



CSU
Bakersfield

School of Natural Sciences,
Mathematics, and
Engineering

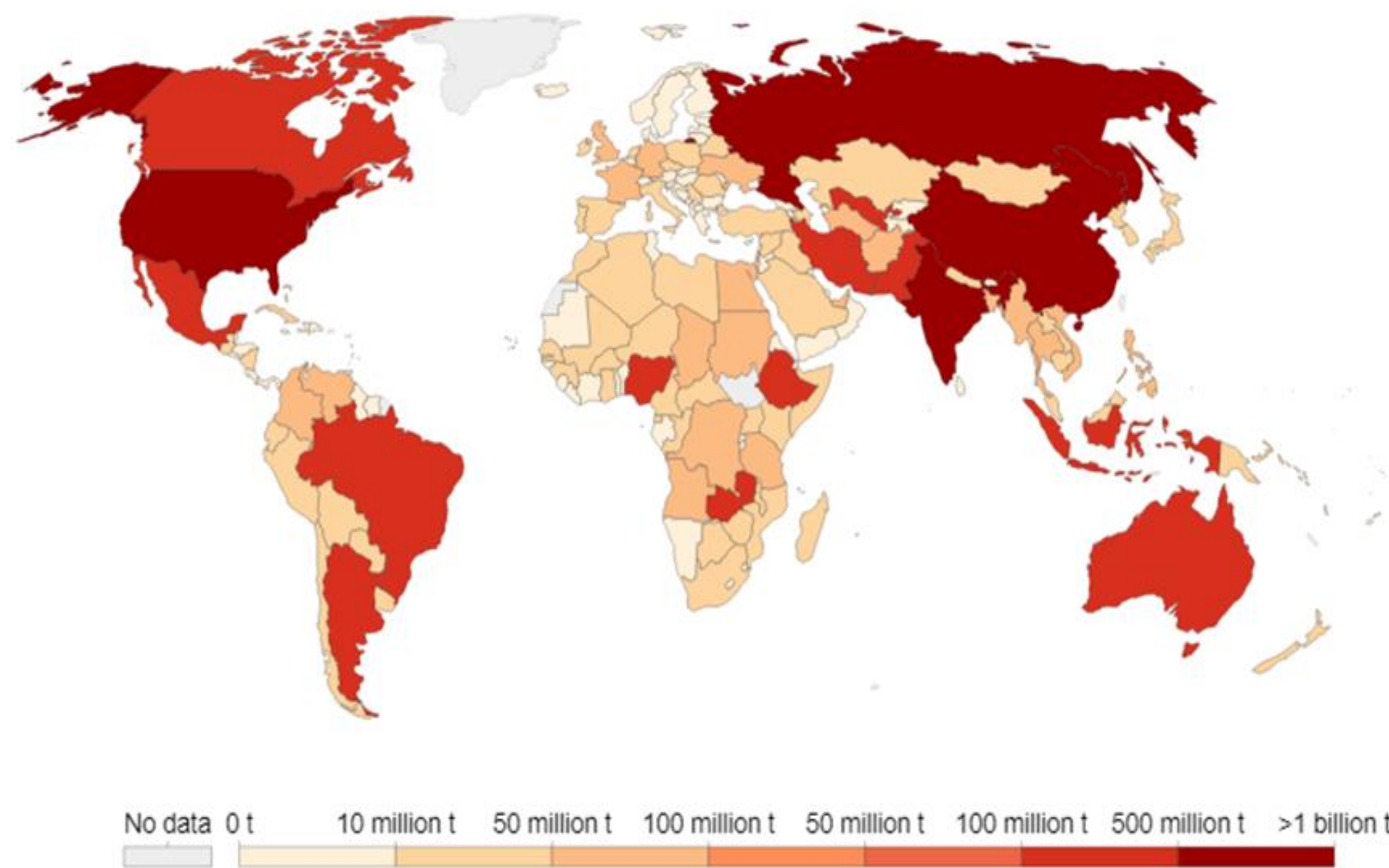
SMART STREET LIGHTING SYSTEM

...eliminating climate change, one light at a time.

