

Lecturer: Lê Trung Quân ...

Gas Leak Alert through Smart Phone

(Combined with Automatic Door Opening and Fan Activation)

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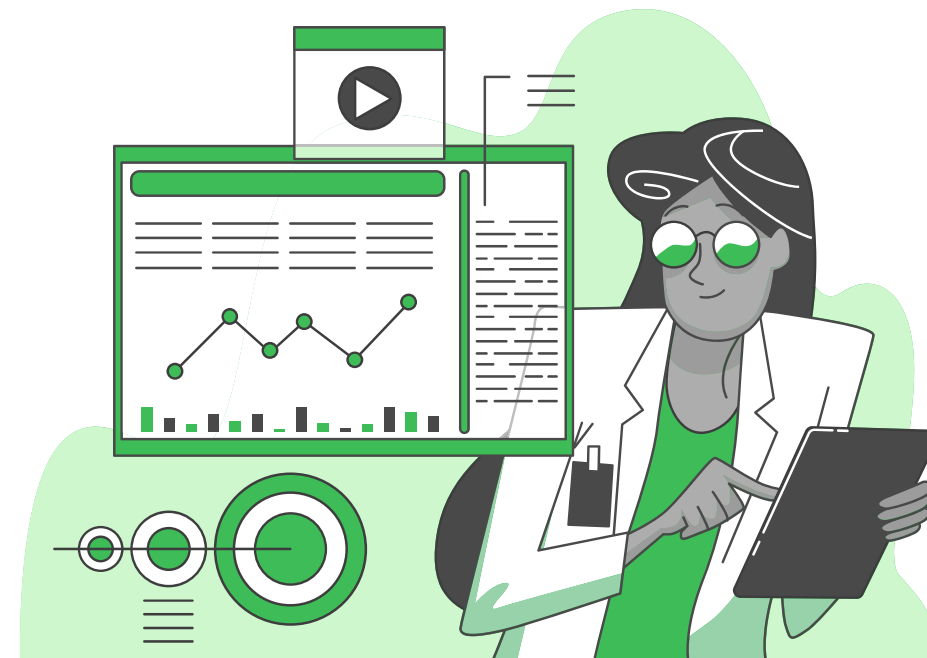
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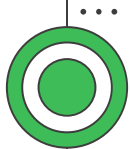




01

Introduction





Current Situation in HCM city:

- In **2023, Ho Chi Minh City** : occurs **498 fires**, property damage: about **8.06 billion VND**.
- Main areas: **residential areas, communities**, as well as in **manufacturing facilities, warehouses**, and **transportation vehicles**

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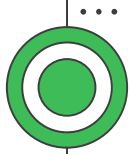
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In the middle night of April
1st, Houses along the canal
on Pham The Hien street,
ward 2, district 8, Ho Chi
Minh City.



Purpose:

- Detect Gas Leaks
- Alert Residents and Workers
- Activate Safety Measures
- Integrate with Smart Home Systems

