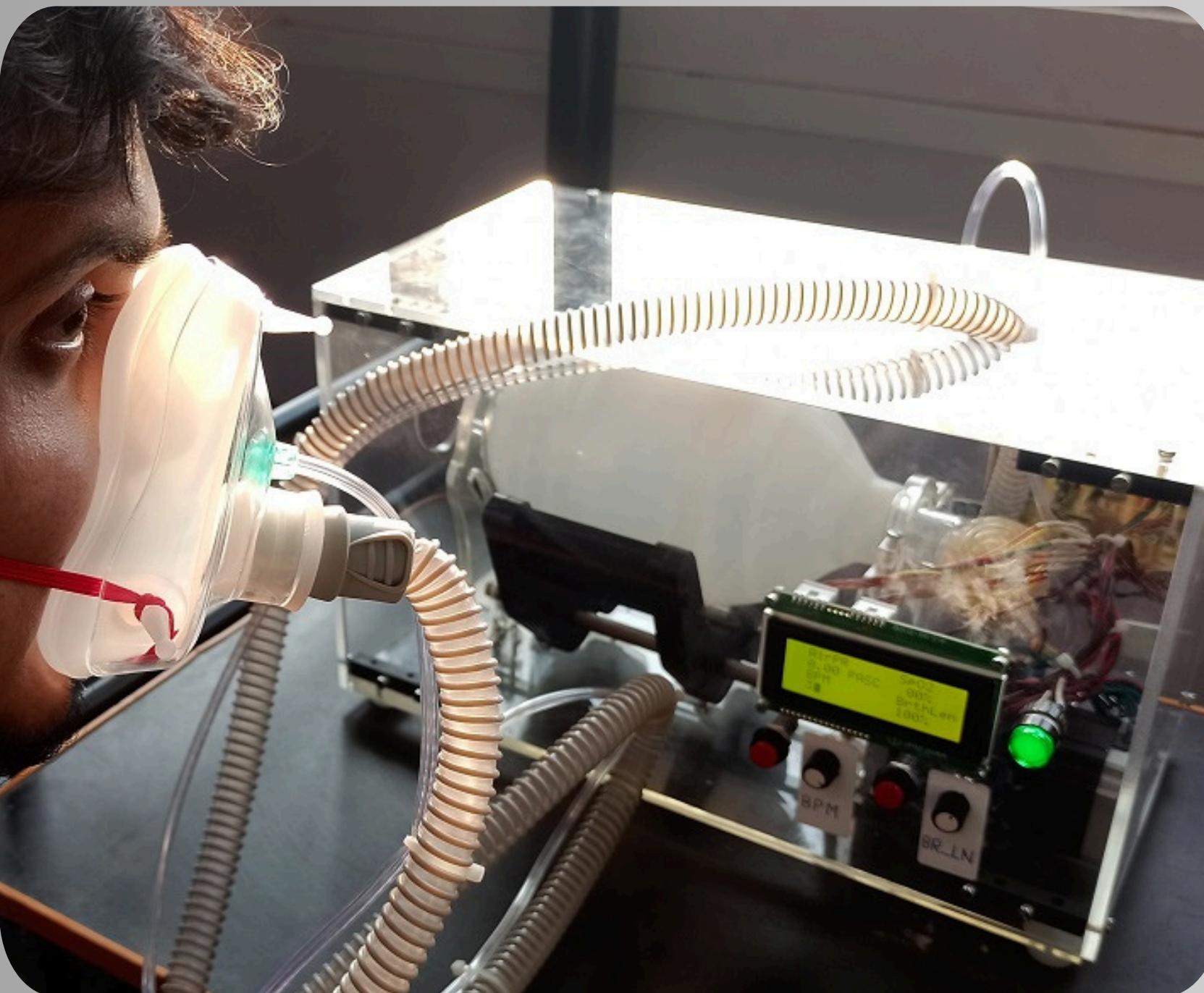


DIY VENTILATOR



ELECTRONICS AND COMMUNICATION
ENGINEERING

PRESENTED BY:

