



Tzrik CO₂

Capturing CO₂ and converting it into products

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The challenge of global warming

- Global warming requires the world to reduce greenhouse emissions, and also to remove the gases already emitted into the atmosphere.
- Carbon dioxide is the majority of these gases.

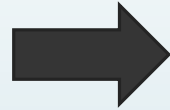


Sodium based materials to capture CO₂

- By using sodium based solid absorbent we make it safe to use, and the high surface area is suited to act as a filter to CO₂ from gas, either from the atmosphere or from point source generating carbon credits in the process.
- The resulting carbonated material will be incorporated to create building products such as boards and blocks. durably locking the greenhouse gas without the risk of bio-degradation, while providing revenue.

The absorbing materials

The first absorbing material changes color from black to light gray as more CO₂ reacts and turns into carbonate :

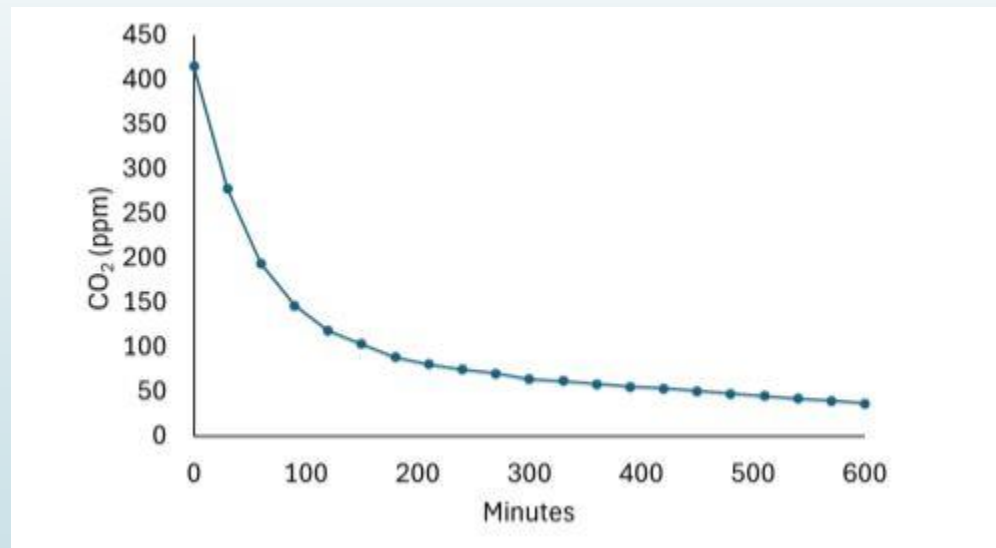


The second absorbing material is just white

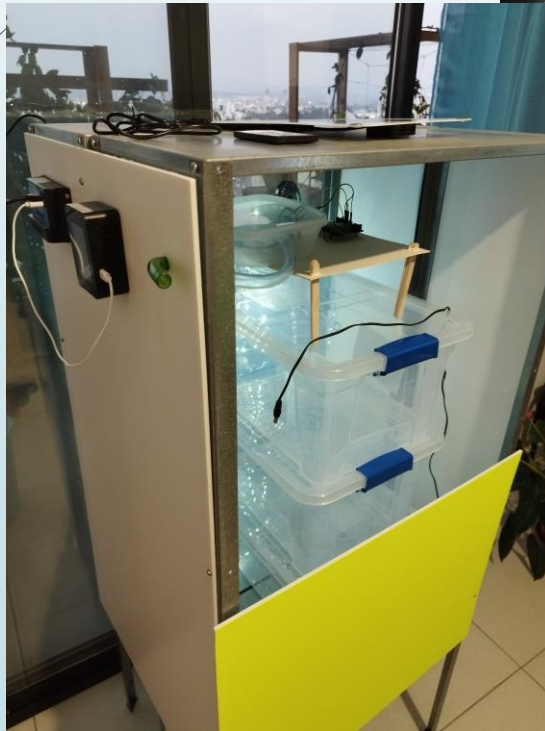


Third Party Tests

Test at the Ben-Gurion University of the first absorbing material was conducted on the 19.3.2025 by the department of civil and environment engineering, faculty of engineering sciences, and it clearly shows that the sorbent reduced the CO_2 concentration in the test cell.



