Team Organization and Future Plans
Team 5
Project 2

Introduction

For a team to evolve in a project oriented work environment, the team must analyze its internal structure and task allocation methods to determine if the organization and allocation is efficient and sufficient in solving problems. We have selected the following points on team organization and future plans to explain:

- Division of team into sub-teams
- Communication of sub-teams
- Testing phase
- Presentation

Division of Team into Sub-teams

The division of the team into two sub-teams (hardware and software) was beneficial for task allocation. We found however that it was better to unite our efforts in the beginning than at the end of the project. Everyone contributed ideas which were incorporated into the robot, which helped ensure that the conceptual design was correct. When one sub-team hit a hurdle, members of the other sub-team contributed to the brainstorming process until a solution was found. Each sub-team will now be addressed.

- C-team (Code team)
  The C-team must account for all possible problems that may arise in the testing phase. The quicker these situations are noticed and dealt with, the more likely the success of the robot. Time is the primary issue here, and the C-team should increase their efforts to meet these demands.

- H-team (Hardware team)
  The H-team must realize if the conceptual design is feasible in the early stages of the project or much time is wasted. For the C-team to have ample time for testing, the H-team must provide them with a working prototype that has the ability of accomplishing the desired objectives. The earlier this design is realized, the higher chances of having a successful project.

The addition of dynamic sub-teams in the team organization for project two proved to be beneficial. Because of personal reasons, one of our group members was unable to participate for most of the project. The junior member of the other sub-team was able to assist in filling the role of the member who was unable to participate and the tasks were completed on schedule. Sub-team members will now be based upon levels of expertise. The H-team will be composed of Senior member Ethan Martin and Junior member. The C-team will be composed of Senior member Steven Layton and Junior member Marty Thompson.

Communication of Sub-teams

Integrating the sub-teams (construction and code) is difficult unless communication is ongoing. Thus, communication between the sub-teams was highly stressed and frequent short meetings were beneficial in keeping all members informed of progress. In the remaining project, frequent team meetings will be implemented.

Testing Phase

The testing phase of the project played more of a role than initially expected. We found that conceptual software designs were much easier to come by than were working prototypes. Some prototypes were inherently flawed by their conceptual design, which went unnoticed until the testing phase (the initial design of our robot had a rotating range finder and four processes, it was found that the Handyboard could not handle four concurrent processes effectively). So for future projects, we want to be rigorous and thorough in testing the robot. Thus we will extend the testing phase for future projects, so a higher number of possible scenarios can be considered.

Presentation

Since everyone but Marty has presented once, the next project will be presented by Marty Thompson and a member of the H-team which will be determined at a later date.

Summary

The overall organization of the team was successful and efficient; however the following adjustments should be noted: dynamic sub-teams should still be allowed so contributions can be made when hurdles are reached, meetings should be held frequently, and the testing phase should be extended. Also, Ethan Martin and Ayesha Ashan will be the H-team members, and Steven Layton and Marty Thompson will be the C-team members.