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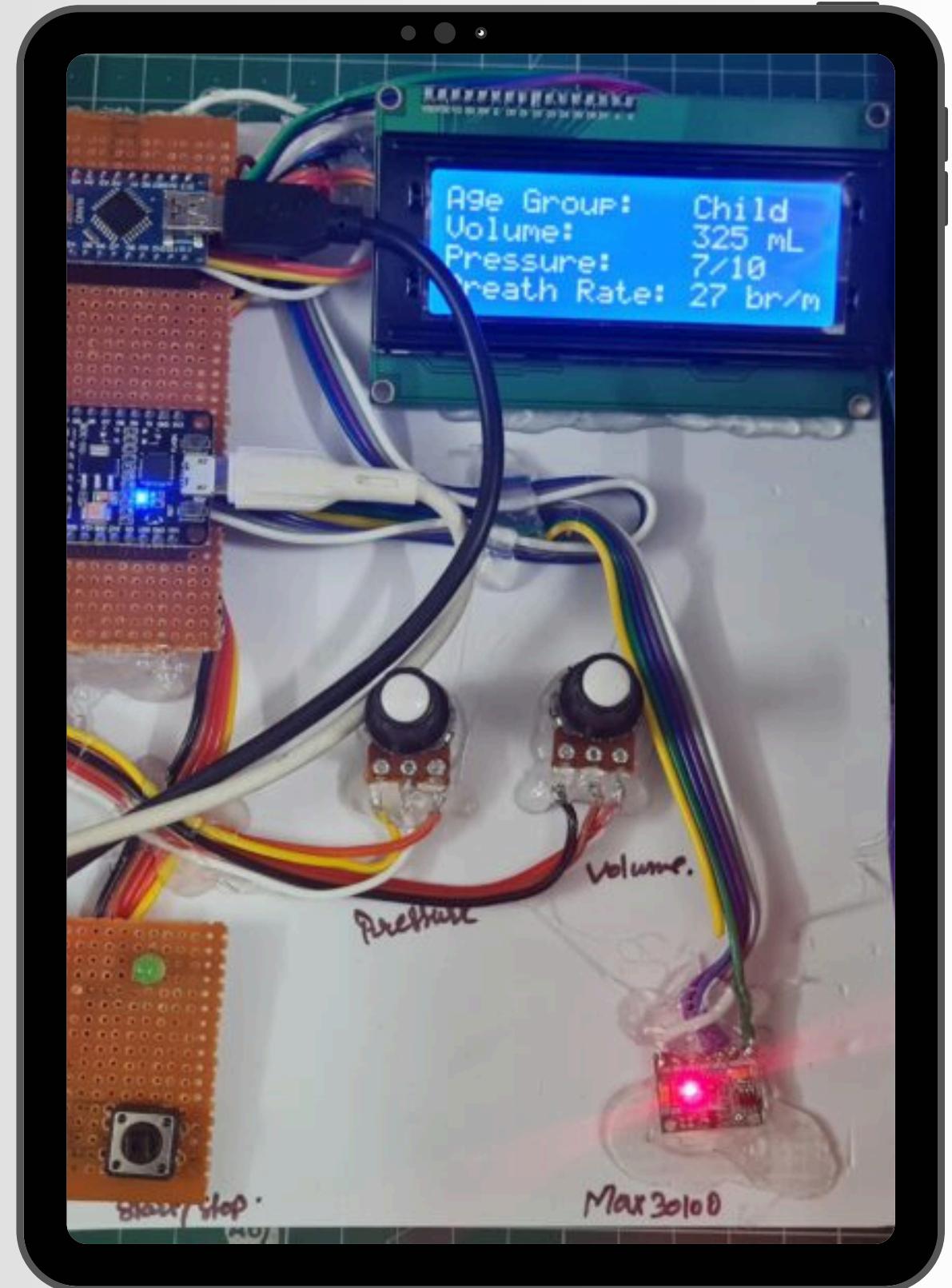
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INTRODUCTION

