# sketch-based authoring of improvisational visualizations
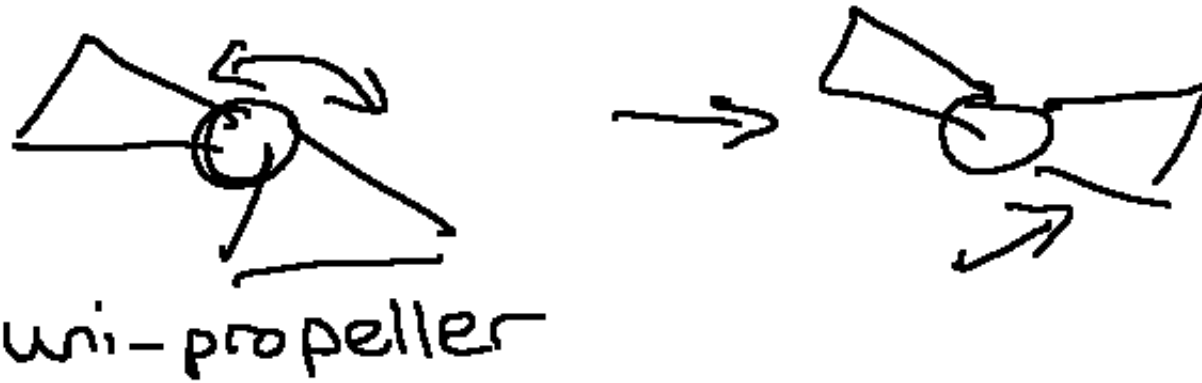
*William O. Chao – Nov. 18, 2009*

# motivation

"napkin sketch visualizations"

# Proposed Solution

- interface to protovis back-end

- web application for easy access

- entirely pen-centric

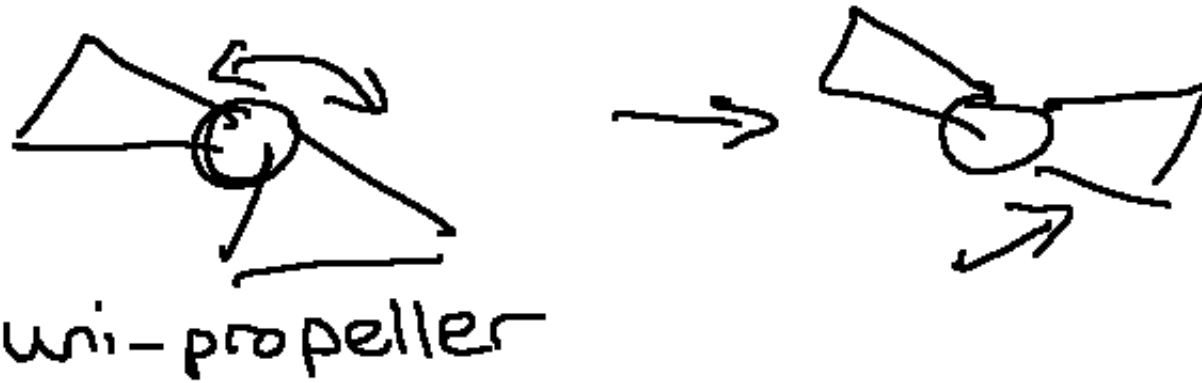- focus on area and wedge-based visualizations for project

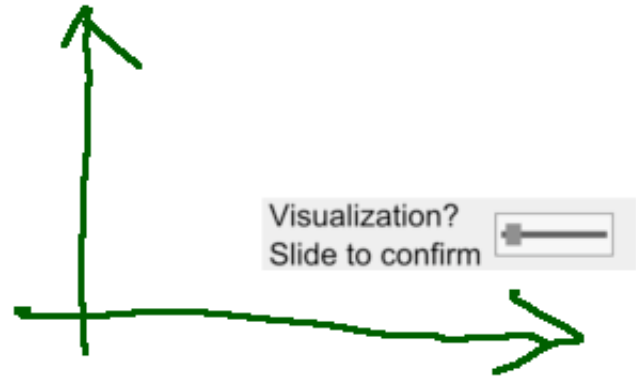what will it *(hopefully)* look like?

