

 PROJECT #1 PROPOSAL

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**Team Name: Sky-High**

**Part A: Project Ideas & Objective**

* **Continue progress on high altitude balloon**
* **Familiarize ourselves with equipment necessary (raspberry pi, Spot Gen3, Gopro, 360Fly)**
* **Ensure safe and successful flight/landing**
* **Create potential landing device (Testing)**
* **Possible live-feed video (Livestream for Public Viewing Mid-flight)**
* **Reinforce box and technology**
* **Monitor Weather / Create temperature protection for cameras/Technology**
* **Organize launch party at school**
* **Monitor Flight prediction website**
* **Organize date, launch and pick-up**
* **Create Presentation about results, progress and observations**
* **Analyze data and prepare for future launch**

**Part B: Electronic Resources (Make sure hyperlinks are active!)**

Flight Predictor- <http://predict.habhub.org/>

Rothesay Launch- <http://rhsspaceflight.wikispaces.com/home>

Jacob Lingley's Launch:  <https://www.youtube.com/watch?v=PK6ics2CnvA>

Parachute**:**[https://www.youtube.com/watch?v=q9qDvb6KPJc&feature=youtu.be(link is external)](https://www.youtube.com/watch?v=q9qDvb6KPJc&feature=youtu.be)

Helium Calculator:[http://tools.highaltitudescience.com/#](http://tools.highaltitudescience.com/)

GoPro- <https://shop.gopro.com/International/Experience>

Raspberry Pi- <https://www.raspberrypi.org/>

Spot Gen3- <https://www.findmespot.ca/en/index.php?cid=100>

360Fly- <https://www.360fly.com/>

Balloon Challenge- <https://www.balloonchallenge.org/tutorials>

High Altitude Balloon Website- <http://ourhabproject.com/where-to-start/>

Safety- <https://space.stackexchange.com/questions/2213/what-are-the-risks-involved-in-amateur-high-altitude-ballooning-and-how-can-we>

**Part C: Materials & Designs**

* Parachute
* Styrofoam Case with GoPro Session Mount/Tether
* GoPro Hero 3 Black
* GoPro Hero Session
* 360 Fly
* Protective Case for 360Fly
* Raspberry Pi 3/Sense Hat/Case
* 20000 mAh Power Pack
* Spot Gen 3 GPS
* 2 Cables
* 2 Carabiners
* Tarp
* Helium
* Balloon