# Industry 4.0 project Charter

## Purpose – To ensure that all rooms in the E building are at an optimal temperature, humidity, light, C02 level, noise in order to improve our working environment. To ensure maximum classroom efficiency.

## Description- To develop a network to monitor and collect data on the classroom environment to be stored on a database that will allow adjustments to maintain maximum classroom efficiency.

## Requirements – The sensors will need to be set up and connected to a server by wireless or networking cables, which will store the data recorded. Data will be recorded in MySQL and will be analysed by using Python code. The output of data will use Jupiter Notebook to output interactable data.

## Risks

Security of a wireless sensor

Tampering by students

Sensors could be a tripping hazard if cables are on the ground or sensors are on the ground

Technology doesn’t perform in the way that you would expect it to

Insufficient time

Conflict

Carpal tunnel syndrome

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## Scope

The task involves two tables, one for SQL table for room sensor data which needs to be set up for all sensors, and a table with sensor parameter set points and allowable range is required.

## Time

This project has to be planned up by the end of June 2020 (Semester One), and the final project will be finished by the end of 2020.

Term 1: Form into a group plan for the project, learn Github and trello to communicate in a group.

Term 2: Continuing the group work and complete, Scope, Gantt Chart.

Term 3: Create SQL Database, complete user stories.

Term 4: Complete SQL Database and hand in the final project.

## Costs

Costs required for this project to be completed:

Cost of equipment: Software and Computers.

Cost of Labor: Number of people working in a team to complete the task.

Time: How long it takes to be completed.

## Quality

The planned room sensor will be a good quality for organizations to monitor indoor environment quality, which will be built using a database. This sensor works on the principle of measuring the temperature, humidity, light, CO2 level and noise. Testing will be done before the final project is delivered.

## Milestones / Due dates: next week finished

This project will be completed by the end of 2020.

Term 3: Creating and building SQL Database.

Term 4: Completing SQL Database and delivering the final project.

## Reporting

A project management report/summary overview of the current statues of the project will be given each week (during class session) or each two weeks. This report will clear the achievement and activities done up until the given time.