Administration:

**Group organisation**

The group contains two mechatronic engineering students, one electrical engineering student and one computer engineering student. The project has been split into four parts. Each group member takes responsibility for one part.

**Group culture**

Two or more meetings weekly are required to generate a good result and improve communication. Within the group, group members should ask for help when they are falling behind and struggling. Group members should help other group members when they can help without falling behind. Group members should not blame each other for mistakes but encourage each other to

**Communication**

Good communication in group projects is more important than personal knowledge, competence or past performances. Messenger is used between group members to communicate ideas and meeting times. Email communication is used between group members and technician, group members and supervisor, and group members and sponsor.

Available group meeting times are collected from everybody using Doodle Poll. Group meetings are arranged by email with calendar invites to remind all attendees of when and where the meeting is taking place and the meeting agenda to describe how the meeting will run. Group meetings are split into three types by the attendees. The meeting types are group members, group members joined with technician and supervisor, and group members joined with technician, supervisor and sponsor.

Group meetings with only group members are set for every Friday from 10:00 am onwards. The purpose of this meeting is to generate design ideas, background research of design ideas, problem-solving for chosen design ideas, and implement tests to the design ideas.

Group meetings of group members joined with the technician and the supervisor is arranged when needed. The purpose of this meeting is to help with design ideas and further improvements in design ideas, design decisions, and test results.

A group meeting of group members, technician, supervisor and sponsor is set every Tuesday from 12:00 pm to 1:00 pm. The purpose of this meeting is to discuss project requirements, report project progress, and finalise design decisions.

**Decision making**

Each group member takes responsibility for one aspect of the work. Group member makes the decision during the Friday group meetings. All group members collaborate to make design decisions. The group member who has done the most research has the most authority in making the decision. Other group members ask questions about the decision or help to make the decision better.

**Note-taking**

During each meeting, one group member should take meeting notes. Meeting notes includes the date, location, start time, finish time, attendees, and essential notes. Meeting notes is used to help group members to review what has been discussed during the meeting.

**Leadership**

The group structure is hierarchical. During group formation, some group members are more outgoing than other group members, and they naturally take leadership roles. To improve other group members’ skills to lead, each group member takes the leadership role for two weeks. The group leader takes the responsibility of organising group meetings, booking meeting rooms and assigns one group member to record meeting notes.

**Central docs**

All documentations generate from meetings, researches, tests, and programming are stored in a University of Canterbury GitLab cloud space. All group members can assess and modify the documents.