

HIBAL Progress Report

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Overview

- Completed Tasks
- Tasks in Progress
- Next Flight
- Overheating Issues
- Balloon Cut Down Revisited
- ATV Demonstration
- Summary

Completed Tasks

- Purchased video transmitter
- Made heat sinks
- Transmitted first signal
- Tested GPS overlay board
- Built antenna
- Built balloon cut down
- Purchased battery for transmitter

Tasks in Progress

- Vacuum, cold and long range test transmitter
- Fix antenna design issues
- Replace or fix cameras
- Solve DVR issues
- Develop three camera system
- Build in-flight data recorders

Next Flight

- Schedule for December 6, 2008
- Test balloon cut down system
- Record temperatures inside and outside package
- Test functionality of heat sink in near-space environment
- Refine launch method and procedures

Overheating Issues

- Heat sinks are based off of convection
- At high altitude's radiation is the major heat dissipation method
- We have built a dummy load
- Sensors will be attached
- Thermo analysis will be done by ME's
- Possible Anodization

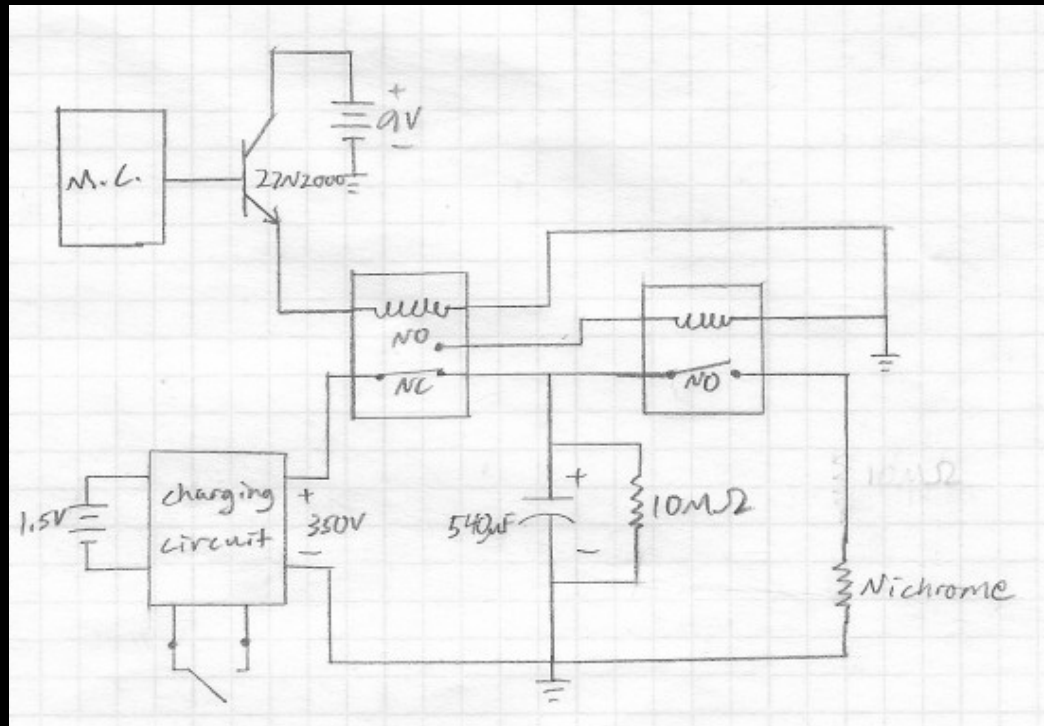
Balloon Cut-Down Revisited

- Two independent cut-down systems are required, we are testing three
- Emergency cut down using DTMF board
- Altitude Triggered
- Capacitor Circuit

DTMF & Altitude Controlled

- Schematic Will go here

Capacitor Circuit



ATV Demonstration

In class demonstration will occur

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