

Project 3 Task Allocation Proposal
by
Team 5

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DATE SUBMITTED: April 14, 2003

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. Since this is the third project, every team member should have some experience with construction, however this experience may be fairly limited for some members. The Senior member will be the Junior member from Project 2. 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. The Senior members from Project 2 will switch to the other team as the Junior member.

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)*

Steven Layton (Senior Member)– Junior member from Project 2. Gained valuable experience in construction from Project 2, and this will be utilized in this project.

Ayesha Ahsan – New to the H-Team for Project Three. Her programming skill was primarily used in the first two projects, but has learned a great deal of construction by participating in team meetings.

- *C-team (Code team)*

Marty Thompson (Senior Member) – Junior member from Project 2. Strengths in programming will be utilized for this project. Participation in previous H-Team also assists in understanding code and hardware integration.

Ethan Martin – He has strength in programming, and that will be fully utilized for this project. 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

The modifications made in Project 2 were successful, and are therefore being kept in this project. The main modification is the Senior and Junior status of each sub-team member. Also note that members were switched so that each member should not have been in each sub-team more than twice, and should not have been a Senior member more than once.

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.