

SMART Classroom:

Idealising your learning environment



In Collaboration with
De La Salle
Secondary School

PROJECT INTRODUCTION

Our **present collaboration project** with De La Salle Secondary School includes **THREE GOALS** throughout a **THREE-DAY SCHEME**:

AT STUDENT LEVEL:

- 1) Allow student to acquire relevant learning goals (knowledge , skill and attitude)
- 2) Experience engineering design process in a real-life setting
- 3) trigger their interest toward life-improving technology

THIS THREE-DAY SCHEME consists of **THREE SESSIONS**:



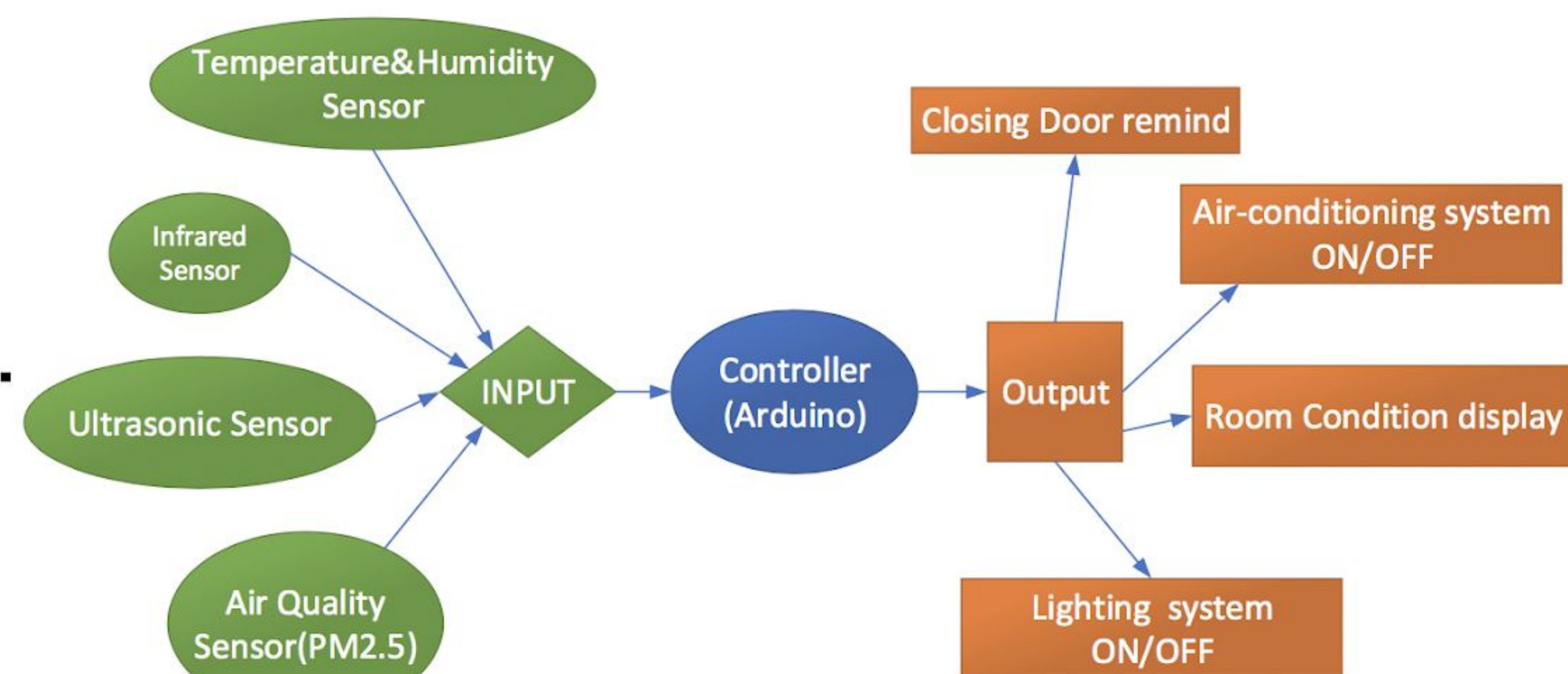
Target Student:

120 SECONDARY ONE STUDENTS (4-5 ppl as a group)

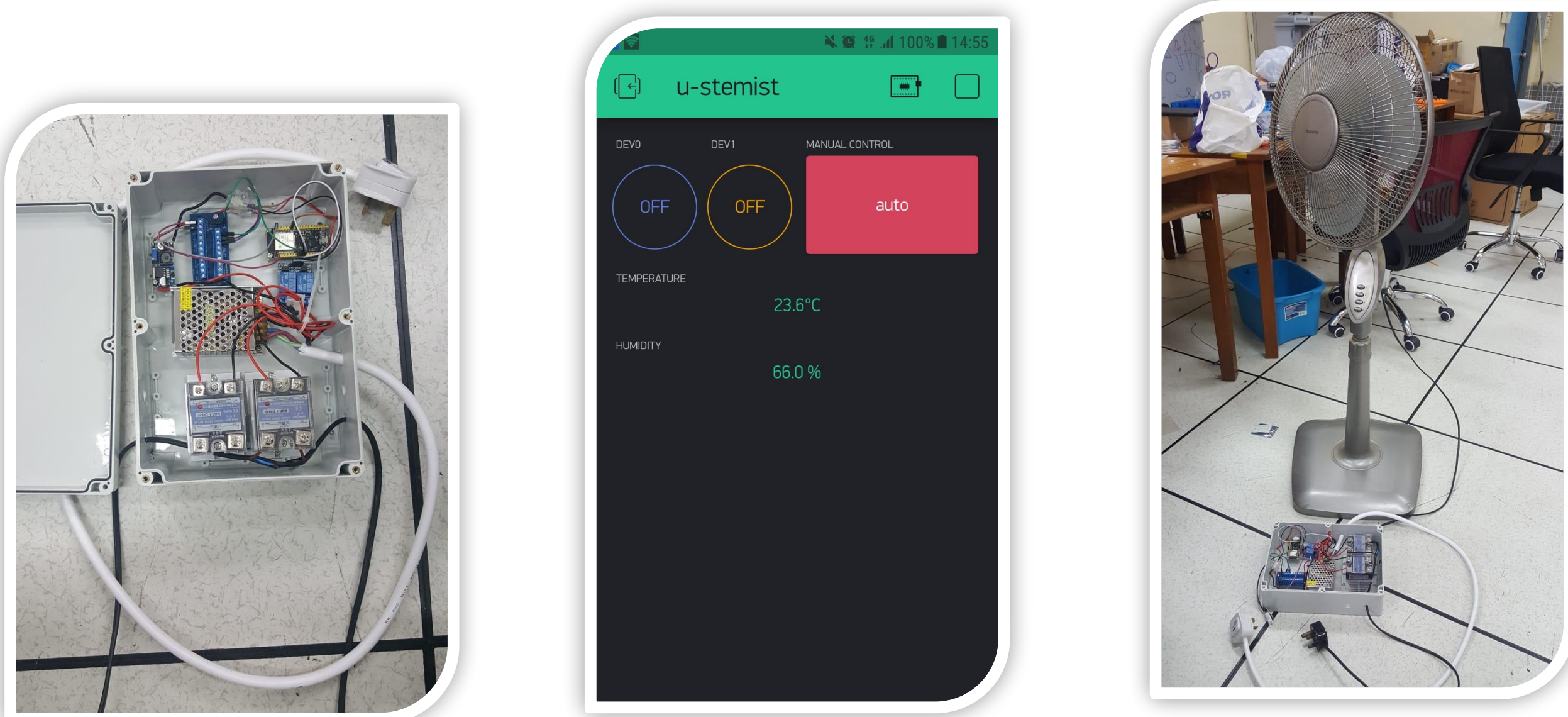
AT SCHOOL LEVEL:

This project initiates “Smart and Green” classroom an idea of automatized energy saving tool set

Functions:



Display/Setting Control:



EXPECTED OUTCOMES AND DELIVERABLES

Expected outcomes

Inspire students to construct automatized energy saving tool by using Arduino and Micro:bit

