

## Plan Overview

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*A Data Management Plan created using DMPTool*

**Title:** Maximum Achievable Heights of Various Party Balloons in Various Weather Conditions

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## Maximum Achievable Heights of Various Party Balloons in Various Weather Conditions

This project will work to generate reliable data for predicting the maximum achievable altitude of widely available party balloons under various weather conditions. Expected data will include:

- type of balloon (rubber, latex, plastic, silicon)
- shape of balloon (round, orb, globe, animal, letters, numbers, etc.)
- gas used to fill balloon (helium, hydrogen)
- square volume of balloon (in cm<sup>3</sup>)
- global coordinates of release of balloon
- speed of ascension of balloon (meters per second)
- maximum height reached of balloon
- maximum distance traveled of balloon
- and total time spent in flight of balloon.

Data will be captured with PI's logging all relevant ground data, and onboard sensors monitoring all flight data.

Data will be collected into .odt and .rtf formats to preserve openness but also available in a .xls format for those with access to spreadsheet programs. Files will have simple XML metadata descriptors for their online locations, so that finding the data will be easier.

Download of data will be freely available for everyone via GitHub. Other researchers will have the ability to upload their own data if they are conducting their own party balloon experiments and adhering to our strict standards. Any uploaded data will be reviewed by the principal PI.

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Data will be archived on triple redundant backup SSD hardisks that will be launched into cryostasis in the upper atmosphere attached to a computer shaped party balloon.

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