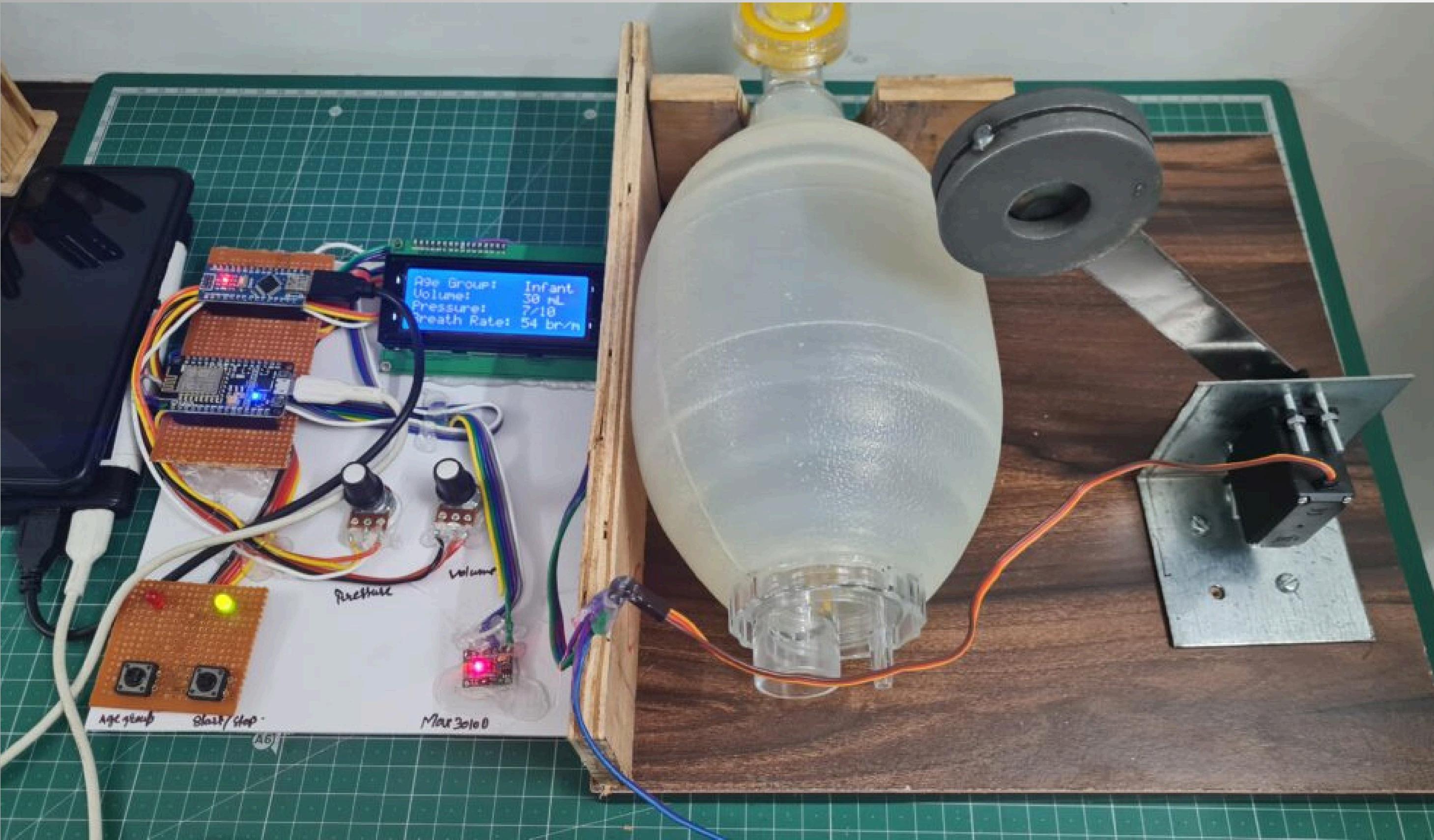
OVERVIEW

Our DIY ventilator project aims to provide a cost-effective and reliable ventilator using ESP8266 ,BPM, and oximeter monitoring.

