



# Robotics Traveling Van



A 3D rendered red van is shown from a side profile, parked on a dark grey road. The van's roof is loaded with several items: a stack of books, a blue rectangular object, and a brown box. Behind the van, two stylized green trees with rounded canopies stand against a light blue sky. The foreground features a light blue ground with small tufts of green grass. A thin white horizontal line is positioned below the van.

# The Team



Kyle Draper  
Team Lead



Andy Babcock  
Team Member



Kaden Zaremba  
Team Member

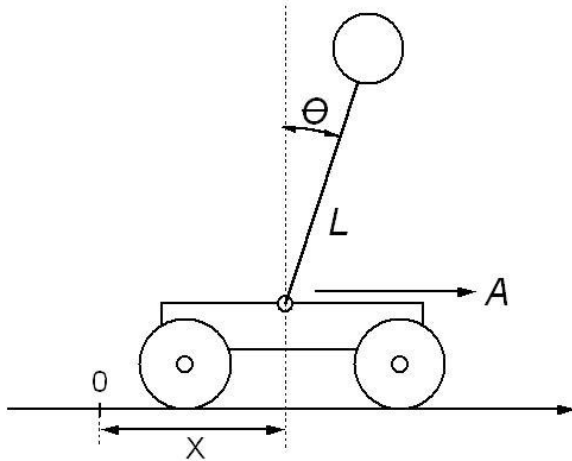


David Jimenez  
Team Member

# Introduction: Robotics Traveling Van

## Pendulum Balancing Robot

- Must be interactive and kid friendly
- Balance a rod on top of robot



## Interactive Robot of Choice

- Air Hockey Robot
- Ping Pong Robot
- Line Following Robot

# Project Goals

- Build two physics robots
- Make a robot that is exciting for K-12 students to learn both about robotics and physics
  - With an interactive display
- Be able to demonstrate controls in action



# Constraints

- Each unit must cost under \$150
- Be able to mass produce – up to 100 units each
- Must survive a fall from a table onto concrete
- Follow CPSC guidelines for children's toys
- Fits on small school desks (~1 foot square)
- Battery powered
- \$5000 budget (\$1500 for prototype)



# Timeline

- Week 3: First meeting with Capstone group and GTA
- Weeks 4-7: Choose parts and write code
- Week 8: Finish pendulum prototype
- Week 15: Finish interactive prototype



# The End

- Any questions?