



# CDR Presentation

---

Team Melon: Wind Sensor



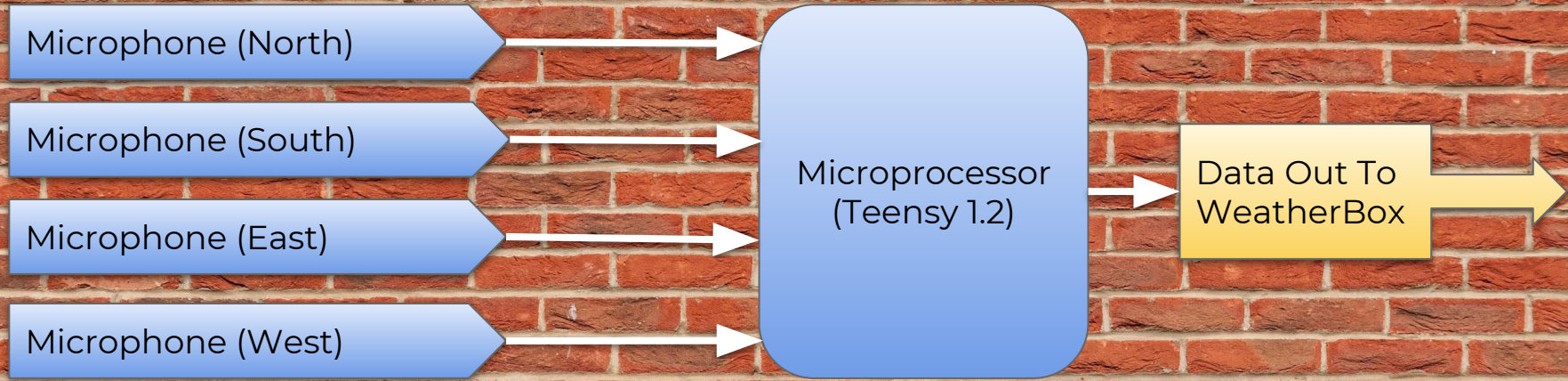
# Overview

- Block Diagram
- Power Budget
- Wind Tunnel Design
- Progress
- Problems
- Gantt Chart
- Future Tasks
- Closing