Life-saving and Affordable ventilators during limited to no access to traditional medical equipment during emergencies.



BASIC OVERVIEW



COMPONENTS

20X4 LCD DISPLAY

10K POTENTIOMETER

PUSH BUTTONS

AMBU BAG

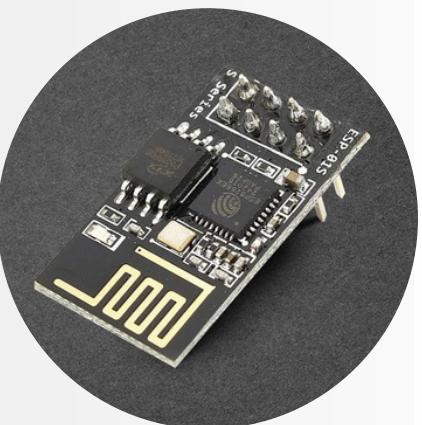
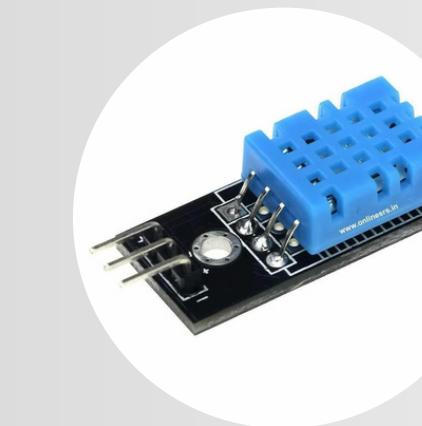
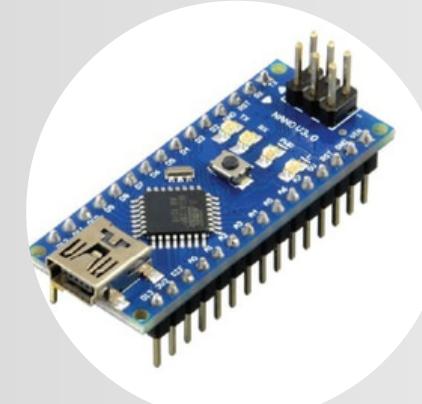
SERVO MOTOR

MAX30100 SENSOR

DHT11 SENSOR

LED INDICATORS

NODEMCU(ESP8266)