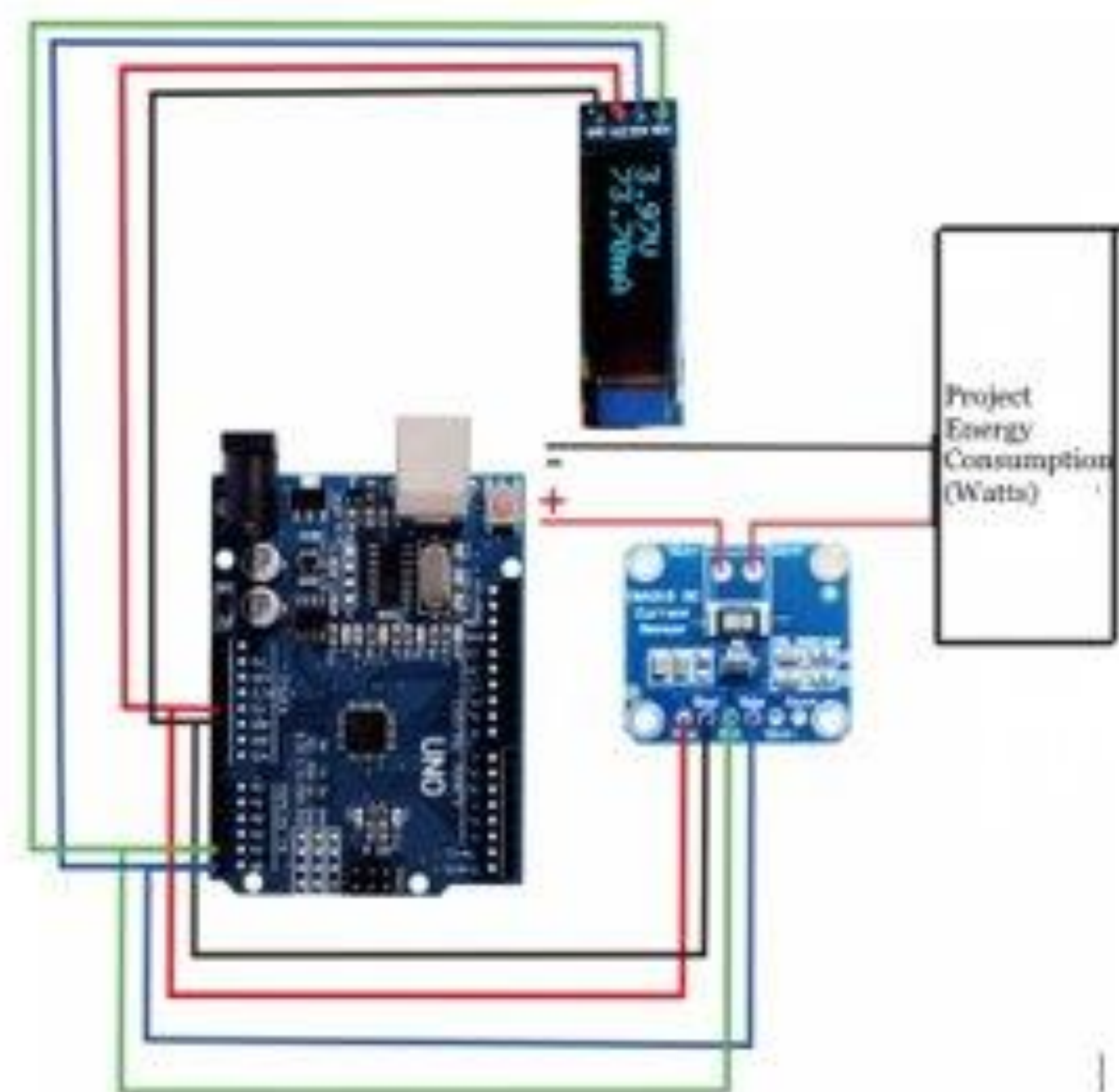
Johnathon Street, Esteban Linares, Guadalupe Quinones, Irvin Juarez , Steven Saucido

Greenhouse gases cause...

