

tinyML[®] for Good

Tiny technology for the world's biggest challenges

Ribbit Network: The world's largest
crowdsourced network of open-source, low-cost,
CO2 Gas Detection Sensors

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TITLE: Ribbit Network: Open-source CO2 Monitoring

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Problem Statement:

- We know that increased levels of atmospheric gasses like CO2 are the primary causes of climate change and humanity is pumping them into the atmosphere at an unprecedented rate!
- It would be reasonable to assume that scientists have a map of the world that can tell us exactly what the emissions levels are at any spot on the planet. Unfortunately, that map doesn't exist.

Impact:

- Impact area: Climate
- Using this Greenhouse Gas data we can identify and track emissions, allowing us to verify our assumptions about climate and hold ourselves accountable through corporate, government, and individual action.
- The project also serves as tangible symbol and onboarding ramp for those starting their learning journey about climate.

tinyML solution:

- The Ribbit Network was created to generate this missing map of greenhouse gas emissions. By creating and deploying the world's largest, grassroots network of CO2 sensors, the network empowers anyone to join in the work on climate and provide data for informed climate action.
- Our “Frogs” are tiny sensors that you can buy and deploy at your own home! It's a small, open-source box that measures the amount of CO2 in the air using a tiny laser

Call to Action:

- All development is done via [Discord](#) and [Github](#).
- Needs: We have a ton of software to write and sensors to deploy
- HELP NEEDED: We're searching to identify areas where TinyML can improve the Network and find collaborators to execute on them
 - Examples: ML for sensor health / calibration, analysis to pinpoint emission