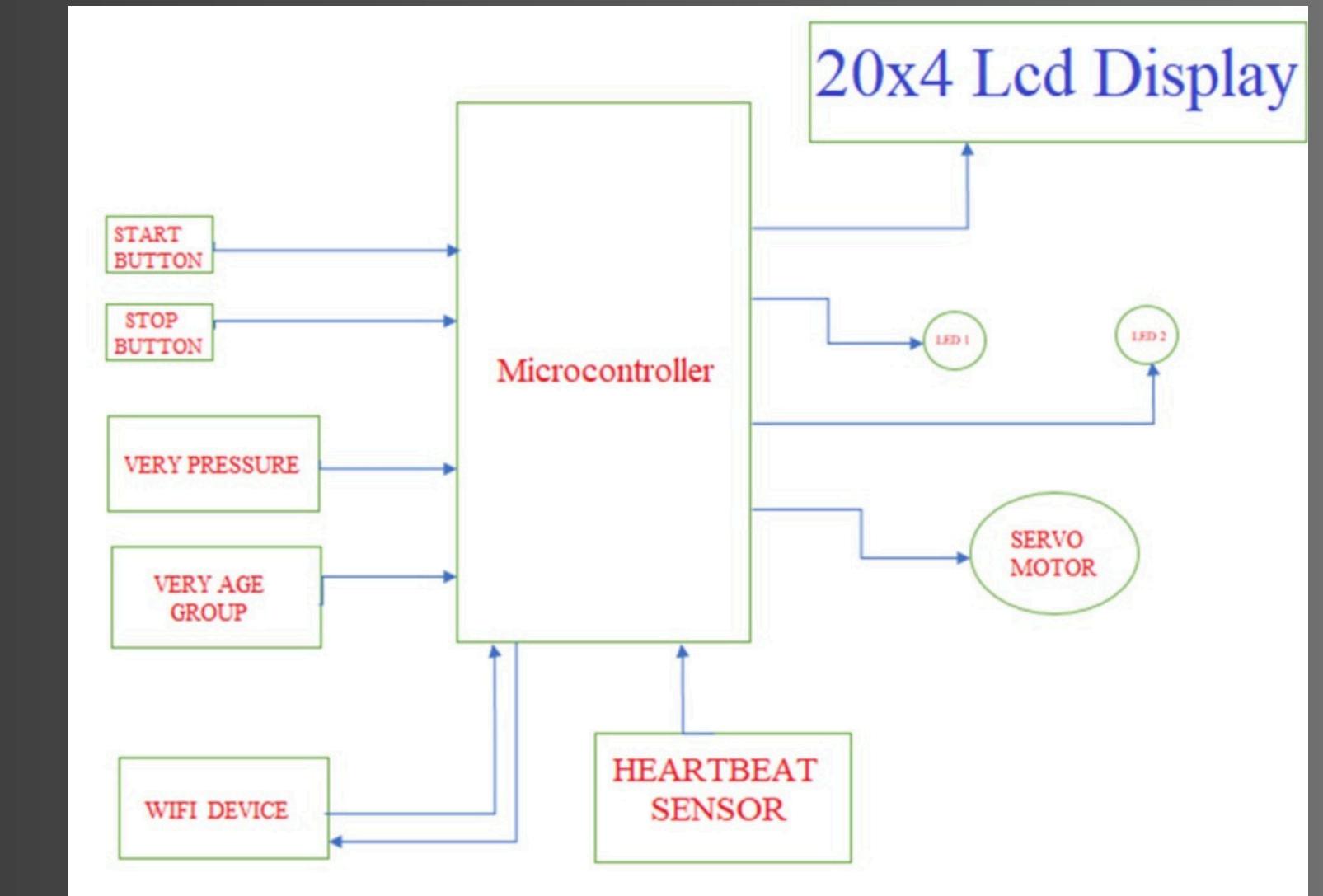


DESIGN AND FUNCTIONALITY

● THIS VENTILATOR IS DESIGNED BASED ON ARDUINO TECHNOLOGY, PROVIDING PRECISE CONTROL OVER AIRFLOW AND PRESSURE

● IT OPERATES BY MIMICKING THE NATURAL BREATHING PROCESS TO ASSIST PATIENTS IN NEED

● ITS FUNCTION CAN BE ALTERED BASED ON THE AGE GROUP OF THE USER



USES :

01

Resource-limited settings:

Provides vital respiratory support where medical equipment is scarce.

