

Task Allocation

Project 2

Team 3:

Mark Branson

Amit Mathur

Matt Roman

Mike Taylor

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General Team Organization

The organization of our team for this new project will not change from project 1. All members of the team felt that the task allocation for project 1 worked very well. Therefore a summary of our democratic organization is given below.

The team will select a new supervisor to fulfill duties that are outside of direct relation to the robot, like coordination with other team members and Dr. Hougen, ensuring deadlines are met, and settling disputes between team members. This person will oversee the entire project to see that it is done in a timely fashion and that there are no critical errors in the partnership between the subtasks.

The remaining team members will be assigned the subtasks that will be required to design, build, and program our robot for project 2. The subtasks are listed and described below along with the member assignment.

Task Division

The division of the tasks and subtasks has been decided democratically. The team based these decisions on the previous experience from project 1 and future project concerns that will allow us to even out the task allocation to each member over the semester.

Major Tasks:

Supervision / Management : The supervisor will act as described above.

Hardware : This member will construct the robot from the Lego kit provided to us for the project. He is responsible for the design and construction of the drive train, sensor mounting, and the Handyboard attachment. He should coordinate with the member in charge of software where sensors should be placed and if they need to have orientation control (i.e. light sensor mounted on a servo). Robot should be highly reliable but simple.

Software : This member will write the software used on the robot in order to execute the correct behavior. He should inform the hardware engineer concerns about speed, torque, turning radius, and the approach to obstacles.

Documentation : This member will be responsible for writing reports and documents associated with the project. He must coordinate with the other team members to obtain information concerning the robot.

Minor Subtasks:

Presentation: This team member is responsible for creating an 8-minute presentation concerning the robot in general. Areas of discussion will be hardware, software, and overall performance.

Testing: The approach to this subtask will be different than what we did for project 1. Testing for project 1 did not involve all of the group members; therefore more time was needed to debug the robot. Project 2 testing will include all team members to better aid in the time constraints placed on this task.

Design: This team member is responsible for drawing up the final design based on a group effort to evaluate ideas of how our robot should function (note that all team members are included in the design phase of the project).

Support: This team member will simply provide support to the two main tasks of hardware and software. This person will help relay information between these two task groups.

Team Member Assignments

Project 2 is an intermediate level project in that we are going to assign people to two tasks, one in which they have little or no experience in and one that they can perform with a higher reliability. We will divide the tasks in this respect because we are going to use our talents in areas that will be needed on later projects.

Mark Branson will be responsible for supervision of the team as a whole, and the final presentation of our group efforts. Mark will be out of town for a few meetings, he will better serve the group from a managers point of view and can complete the task via e-mail if need be.

Mike Taylor will be building our robot for project 2. He will need to be highly involved in testing incase anything unexpected happens. His task for project 1 was supervision so he will be the leader in the testing phase of the robot.

Amit Mathur will be in charge of software and support. His main responsibility will be the behavioral control of the robot. He is give this task because he has good programming experience but lacks in the hardware construction. His previous experience in building the robot for project 1 will allow him to support Mike.

Matt Roman will be generating all of the reports and documents for this project. Documentation is not a key element in his project development skills, although writing the software for project 1 will allow him to aid the rest of the team in the design phase.

All team members agreed upon the task allocation for this project, in that each member has an equal share of assignments.