TOP STUDENT PROJECTS

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PROJECT TITLE

2 -IN -1 PORTABLE HEALTH TESTING DEVICE



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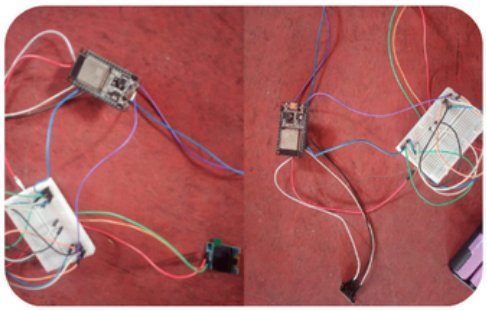


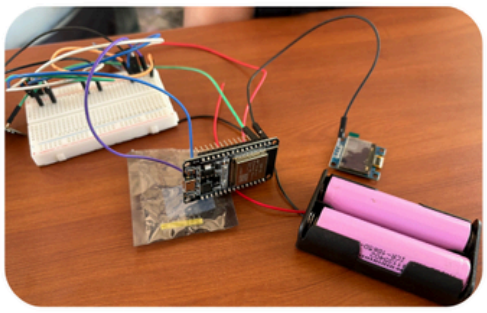
PROBLEM STATEMENT

Existing health monitoring devices are separate, costly, and inconvenient to carry together. Hence, there is a need for a portable 2-in-1 health testing device to measure body temperature measurement and heart rate/SpO_2 monitoring in a single compact system. Such a device can improve accessibility to basic health monitoring while reducing the cost and complexity of using multiple medical instruments.

SOLUTION

The project provides a 2-in-1 Portable Health Testing Device that combines body temperature measurement and heart rate/SpO_2 monitoring in a single compact system. It reduces the need for carrying multiple devices and enables quick health monitoring. The device is portable, easy to use, cost-effective, and suitable for home healthcare, clinics, and health camps. By displaying real-time readings on an OLED screen, it helps users monitor their health conveniently and efficiently. The system enables early detection of abnormal health conditions through continuous monitoring of vital parameters.





SCAN ME

Technology stacks:

- ESP32 Wi-Fi & Bluetooth Module
- ESP32 Development Board
- OLED Display Module
- 18650 Lithium-Ion Battery Pack
- Arduino IDE, Embedded C/C++
- IoT Communication Protocols (MQTT, HTTP, REST APIs)