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# Project Aero

— Denton Air Monitoring Network  
(D.A.M.N.) —

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# The Fantastic Four & Our Client



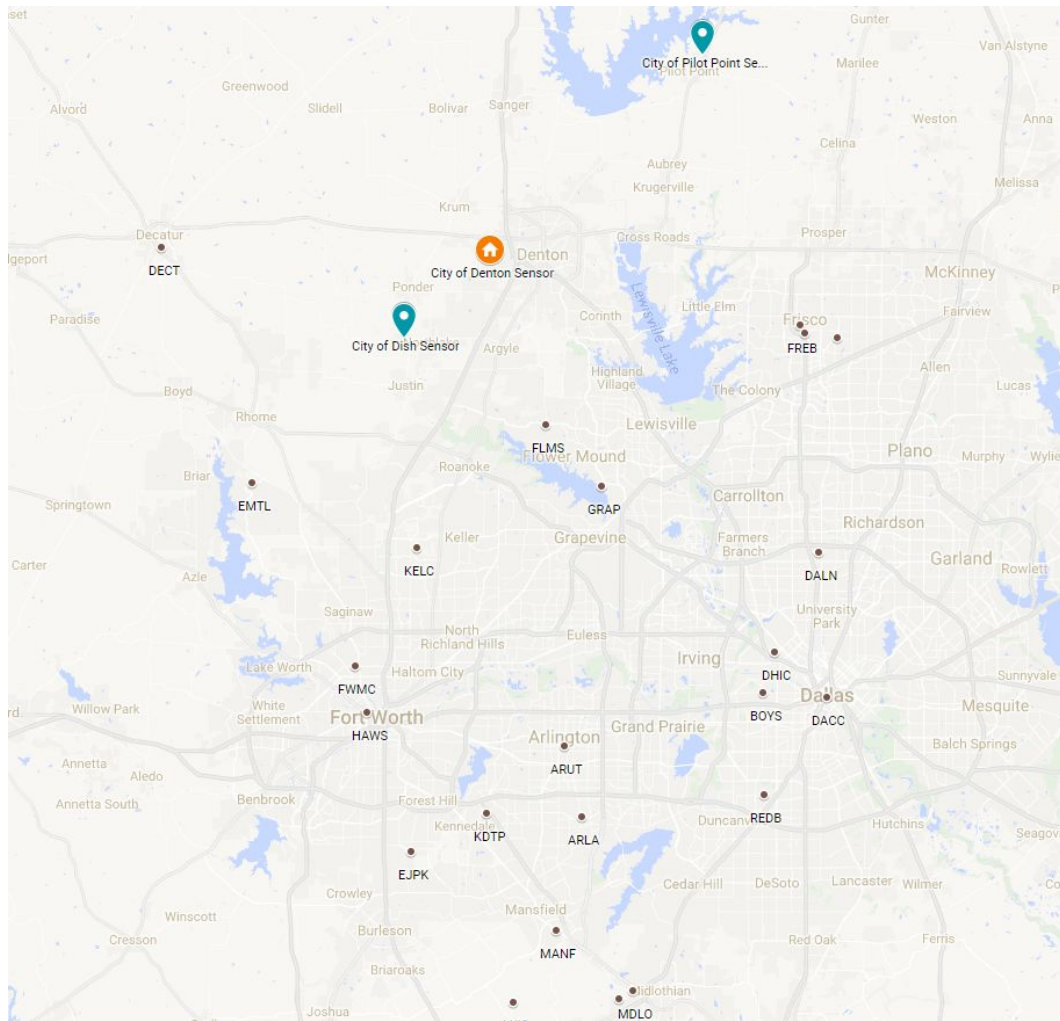
Denton Techmill: Dan Minshew & Kyle Taylor



“...the worst ozone levels were found in the northwest quadrant of the DFW area... caused by the predominant SE to NW winds that blow pollution from the coast up through the coal and gas patches of East and Central Texas, over the Midlothian Industrial Complex and North Texas central urban cores into Northwest Tarrant, Wise and Denton counties.”