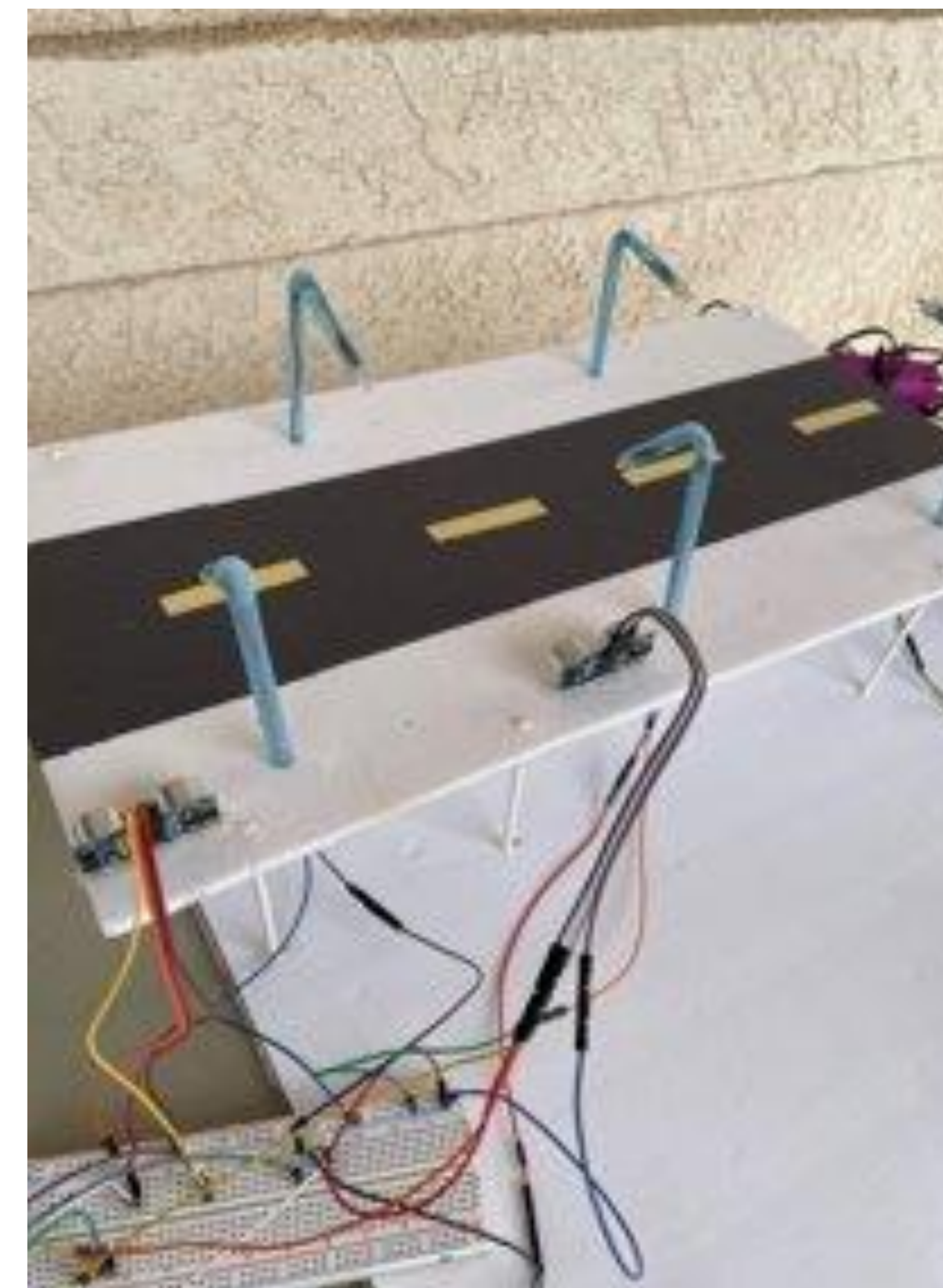
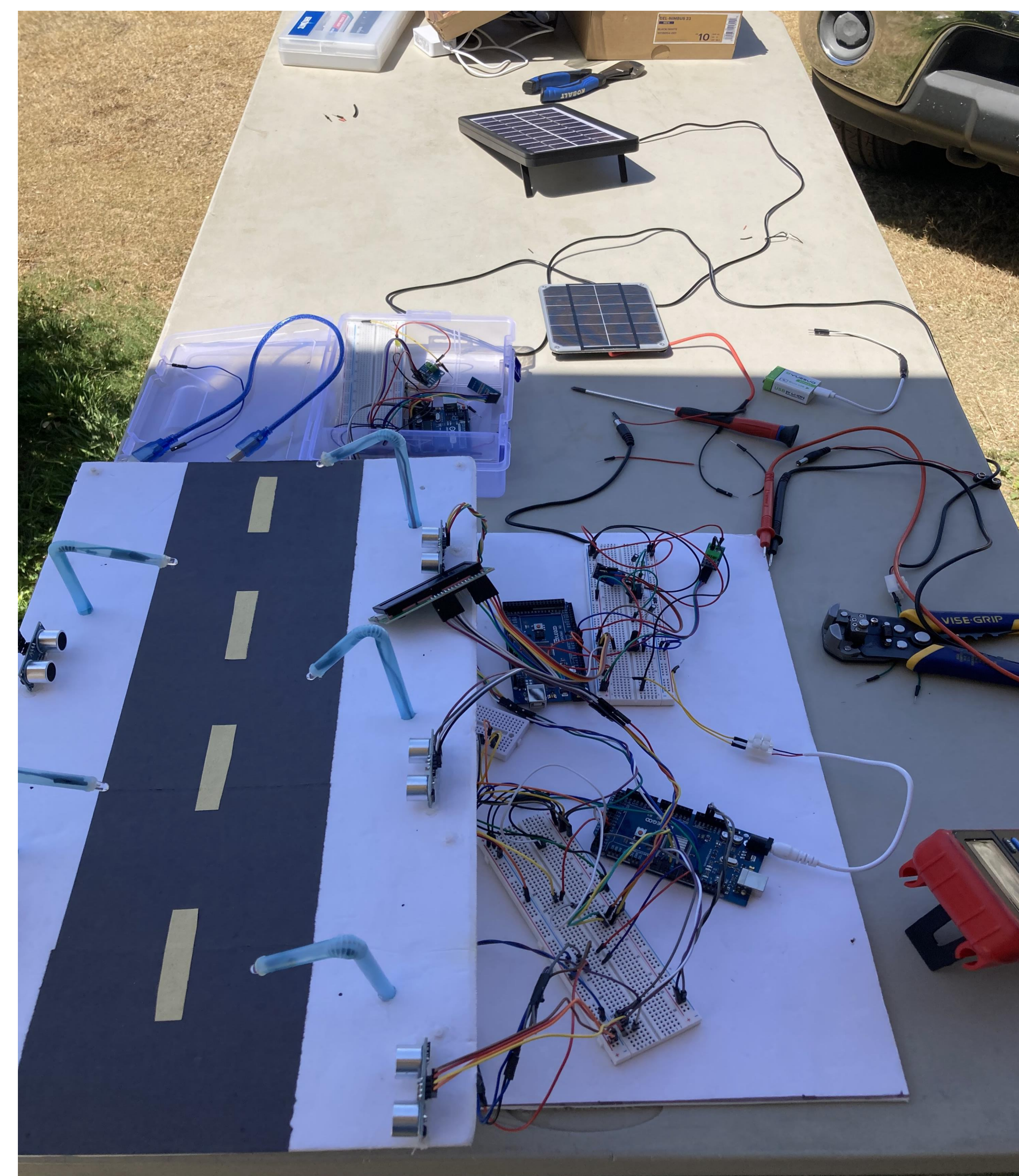
- climate change by trapping heat
- Respiratory disease from smog and air pollution
- Extreme weather
- Food supply disruptions
- Increased wildfires
- Damage to the ecosystem



