon project is an enterprise including the launch of a balloon into space with video footage. Locally no other school has attempted this project to our knowledge, making this an outstanding accomplishment and story.

“I want us to send a high altitude balloon to an altitude of close to 100,00 ft, record the trip and then most importantly track the balloon and retrieve it.” This was the stated on the first day of the project by: Mr. Brent Vermeulen (Engineering/Technology Instructor).

The tasks completed throughout the project include: finding suitable information for; weather conditions, protection, legality, power/batteries, tracking, and the specifications for the launch. The project was initiated on August 31st, and will approximately end on Nov. 12th; essentially a 10 week project. The weather balloon will be lifted by Helium, the recording device will be a GoPro Hero 3, and the estimated conditions at said height will reach roughly 70 degrees Fahrenheit below zero. Tracking will be monitored by GPS, the power solution consist of using Lithium based products, and the subjects applied are subject such as: mathematics, physics, chemistry and all STEM branches.

The estimated total for the project is approximately \$1,400.59 sponsored by the Hobart Educational Foundation. However, only some of the materials need to be replaced. The two main components that will have to be replaced will be the balloon and the helium. After the completion of this project, most materials are still functional and preserved. This allows classes in the future to perform the same experiment with minimal amount of replaced resources. With the resources having the capability to be reused, following years can improve the measurements and the performance of the project with additional expenditures from the money saved not having to buy items like: cameras, paracord, parachutes, and battery packs. In conclusion, this project presents a rigorous task for students that are currently enrolled in engineering design and development, as well as aspiring (STEM) science, technology, engineering, and mathematic students.