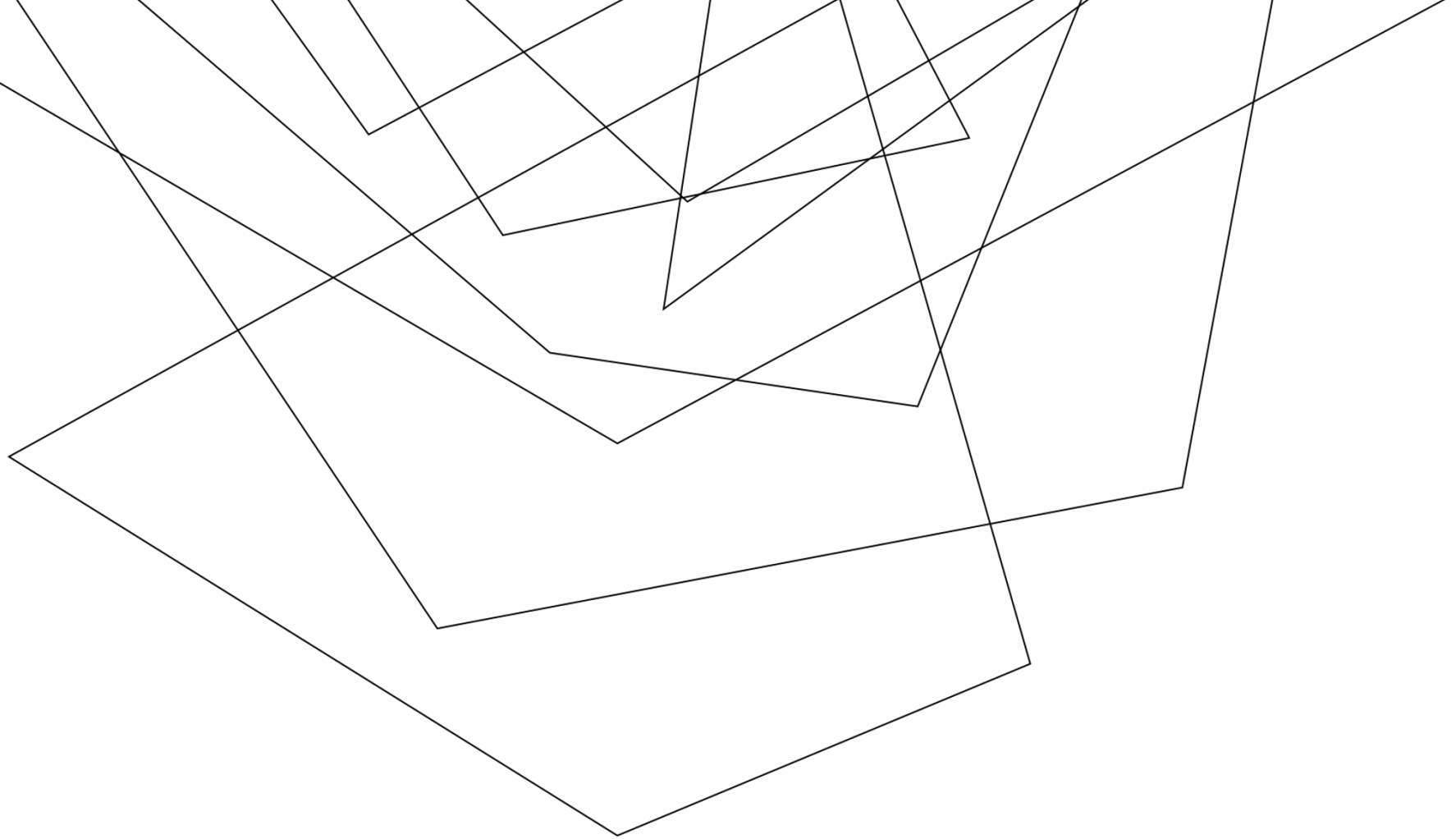

REAL-TIME SMART TRAFFIC MANAGEMENT

Hack@CEWIT 2022

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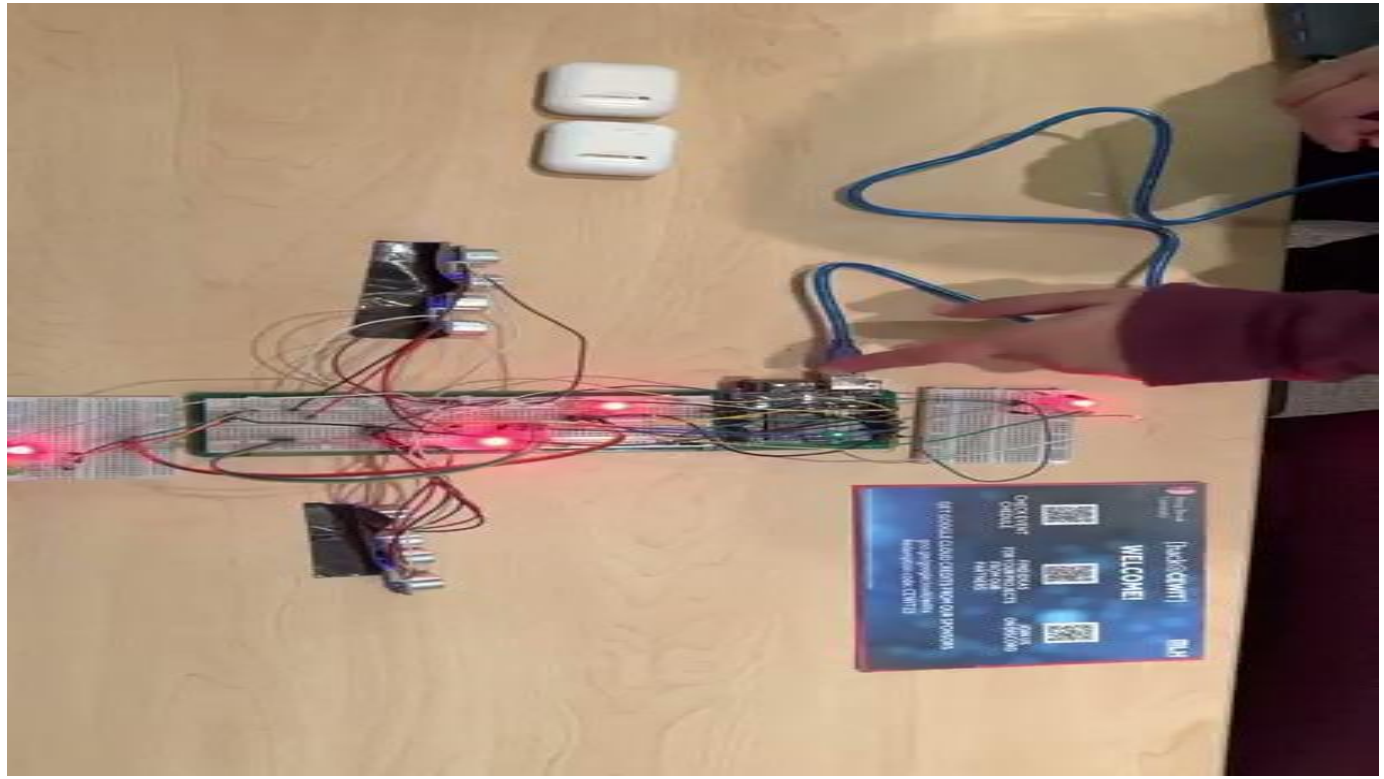
Current Problem

- Approximately 6 billion gallons of fuel are wasted in the US each year as vehicles wait at stop lights or sit in dense traffic with engines idling, according to US Department of Energy estimates.
- That's 3,520 minutes, or 58.6 hours, spent waiting at red lights every 365 days.
- Leads to air pollution, human stress, global warming, loss of time, etc

Solution proposed

- Real time calculation of traffic signals
  - Turn to Red if there's no Car
  - Turn into Green if there's Car
- Using Proximity sensor
  - Respond accordingly