World Map of Greenhouse gas emissions shown in metric tons

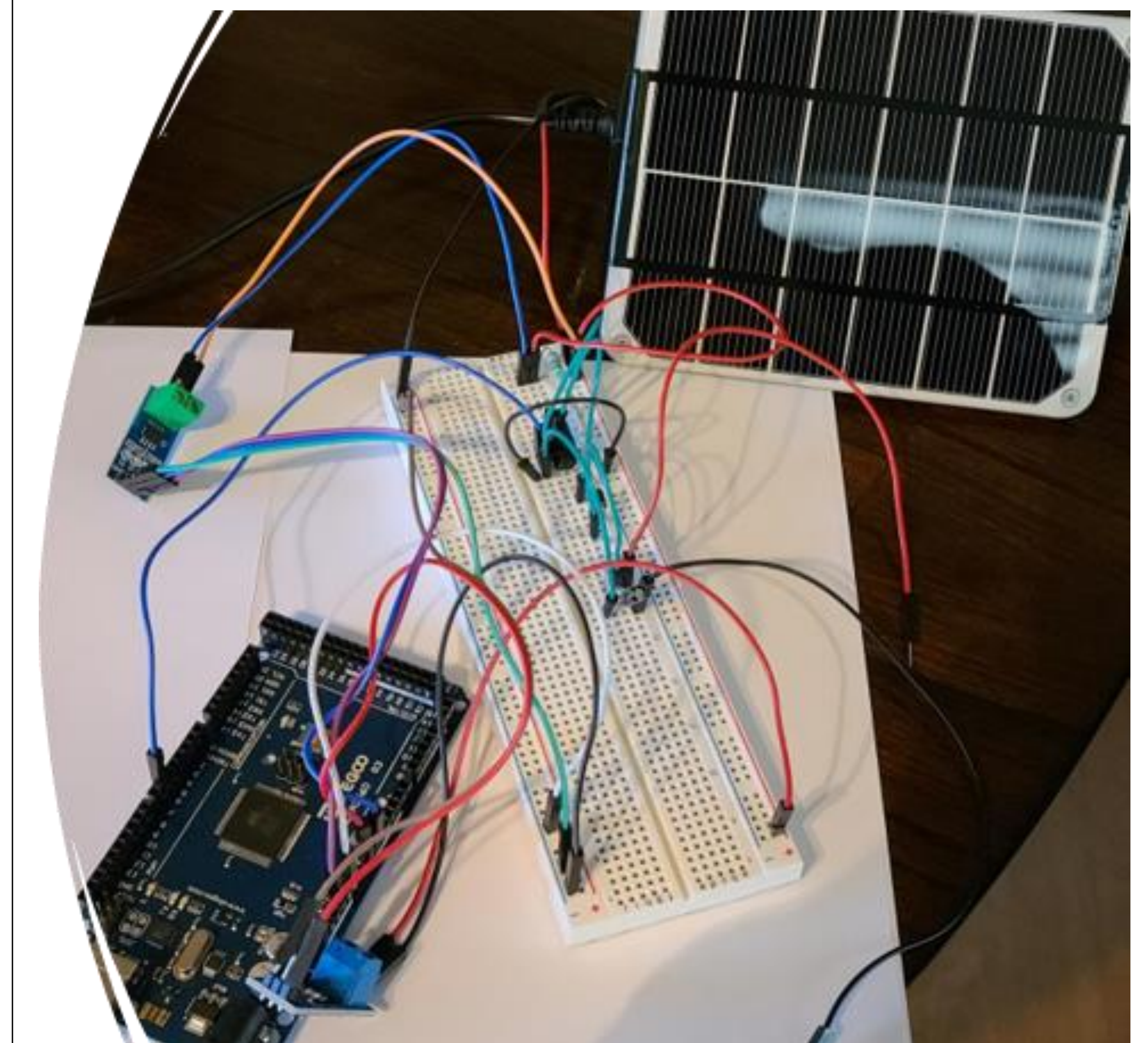


SMART STREET LIGHTING SYSTEM WILL REDUCE GREENHOUSE GAS EMISSIONS AND SAVE OUR PLANET



Smart Street Lighting System

- Renewable Energy source = Solar Powered
- Efficiency/ Low cost maintenance
- LEDs light up with advanced object detection technology to keep US safe
- Conserves energy by remaining off when no activity
- Solves inefficient polluting sources such as greenhouse gases
- Discourages criminal from committing crime acts at night time



Conclusion: The smart street lighting system model works effectively in conjunction with a perturb and observe controller for maximum power point tracking, providing the basis for real world applications.