# Sample research idea
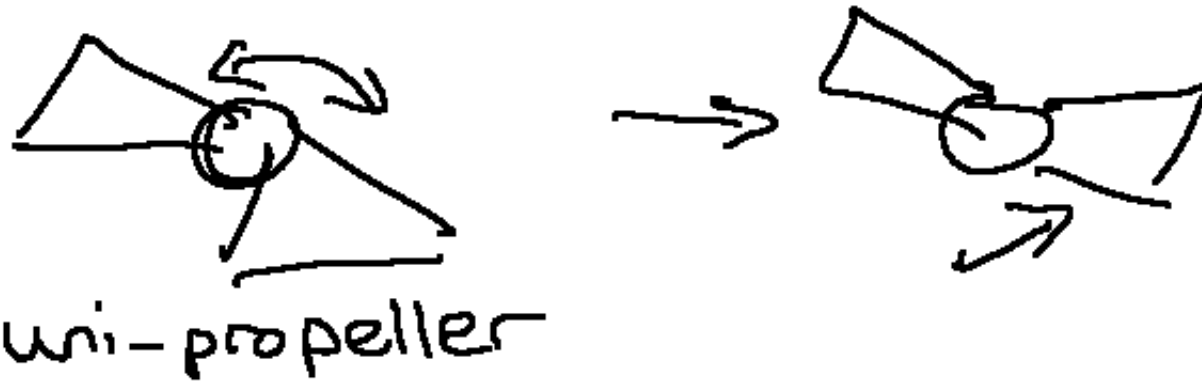


uni-propeller

initial research:
    stress points.xls

# Sample research idea



uni-propeller

initial research:
   stress points.xls

Visualization?
Slide to confirm

# Sample research idea
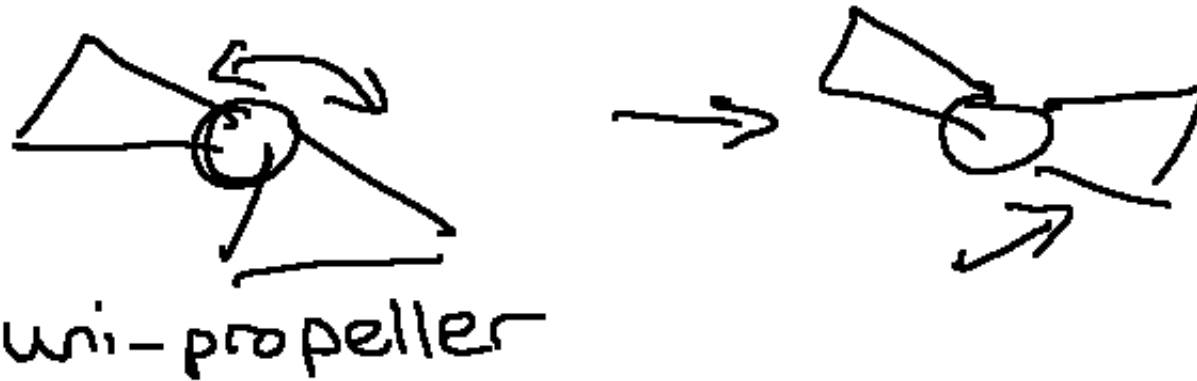
uni-propeller

initial research:
⭐ stress points.xls

  + Time
  + Force Stress
  + Acceleration
  + Data Point ID

# Sample research idea



uni-propeller

initial research:
⭐ stress points.xls

+ Time
+ Force Stress
+ Acceleration
+ Data Point ID



Wedge?
Slide to confirm
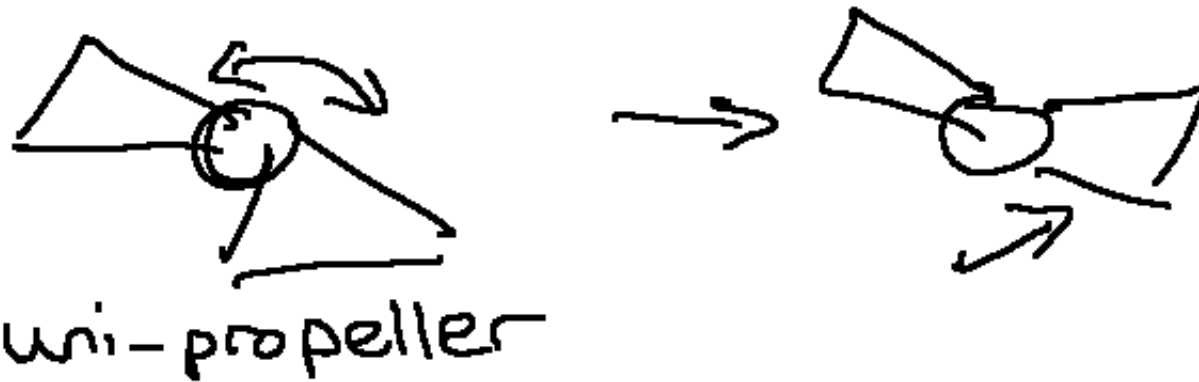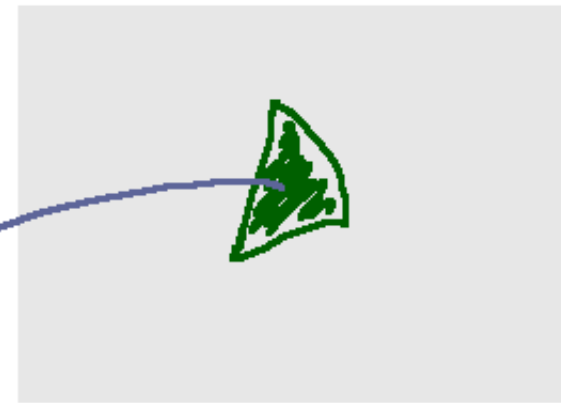
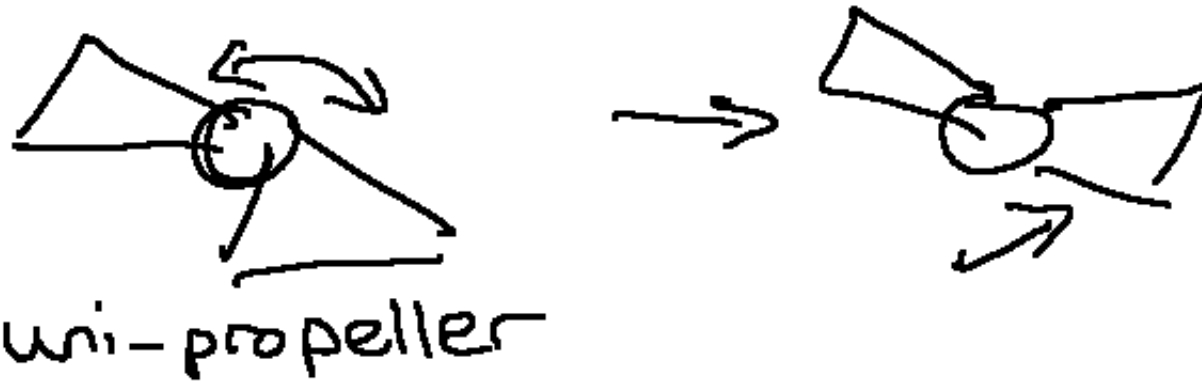# Sample research idea



uni-propeller

initial research:
⭐ stress points.xls

+ Time
+ Force Stress
+ Acceleration
+ Data Point ID

<50N

# Sample research idea



uni-propeller

initial research:
⭐ stress points.xls

+ Time
+ Force Stress
+ Acceleration
+ Data Point ID

<50N

# Completed Milestones (60% overall)

- learned protovis, javascript, CSS, SVG, and <canvas>

- determined basic interactions

- ported basic gesture recognition to javascript

- programmed a drawing application

- can produce empty visualizations at arbitrary locations (non-trivial to figure out!)

- others

# Minimum Outcomes

- Given imported data, produce a visualization in under 10 seconds

- Be able to quickly create the following

  - Area graph

  - Stacked area graph

  - Layered area graph

  - Pie chart

  - Doughnut chart

- Feel free to ask me for my "target" and "extreme" outcomes

thank you and good luck!