Miniature Prototype:



Advantages

- Highly sustainable as there is significant reduction in emissions
- Idling time is reduced
- Saving of money and fuel

Roadmap

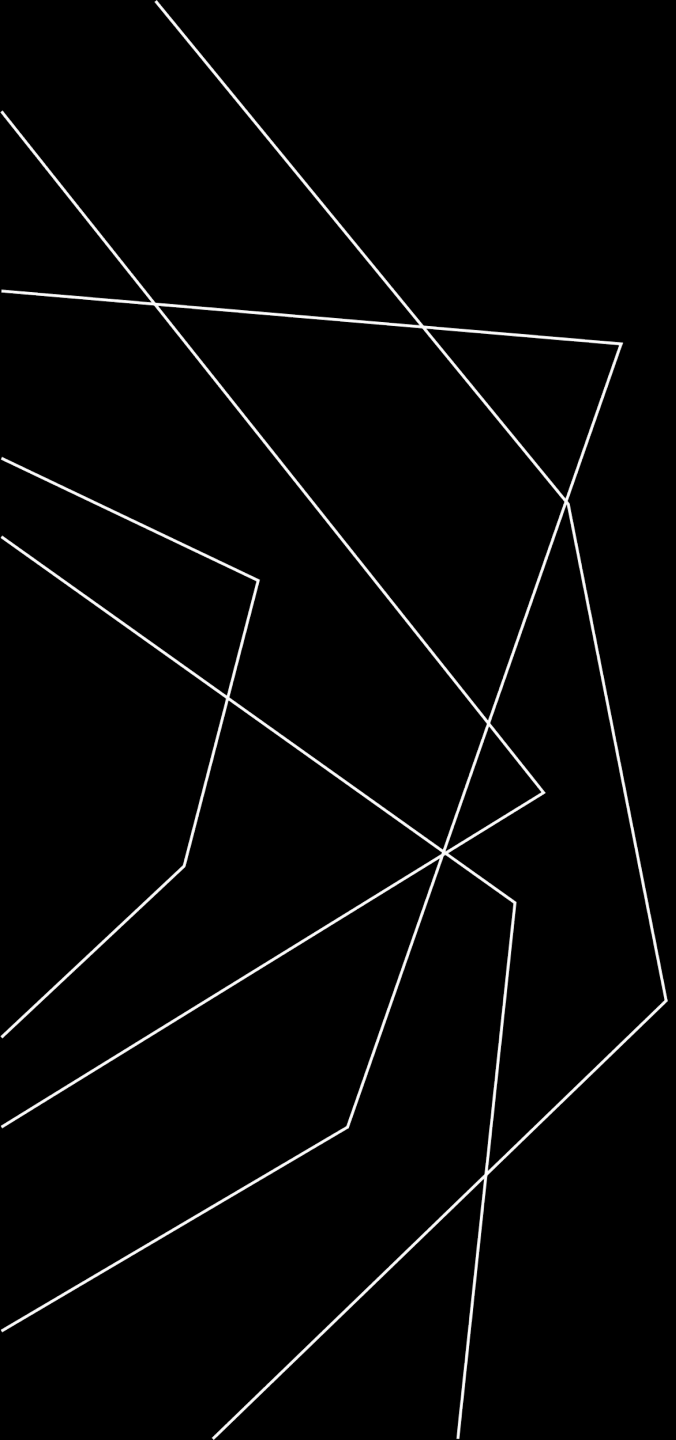
- Use of image processing on traffic signal cameras along with the sensors to get more accurate results.
- Take into account other factors along with proximity like weight, length of vehicles etc to calculate the accurate time needed for the vehicles to cross the signal.

Challenges faced

- Hardware implementation issue
- Real-time data storage issue
- Pedestrian management issue

Plans to the future

- Using advanced sensors to make the signal quality more robust
- Using machine learning to train the current data is it so that it can predict and change the time in Foster using the Previous dataset.
- Working on that will put additional Motion sensors to detect a person to get better results



THANK YOU

Questions?