02

Emergency response:

Quickly assembled for natural disasters overwhelmed medical facilities

03

Home care:

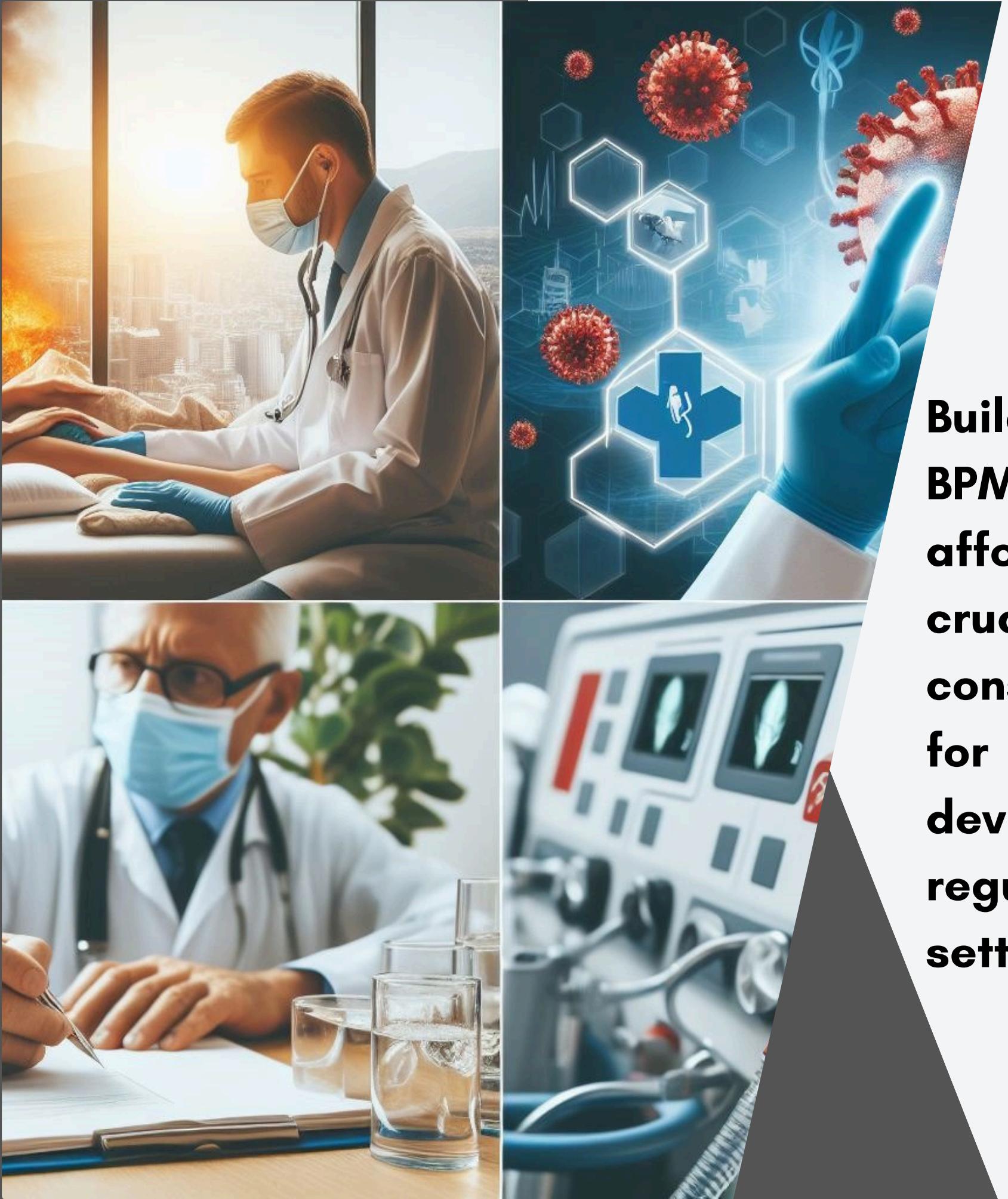
Affordable option for supervised respiratory support at home.