# Block Diagram | Acoustic Sensor



# Power Budget

Current Draw: 24  $\mu\text{A}$

Voltage Supplied: 3.3 V

Power per Microphone: 79.2  $\mu\text{W}$

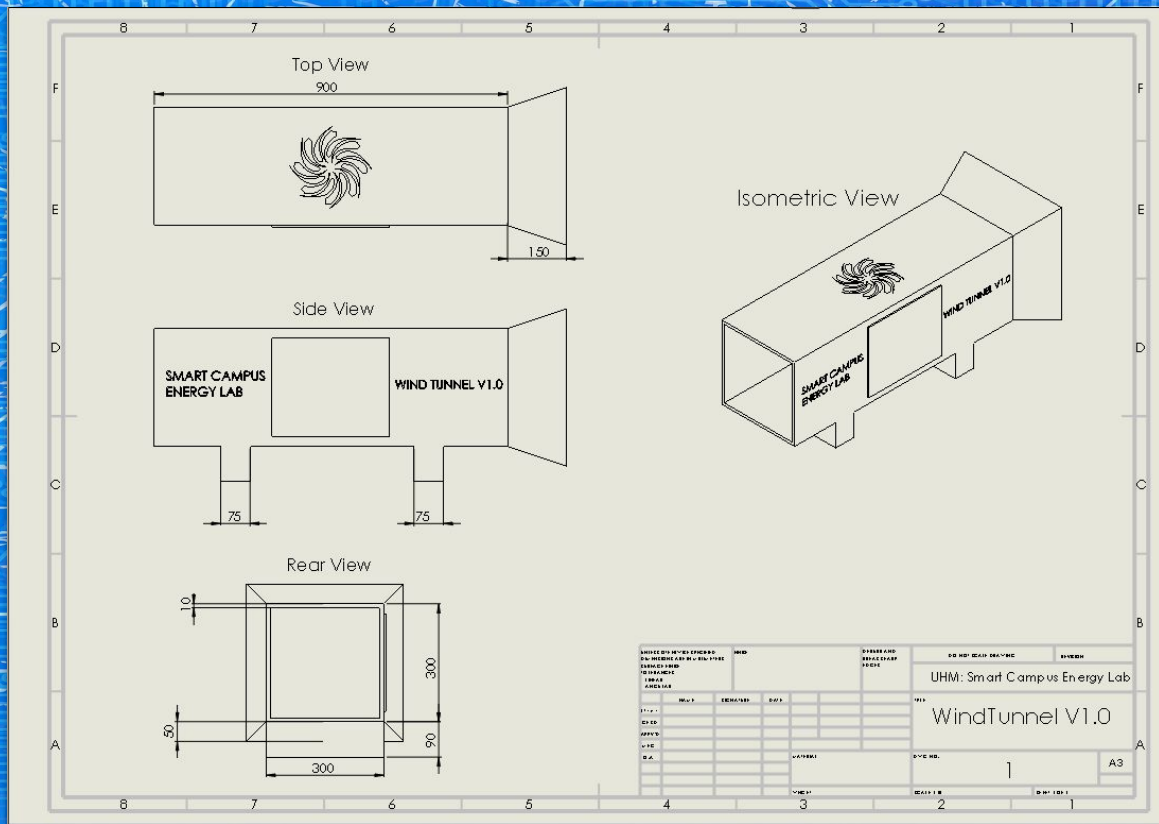
Total Estimated Power: 316.8  $\mu\text{W}$

MAX4466 Datasheet:

<http://pdf1.alldatasheet.com/datasheet-pdf/view/73367/MAXIM/MAX4466.html>



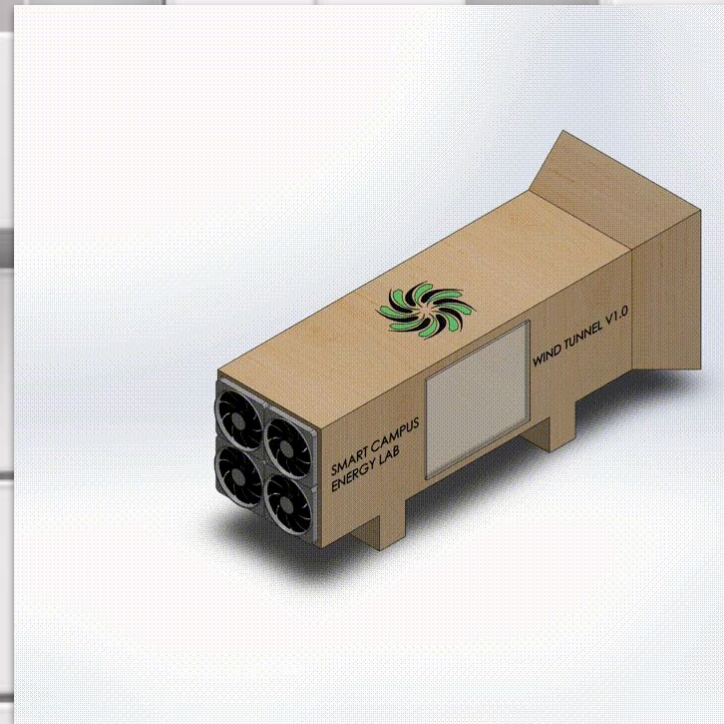
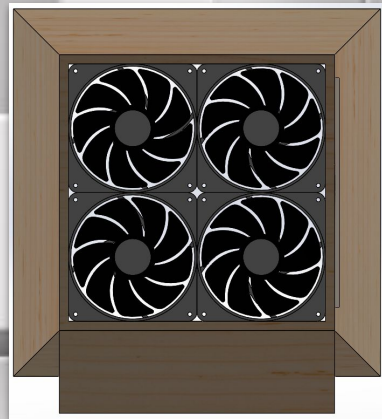
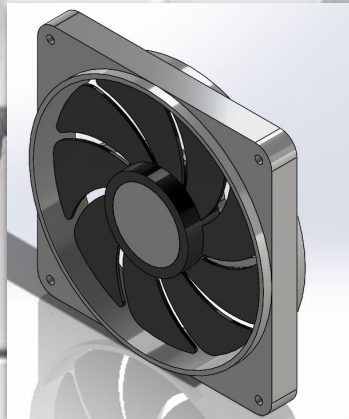
# Technical Drawing | Wind Tunnel