So how does the machines actually look ?



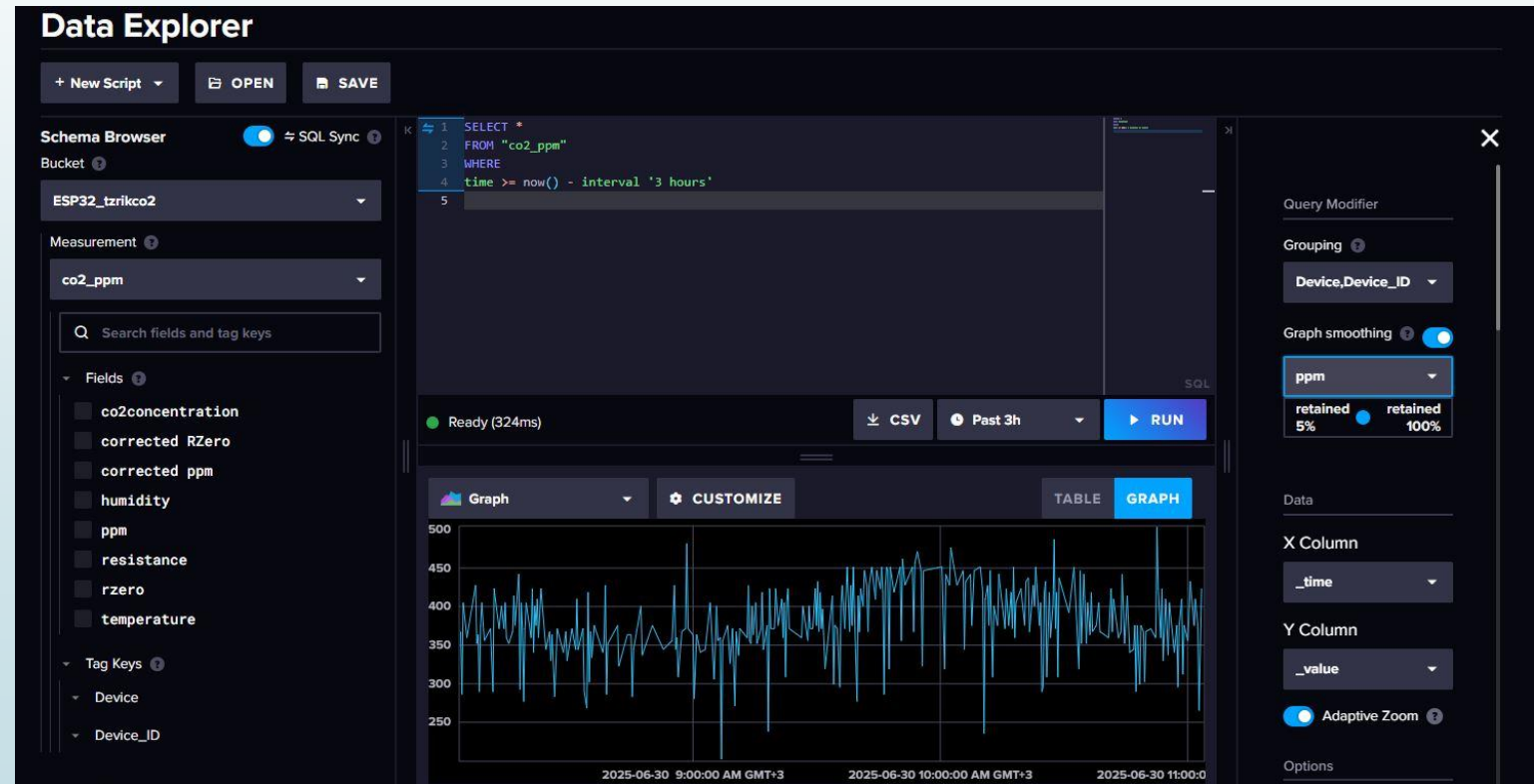
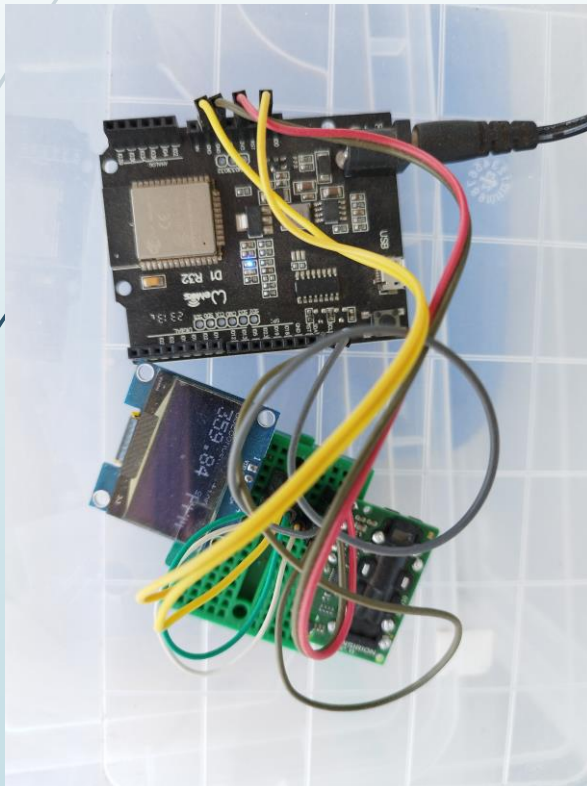


