

Low-Cost Smart Ventilator

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Abstract: *The Low-Cost Smart Ventilator is a DIY solution designed to address the urgent need for affordable respiratory support during pandemics like COVID-19. Utilizing Arduino technology and servo motors, it replicates the vital functions of human breathing, with adjustable parameters such as breath rate, volume, and inhalation-exhalation ratio. By incorporating sensors to monitor blood oxygen levels and lung pressure, the device ensures safety and effectiveness. This innovative ventilator offers a reliable and accessible solution to assist patients in critical situations, contributing to healthcare resilience worldwide.*

Keywords: Ventilator, Arduino, Sensors, Affordable, DIY