

# Tualatin DIME Experiment

Spring 2006

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# What is DIME

- DIME is a NASA competition program which allows teams to design and build a science experiment which will then be operated in a NASA microgravity drop tower facility.
- Early in the school year, teams interested in competing will develop an experiment concept, prepare a proposal for an experiment, and submit the proposal to NASA. A NASA panel evaluates all of the submitted proposals and select the four top-ranked proposals.

# Glenn Research Center



DIME Research Center Cleveland, Ohio

# DIME 2005

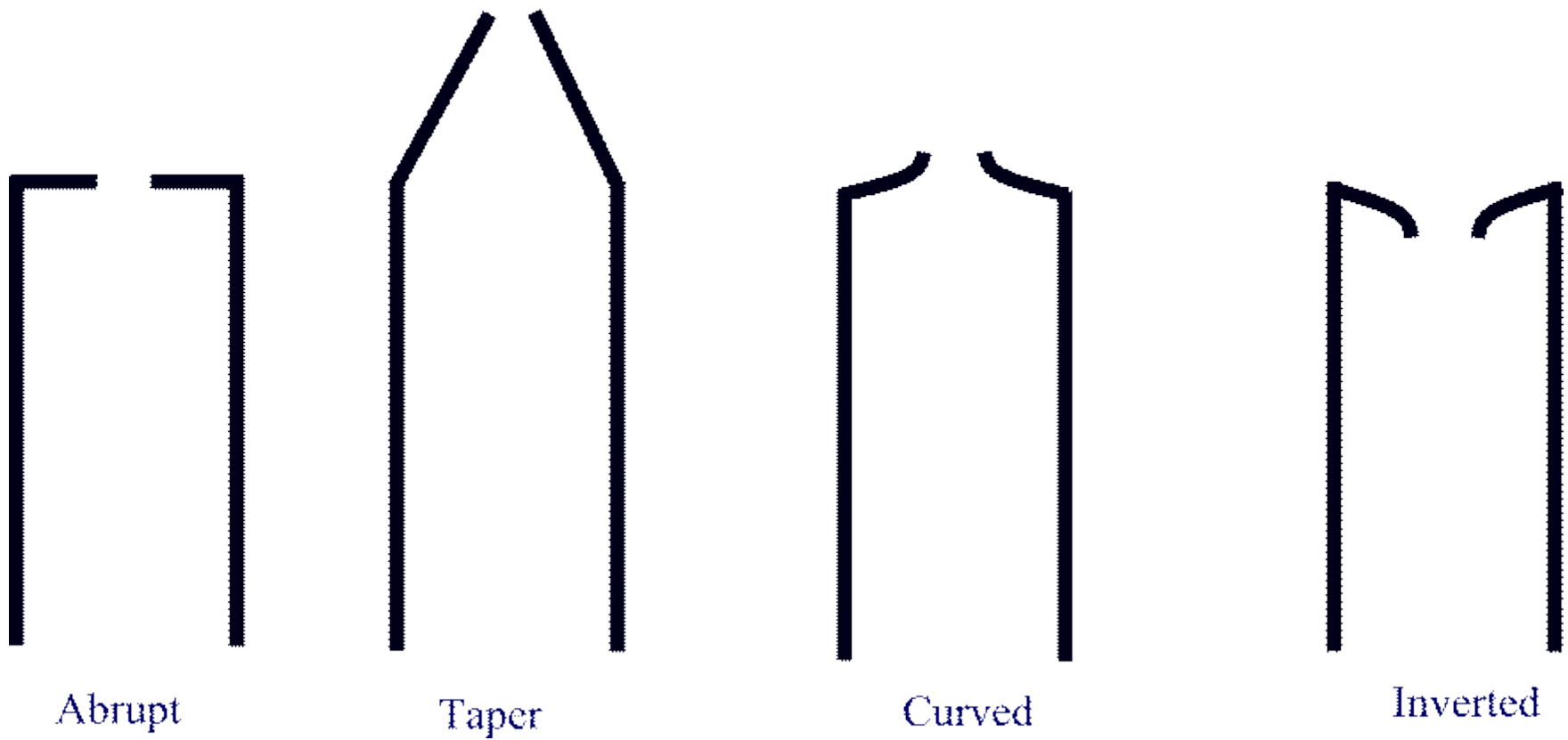
- Four students from Tualatin High School were selected to compete in Cleveland, Ohio. Funds for their trip were provided by NASA
- This year we do not have the funds due to internal constraints with the DIME project.