04

Research and development:

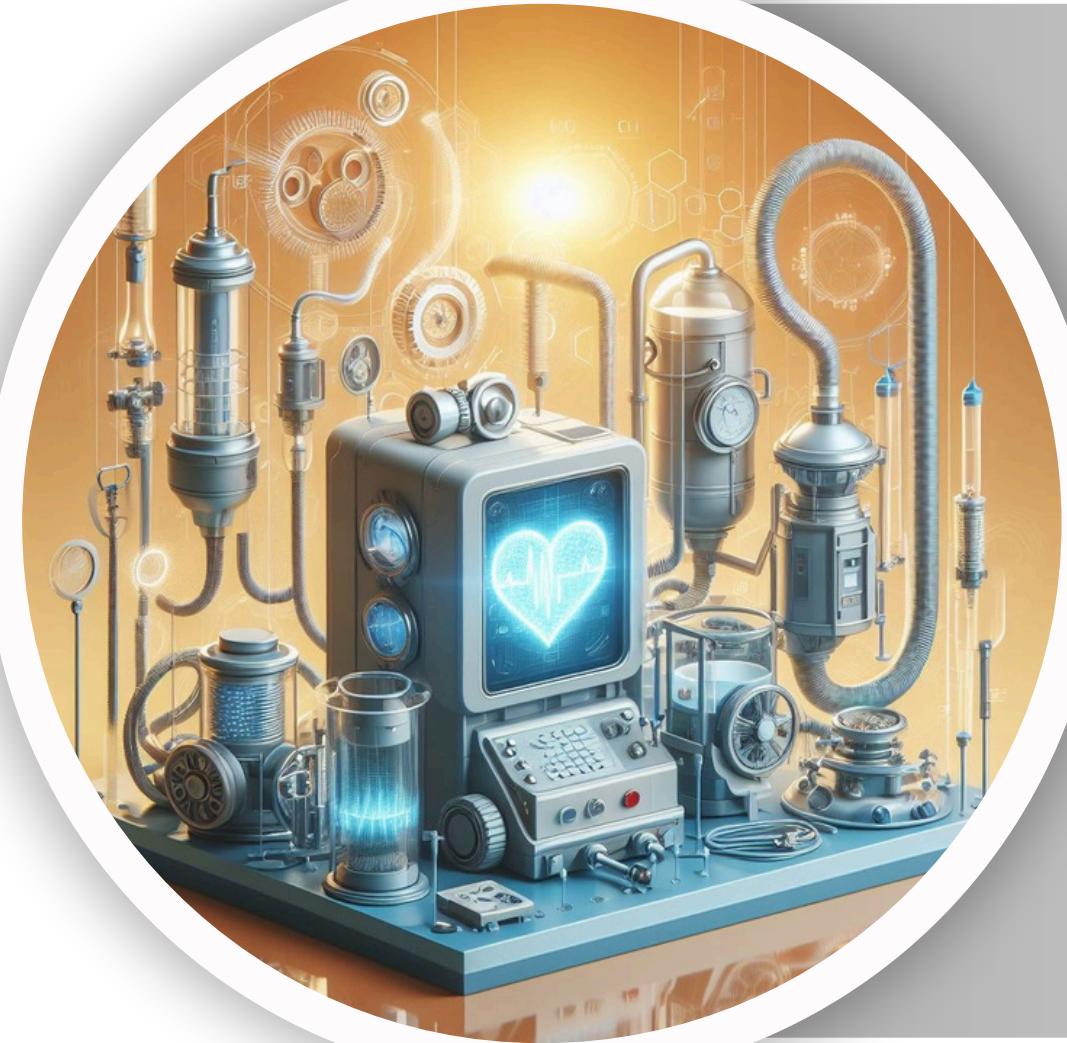
Enables testing and innovation in ventilator design.





CONCLUSION

Building a low-cost ventilator with integrated temperature, BPM, and oximeter capabilities using ESP8266 provides an affordable alternative for emergencies. However, it's crucial to note that this DIY ventilator should only be considered a temporary solution and not a replacement for professionally manufactured and tested medical devices. Consult healthcare professionals and follow local regulations before using a DIY ventilator in a medical setting.



THANK YOU