Monitoring the condition of the absorbing material

- Air is being pushed by electric fan through the containers with the absorbing material.
- Just before the exit there are humidity, temperature and CO₂ concentrations sensors that monitor the gas exiting.
- Microcontroller is receiving the data from the sensors and sending them to the database in the cloud.
- Using web browser we can monitor the condition of the material per microcontroller, and when it is time to replace the containers.

Monitoring the material

Data is sent to the cloud



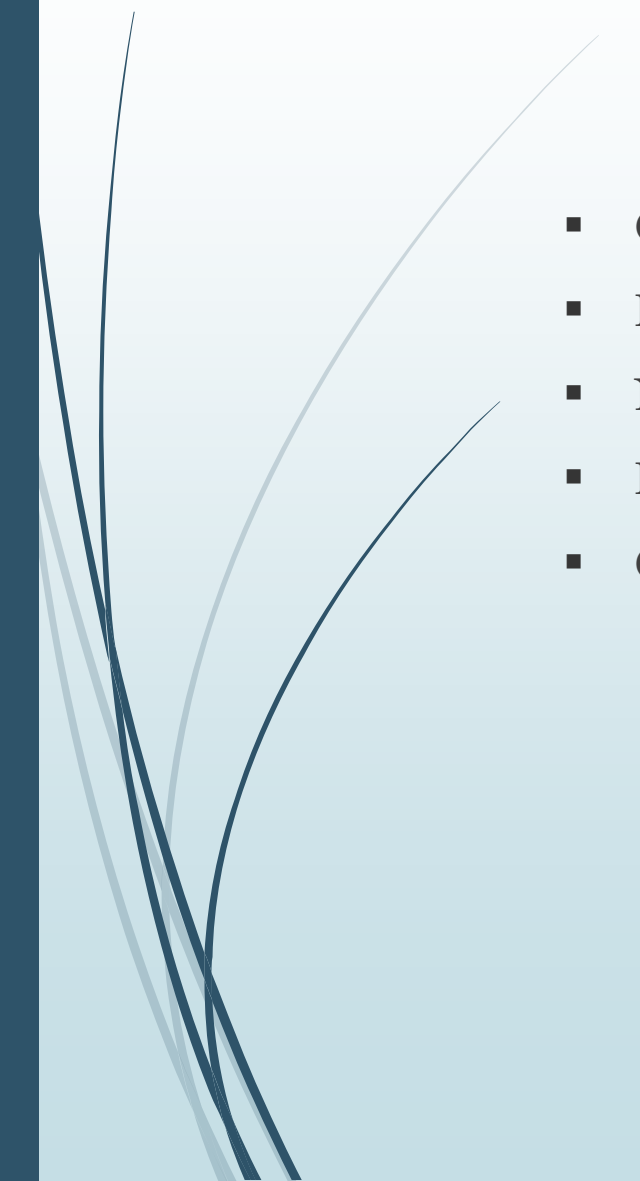
