

Nick Dreyfus  
Harley App  
Patrick Keating  
Kevin Deweese  
Adrian Jauregui

# Z3RO

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Nick "Sunshine" Dreyfus  
Harley "Stick Figure" App  
Patrick "Hobo" Keating  
Kevin "Blue Eyes" Deweese  
Adrian "Baller" Jauregui

## "Procedure"

This is what we will be using as a checklist for balloon fest.

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BF-P  
Balloon Fest Test Procedure  
Z3RO

We will start the procedure by filling our balloon with helium until it reaches about seven feet in diameter. In this way, we will ensure that we have enough helium to lift the amount of weight that we add on to the balloon. Then, we will activate the electric equipment and set it to the proper setting. We will use the Barometer to record the pressure at the different intervals of 200 feet and we will use the Lab Pro record the data received from the Barometer in KPa. When the light on the Lab Pro turns yellow, we will know that the program is up and running and that we can begin. We will reel the cord steadily and supportively to keep control of the balloon. As the balloon makes its ascent, we will record the time it takes to reach each 200 foot interval.

## **Before Arrival:**

- 🌀 **Give assignments to teammates day before arrival**
- 🌀 **Review list of equipment**
- 🌀 **If possible, e-mail teammates to be certain they are bringing required equipment**
- 🌀 **Leave early enough to give us spare time**

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## **Station:**

- 🕒 **Arrive at Tobin James Cellars at 7:00 am**
- 🕒 **sign in and find team mates and partner group**
- 🕒 **find spot for station**
- 🕒 **set up station #6**
- 🕒 **make sure all equipment is present and working (use a check list)**
- 🕒 **secure a power conduit to enable the Lab Pro to work**
- 🕒 **have data logs present to record changes in environment**
- 🕒 **review the procedure doc. before launch**

## **Pre-Launch:**

- 🕒 **plug in all electronic equipment**
- 🕒 **secure a helium tank and adjust it to proper PSI level**
- 🕒 **recheck docs. and check list**
- 🕒 **log significant environmental changes( wind change, presence of sun)  
throughout the development of the experiment**
- 🕒 **adjust helium tank to proper PSI level before balloon inflation**
- 🕒 **fill balloon with enough helium until it lifts ½ kilos of excess weight  
(can test with a bag/box of sand)**
- 🕒 **connect Lab Pro equipment to laptop and open Logger Pro**
- 🕒 **hook up the cable and one-way valve to the balloon**

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## **Launch:**

- 🌀 **steadily unravel cable in a figure eight pattern**
- 🌀 **keep control of the balloon by steadily and supportively unreeling the cord**
- 🌀 **tie off the string with a marker ribbon at intervals of 100 feet**
- 🌀 **reel in the balloon and ravel the cable into the figure eight pattern**
- 🌀 **connect the barometer to the one-way valve and the laptop**
- 🌀 **start recording and graphing pressure data**
- 🌀 **use Logger Pro to graph results**
- 🌀 **record any significant environmental changes**
- 🌀 **record 3 complete sets of data by 11:30 am**

## **Analysis:**

- 🌀 **review procedure doc. and begin updating Power Point Presentation**
- 🌀 **graph data results using Logger Pro**
- 🌀 **state if our hypothesis was correct**
- 🌀 **update any docs that lack sufficient data results from before the launch took place**
- 🌀 **compare each data set and observe their differences**
- 🌀 **record any problems that occurred and include them in presentation**
- 🌀 **find ways to improve the faults and include them in report**
- 🌀 **prepare speech and assign parts to teammates**

## **Presentation:**

- 🌀 **review all docs**
- 🌀 **review prepared speech**

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- 🕒 **make sure every teammate is participating in the presentation and has something to say**
- 🕒 **if any teammate had to leave cover for them and split their work among the other members.**
- 🕒 **Turn in all docs, stapled into a packet**