- All dimensions are in mm unless otherwise stated
- Materials:
  - Body - Cardboard
  - Window - Plexiglass
  - Stands - Wood



# 3D Rendering | Wind Tunnel Assembly





# Progress

- All orders received
- Building 1st prototype Wind Tunnel
- Breadboarded 4 parallel fans
- Program testing on-going

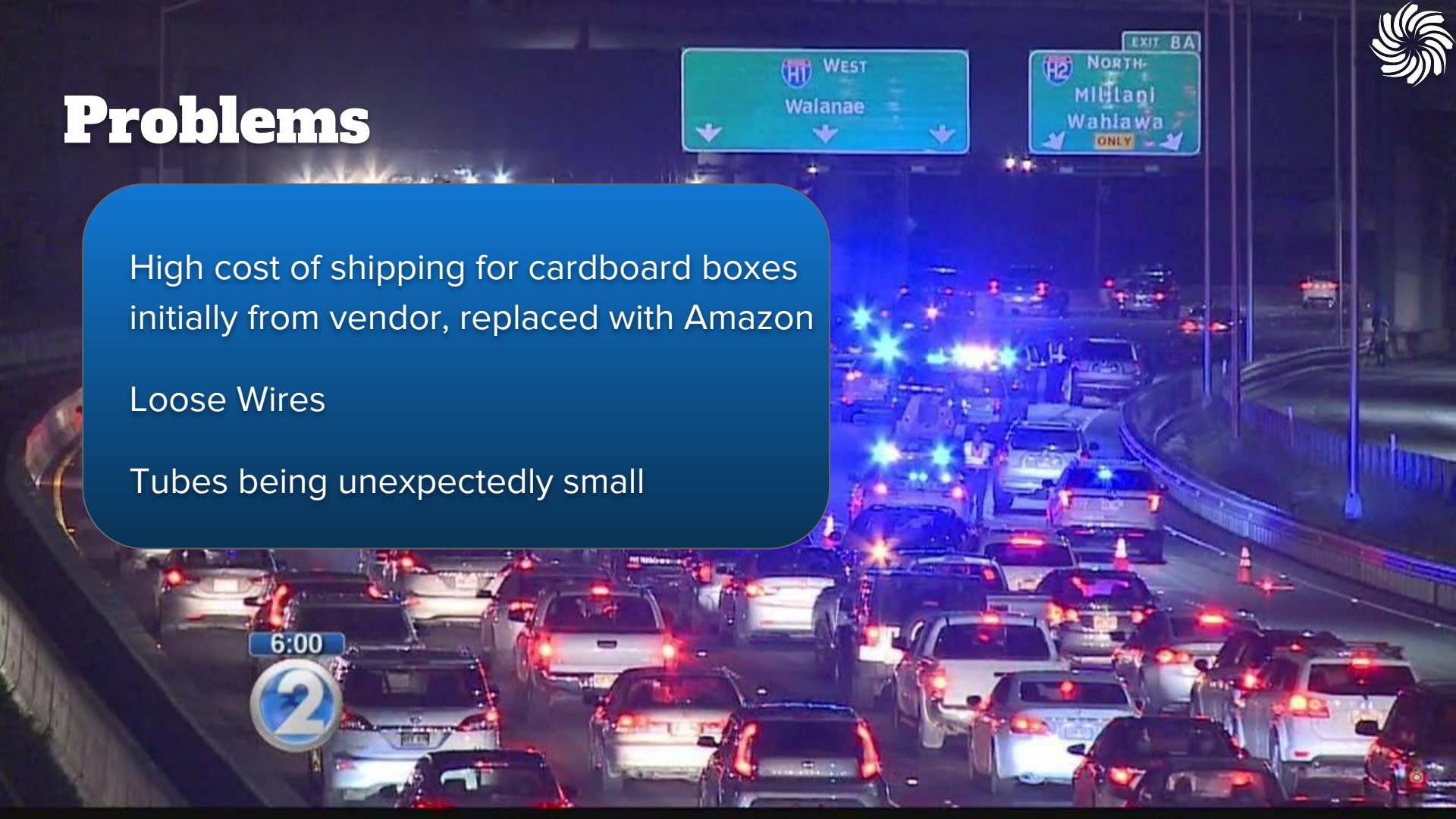


