

## Testing the Effect of temperature

### Description of problem

The payload must operate effectively at the temperatures experienced during the balloon flight.

### Activity

In this activity you will place the CubeSat in a freezer. Please wear gloves during the removal of the CubeSat from the freezer and while testing.

#### Camera

1. If this has not been done in previous activities, run the camera in video mode for 5 minutes and save the file as reference for comparison.
2. Turn on the camera.
3. Turn on the electronics
4. Place the CubeSat in the freezer for 2 hours.
5. Take 5 minutes of video
6. Compare the video with the video taken before the testing.
7. Did the camera work appropriately?
8. Are there any differences in the quality of the video in the two cases?

#### Electronics and batteries

1. As soon as the GPS is removed from the freezer, turn it on and run for 5 minutes.
2. Download the data file as per previous instructions and import into Excel.
3. Has the data recorded successfully for the full 2 hours?

### Conclusions

Present your findings and recommendations on the functioning of the CubeSat under operational mission conditions.

Note: Please make sure that your batteries are fully charged prior to the balloon launch in September.