

Project 01

Intelligent Respiratory Monitoring Device

(23rd of April, 2025)

Statement:

This project aims to design, develop, and implement a functional model of either a nebulizer or spirometer, with a mandatory feature enhancement that introduces innovation in respiratory health monitoring or therapy.

Background:

Respiratory disorders such as asthma, COPD, and chronic bronchitis require frequent monitoring and therapeutic interventions. Devices like spirometers help assess lung function, while nebulizers deliver medication directly to the lungs. However, many commercial devices lack smart features that could enhance user experience, remote monitoring, or data-driven decision making.

Deliverables:

- Functional prototype of the selected device (nebulizer or spirometer).
- A report or presentation demonstrating the added feature and its impact on usability, efficiency, or clinical value.

Deadline: Wednesday, 30th of April, 2025

Policy: Group Task.

Submission: In Class Submission.

Evaluation Criteria:

Item	Grade %
Full functionality	50%
Feature Added	30%
Questions	10%
Attendance	10%

Medical Instrumentation II- SBE3220