# The problem

- One sensor in Denton (at the Airport)
- No sensors directly North of Denton
- Bottom-line



**Introducing the  
Denton Air  
Monitoring Network  
(D.A.M.N.)**

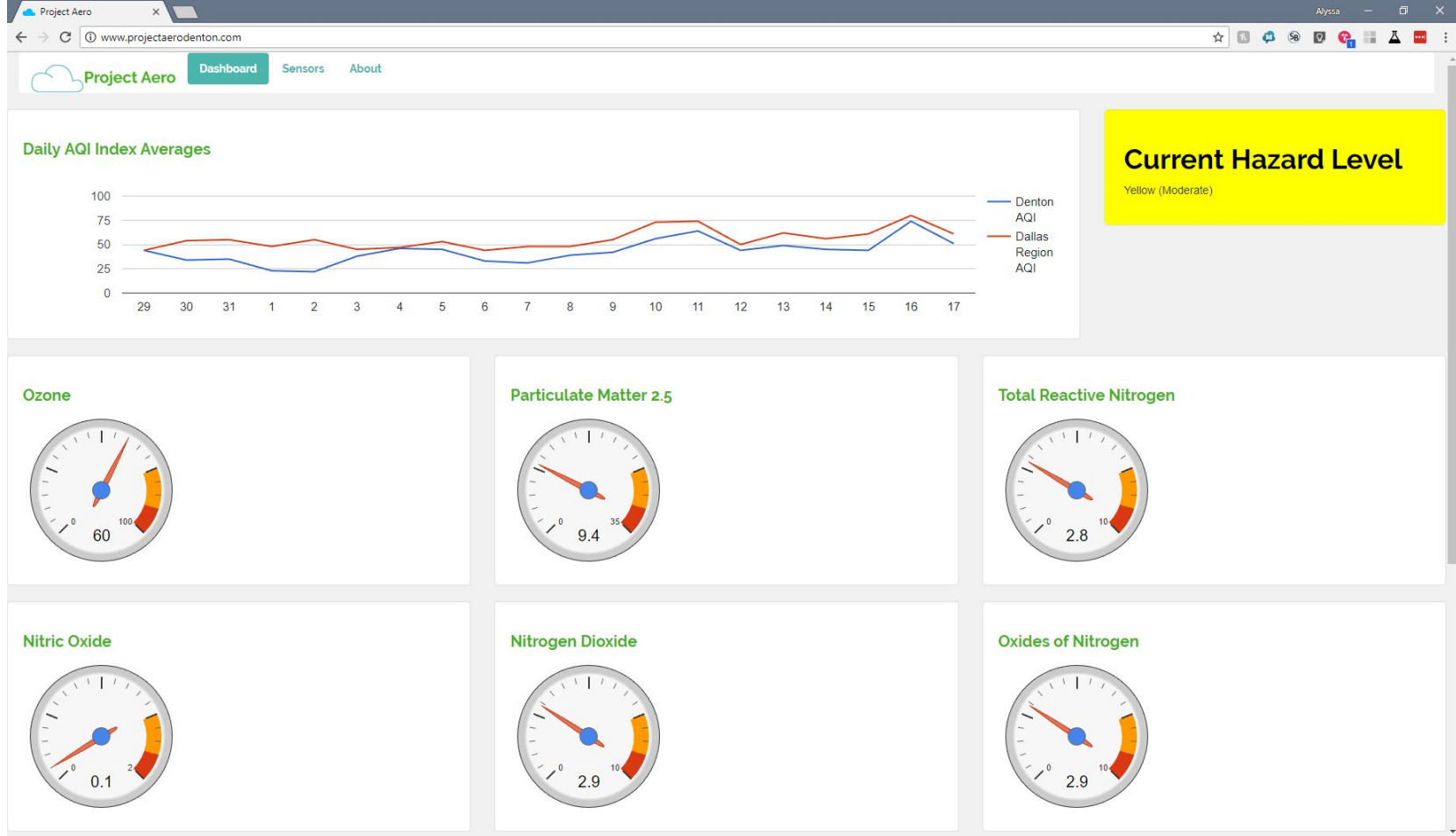


# What is Project Aero?

- Partly a website, partly a database
- Allows for a network of air quality sensors (also known as nodes)
- Measures different pollutants and qualities of the air
- Breaks the data down into an easy to read format
- Enables citizens to create their own sensor and contribute their data

# What is the solution?

You!