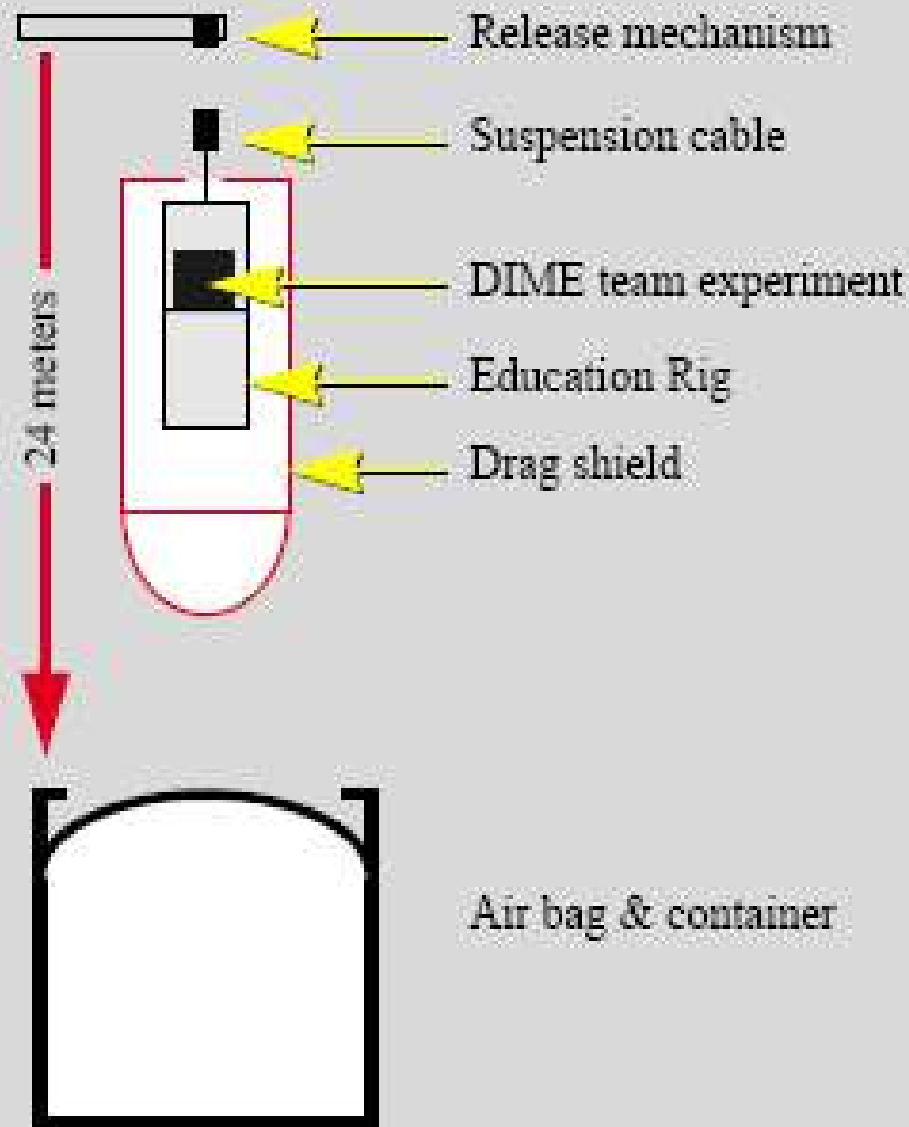
# Nature of Experiment

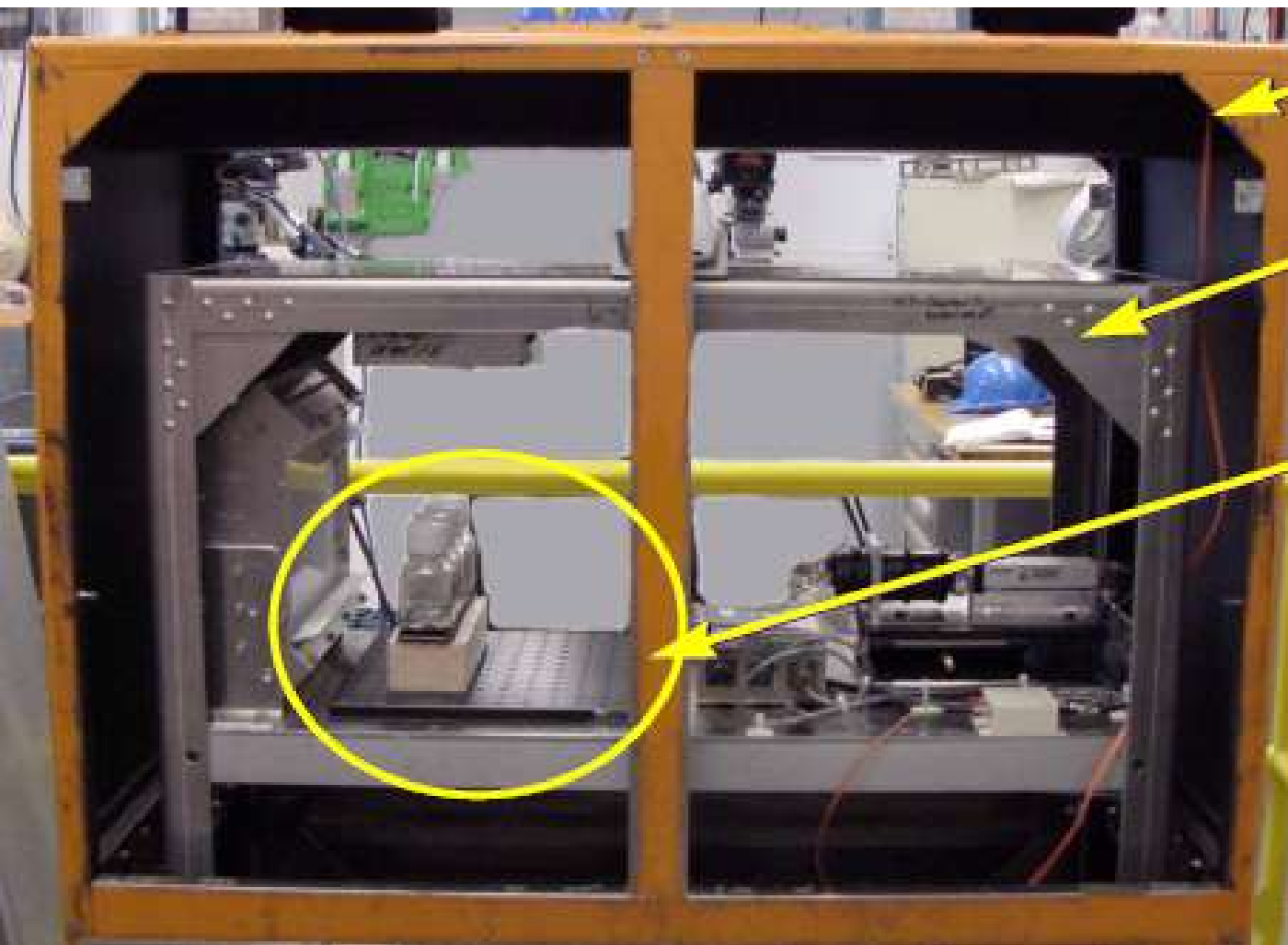
- Microgravity is an environment in which there is very little net gravitational force, as of a free-falling object, an orbit, or interstellar space.
- We plan to study microgravity's effect on capillary action.

