Project Two Task Allocation Proposal
Team 5

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Objective

This purpose of this proposal is to list the individual tasks that will be accomplished and to illustrate the allocation of these tasks. The importance of each task will be explained as well as each task allocation. This allocation is very similar to that of Project One due to its success, although, there are a few minor changes.

Tasks

The project is divided up into six different tasks and the importance of each task noted. They are as follows:

- Design
- Construction
- Code
- Testing
- Reports
- Presentation

Although some of the tasks overlap, they each have their own importance which will be illustrated in the next section.

Task Justification and Allocation

Design

If the initial concept of the robot is flawed, the success of the project is doomed. Hence, a concept of a robot that can fulfill the project requirements must be realized. The design of the robot can be divided into two parts: construction and code (both of which address a specific area of the robot design). The design concept as a whole however should not be individual specific, thus all team members will participate in the overall robotic design.

Construction

Construction is also an integral part of the project. Without the construction of the robot, we cannot test our design hypothesis or realize the feasibility of the initial design. The construction phase of the project will be handled by the H-team (Hardware team), which is further explained below. Due to this being the second project, some members will have construction experience that others lack. Thus we will introduce a Senior member to the H-Team. The Senior member will be a member that worked on the H-Team for Project One, and therefore has valuable knowledge and insight. The Senior member will be the equal of the other H-

Team member, although the Senior member will be responsible for implementing the Fallback Plan if a milestone is missed. The H-Team and the C-Team (explained below) will have frequent meetings to discuss and test integration.

Code

The code aspect of the project is highly dependent upon the construction phase. Without the robot hardware, we cannot fully test the code! The coding phase of the project will be accomplished by the C-team (Code team), which will be explained in a later section. As with the H-Team, the C-Team will have a Senior member, who will be on the team for the second straight time. This Senior member will also be responsible for executing the Fallback Plan if a milestone is missed. As stated above, the C-Team will meet frequently with the H-Team to work on the integration of their separate entities.

Testing

The testing phase will be a simulation of the robot in an environment similar to the environment for which it was designed. Prior to this phase, we do not know if the robot will accomplish the task it has been assigned. Testing of the robot involves all aspects of earlier tasks; therefore both the C-team and the H-team will be involved.

Reports

Reports are a good way of documenting projects in case information is needed in future projects. There are five major reports due throughout the project. They are noted and assigned as follows:

- Task Allocation – All team members
- Timeline – All team members
- Robot Design – H-team
- Robot Code – C-team
- Organization Evaluation, Future Plans – All team members

Presentation

The final task for this project is presenting the project to our peers. Presentations allow other groups to be given an insight on other group organizations and how a solution was obtained. For this presentation, one person from each team (H-team and C-team) has volunteered to speak on the robot. Since both code and design will be discussed, we feel this decision is appropriate.

Team Organization

The team is organized into two teams, the H-team and C-team. The members belonging to each group are listed and justification for task allocation is given.

- *H-team (Hardware team)*

Ethan Martin (Senior Member)– Has experience with *LEGO Mindstorms*™. Programming experience will be used for later projects. In addition, Ethan worked on the H-Team throughout Project One, and has valuable experience.

Steven Layton – New to the H-Team for Project Two. His programming skill will be utilized for later projects, but he gained much construction knowledge from Project One meetings.

- *C-team (Code team)*

Ayesha Ahsan (Senior Member) – Her experience and knowledge with IC she acquired from Project One will be profited from in Project Two with her as the Senior member of the C-Team.

Marty Thompson – His strengths in programming were held back for Project One, but will now be fully utilized. Also, the knowledge he gained from working on the H-Team previously can be used to better understand how to integrate the code with the hardware.

Summary
Two modifications have been made to the original team organization and task allocation presented in Project 1 which should be noted. First, each team (H-team and C-team) will have a senior member who is responsible for the success of the team. Second, the members of each team has been changed as explained in the previous sections.

All of the tasks presented are equally shared among team members. Except for coding and construction, all team members will take part in ensuring the accomplishment of the task. The division of the team into two separate groups ensures the success of accomplishing tasks. If one member falls ill or cannot complete their part of the task, the other member of that particular group will step in and provide help.