Envirosense: Your Environmental Monitor Companion

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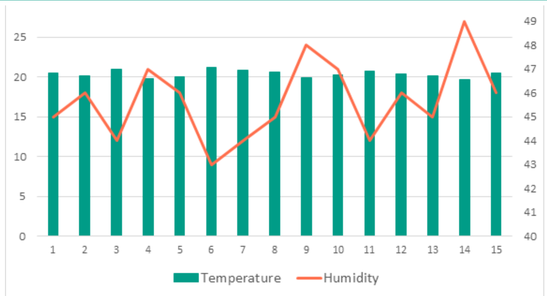
Introduction

- Once upon a time, there were two young men who dreaming of developing something helpful to other people, they then end up with this project - Envirosense
- Envirosense monitor and optimize your room conditions using its magical sensor and indicating LEDs
- Envirosense track and alerts user when the temperature reach potentially dangerous
- Envirosense intergrates hardware and software to ensure user-friendly operation

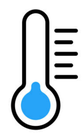
Result



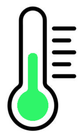
Indoor temperature and humidity measured during the first half of January, 2025

Method

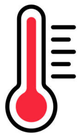
- Sensor: DHT22 keeps track of temperatures and humidity
- Display: Real-time temperature on 7-segment displays
- Visual cues: RGB LED



Cold



Comfortable



Hot

- Threshold Adjustment: Rotary encoder modify comfortable range
- [Iot intergration: Allow Envirosense to send alert
- Envirosense is controlled by the Raspberry Pi Pico

SOS

A RGB LED constantly updating temperature status

A buzzer connected to the microprocessor

Discussion

Envirosenses' goal is to:

- Ensure a comfortable living environment for your kids, your pets, and you

Envirosense aims to:

- Develops features allowing it to control fan, AC and other furnitures

Envirosenses' vision is to:

- Promote sustainable living by optimizing energy usage in your home.

References & Acknowledgements

- Smith, J., & Doe, R. (2023). IoT in Environmental Monitoring. Journal of Tech Solutions.
- Brown, P. (2021). Optimizing Sensor Integration. Electronics World
- Felix Hartlieb, our amazing professor who guides us with his advices to complete this project