Deliverables

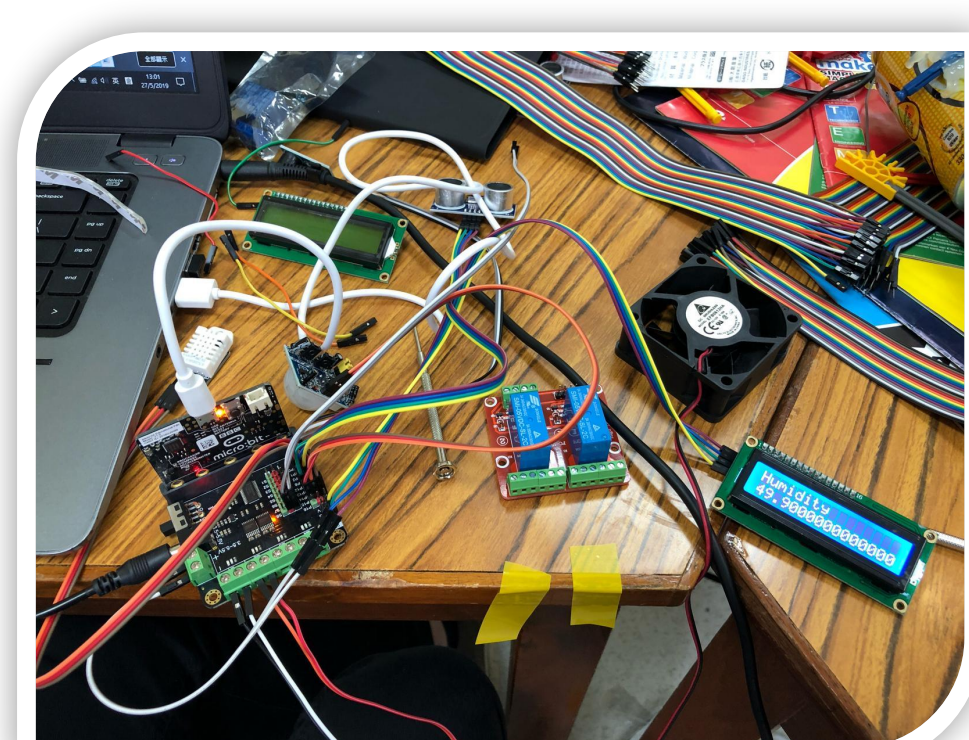
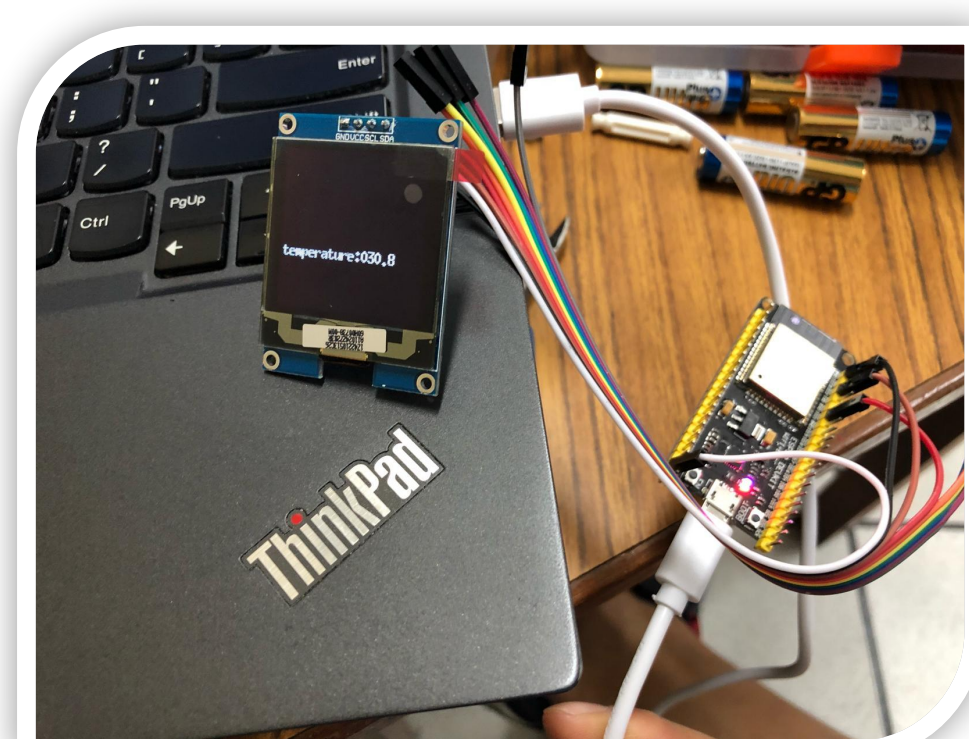
Automatized energy saving tool set

Application (in Smart devices):