# Problems

High cost of shipping for cardboard boxes initially from vendor, replaced with Amazon

Loose Wires

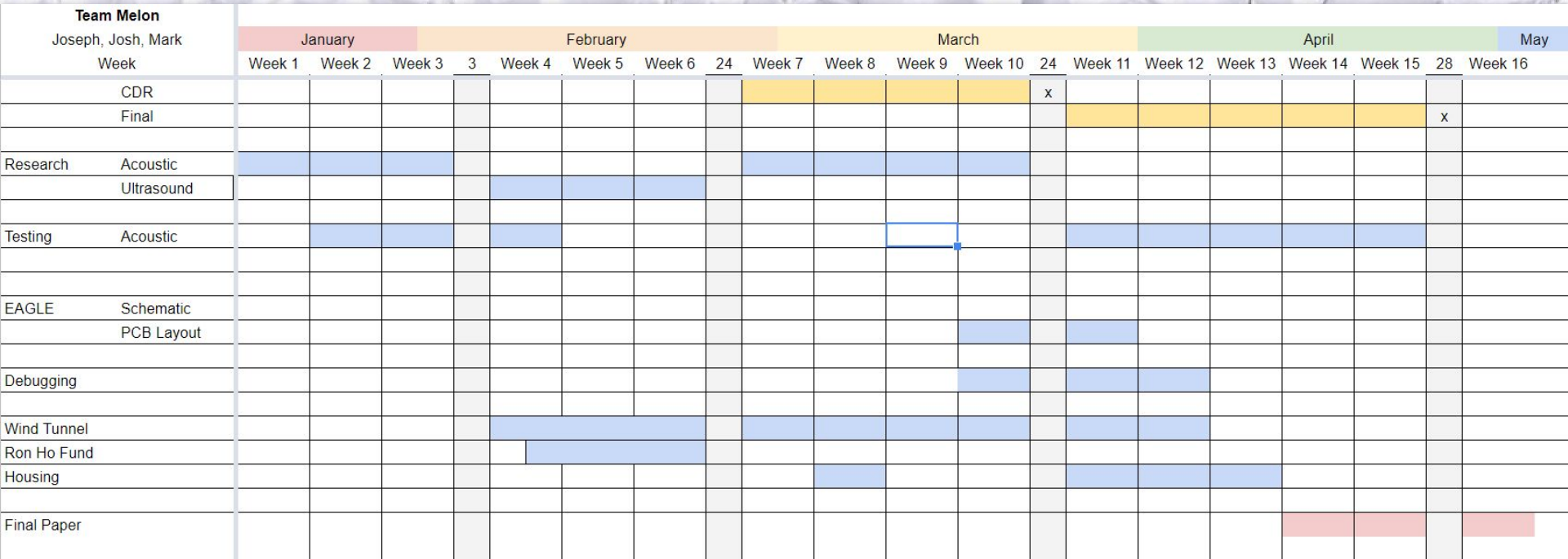
Tubes being unexpectedly small







# Gantt Chart





# Future Tasks

Make wind tunnel air tight

More Acoustic sensor testing and analysis

Design housing that can pick up wind but also provide weather protection



# Questions?