## Tube tip design concepts

Figure 5







Drag shield

Education Rig

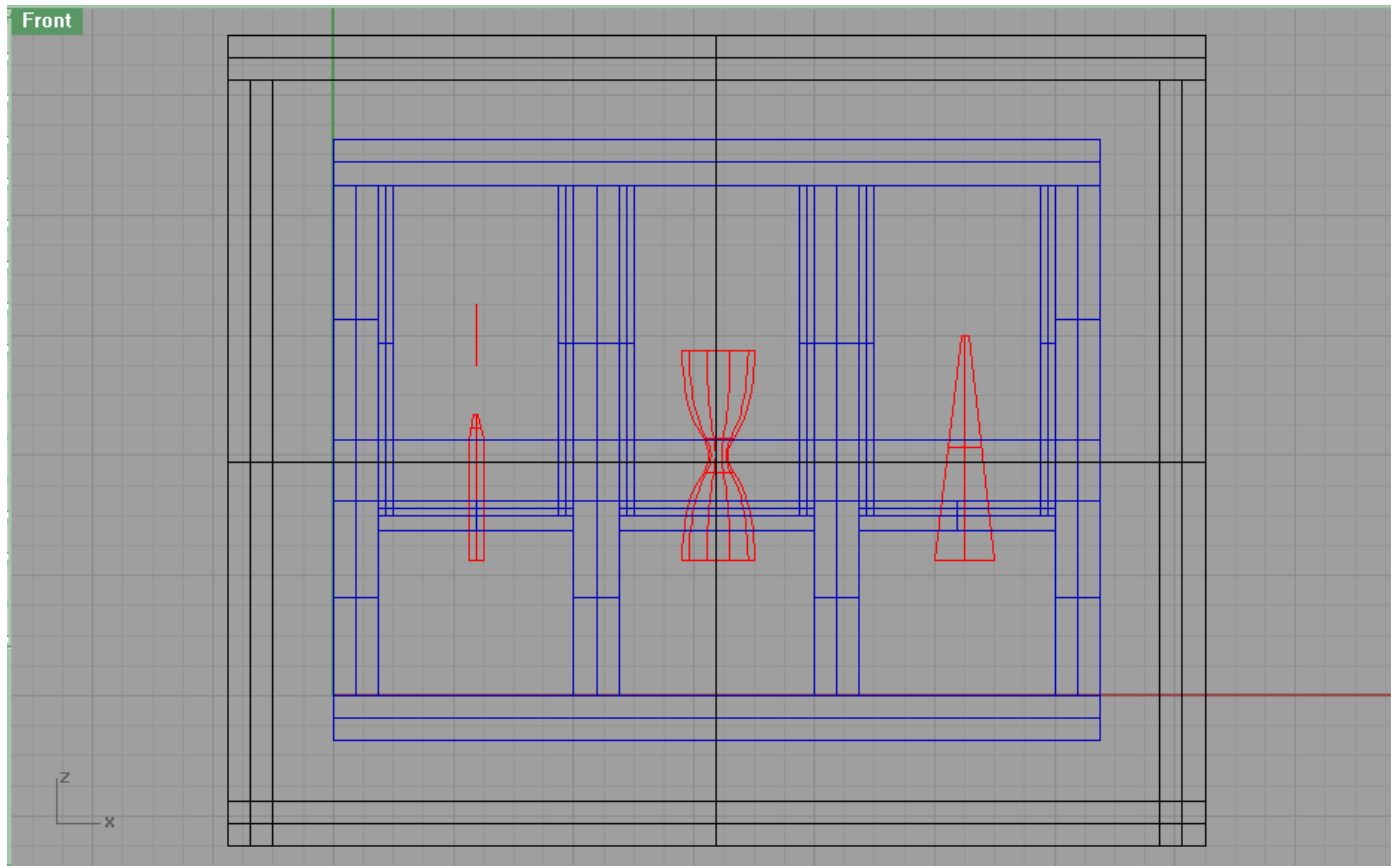
Student experiment

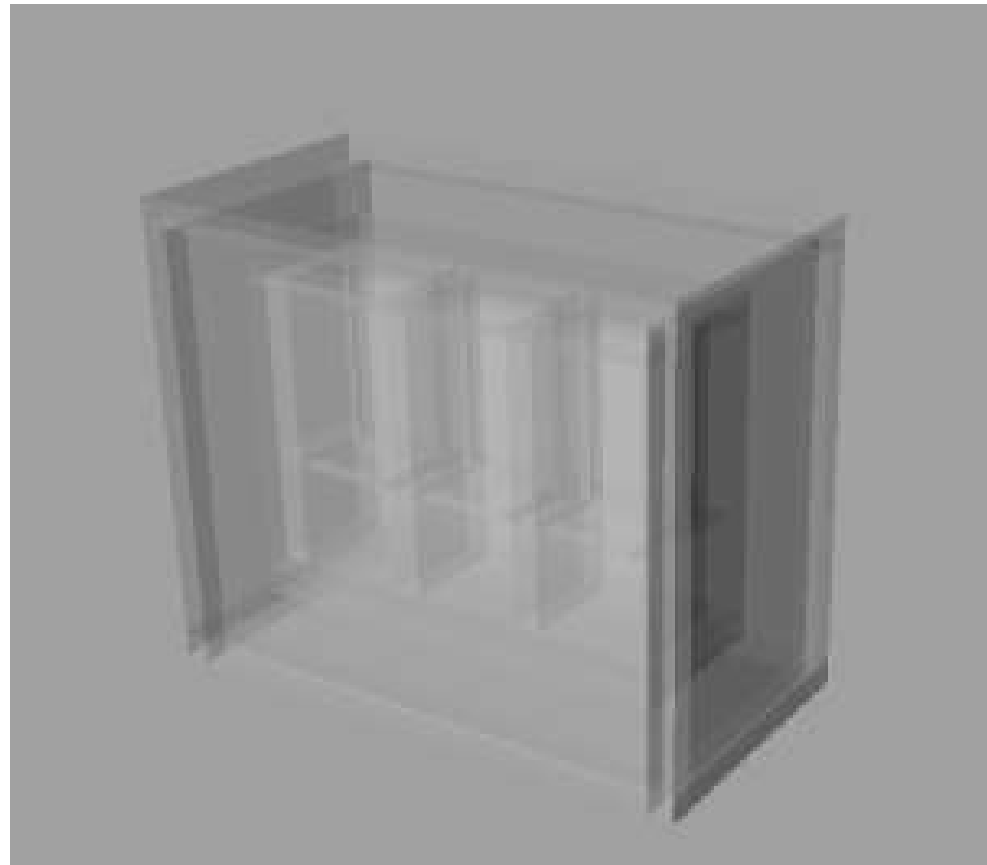


# Proposal

- Our main objective is to determine whether tube shape affects capillary action in microgravity.
- A benefit from this experiment would be to increase our understanding of the dynamics of fluids. Perhaps airborne droplets can be used as a form of fluid transport for packaging small amounts of liquid, or for combustion.

Front





# We need money

Since we will be receiving no funding from NASA, we are required to provide our own funding.

# Projected expenses

- Lodging--\$870 (\$90 per room)
- Air Fare for 5 to Cleveland—\$2,250
- Food and supplies for four days--\$560
- Van rental for four days--\$260
- Fabrication of experiment--\$350
- Supplies for the experiment--\$220
- Fulfilling the dream of 4 high school students: priceless
- **Total-----\$4,450 + priceless**

# Our vision

- We feel that being accepted into this program affects more than the members of this team. As representatives from the state of Oregon, we feel it is our duty to show the caliber of student that comes from Northwest. It would be our hope that our participation in this competition would influence others students from this state to broaden their horizons.