

# Project 1: AQM

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## Project Title: AIR QUALITY MONITORING

### Project Steps

#### Phase 1: Project Definition and Design Thinking

##### Project Definition:

Air quality monitoring refers to continuous measurement of specific air pollutants also known as “criteria air pollutants”. Obtained air pollution data together with natural background/trace gas monitoring and stationary source emission monitoring helps to define what kind of air pollution people are exposed to.

##### Types of Air Pollution Monitoring & Testing

Ambient air quality monitoring & Testing.

Indoor air quality monitoring & testing. Stack emission monitoring & testing.

Breathing clean air can lessen the possibility of disease from stroke, heart disease, lung cancer as well as chronic and acute respiratory illnesses such as asthma. Lower levels of air pollution are better for heart and respiratory health both long- and short-term.

##### Design Thinking:

1. **Project Objectives:** To monitor these levels there are Air Quality Monitoring Networks. The main objective of these Networks is to record the concentration levels of atmospheric pollutants in order to define air quality levels and establish action plans if high levels of contamination are detected.
2. **IoT Devices Designs:** The objective of this research work is to develop an indoor and outdoor air quality monitoring system for different air quality parameters (carbon dioxide and carbon monoxide), temperature, humidity, and dust concentration (air particle).
3. **Data Sharing Platform:** If you are concerned about your local air quality, Airly can help. With our tools, you can receive accurate, real time, hyperlocal data on the air that you are breathing every day.
4. **Integration Approach :** The data integration model for air quality supplements ground monitoring data with information from other sources, such as satellite retrievals of aerosol optical depth and chemical transport models.