Uses for the end product

The carbonated material can be combined into colorful bricks to lower their carbon footprint while reducing the amount of concrete to make them.

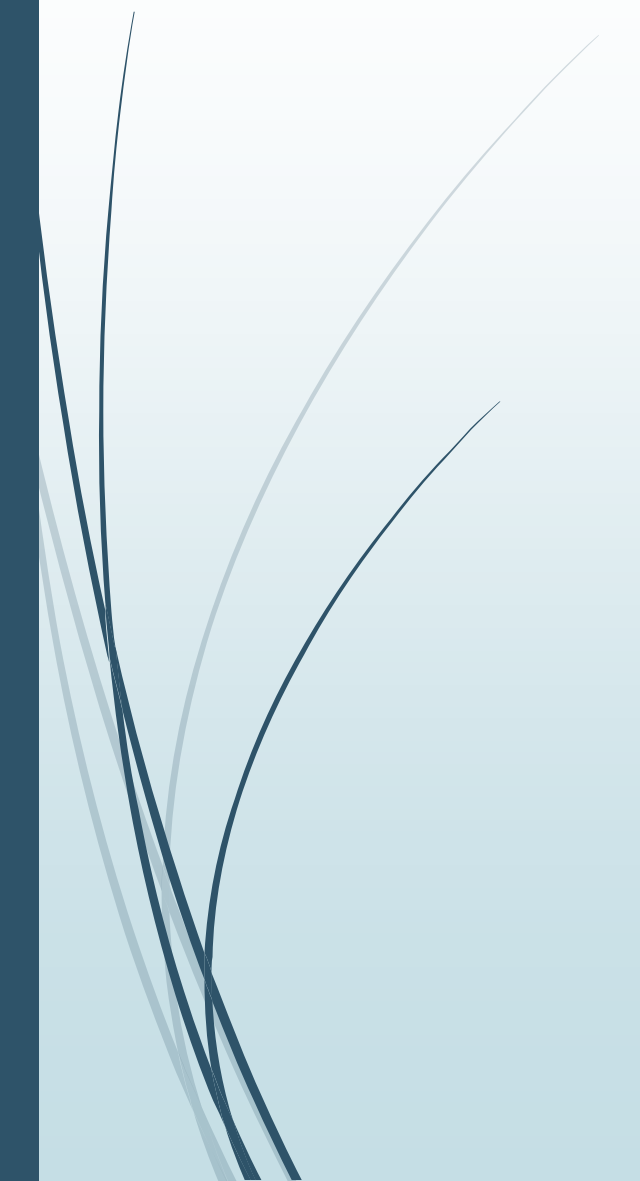




Advantages



- Capturing CO₂ easily anywhere, and not just near polluting factories.
- Low CAPEX compared to other methods.
- No need to spend energy to regenerate the absorbent – Low OPEX.
- Easy to use and operate.
- Carbon dioxide is turned into products that will store it durably.



Thank you

Please check out the web site www.tzrik-co2.com