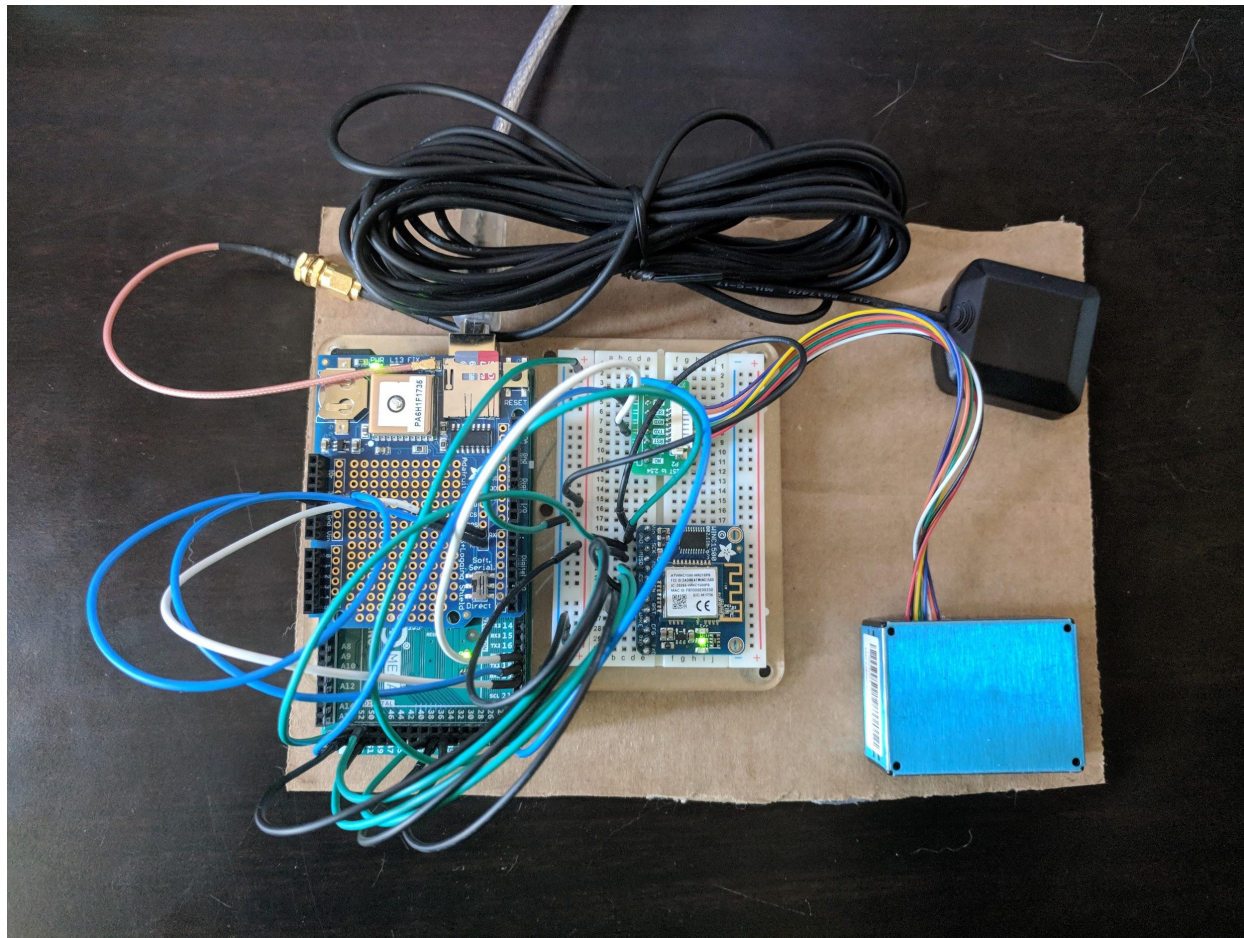


Homepage



# What does all that mean?

- EPA and TCEQ Governed Regulations
- Six Critical Pollutants
  - Ozone
  - Particulate Matter 2.5
  - Total Reactive Nitrogen
  - Nitric Oxide
  - Nitrogen Dioxide
  - Oxides of Nitrogen
- AQI: Main Average



The node

# Empowering Citizens

- Contribute any data to the network
- See the air quality around Denton
- Ultimately, take civic action

“Denton’s ‘average ozone level stands at about 80 ppb,’ the highest in Texas in 2016.”

# Ups and Downs

## The Ups

- Worked effectively as a team
- Availability of existing data
- Relatively straight forward

## The Downs

- Google Charts
- Front-end to back-end communication
- Bootstrap Issues
- Conflicting Requirements

# Why Project Aero?

Breuna

Want to save the world, one air quality sensor at a time.

James

This system not only informs, but empowers the average citizen to participate.

Alyssa

I chase storms, am deeply intrigued by the weather, and was drawn to the environmental aspects of this project.

Travis

We only get one planet and we need to take better care of it.

# Questions?