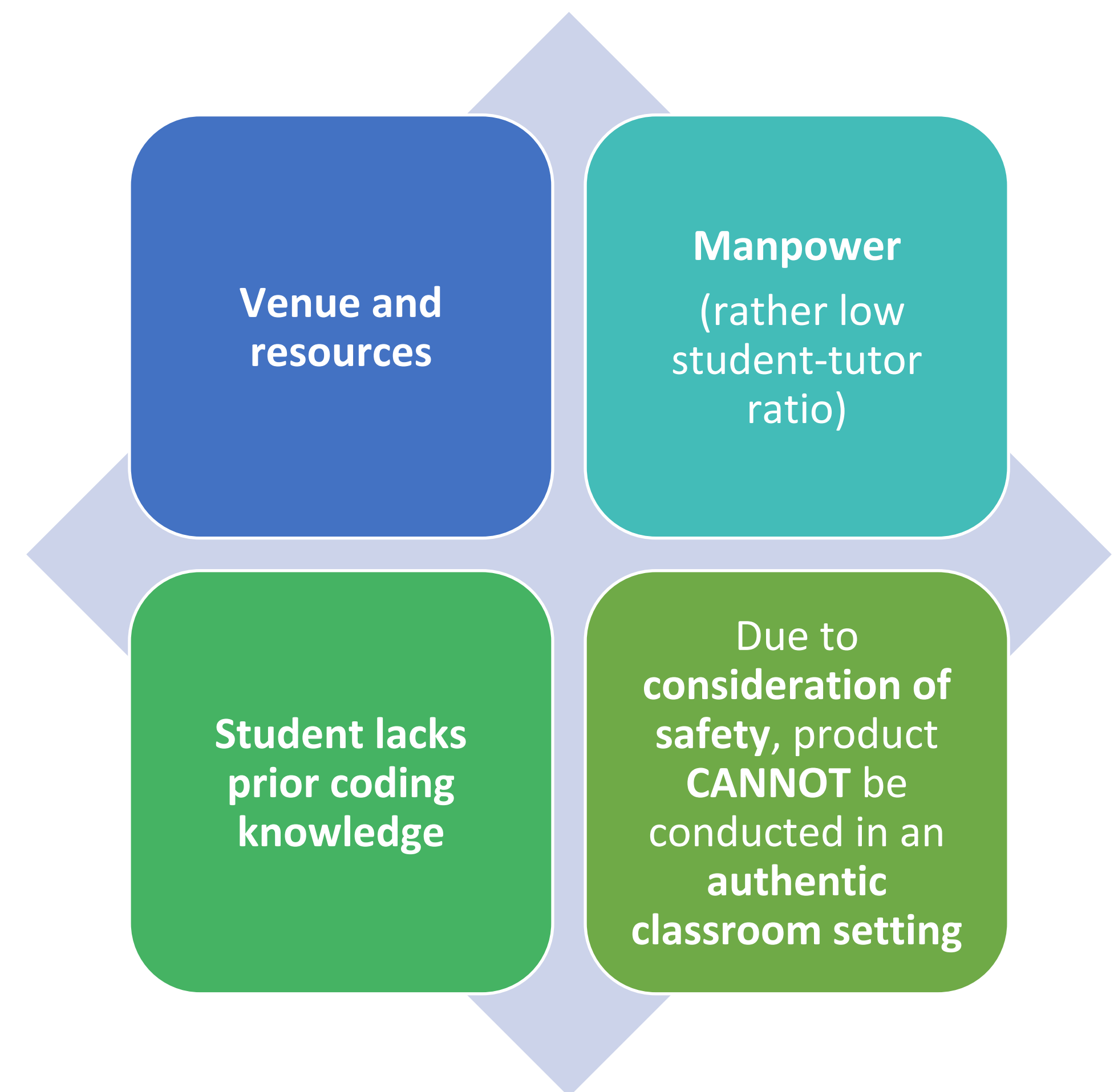
setting control of the various functions

Room Condition display:

Shows room temperature, humidity, air quality



LIMITATIONS AND DIFFICULTIES



REFLECTIONS

Despite our three-day STEM scheme is not yet launched, we anticipated that challenges will be encountered in managing a large group of students with such shorthanded manpower, and we believe a concrete division of labor is one of the crucial contributes to our success in delivering this scheme to our target students.

In order to maximize our efficiencies, appropriate task allocation was needed. Since our group members come from a variety of educational background, which carry different knowledge and techniques for boosting the formation and execution of the scheme. For instance, members from education background are primarily responsible for transferring relevant STEM knowledge to students throughout the scheme. On the other hand, members from engineering background accentuates on designing and conducting STEM inventions at school level.

Furthermore, participating in The U-STEMist Scheme provides precious opportunities and experiences for our team to implement STEM knowledge and skills into real-life educational practice, understand its restriction realistically.

Last but not least, our team has been collaborating with our partner, De La Salle Secondary School for the past year. We would like to offer our heartfelt appreciation to our linking teacher, Mr YAU, our supervisors, Dr. Bill Yeung and Ms. Bella, provide relentless support on actualizing our plan as well as arranging resources accordingly.



CONCLUSIONS

Thank you teammates for this incredible STEM project. It allows us to identify the real problem that we will encounter in our daily life, inspires us to use STEM as a tool to solve the identified problem, and finally we can educate the future generations the STEM spirit.