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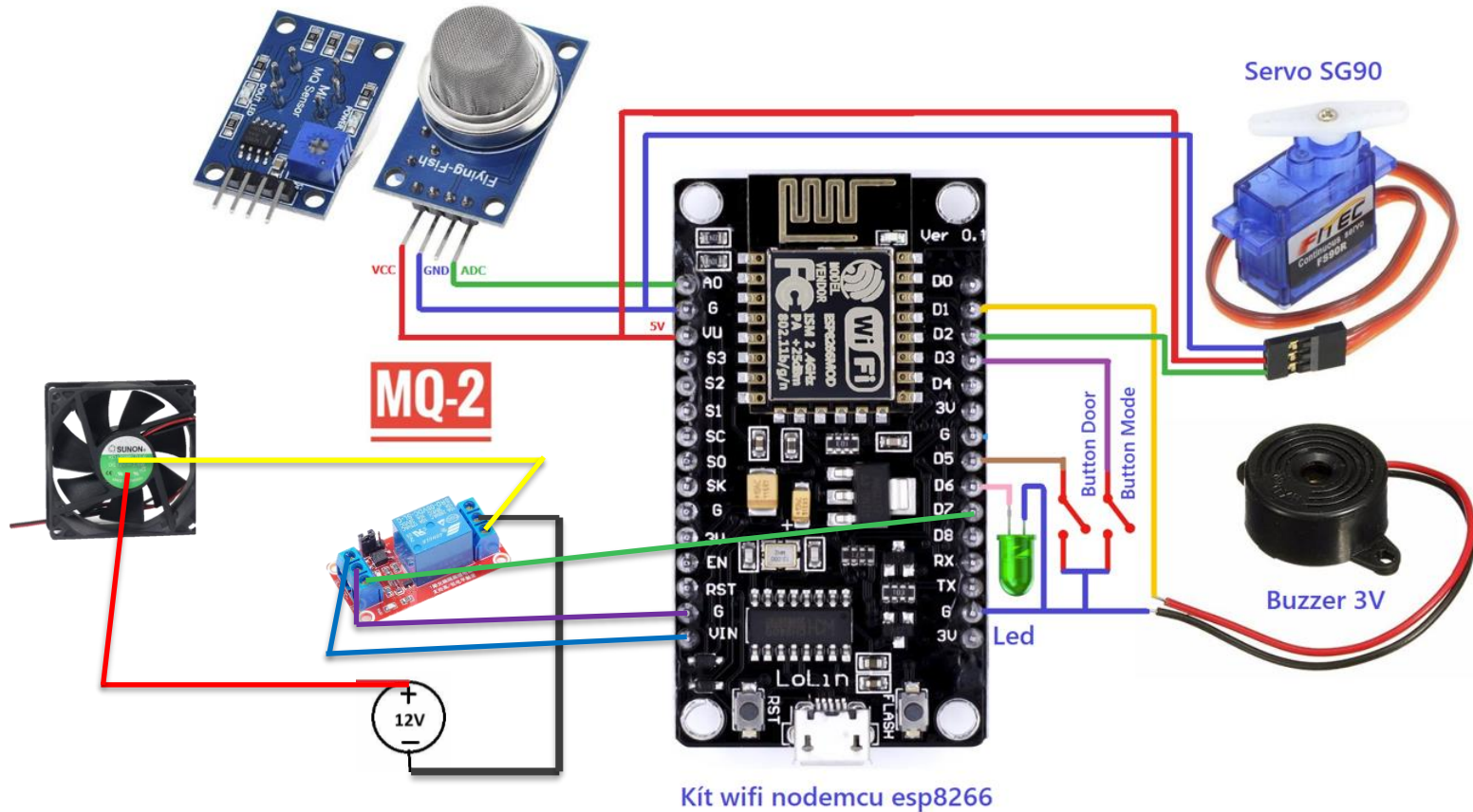




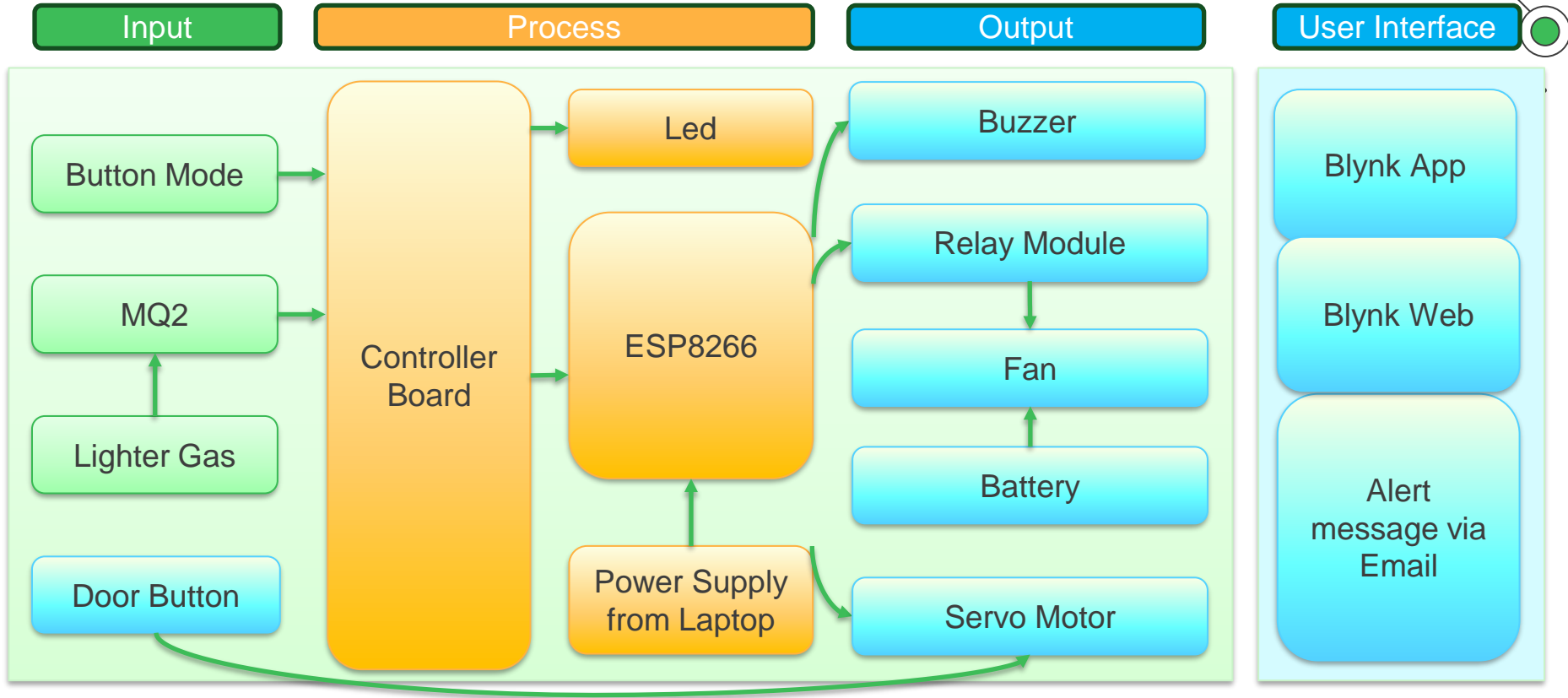
02 Structure



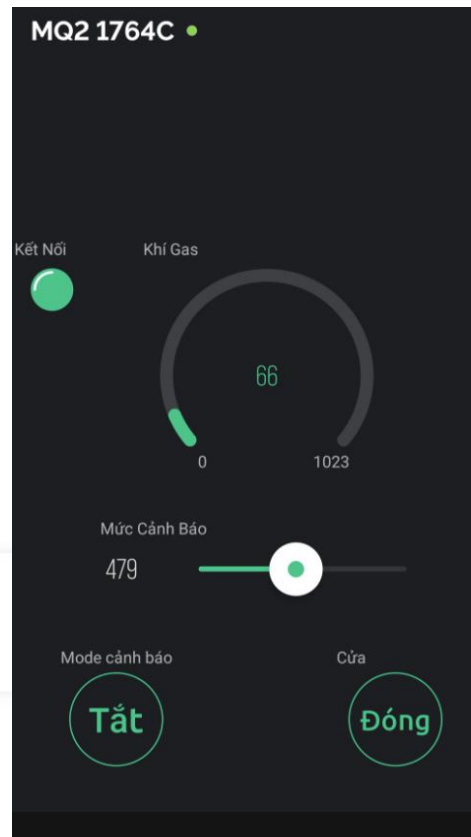
Hardware Connection Diagram



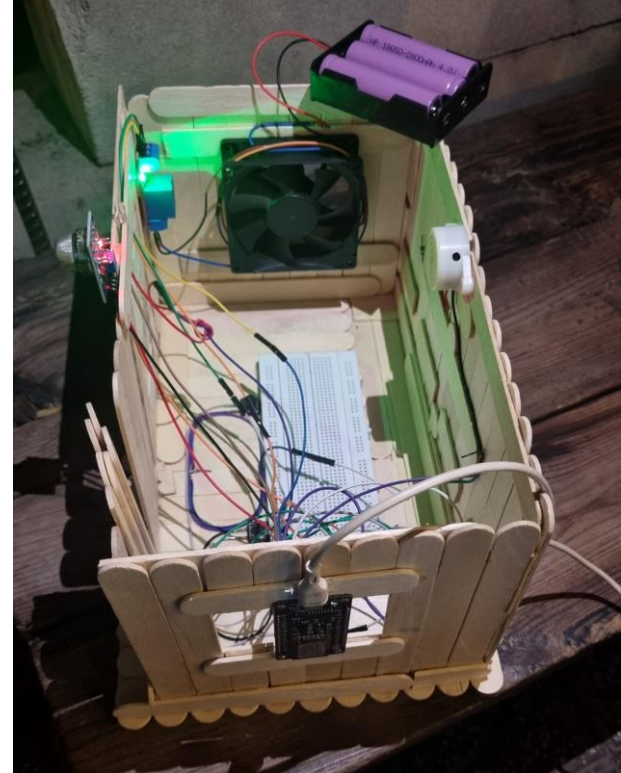
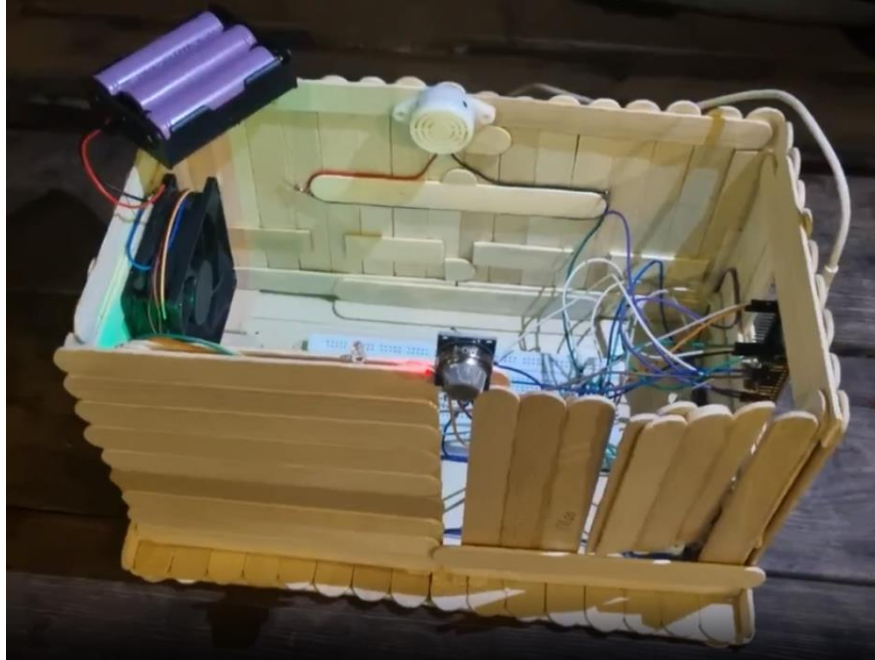
Implementation Diagram



Blynk DashBoard

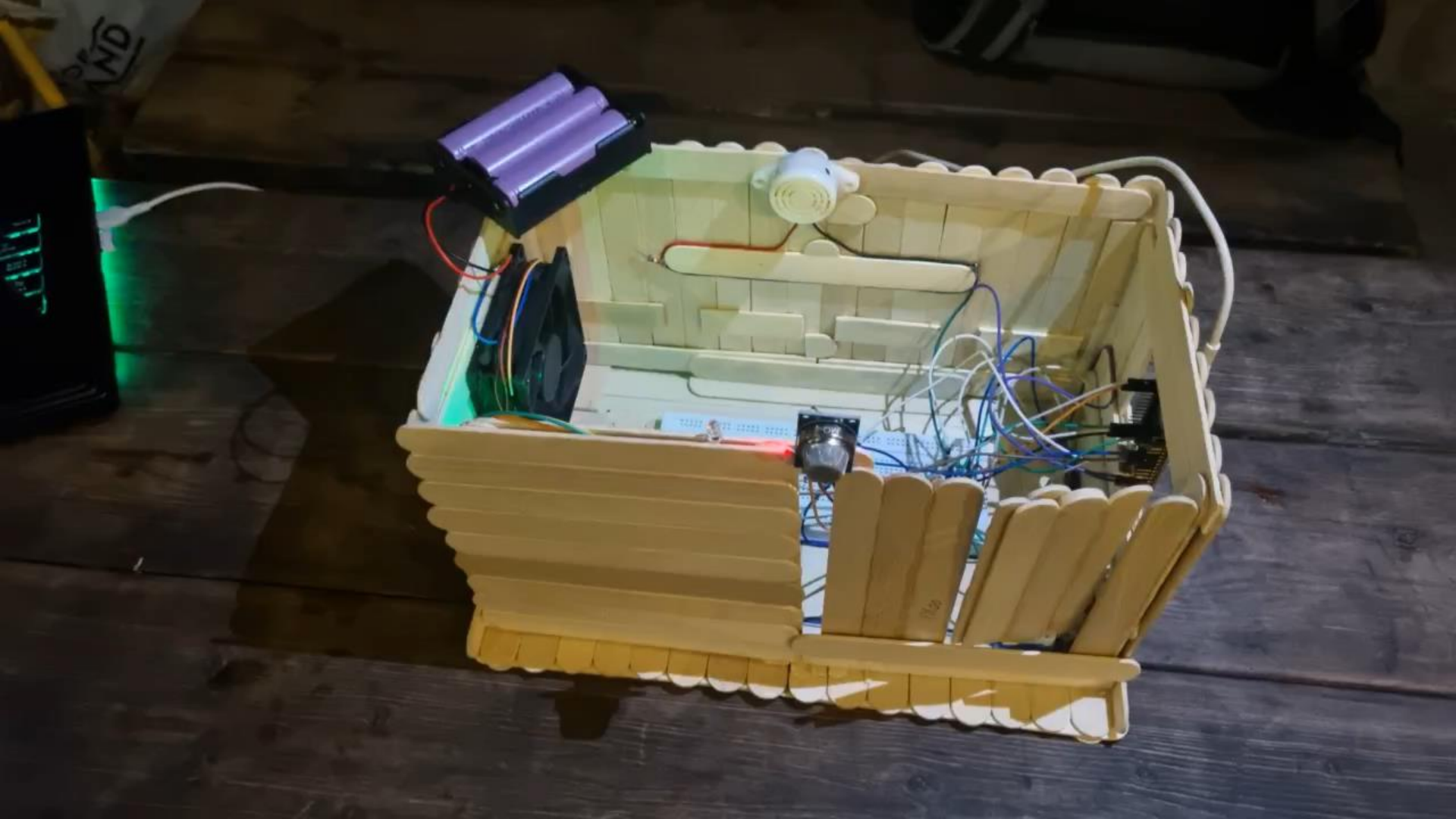




REAL-LIFE IMAGES



03



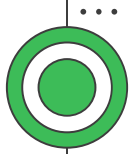




04

Conclusion





Summary:

- Automated Response
- Smart Phone Integration
- Integrated Safety System

Future Development:

- Integration with Smart Home Ecosystems
- GPS Integration
- Machine Learning & Predictive Analysis
- Enhanced Communication Protocols





Reference

[1] <https://danviet.vn/tphcm-nam-2023-xay-ra-498-vu-chay-thiet-hai-806-ty-dong-20240107190501889.htm>

[2] https://youtu.be/AXZA4B_aboY?si=ISQjrK8kYCDyQHd

[3]

https://www.academia.edu/78359913/IOT_Based_Industrial_Plant_Safety_Gas_Leakage_Detection?uc-g-sw=44832821

